

Abstract Book

XXIII IFHE WORLD CONGRESS 2016

**Daejeon Convention Center, Daejeon, Korea
Sunday July 31 – Saturday August 6, 2016**

Hope & Happiness:

The role of Home Economics
in the pursuit of Hope & Happiness
for individual and communities
now and in the future

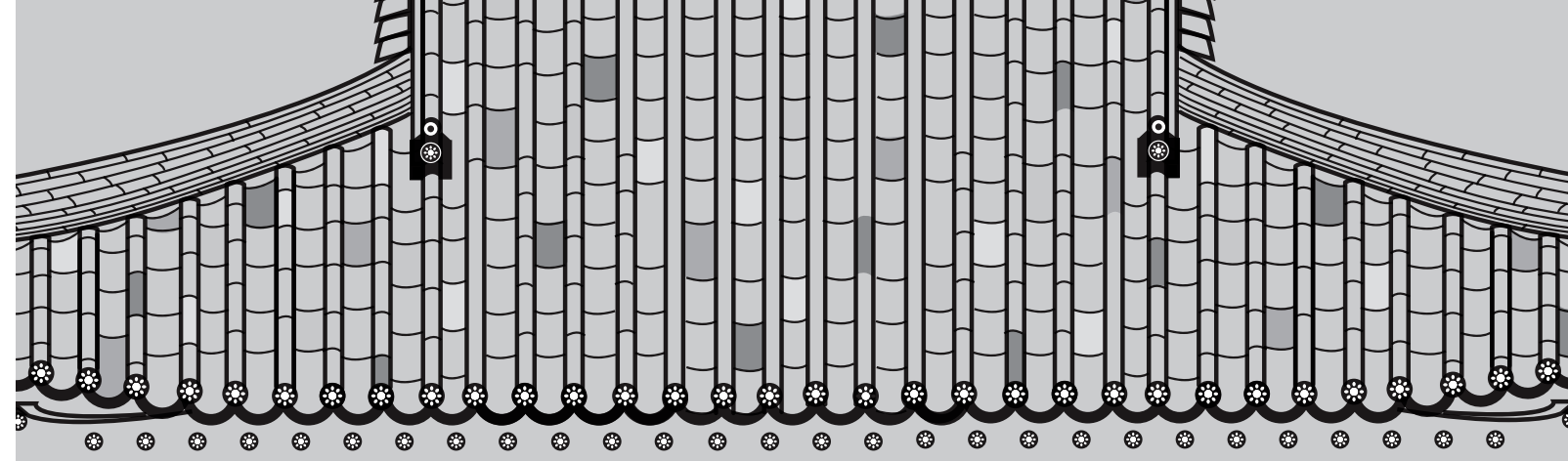


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Presentation Schedule : Overview

Session Code

CONCURRENT SESSION		
CODE	RESEARCH AREA	DESCRIPTION
CDS	Consumer	Consumer Behavior Consumption & Resource Management Government & Public Policies Sustainability
CHD	Children	Children and Families
EDU	Home Economics Education	Home Economics Education
FAM	Family	Family Relationship Youth, Elderly & Women
FDN	Food	Health, Nutrition & Food Science
HMT	Home Management	Consumption & Resource Management Family Finance Government & Public Policies Poverty Sustainability
HOS	Housing	Housing & Environment
TEX	Clothing	Textile, Clothing & Design
INT	Others	Others

OTHER SESSION			
CODE	DESCRIPTION	CODE	DESCRIPTION
SP	Symposium	EH	Exhibition
WS	Workshop	PT	Poster

Session Times - Exhibition

CODE	DAY	SESSION TIME	SET UP	TAKE DOWN
EH	Tuesday August 2 ~ Thursday August 4	09:00 ~ 17:00	08:00 ~ 08:50	17:00 ~ 18:00

Session Times - Poster

CATEGORY	DAY	SESSION TIME	SET UP	TAKE DOWN
Poster-0802	Tuesday August 2			
Poster-0803	Wednesday August 3	09:00 ~ 17:00	08:00 ~ 08:50	17:00 ~ 18:00
Poster-0804	Thursday August 4			

Session Times - Symposium

CODE	TITLE	DAY	BLOCK	SESSION TIME	ROOM
B1-SP01	Why Child Support Enforcement Is Important?	Aug 2	1	13:30 ~ 15:00	206
B5-SP01	Meeting the Needs of Families in a Changing World: Perspectives from the Americas	Aug 3	5	15:30 ~ 17:00	205
B6-SP01	Research and Teaching in the Area of Housing and the Residential Environment for Emerging Consumers in the United States	Aug 4	6	13:30 ~ 15:00	206

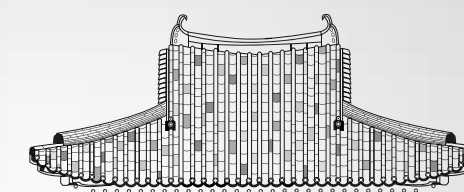
Session Times - Workshop

CODE	TITLE	DAY	BLOCK	SESSION TIME	ROOM
B1-WS01	Using Visual Literacy Pedagogies in Home Economics to Cultivate Hope for Sustainable and Responsible Futures	Aug 2	1	13:30 ~ 15:00	205
B1-WS02	Rangoli – The Indian Art of Floor Décor	Aug 2	1	13:30 ~ 15:00	108
B2-WS01	Promotion of IFHE to Non Members	Aug 2	2	15:30 ~ 17:00	205
B3-WS01	Home Economics and Sustainability - European Perspectives	Aug 3	3	11:00 ~ 12:30	206
B3-WS02	Workshop for Consumer Economics in CEEC Outreach Committee	Aug 3	3	11:00 ~ 12:30	205
B3-WS03	Through the Lens - A Profile of the Work of YPN Members of IFHE	Aug 3	3	11:00 ~ 12:30	108
B4-WS01	Partnerships: The IFHE-DAP Honduras Home Economics Education Initiative	Aug 3	4	13:30 ~ 15:00	206
B4-WS02	The Green Consumer Sees Red	Aug 3	4	13:30 ~ 15:00	205
B5-WS01	Transforming Our World: The 2030 Agenda for Sustainable Development the Role of Families and the IFHE	Aug 3	5	15:30 ~ 17:00	206
B6-WS01	IFHE and the United Nations	Aug 4	6	13:30 ~ 15:00	205
B7-WS01	Sustainable Development Goals	Aug 4	7	15:30 ~ 17:00	205
B7-WS02	Art from the Heart	Aug 4	7	15:30 ~ 17:00	206

Session Times – Concurrent Session

CODE	TITLE	DAY	BLOCK	SESSION TIME	ROOM
B1-CDS01	Consumer Behavior towards a Sustainable Future	Aug 2	1	13:30 ~ 15:00	101
B1-EDU01	Life Skills Education	Aug 2	1	13:30 ~ 15:00	102
B1-FAM01	Wellbeing of the Elderly	Aug 2	1	13:30 ~ 15:00	103
B1-FDN01	Health and Wellbeing across the Lifespan	Aug 2	1	13:30 ~ 15:00	104
B1-INT01	Sustainable Society for Happiness	Aug 2	1	13:30 ~ 15:00	105
B1-INT02	Best Practice in Household Technology	Aug 2	1	13:30 ~ 15:00	106
B1-TEX01	Cultural Aspects of Clothing & Textiles	Aug 2	1	13:30 ~ 15:00	107
B2-CDS01	Rational Consumer Decisions	Aug 2	2	15:30 ~ 17:00	101
B2-CDS02	Responsible Consumption and Happiness	Aug 2	2	15:30 ~ 17:00	102
B2-CHD01	Scale Development	Aug 2	2	15:30 ~ 17:00	103
B2-EDU01	Home Economics Curriculum from around the World	Aug 2	2	15:30 ~ 17:00	104
B2-EDU02	Building Capacities and Competencies through Education	Aug 2	2	15:30 ~ 17:00	105
B2-FDN01	Food and Technology	Aug 2	2	15:30 ~ 17:00	106
B2-FDN02	Biochemical Effect of Food Components	Aug 2	2	15:30 ~ 17:00	107
B2-TEX01	Fuctional Clothing	Aug 2	2	15:30 ~ 17:00	108
B3-EDU01	Rethinking the Dimensions of Home Economics Education	Aug 3	3	11:00 ~ 12:30	101
B3-EDU02	Philosophy and Perspective of Home Economics Education	Aug 3	3	11:00 ~ 12:30	102
B3-EDU03	Professional Development in Education	Aug 3	3	11:00 ~ 12:30	103
B3-FAM01	Family Relationship	Aug 3	3	11:00 ~ 12:30	104
B3-FDN01	Programs and Intervention for Childhood Health and Nutrition	Aug 3	3	11:00 ~ 12:30	105
B3-HMT01	Different Types of Families and Family Strengths	Aug 3	3	11:00 ~ 12:30	107
B4-CDS01	Family Stability and Happiness	Aug 3	4	13:00 ~ 15:00	101
B4-CHD01	Ecology of Parenting	Aug 3	4	13:00 ~ 15:00	102
B4-EDU01	Sustainability in Home Economics Education	Aug 3	4	13:00 ~ 15:00	103

B4-EDU02	Home Economics Education for Happiness	Aug 3	4	13:00 ~ 15:00	104
B4-FAM01	Family and Happiness	Aug 3	4	13:00 ~ 15:00	105
B4-FDN01	Happiness and Home Economics	Aug 3	4	13:00 ~ 15:00	106
B4-FDN02	Programs and Strategies for Better Health	Aug 3	4	13:00 ~ 15:00	107
B5-CDS01	Happiness and Life Design	Aug 3	5	15:30 ~ 17:00	101
B5-EDU01	Gender Issues in Education	Aug 3	5	15:30 ~ 17:00	103
B5-EDU02	Integrating Technology into Home Economics Classes	Aug 3	5	15:30 ~ 17:00	104
B5-EDU03	Transforming the Teacher Education	Aug 3	5	15:30 ~ 17:00	105
B5-FAM01	Youth and Gender	Aug 3	5	15:30 ~ 17:00	106
B5-HOS01	Quality of Life and Wellbeing	Aug 3	5	15:30 ~ 17:00	107
B5-TEX01	Clothing & Textiles for Family Happiness	Aug 3	5	15:30 ~ 17:00	108
B6-CHD01	Parent-Child Relationship	Aug 4	6	13:30 ~ 15:00	101
B6-EDU01	Professional Learning Community	Aug 4	6	13:30 ~ 15:00	102
B6-EDU02	Food Literacy, Behaviors and Capabilities	Aug 4	6	13:30 ~ 15:00	103
B6-FAM01	Marital and Partner Relationship	Aug 4	6	13:30 ~ 15:00	104
B6-FDN02	Food Service and Hospitality Management	Aug 4	6	13:30 ~ 15:00	106
B6-HMT01	Different Perspectives on Happiness	Aug 4	6	13:30 ~ 15:00	107
B6-TEX01	Textile Sciences	Aug 4	6	13:30 ~ 15:00	108
B7-CHD01	Child Development and Outcomes	Aug 4	7	15:30 ~ 17:00	101
B7-EDU01	Evolution of Home Economics Education	Aug 4	7	15:30 ~ 17:00	102
B7-FDN01	Evaluation and the Development of New Food Products	Aug 4	7	15:30 ~ 17:00	103
B7-HMT01	Strategies to Balance Work and Family Lives	Aug 4	7	15:30 ~ 17:00	104
B7-HMT02	Human Resource Development and Happiness	Aug 4	7	15:30 ~ 17:00	105
B7-TEX01	Socio-Psychology, Marketing & Production	Aug 4	7	15:30 ~ 17:00	106



**XXIII IFHE
WORLD CONGRESS 2016**

Concurrent Session



Workshop

Room 108	Rangoli – The Indian Art of Floor Décor	
Chair	Roopa Rao (University of Mumbai)	India
WS_0258	Rangoli – The Indian Art of Floor Décor	
First Author (Main Author)	Roopa Rao (University of Mumbai)	India
Co-Author(s)	Manjiri Bhalerao (SNDT University)	
Presenting Author	Roopa Rao (University of Mumbai)	India

The primary objective of this creative workshop is to

- create awareness to one of the many vivid Indian cultural heritage – Rangoli.
- demonstrate the techniques of traditional rangoli making.
- provide a platform for hands-on-learning experience to all who want to learn this unique Indian art.

Room 205	Using Visual Literacy Pedagogies in Home Economics to Cultivate Hope for Sustainable and Responsible Futures	
Chair	Miriam O Donoghue (Curriculum Development Unit, City of Dublin Education Training Board)	Ireland
WS_1300	Using Visual Literacy Pedagogies in Home Economics to Cultivate Hope for Sustainable and Responsible Futures	
First Author (Main Author)	Helen Maguire (St. Angela's College)	Ireland
Co-Author(s)	Amanda McCloat (St. Angela's College) Miriam O Donoghue (Curriculum Development Unit, City of Dublin Education Training Board)	
Presenting Author	Miriam O Donoghue (Curriculum Development Unit, City of Dublin Education Training Board)	Ireland

This workshop will enable participants to access and review the new Home Economics specific Images and Objects Active Methodology e-Toolkit and to practice the fundamentals of active teaching and learning using images and objects with increased skill, confidence, and self-reflection. Participants will apply activities for integrating images and objects in Home Economics to generate engaging discussions, develop critical reflection and cultivate confidence in the use of these methods in future professional practice.

The Home Economics specific toolkit is based on the previous Images & Objects Toolkits, 1-6, as developed and published by the consumer Citizenship (CCN) Network and the Partnership for Education and Research about Responsible Living (PERL) Network (2008-2015). The adaption and development of a Home Economics specific 'Images and Objects' toolkit by the symposium team is underpinned and informed by an action research project which has been presented previously by the authors at IFHE Congress 2012 and IFHE Council 2014. Workshop participants will receive a copy of the e-toolkit as recently jointly published by the Home Economics Department, St. Angela's College, Sligo and the Curriculum Development Unit City of Dublin, Education Training Board, Dublin with the support of the UBUNTU Network Ireland and the Department of Foreign Affairs and Trade, Ireland.

Symposium

Room 206	Why Child Support Enforcement Is Important?	
Chair	Sun Hee Lee (Korean Institute for Healthy Family)	Republic of Korea
SP_1935	Why Child Support Enforcement Is Important?	
First Author (Main Author)	Sun Hee Lee (Korean Institute for Healthy Family)	Republic of Korea
Co-Author(s)		
Presenting Author	Sun Hee Lee (Korean Institute for Healthy Family)	Republic of Korea

While human rights have been universally pursued in the history of mankind, we still have many socially disadvantaged people in Korea whose fundamental rights are not properly secured. The reality is that even the right to live like a human being is being seriously threatened.

Women – The Glass-Ceiling Index of Korea is 25 points, which is even less than the half of the average of the OECD members, 56 points, and ranked as the lowest among the OECD members. In this regard, many Korean women still suffer from social discrimination and domestic violence.

Children - Social atmosphere and institutional strategies in which children as our future generation can grow up brightly and bravely need to be urgently established. We need to find a solution to improve the shameful reality.

The issue of social security for socially disadvantaged people comes down to one thing: how much constant and effective effort the society puts into to improve the human rights of them. To this end, we need to change the way we perceive those people with social disadvantages; as our neighbors equal to us and members of our community we should share the love with, not as the subject to be protected or cared.

Soothing the agony and scar, and sharing the pain of the socially disadvantaged, and accepting those as our neighbors are the ways we put love into action.

Today's abundant world

Notwithstanding the global economic growth and better access to material resources, the issue of socially disadvantaged class remains unsolved. That issue is rather perceived to be directly connected to the issue of social inequality. Then, how we solve the issue of social inequality?

Social inequality needs to be perceived as an important issue that enormously affects the entire nation, beyond the issue of securing the minimum livelihood.

Since the human rights of socially disadvantaged people is not just their private matter, but the matter of entire nation, we need to pay attention to it and endeavor in order to solve the issue, while sharing various thoughts and perspectives of the entire nation.

SP_1936	Korea's Multicultural Family Support Services and Achievements	
First Author (Main Author)	Seongeun Cho (Korean Institute for Healthy Family)	Republic of Korea
Co-Author(s)		
Presenting Author	Seongeun Cho (Korean Institute for Healthy Family)	Republic of Korea

Rapid structural change is occurring throughout the Korean society, due to rapid transition into the multicultural society, as well as low birthrate

and aging in Korea. As the inflow of foreign laborers and marriage migrants has sharply increased since the 1980s, the Korean society expands the policies for the settlement of marriage migrant women and their children, and for family support.

The immigrants migrating to the Korean society, mainly due to marriage, labor or study, surpassed 1.57 million or 3.0% of the total resident-registered population, based on July 2014 (2014 Statistics of the Ministry of the Interior, 2015). This actually means that the number of immigrants is over 2.5% of the total population, which is the multicultural threshold presented by the UN. The UNESCO and OECD have already defined Korea as an immigrant nation (The Ministry of Gender Equality and Family, 2015. Recited from the national multicultural acceptance survey research). The number of Korean nationality acquirers and their children including the registered as foreigners for 90 days and more of stay in Korea was 56,627 in 2006, but it rose to 1,569,470 people in 2014, up three times more. The number actually has increased by 193%, compared to 2006. Although the inflow of marriage immigrants slightly slowed down, culminating in 2008, the number of them was 149,764 people in 2014, a remarkable increase of 46% for six years.

The Korean family policy concentrated on early stage settlement of the marriage immigrants in the Korean society for the past ten years. Especially, the Korean language education service has been intensively supported, and 217 Multicultural Family Support Centers were set up nationwide to offer multicultural family services. The Multicultural Family Support Center offers the following services: door-to-door Korean language education, bilingual environment project, children's language development support, translation and interpretation, and marriage immigrants' employment support, as well as Korean education. The center has been making efforts for multicultural family children's growth and the increase of multicultural family acceptance by expanding the services assisting multicultural family children's growth and programs to exchange between multicultural family and general public since 2015.

SP_1937	Change and Growth of the Healthy Family Support Center for the Past 10 Years	
First Author (Main Author)	Kyung-Eun Park (Korean Institute for Healthy Family)	Republic of Korea
Co-Author(s)		
Presenting Author	Kyung-Eun Park (Korean Institute for Healthy Family)	Republic of Korea

The Healthy Family Support Center, which was established in accordance with the Framework Act on Healthy Families in 2005, has grown to a total of 151 centers for the past 10 years. The Framework Act on Healthy Families was enacted to emphasize the importance of national responsibility with regard to families as Korea has been facing a low TFR (Total Fertility Rate) that has been worsening since the late 1990s and the disintegration of families due to the economic crisis after IMF in Korea: this means the beginning of an explicit family policy in Korea. Rather than welfare services passively offered to low-income families, the Healthy Family Support Center advocates integrated services for all families in holistic approach (not just an individual but a family), regardless of economic standard and family structures. After 10 years, it has now become Korea's most representative system for delivering family services. It has grown to become an agency where families (couples, parent(s), parent-child, etc.) can get education and counseling in the stable delivering system. It is also performing its function as a community hub where new services can be commenced. In particular, this 2016, it is expanding its services as a more comprehensive service agency to reach out to various types of families, including multicultural families and single-parent households. Thus, it is expected to contribute to family happiness and social integration in Korea in the coming years.

Concurrent Session

Room 101	Consumer Behavior towards a Sustainable Future	
Chair	Jong-Youn Rha (Seoul National University)	Republic of Korea
IP_0520	Towards Sustainable Development: An Exploratory Study of Apparel Companies' Economic, Social and Environmental Sustainable Initiatives	
First Author (Main Author)	Sarah Mizener (Kent State University)	USA
Co-Author(s)	Catherine Leslie (Kent State University) Gargi Bhaduri (Kent State University)	
Presenting Author	Sarah Mizener (Kent State University)	USA

This research sought to explore the implementation of sustainable practices by financially successful apparel companies with the intention of increasing awareness of economic incentives to ethical and environmentally conscious behavior. Examining financially successful companies who support sustainable practices can encourage other businesses to follow their lead and governments to formulate policies aimed towards sustainable development.

For the purpose of the study, a qualitative analysis of four financially successful, multinational apparel companies' social, environmental and economic sustainability efforts was conducted to understand their sustainability initiatives. Content analysis of corporate social responsibility reports of Nike, H&M, Gap, and Adidas was conducted to understand the various sustainability efforts that these companies undertake to interpret their level of sustainability.

Data analysis revealed six major variables where companies undertake sustainability initiatives: reduction of energy use & consumption, development of technology & infrastructure, reduction of negative impact of chemicals on the environment, textile waste reduction, other efforts for conservation & use of alternatives, and social responsibility. Each phase in the data can be broken down into themes that explain the sustainable practices that each company displayed. The data was organized in five-year increments to gain an overall timeline of sustainability implementation, which have been labeled as four phases: Launch, Evolve, Advance, and Progress, hereby referred to as L.E.A.P. The purpose of this research is to make sustainability reachable, understandable, and attainable through the L.E.A.P. program.

Becoming aware of sustainable practices utilized by successful companies provides Home Economics professionals, governments and policy makers with useful information to motivate business and country leaders to promote sustainability initiatives. Through understanding sustainability initiatives in the production and supply process of the apparel industry, which employs more than 60 billion people worldwide, this study aims to create hope for providing sustainable development to create a healthier, happier future for generations to come.

IF_0154	Sustainable Food Purchasing Behavior of Consumers in Singapore	
First Author (Main Author)	Li Mei Johannah Soo (National Institute of Education/Nanyang Technological University)	Singapore
Co-Author(s)	Chiu-Fui Joyce Mok (National Institute of Education/Nanyang Technological University)	
Presenting Author	Li Mei Johannah Soo (National Institute of Education/Nanyang Technological University)	Singapore

AIM

Sustainable food consumption is one of the approaches to ensure sustainable living. This primary aim of this study was to examine the perception and behavior towards the purchase of sustainably-produced food of consumers in Singapore.

METHODS

A self-administered survey, including a values clarification exercise, a likelihood to buy environmentally-friendly scale (Cronbach's alpha = .89)

and a knowledge quiz, was sent to more than 800 working adults in Singapore.

RESULTS

Preliminary results showed consumers were consistent in the way they prized their beliefs regarding food choice as well as the way they choose and purchase food. The main drivers for food purchase are pragmatic reasons such as "safe to eat", "health", "personal preference" and "affordability", while less than 10% of the consumers ranked environmental and ethical concerns as important factors of consideration when making food choices. Consumers indicated a positive intention to buy environmentally-friendly foods but they were uncertain that purchasing sustainable food would make a difference towards environment conservation (54.3%). Most of them made little or no effort (76.6%) to buy sustainable food. Knowledge, perceived or measured, did not significantly correlate to the intention to purchase environmentally-friendly goods. Consumers' knowledge on sustainable food consumption was generally weak. However, consumers who worked in environmental-related occupations valued the environment and considered ethics when making food choices than those whose work were not related to the environment, they were also significantly more likely to buy products made from environmentally –friendly material and believed that buying sustainable food would make a difference in conservation.

CONCLUSION

This result indicated that contrary to popular belief that knowledge increases the intention to be more sustainable in food purchase, it is the level of engagement in conservation work that will motivate sustainable behavior. Hence it is crucial to not just translate sustainable literacy but engaging the consumers in caring for the environmental to change behavior.

IF_0126	The Effect of Fashion Leadership and Sustainable Clothing Attributes on Purchase Intention: Case of a School-Sponsored Store	
First Author (Main Author)	Kim Hahn (Kent State University)	USA
Co-Author(s)	Qiong Tao (Kent State University) Catherine Leslie (Kent State University)	
Presenting Author	Kim Hahn (Kent State University)	USA

AIM

As the fashion industry has significant environmental impact, a growing number of consumers are concerned over conventional production practices, leading to an increasing demand for sustainable products leading to a hope for our future (D'Souza, Taghian, & Lamb, 2006). The purpose of this study was to examine the effect of fashion leadership and clothing attributes on purchase intention of ten sustainable products that were developed for a school-sponsored store.

METHODS

Ten sustainable fashion garments to be sold at the school-sponsored store were evaluated by college students who are enrolled in introductory fashion industry course. One hundred thirty-six students (90% female) completed a paper survey about fashionability and marketability of the showcased garments, along with Gutman and Mills' (1982) fashion leadership scale.

RESULTS

Result showed that the high leadership group did not provide a higher score for every clothing attribute and every garment. Yet, the high leadership group scored six of the garments higher than the low leadership group on at least one attribute. Among those attributes, the high fashion leadership group scored higher on durability (four garments out of six garments), followed by general appearance (four garments out of six garments), style/fashion (three garments out of six garments), and comfort (three garments out of six garments for each attribute).

CONCLUSION

Findings suggest that designers should pay more attention to the general appearance and style/fashion in order to promote their sustainable products to young fashion-minded consumers. Findings from this study can be used for both Home Economics professionals and the fashion industry to successfully promote sustainable products, bringing happiness to our environment and a hopeful future with sustainable development.

IP_1111	Towards Sustainable Mobility: Consumer Assessments of Light Electric Vehicles	
First Author (Main Author)	Kaarina Hyvönen (University of Helsinki)	Finland
Co-Author(s)	Petteri Repo (University of Helsinki) Minna Lammi (University of Helsinki)	
Presenting Author	Kaarina Hyvönen (University of Helsinki)	Finland

AIM

Light electric vehicles are promoted as important means to make transport more sustainable. They are considered to reduce greenhouse gas emissions, air pollution, traffic noise, and to enhance well-being in particular in urban areas. However, consumers have not been eager as yet to adopt and use them, and it is also unclear what kinds of established forms of transport they will substitute. This paper explores and assesses the opportunities of light electric vehicles such as electric bicycles, electric mopeds, electric microcars and the Segway as means for everyday transport in Finland. It applies the approach of sociotechnical change as proposed by Geels (2002) and pays attention to consumers' experiences of using these vehicles, consumer views on their future use, and especially to what established vehicles they will substitute.

METHODS

The study is based on statistical analyses of responses to a survey representative of the population of Finland. The 1030 respondents in total were selected from an Internet panel consisting of 40.000 Finns which is operated by the Finnish market research company Taloustutkimus Oy.

RESULTS

The results show that light electric vehicles were considered interesting, although only 14% of the respondents had used them. A half of the respondents declared that they would be willing to use them in the future. The electric bicycle and the Segway attracted most interest. Light electric vehicles were considered to substitute primarily conventional bicycles, walking and automobiles. They were to some degree also considered to substitute public transport. Furthermore, they were seen suitable for transport to work and school, shopping and running errands, and leisure activities - also for senior citizens.

CONCLUSIONS

The study increases knowledge in light electric and sustainable mobility. The results indicate that there are opportunities for light electric vehicles to become serious alternatives for transport in Finland in the future (see Geels 2002), and hence make transport more sustainable. To achieve wide popularity among consumers, light electric vehicles and their supporting infrastructure need to be designed so that they better meet the needs and hopes of different types of consumers.

IP_1085	Practice of Sustainable Food Consumption during Lessons in Home and Consumer Studies – A Case Study of Pupils Classroom Education	
First Author (Main Author)	Emmalee Gisslevik (University of Gothenburg)	Sweden
Co-Author(s)	Inga Wernersson (University West) Christel Larsson (University of Gothenburg)	
Presenting Author	Emmalee Gisslevik (University of Gothenburg)	Sweden

INTRODUCTION

Pupils in Swedish home and consumer studies (HCS) are given the opportunities from a perspective of sustainable development, to develop their ability to make sustainable choices and actions in the home and as a consumer.

AIM

The aim of this study is to explore how pupils respond to and practice education about sustainable food consumption in the context of HCS lessons.

METHOD

With an exploratory case study, data material in the form of audio recordings, field notes, assignment questionnaires and video recordings, from 14 lessons in grad 8 were analyzed and presented in the form of ideal types.

RESULT

The preliminary results show that pupils' practice of sustainable food consumption can be divided into three ideal types: 1) The convinced, 2) The relaxed, 3) The unmotivated. The first ideal type characterizes a study-motivated pupil, who shows an awareness of subject specific goals and knowledge requirement and apply a higher level of reasoning on both a concrete and abstract level. The second ideal type characterizes a pupil who rely on his/her basic knowledge and ability to figure out the expected behavior or answers. The pupil primarily acts on the basis of own preferences and prior knowledge of cooking, and tends to apply sustainability aspects in retrospect, with more or less success. The third ideal type characterizes a pupil showing less commitment to the theoretical knowledge behind the tasks in HCS. Rather, this pupil has a great interest in cooking outcomes in relation to taste.

IN CONCLUSION

the traditional education structures and frames in HCS create conflicts between pupils' own preferences and the knowledge requirements in the national curriculum. By finding and scrutinize these conflicts and related structures, pupils will get the opportunity to develop their reflective reasoning regardless of associated ideal type.

IP_1382	Competencies Required by Home Makers in Processing of African Oil Bean Seeds for Sustainable Livelihood in South East Nigeria	
First Author (Main Author)	Glory Nwakpadolu (Home Economics Association of Nigeria)	Nigeria
Co-Author(s)	Florence lfeanyieze (Agric. & Vocational Education)	
Presenting Author	Glory Nwakpadolu (Home Economics Association of Nigeria)	Nigeria

The study identified competencies required by homemakers in processing African oil bean seeds for sustainable livelihood in South East Nigeria. Three research questions and one null hypothesis guided the study. The study adopted survey research design. The population for the study was 706 made up of 150 registered farmers and 556 lecturers. The sample for the study was 451 made up of (150 farmers and 301 lecturers). The entire population of the farmers was studied while proportionate random sampling technique was used to select 50% of the lecturer. A 47 item structured questionnaire developed from literature reviewed and confirmed through the function of industry was used to collect data for the study. Each questionnaire item was assigned response options of Highly Required (HR) Moderately Required (MR), Slightly Required (SR) and Not Required (NR) with values of 4, 3, 2, 1 respectively. The questionnaire was face validated by three experts. The internal consistency of the items was determined using Cronback alpha method and a coefficient of 0.81 was obtained. The data collected were analyzed using mean to answer research questions and t-test to test the null hypothesis. The study found out that 47 items were required by home makers in processing AOBs for sustainable livelihood. The hypothesis tested revealed that there was no significant difference in the mean ratings of the two groups for respondents in identified items. It was therefore recommended that the identified competencies (13 in planning, 21 in processing and 13 in marketing) be utilized by skill acquisition centers to make them competent in processing AOBs for sustainable livelihood.

Key words: Entrepreneurial competencies, Homakers, Processing, Sustainable Livelihood, Oil Bean Seeds

Room 102	Life Skills Education	
Chair	Kaija Turkki (University of Helsinki)	Finland
IF_0173	Does Parental Financial Assistance Assist Young Adults to Be Financially Healthy? : Effects of Parent-Child Relationships on Financial Outcomes and Happiness	
First Author (Main Author)	Ji Hyun Kim (University of Nebraska-Lincoln)	Republic of Korea
Co-Author(s)	Julia Torquati (University of Nebraska-Lincoln)	
Presenting Author	Ji Hyun Kim (University of Nebraska-Lincoln)	Republic of Korea

AIM

Parents provide financial support for young adult children (Padilla-Walker, 2012). This financial support could help or hinder young adult financial well-being. This current study investigates young adults' financial behaviors (e.g., financial responsibility, money management behavior and worry about money) as mediators of the associations between parent-child relationships (e.g., closeness with father, closeness with mother, spending time with father, and spending time with mother) and young adults' overall happiness. In addition, the role of parent financial support was tested as a moderator of all significant pathways.

METHODS

Data from the 2011 Transition into Adulthood data set and the 2011 Panel Study of Income Dynamics (PSID 2011), a nationally representative US sample were analyzed for this study. The respondents included in the analysis ranged from 17 to 27 years of age (N = 1,659). Structure Equation Modeling (SEM) was used with M-plus software to test the model comparing young adults who received parental financial assistance to those who did not. Preliminary analyses indicated that the pattern of correlations among variables did not differ as a function of family income.

RESULTS

The results indicate that financial behaviors mediated the associations between the quality of young adults' relationship with their parents and overall happiness. In particular, less worry about money and close relationships with their fathers significantly affected young adults' overall happiness regardless of receiving financial support from their parents. In addition, the SEM model is significantly different depending on whether or not young adults receive financial support from their parents. Young adults' good money management behaviors affected overall happiness only when they did not receive financial support from their parents. Young adults who had close relationships with their mothers and spent more time with their mothers showed less worry about money only when they did not receive parental financial assistance.

CONCLUSION

Results from this study provide insight that the parents' financial assistance may not help young adults strive for financial independence and may undermine young adults' financial well-being or overall happiness arising from their own financial achievement.

IP_0909	The MAD Bamboo Bike Stand	
First Author (Main Author)	Ronald Dexter Antiporda (Jose Rizal University)	Philippines
Co-Author(s)	Arlene Manalang (University of the Philippines) Ma. Aurora Reganit (University of the Philippines)	
Presenting Author	Arlene Manalang (University of the Philippines)	Philippines

Bamboo is an ubiquitous, renewable resource with many applications and great economic potential. This study explored the feasibility of fabricating a low-cost bamboo bike stand. A handicrafts curriculum for Grades 8 & 9 that draws from the Design-based Art Education framework was also developed using the lessons learned from prototyping. The finished bike stand is affordable while the fabrication techniques used

lend themselves well to addressing Grade 8 and 9 TLE competencies. Recommendations include prototyping using other varieties of bamboo, refining the design of the bike stand to accommodate a wider variety of bikes, and pilot testing the curriculum.

IP_0876	Household Budget Management Support and Education for Consumers in Need	
First Author (Main Author)	Yumiko Ono (Tokyo Kasei Gakuin University)	Japan
Co-Author(s)		
Presenting Author	Yumiko Ono (Tokyo Kasei Gakuin University)	Japan

Through a number of studies so far, the presenter has defined "consumers in need" as consumers who require daily monitoring by family or carers to engage in consumer activities. Looking at collated cases of requests for advice to Practical living Information Online-NETwork system (PIO-NET) in 2013, it is evident that only about 30% of the 1,604 requests for advice on "contracts involving people with insufficient judgment" linked to "people with mental and physical disabilities" came from the individuals themselves, while approximately 65% came from people monitoring the individuals on a daily basis, such as family and relatives, or welfare staff. This proves that it is crucial not only to provide consumer education for consumers in need themselves, but also to provide support for families and communities.

A questionnaire and interview survey was conducted from 2015 with teachers in Special Needs Education Schools, who have close contact with the young generation of consumers in need, in order to understand the current situation regarding consumer education. Among teachers responsible for career guidance and home economics teachers, who participated in this study on support and education on household budget management, 95.3% responded that they thought there was a need for classes and lectures on daily life and money (61.5% responding "strongly think so", and 33.8% "I sometimes think so"). Responses indicated that settings of actual financial education and support were classes in home economics (32.1%), career guidance (35.2%), unit learning based on daily life experiences (43.5%), and everyday guidance and teaching (39.4%). In interviews, the importance of initiatives in the "Unit Learning Based on Daily Life Experiences", which is specific to Special Needs Education Schools, was stressed, and there is potential here for further investigation into financial management support and education in Special Needs Education Schools.

IP_0563	What Should Food Consumers Know about Food? The Views of Family Food Providers in Five Countries in the Asia Pacific Region	
First Author (Main Author)	Tony Worsley (Deakin University)	Australia
Co-Author(s)	Wei Wang (Deakin University) Quynh Pham (Deakin University) Judhi Februhartanty (University of Indonesia) Melissa Burton (Deakin University) Stacey Ridley (Deakin University)	
Presenting Author	Tony Worsley (Deakin University)	Australia

RATIONALE AND AIM

The content of food education courses is changing and the views of food consumers may be important in the design of these courses. This study examined the views of middle class family food gatekeepers from five countries in the Asia Pacific Region.

METHODS

In late 2013, early 2014 an online survey was conducted among middle class family food gatekeepers in Indonesia, Melbourne, Singapore, Shanghai and Vietnam. Respondents were asked to rate the importance of 18 items about food knowledge and skills, derived from previous research. Cross tabulation analyses by country of residence were conducted to examine similarities and differences between the views of the respondents. Exploratory factor analysis derived an eight item factor named: Importance of food knowledge and skills (Cronbach's alpha = 0.90).

Multiple regression analysis was conducted on this factor to identify associations with several independent major variables.

RESULTS

There was strong agreement across all five countries about the need for consumers to know about the health properties of food, food safety, nutrient composition, cooking skills, meal planning, and regulation. However Melbournians and Singaporeans were less supportive of food knowledge and skills than other respondents. The regression analyses showed that the importance of food knowledge and skills was more strongly related to psychographic variables such as Equality values (std. beta = 0.31) and support for the promotion of healthy foods (0.22) than to demographic variables such as age (0.06) and sex (being female, 0.08).

CONCLUSIONS

There was general agreement about the importance of food knowledge and skills which are similar to those included in home economics curricula. People in 'developing' economies may be more supportive of consumer education than those in 'developed' economies. Personal values and attitudinal variables were stronger associates of food knowledge importance than demographic variables.

IP_1095	Effects of Comprehensive Financial Planning on the Clients' Attitude, Capability, Satisfaction, Expenditures and Investments	
First Author (Main Author)	Hyungkee Baek (Nova Southeastern University)	USA
Co-Author(s)	Jong Yoon Oh (Sungkyunkwan University / Korea Financial Planning Research Institute)	
Presenting Author	Jong Yoon Oh (Sungkyunkwan University / Korea Financial Planning Research Institute)	Republic of Korea

Studies that compared the groups with and without financial advisors generally fail to show the unambiguous causality between financial advice and behavioral outcomes. Other studies examined only one aspect of outcomes like 401(k) allocation, retirement savings, emergency fund, mortgage delinquency, financial literacy, etc. Authors examine the effects of comprehensive financial planning on the changes on individuals' attitude, capability and satisfaction, and also on behavioral changes in savings/investment and expenditures. By examining the individuals' change before and after financial planning sessions, this study is free from endogeneity issues inherent in many cross-sectional studies.

The sample is from the fee-only financial planning services performed in one of the top three independent financial planning firms in Korea during the period from April 2012 to February 2015. Comprehensive financial planning has been performed in all six steps: Establish relationship; Gather information; Analyze; Develop and present plans; Implement; and Monitor. Among 325 clients, paired t-tests show improvements in all 9, 11 and 8 individual measures of attitude towards financial planning, planning capability and satisfaction after comprehensive financial planning, respectively. Additionally, clients reduced discretionary and unclassified expenses while insurance premium payment and investments increased, especially in liquid, equity and pension assets.

A further analysis suggests that occupation is a major factor in attitude change, while changes in capability and satisfaction after professional financial advice are more notable among young clients. Authors conclude that fee-based comprehensive financial planning improves clients' attitude, capability and satisfaction, and their change in investment and expenditure behaviors, especially among young clients.

IP_1484	Actual Condition and Demand of Safety Education of Female Middle School Students in Busan Metropolitan City, Korea	
First Author (Main Author)	Nam-Eun Kim (Busan Keoje Girls' Middle School)	Republic of Korea
Co-Author(s)		
Presenting Author	Nam-Eun Kim (Busan Keoje Girls' Middle School)	Republic of Korea

The purpose of this study is to research the actual condition and demand of safety education of Korean female middle school students. It

conducted a survey with the subject of total 512 students, including 235 students in the first grade and 277 students in the second grade of female middle schools in Busan. The method of sampling is a convenience sampling and the survey instrument is questionnaires developed by researcher referring to preceding studies regarding safety education. The survey instrument is a measure of the Likert scale of 5 points and the reliability is Cronbach alpha values as high as 0.95.

The actual condition analysis shows that the highest incident of accidents among female middle school students is experiment and practice accidents, which totaled 586 cases. The next is leisure activity accidents while students are exercising (N=236) and water accidents (N=236). The third highest incident rate is related to verbal violence: which 365 students experienced out of a total 496 students, including 251 students through abusive language and 114 students through personal attack. This survey shows that verbal violence happens with bullying and relationship problems with friends. The fourth highest rate was attributed to bicycle accidents, which 233 students experienced and the fifth is product safety accidents. With product safety accidents, food poisoning is the most common (N=66), defective school supplies (N=36), defective toys (N=23), and food intake accidents (N=17). 120 students experienced cyber addiction accidents in sequence and smart phone addiction was noted by 104 students. Accidents with tools of gas (N=114), cyber violence accidents (N=99) and suicide attempts (N=99) followed in order.

By performing the survey for the contents of safety education demand in the home economics curriculum, the most required contents from female middle school students over the average 4.51 are prevention and response procedures for sexual violence and sex trafficking (4.60), suicide prevention and response procedures (4.56) and bullying (4.51). Child abuse prevention and response procedures (4.46), physical violence prevention (4.40), domestic violence prevention and response procedures (4.39) and experiment and practice safety (4.26) followed in order.

Room 103	Wellbeing of the Elderly	
Chair	Irene Norlund (Metropolitan University College)	Denmark
IP_1343	Situation of the Elderly: A Six-Country Study from a Home Economics Perspective	
First Author (Main Author)	Elisabeth Leicht-Eckardt (IFHE EC)	Germany
Co-Author(s)		
Presenting Author	Elisabeth Leicht-Eckardt (IFHE EC)	Germany

Demographic changes lead to social changes worldwide. Coping with specific challenges of an ageing population, the focus explicitly is on the needs of seniors. Home economics, in the interface of health-care, nutrition and social-support can contribute to sustainable development. The aim of the study, partly funded by the International Federation for Home Economics (IFHE), was to grasp the current situation of the elderly systematically in various regions of the world and to identify key issues arising from the seniors' daily needs. The data should be the basis of Home Economics curricula on various levels.

The case study was conducted in six countries by an international team of scientists between 2011 and 2013. Literature research explains the situation of seniors in the participating countries Brazil, Germany, Guyana, India, Japan and Swaziland. A case study focussed aspects of socio-demographics, health, nutrition, family, household and society (n = 50 per country; urban and rural, seniors 65 and older).

Comparing the countries, the number of children differs obviously. The health status also is significantly heterogeneous: respondents from Swaziland assess their health status overall more negative than other respondents. Cultural/religious differences are specifically in relation to nutritional habits: descriptive results show dissimilarities concerning food.

Key-results show that habits, household activities and needs of the elderly vary across the world as well as their children's support. The need for support related to the senior's health status is heterogeneous.

A standardized curriculum for Home Economics should comprise comparable modules worldwide on different educational levels, but must consider socio-cultural differences. Differentiated strategies should be developed focussing on the seniors themselves but also education and the perception of Home Economics in societies. The awareness of country-specific differences goes along with the requirement of intercultural competencies as an essential component in Home Economics.

IP_1124	Risk Factors within Families for Elder Financial Exploitation by Family Members	
First Author (Main Author)	Virginia Vincenti (University of Wyoming)	USA
Co-Author(s)		
Presenting Author	Virginia Vincenti (University of Wyoming)	USA

The aim of this research is to identify intra-familial and contextual risk and protective factors concerning elder financial exploitation by family members appointed as a fiduciary to manage their elderly relative's finances. The ultimate goal is to educate families and professionals working with them to use this knowledge to improve end-of-life planning.

Our two-phased, national research project involves self-report surveys (Phase I) followed by in-depth interviews (Phase II). During Phase I, participants share experiences related to the exercise of fiduciary authority via in-person, telephonic, or online survey. The surveys include questions on demographic and basic information (e.g., power dynamics, family communication patterns, values, financial management practices) and determine whether or not participants meet eligibility criteria for a follow-up interview (Phase II) which includes two groups of participants: those from families who have experienced EFE by a family member POA agent and those who have not. Phase II involves in-depth interviews with eligible participants and their relatives who were affected by the POA agent actions in order to explore family members' perceptions of appropriate use or misuse of the POA.

Risk factors existing well before any exploitation took place include lack of understanding of the legal responsibilities and restrictions granted by the elder and accepted by the relative assuming fiduciary responsibility. Many relationship factors were revealed such as lack of openness, honesty, and trust in relationships; poor family communication; unresolved or repressed conflict; lack of empathy; parents not teaching responsible financial management or modeling poor financial management; parental enabling financial irresponsibility and dependency; minimal parental involvement during childhood or parental favoritism; dominate-submissive relationships; spousal coercion of fiduciary; and substance abuse. Elders often chose offspring living closest to manage their affairs regardless of competence and did not provide an asset inventory to a trusted third party before authority fiduciary authority was granted.

IP_0570	Life Style and Ageing Pattern of Public Servants in Anambra State of Nigeria: Implications for Graceful Ageing	
First Author (Main Author)	Priscilla Ezema (Michael Okpara University of Agriculture Umudike)	Nigeria
Co-Author(s)	Uju Nnubia (Michael Okpara University of Agriculture Umudike)	
Presenting Author	Stella Ngozi Lemchi (Alvan Ikoku Federal College of Education)	Nigeria

The study examined lifestyle and ageing process of public servants in Anambra State of Nigeria: Implications for graceful ageing. Specifically, the study examined lifestyle bracket that existed among Anambra State public servants, their ageing pattern and attributes of graceful ageing. The study adopted a survey research design. A sample of 2,226 was used for the study. Questionnaire was used for data collection. Data were analysed using mean (X). The results of the analysis showed among others that fulfilled, achievers/strivers, strugglers, believers etc. were lifestyle bracket that existed among Anambra State public servants. There were physical/biological, social, psychological and mental pattern of ageing among the ageing group of public servants in Anambra State. Maintaining strong social network of family, friends and colleagues, remaining positive in all endeavours, learning to rest well were some of the attributes of graceful ageing. The findings also showed that there were physical/biological, social, psychological and mental implications of lifestyle on graceful ageing. Based on the findings, it was recommended among others that public servants should imbibe principles that will help them to handle misconception about old-age and learn to love growing or ageing positively.

IP_0802	An Application of Quality Function Deployment to the Health –Care Industry –an Empirical Study on the SPA-Health-Care Company in Taiwan-	
First Author (Main Author)	Yi-Hsuan Tsai (National Taichung University of Science and Technology)	Taiwan
Co-Author(s)	Hui-Shan Chan (National Tainan Institute of Nursing) Ching-Hsiu Hsieh (National Pingtung of Science and Technology) Yi-Chun Huang (National Taichung University of Science and Technology)	
Presenting Author	Yi-Hsuan Tsai (National Taichung University of Science and Technology)	Taiwan

As populations get older; increase demand for acute and primary health care, require a larger and better trained health workforce, and also increase the need for long term care and for environments to be made more age-friendly. As this result, Taiwan health –care has grown dramatically in recent years, most of the researches focused primarily on relationship between the medical quality and clients satisfaction but did not emphasize the same importance on the intra-organizational health-care service and delivery process. This study consider the ageing within to enhance these extra years are healthy, meaningful and dignified contexts, intend to improve the management issues of external and internal services as well as innovations of subsequent services bases on the framework of Quality Function Deployment (QFD). The concept of QFD and its development will be introduced first and then followed by detailed step-by-step explanation of its procedures. In order to provide a clear demonstration concerning the application and analytical techniques of QFD, an empirical study on the SPA Company in Taiwan was conducted to apply Quality Function Deployment on the Health Care Industry. Two main focuses of this study are Elderlys of the SPA-Health –Care Company and competitors. Personal interviews with individual customer were conducted first. The results were analyzed with content analysis method to identify the Elderly need and what aspects of service the customers concern most, which regards to indicate that reasonable price on service and product. And Employee has a kind attitude and willing service and shortly times to solve my problem as well as the basis for setting priority for quality improvement.

Secondly, surveys were conducted to gather information on the importance of Elderly' opinions, satisfaction, comparison with competitors, and indices and order of Elderly's needs. Third, Elderly' needs and quality improvement of the SPA-Health-Care Company are put in matrix. Also the matrix is evaluated and analyzed, and used as the basis for setting priority for quality improvement. It is concluded that employee can efficiency handles the problem of health care well after-sale service (like reminding the maintaining method after permanent and SPA-Health –Care, the self-taking care method, and phone care).

The study conducted the QFD as the extension of service quality management on the Health Care Industry. Questionnaires concerning the reliability and validity of QFD are discussed. Application of QFD in other related service sectors, particularly in the health-care industry, are also reviewed. Finally, suggestions and directions for future researches are offered with emphasis particularly on the SPA-Health –Care management.

IP_1664	Related Factors of Korean's Attitudes on Sharing Time and Space with the Elderly: The Moderating Effects of Contact with the Elderly	
First Author (Main Author)	Jiyeon Lee (Seoul National University)	Republic of Korea
Co-Author(s)	Gyoung Hae Han (Seoul National University)	
Presenting Author	Jiyeon Lee (Seoul National University)	Republic of Korea

The purpose of this study was to examine variations in contact opportunity with the elderly by demographic characteristics and identified related factors of Korean's attitudes on sharing time and space with the elderly. Although there is a discourse on space for the elderly, we should consider the possibilities of separation and exclusion because of the demarcated space only for the elderly. Furthermore, interactive public space, in which every generation could contact and interact, could serve an important function in integrating society as well as generation. In this light, this study focused on the importance of intergenerational contact and was conducted to explore ageism phenomena which are barriers to intergenerational integration. The data came from the 2012 Korean General Social Survey (KGSS). The sample included 1,535 Korean aged 18-94. We performed hierarchical regression on attitudes on sharing time and space with the elderly by entering prejudice toward the elderly as an independent variable and intergenerational contact as a moderator. The results showed that prejudice toward the

elderly was positively associated with negative attitudes on sharing time and space with the elderly. Positive view of their own aging was negatively related to negative attitudes on sharing time and space with elderly, while negative view of their own aging was positively related. The intergenerational contact was negatively associated with negative attitudes on sharing time and space. In addition, the intergenerational contact buffered the effects of prejudice toward the elderly. The current study expands the current scholarship on space and the elderly by suggesting that prejudice toward the elderly, one's view of aging, and intergenerational contact were related to Korean's attitudes on sharing time and space with the elderly. Findings shed light on the elements that should be considered on space for the elderly or intergenerational space for intergenerational integration.

Room 104	Health and Wellbeing across the Lifespan	
Chair	Ayako Kuramoto (Kagoshima Prefectural College)	Japan
IP_0472	Prevalence and Correlates of Type II Diabetes (T2D) among Puducherrians, India	
First Author (Main Author)	V. Raji Sugumar (Government of Puducherry)	India
Co-Author(s)	Vimalavalli S (Bharathidasan Govt. College for Women)	
Presenting Author	V. Raji Sugumar (Government of Puducherry)	India

AIM

To study the prevalence and correlates of Type 2 Diabetes in the Capital City of Puducherry Union Territory, India.

METHODS

A cross-sectional community survey was conducted in ten urban & rural Primary Health Centres of Puducherry for diabetic screening. About 4870 self selected samples between the age of 30 - 80 years volunteered to get tested. Interview schedule was used to elicit the socio-economic details. Anthropometry measurements like Weight, Height, Waist & Hip circumference & Waist Height Ratio were measured. The diagnostic test for diabetic screening was Glycosylated Haemoglobin Test (HbA1C). Random Blood Sugar level and Blood Pressure using Sphygmomanometer were measured for better understanding of the issue.

RESULTS

Around 22.8% were diabetic with 8.6% pre-diabetic and 18% diabetic. Almost 35 and 43 percent of the pre-diabetic and diabetic from both sexes belonged to the LIG and 8 to 10 percent from MIG. The Prevalence among SCs & STs was 34.5% and 26% respectively, 30% of OBCs and 27% from forward castes. About 82% of males & 90% of females were obese when BMI was used as a standard. Around 11% were CED. Male subjects had high systolic pressure than female subjects. About 85% had HbA1C of more than 7. The study revealed that gender, physical exercise, prevalence of diabetes and HbA1c are associated significantly to RBS group category (p-value < 0.05). Odds ratio (OR) reveals that females are having 0.778 times more risk than the males. So also, subjects with HbA1c above 7 are prone to have 11.695 times risk when compared to their counter parts.

CONCLUSION

The prevalence is alarming with more than 25% with the risk of diabetes. Awareness camps at the institutional level and public level should be carried out with due emphasis on strategies for life style modification like diet and exercise.

IP_0558	Celiac Disease-A Hidden Epidemic: What Home Economists Need to Know	
First Author (Main Author)	Juanita Mendenhall (Disaster Assistance Partnerships-Council Committee)	USA
Co-Author(s)		
Presenting Author	Juanita Mendenhall (Disaster Assistance Partnerships-Council Committee)	USA

Celiac Disease affects one in 100-150 persons worldwide. Most don't know it, suffering unnecessarily. Nutrients are not absorbed. Home Economists must be informed to help curb the epidemic. Eating no gluten is only treatment. Be informed so thousands can eat for health properly. PowerPoint

IP_1043	'I'm Hooked on My Food Diary' The Script of Slimming and Peer Support an Online Weight Loss Service	
First Author (Main Author)	Johanna Mäkelä (University of Helsinki)	Finland
Co-Author(s)	Mari Niva (University of Helsinki) Kaija Rautavirta (University of Helsinki)	
Presenting Author	Johanna Mäkelä (University of Helsinki)	Finland

The increasing concern for overweight and obesity has led to a proliferation of individual body projects that aim at losing and managing weight. New tools for weight loss have been produced by Internet technologies, such as online services providing detailed calorie counting in food diaries, peer support in discussion forums, and expert advice. Our earlier paper based on interviews with users of two Finnish online slimming services suggested that the food and exercise diaries provided by the services produced a script for a calculative practice of slimming, and that for the users, the diaries necessitated slimming in which both calories, nutrition and bodies were treated as quantified objects. In this paper, we turn to examining the relationship between the calculative script produced by the services and the discourses of slimming that are brought about in a discussion forum related to the services. Therefore, we look into the role of providing and receiving peer support in understanding the script supplied by the service. We examine the interpretative repertoires that either comply or challenge the calculative script of the service, and analyze how users 're-script' and negotiate the meanings of slimming.

The data was collected in August 2014 and September 2015 from a discussion forum linked to one online slimming service. Among the postings from users in the period 2008–2014, we chose a convenience sample of discussions from themes 'Weight management', 'Peer groups' and 'Successes'. We did a qualitative content analysis in two rounds. Firstly, we looked for discussion participants' interpretative repertoires of the calculative script of the service. Secondly, we categorized our data in subscribing, transforming, de-inscribing and circumscribing the script.

Our preliminary findings suggest that discourses drawing on subjective experiences may either support or contradict with the slimming script of the service. Therefore, the user forum produces a discursive space with multiple and competing versions of online slimming that voice dieters' everyday understandings and interpretations of the script. The spiritedness of the discussion forum participants is striking. The discussion forum is an inspiring peer support group for many aspects of life. The discussion forum community both supports and transforms the script. Together the participants produce alternative scripts for doable weight loss practices.

IF_0050	Nutritional Anthropometry, a Veritable Tool for Measuring Linear Growth : A Case Study of School-Age Children in Two Local Government Areas of Ibadan, Nigeria	
First Author (Main Author)	Vivian Ojukwu (University of Ibadan)	Nigeria
Co-Author(s)	Oluremi Keshinro (University of Ibadan)	
Presenting Author	Vivian Ojukwu (University of Ibadan)	Nigeria

AIM

This study was carried out to evaluate the linear growth of school age children with respect to age and sex in two local government areas of Ibadan using nutritional anthropometry as an indicator.

METHODS

200 males and 200 females between the ages of 6-12 were randomly selected from ten schools in two Local Government Areas (LGA) of Ibadan using a simple sampling technique. A growth lag with variation in the basic parameters of height and weight as compared to the reference standard laid down by WHO/NCHS amongst school – age children in the areas of study was observed.

RESULTS

The mean height of boys and girls were higher up till age 9 groups unlike that of Ido LGA which were lower in all age groups for boys and except in the age 10 group for girls. The mean weight of the boys in the two LGAs were lower while that of girls were also lower with exceptions in the ages of 7 and 8 in Ido LGA and age 8 in Ibadan – North LGA.

CONCLUSION

More boys were stunted than girls in the studied areas while underweight prevalence was less in girls than boys only in Ido LGA.

Room 105	Sustainable Society for Happiness	
Chair	Jinkyung Chang (Sookmyung Women's University)	Republic of Korea
IP_1083	Evaluation of Some Body Weight Control Centers in Khartoum State	
First Author (Main Author)	Faiza Abd Alla (Ahfad University for Women)	Sudan
Co-Author(s)		
Presenting Author	Faiza Abd Alla (Ahfad University for Women)	Sudan

AIM

This is a descriptive, and cross sectional study which was designed to evaluate 37 body weight control centers in Khartoum State. The study attempted to assess these centers because no attempt has been made before to assess these centers and there are no agreed criteria to do that. The study used the services that are provided by the "Johns Hopkins Weight Management Center" which is part of Harvard University in USA, as a reference.

METHODOLOGY

The primary data was collected using two questionnaires; one questionnaire was directed to 37 members of the administration of the centers and the other to 38 clients.

RESULTS

The supervisors' number in these centers exceeded that of the number of nutritionists and sport educators. The centers acknowledged the

importance of anthropometric indices as basic measures. Moreover, nearly half of them were found to use the athletic measures. The common food items recommended to the clients in each meal or snack were found to contain the required and balanced food items that are ideal for clients seeking weight reduction. But there was lack of knowledge about the quantity that must be eaten during dieting. All the centers use sport education for weight control programs.

The majority of the clients wanted to reach satisfactory body image, few of them were found to be enrolled in these centers according to the physicians' advice. The clients were found to be satisfied with services they received.

The Sudanese centers were found to be different from that of the Johns Hopkins Weight Management Center (JHWMC) in many ways (e.g. the composition of team; weight management program; client orientation program; formulae to calculate the ideal body weight; as well in some of the services offered to clients.

IP_1099	The Role of Regulatory Focus in Water Conservation Behavior	
First Author (Main Author)	Jiyun Kang (Texas State University)	USA
Co-Author(s)	Gwendolyn Hustvedt (Texas State University) Cameron Woolf (Texas State University) Mira Ahn (Texas State University)	
Presenting Author	Gwendolyn Hustvedt (Texas State University)	USA

Due to climate change, access to quality water will become increasingly urgent and difficult for many families. The aim of this study is to examine the role of regulatory focus in water conservation behavior. The method for this study was an online survey of 761 Hispanic consumers in regions of the US facing drought, and included variables for the theory of planned behavior. During the survey, respondents were primed with a question designed to stimulate the promotion focus, prevention focus or with a control question. The results of regression analysis demonstrated that promotion primed consumers (encouraged to focus on achieving a positive outcome) differed from the prevention primed consumers (encouraged to focus on preventing a negative outcome), as well as the control consumers in terms of their perception about water conservation. Three variables concerning water conservation (attitudes, subjective norms, and perceived behavioral control), behaved differently under promotion and prevention priming. The promotion priming (thinking about saved money) increased the ability of the perception of control over household water conservation behaviors to influence current and future water conservation. Conversely, the prevention priming (thinking about lost money) and the control group participants did not feel behavioral control at all. Conclusions from this can study provide guidance for home economists working to increase water conservation behavior. Priming consumers to adopt a promotion perspective by thinking of the positive benefits of saving water rather than the negative consequences of wasted water may help consumers feel more in control of their household's ability to conserve water.

IP_1447	Rethinking Tivaevae as the Model for Community, Sustainability, Textiles Art and the Wellbeing of Students	
First Author (Main Author)	Sarah Wirth (HETTANZ)	New Zealand
Co-Author(s)		
Presenting Author	Sarah Wirth (HETTANZ)	New Zealand

From my Masters studies on Pacific Education with Dr Cherie Chu at Victoria University, I was ask to "rethink Pacific Education." I saw an exhibition of Tivaevae, a quilting art form from The Cook Islands, Tahiti and Hawaii and felt that this was the medium with which I would connect with my students. When considering "rethinking Pacific Education" in my classroom, I thought I would be showing a beautiful Textiles Artform, however it was much more than that, the Tivaevae connected us to the local community, strengthened my class bond, leading to an appreciation of the art form and made strong connections to students' wellbeing. I made contact with a local Cook Island sewing group in Wellington and these women came to impart their knowledge to my students, in the same way as they were taught by their mothers. They explained how they were made for their functions, culture, the importance of society and heritage. The stories from the Tivaevae are told and the significance of the

Tivaevae was explained.

Students worked in the Technology area of Textiles. They developed an understanding of the inclusion of Tivaevae to the importance of it as a beautiful storytelling ritual and as a significant female historical textiles art form. Our students have a growing connection with the Pacific, especially Samoa and Fiji and Te Papa in Wellington, including the latter that has the largest collection of Tivaevae in the World which is on our doorstep. During this unit they gained an understanding of the relationship between the Tivaevae, both as an art form and as cultural markers of families' history.

Students needed to reflect on how technologies impacted on society in the Pacific, especially the Cook Islands in relation to Tivaevae and modern New Zealand practices of Tivaevae.

Student turned their research into article or blog: describe the environment at the time that Tivaevae were introduced to the Cook Island, and the need and/or opportunity that the Tivaevae addressed identify who the key people were that played a role in the development Tivaevae explain how the development of Tivaevae, people, and the social and physical environments interact discuss the impact that these interactions had on society discuss both the successful and unsuccessful ways in which people, the social and physical environments and the development of Tivaevae interact.

The students made a Tivaevae for the opening of a new building at school and recorded their stories of how this impacted on their textiles practice.

IP_0424	IFHE-US Mentoring Committee to Present "Hope and Happiness Is....Mentoring"	
First Author (Main Author)	Mary Warnock (University of Arkansas)	USA
Co-Author(s)	Jacquelyn Warnock (Texas A&M University) Deborah Tippett (Meredith College)	
Presenting Author	Mary Warnock (University of Arkansas)	USA

AIM

International Federation for Home Economics (IFHE) members can experience hope and happiness by participating in a mentoring program. Young professionals need mentors so that they do not become isolated or discouraged within their profession. Joining IFHE can assist to alleviate these issues, but the new member must become active, make contributions and remain a long-term advocate in order to benefit from the happiness of this career satisfying professional organization. Working with young professionals can bring hope to experienced members.

METHODS

Objectives of symposium are to (1) demonstrate the establishment of a mentor/mentee relationship via technology; (2) define expectations for continuing the mentor/mentee contacts after establishing commitment by both parties; (3) utilize assessment tools to determine effectiveness and impact of the mentor/mentee partnership and (4) present activities that can be used to deliver personalized learning leading to IFHE participation.

RESULTS

These objectives will be accomplished by using power points, oral presentations, videos and hyperlinks to (1) demonstrate the effective use of Skype, email, social media or other electronic forms of technology in creating a teaching/learning environment; (2) provide handouts defining the roles, responsibilities and expectations of the mentor and mentee; (3) provide copies of assessment tools that can be used to determine the degree of success of the mentoring relationship for 6-month and 12-month periods; (4) illustrate/conduct interactive activities, (role playing, ice breakers, brain storming) to reinforce the teaching/learning applications of the mentor/mentee relationship with emphasis on influencing mentees to remain involved in IFHE so that they can enhance and support their chosen career goals for their own happiness and the betterment of the global community; and (5) provide an IFHE-US mentor and a new member mentee to share their stories about the benefits of the program from personal and professional perspectives.

CONCLUSION

Participants will understand the mentor/mentee relationship with the benefits of hope and happiness resulting from IFHE membership.

Room 106	Best Practice in Household Technology	
Chair	Sung Hee Hong (Keimyung University)	Republic of Korea
IP_0617	Development of Best Practices on Laundry Washing	
First Author (Main Author)	Rainer Stamminger (University of Bonn)	Germany
Co-Author(s)	Konstadinos Abeliotis (Harokopio University) Jasmin Geppert (University of Bonn)	
Presenting Author	Rainer Stamminger (University of Bonn)	Germany

Everyday household activities consume natural resources. For instance, washing the laundry, either performed manually or by a washing machine, requires use of water, as well as consumption of energy for heating the water, and consumption of detergents and other additives (e.g. clothes softeners). In addition, the laundry washing frequency and the washing habits differ greatly among different consumers in different parts of the world.

The consumption of resources can be minimized if best practices on laundry washing are applied by consumers. Part of the IFHE Programme Committee on Household Technology and Sustainability (PC HT&S) is (a) the compilation of best practices and the corresponding development of informative posters and (b) the compilation of frequently asked questions (FAQs) based on scientific evidence for various household activities such as laundry washing. Two sets of best practices and corresponding sets of FAQs were developed, one in manual laundry washing and one in automatic machine washing. The aim of these best practices and FAQs is to help Home Economics professionals to educate and train consumers around the world to change their washing habits towards more sustainable patterns.

The focus of this paper is the presentation of the development of the best practices and FAQs on laundry washing. Future work of the members of the PC HT&S will be on the dissemination and testing of the effectiveness of best practice posters in different parts of the world.

IP_1040	Development of Best Practices in Refrigeration	
First Author (Main Author)	Jasmin Geppert (University of Bonn)	Germany
Co-Author(s)	Rainer Stamminger (University of Bonn)	
Presenting Author	Jasmin Geppert (University of Bonn)	Germany

From different perspectives, refrigeration in private homes may be seen as critical: on the one hand, a significant share of the total residential electricity consumption is consumed for this purpose. On the other hand, proper food storage is a significant aspect in view of food safety, hygiene and prevention of food waste. Several studies indicate that the consumer behavior in refrigeration and the food storage practices vary greatly among consumers both, on individual and an international level.

The energy consumption of refrigerators as well as food losses could be reduced and the food safety and quality could be optimized if consumers apply best practices on refrigeration. For that reason, scientifically sound best practices on refrigeration were developed by the IFHE Programme Committee on Household Technology and Sustainability (PC HT&S) based on peer-reviewed scientific literature.

The development of the best practices and how Home Economics professionals worldwide could apply them is presented in the paper.

IP_1076	Dishwashing Behaviour in Europe	
First Author (Main Author)	Ina Hook (University of Bonn)	Germany
Co-Author(s)	Rainer Stamminger (University of Bonn) Angelika Schmitz (University of Bonn)	
Presenting Author	Rainer Stamminger (University of Bonn)	Germany

In a large consumer survey 5750 persons of 12 countries in Europe were asked about their dishwashing behaviour, including both automatic and manual dishwashing habits. The results reveal quite significant differences between these countries, but also differences within the whole population. Special focus of the survey was on the use of energy saving programmes and the assessment of the programme duration by the consumers. The results will be shown and conclusions presented.

IP_1042	Best Practices in Sustainable Use of Household Technology and Resources - Examples of Dissemination Activities	
First Author (Main Author)	Jasmin Geppert (University of Bonn)	Germany
Co-Author(s)	Beate Fliegner (University of Bonn) Rainer Stamminger (University of Bonn)	
Presenting Author	Jasmin Geppert (University of Bonn)	Germany

Based on peer-reviewed scientific literature, the IFHE Programme Committee on Household Technology and Sustainability (PC HT&S) has developed scientifically sound best practices on a sustainable use of household technology and resources. These best practices cover eight of the most important and most resource consuming processes in private homes namely cooking, automatic and manual dishwashing, hand and machine laundering, refrigeration, food preservation by canning and drying. Together with the best practice tips, dissemination materials as for instance posters and frequently asked questions and answers (FAQs) have been developed and are available for download free of charge from the IFHE Homepage. These materials can support Home Economics professionals worldwide to educate and train consumers to change their behaviour towards a more conscious use of natural resources.

In Germany, the best practice materials have been applied in different types of schools to educate pupils in different grades. In order to make the lessons more vivid and memorable for the pupils, simple experiments and games have been developed to complement the best practice materials. The teaching concept as an example of dissemination activities and the lessons learned are presented in the paper.

Room 107	Cultural Aspects of Clothing & Textiles	
Chair	Yhe-Young Lee (Korea University)	Republic of Korea

IP_0339	Hope for Indigenous Textile Knowledge through Product Diversification	
First Author (Main Author)	Neera Barooah (SNDT Women's University)	India
Co-Author(s)	Ela Dedhia (Mumbai University)	
Presenting Author	Neera Barooah (SNDT Women's University)	India

AIM

The aim and objectives of the study was to develop measures to enhance the sustainability of the textile crafts of indigenous communities of North eastern region of India, which is home to about 225 tribal communities, to help the rural economy, prevent rural migration, preserving textile heritage, and ensuring an environment friendly production process. The study aimed to develop diversified products using tribal designs and understand the acceptability of these products.

METHODS

The socio-economic condition, textile tradition, sericulture practices of the following tribes in the state of Assam, namely, the Bodos, the Dimasas, the Karbis, the Mishings, the Rabhas, the Singphos, the Tiwas were studied by administering interview schedule and observation method. Diversified products such as apparel, home textiles and fashion accessories were developed using eri silk with almost extinct tribal designs in an attempt to revive the designs. The fabrics for the products were woven in handloom with jacquard mechanism. The developed products were showcased to prospective consumers to understand their acceptability.

RESULTS

It was found that majority of the weaver's families live in poverty, and a steep decline was found in textiles practices along with many crafts and designs, that have already gone extinct due to a lack of innovation in the production process, in terms of spinning or weaving and lack of interest of the younger generation. The developed products found acceptability among rural and urban consumers, indicating an opening of a new avenue for tribal textile craft.

CONCLUSION

The study concluded that, with creativity and innovation, it is more likely to encourage the younger generation to continue their textile tradition with indigenous knowledge. The study also indicated the need for partial technology induction to enhance productivity.

Key words: Eri silk, sustainability, diversified products, socio-economic status, technology induction

IP_1335	Changing Iconography of Traditional Indian Resist Block Printed Textile, Ajrakh-Catering to International Niche Markets	
First Author (Main Author)	Ela Dedhia (University of Mumbai)	India
Co-Author(s)		
Presenting Author	Ela Dedhia (University of Mumbai)	India

Craft and design, in Indian context, is extremely complex and multifaceted having huge impact on livelihood of huge population of millions of traditional craftsmen. Patterns, techniques and processes form the cultural icons, which are inherited and imbibed from one generation to the next. Irrespective of the medium a craftsman works with, the form, colours and motifs are derived out of their consciousness, evolved through years of experience.

Under the pressures of an evolving society and changing commercial and technological needs, these traditional patterns, icons and symbols are also undergoing change.

The aim was to find different approaches of designers, non profit non government organizations and craftspersons in traditional printing cultures like ajrakh, in an attempt to revive, survive and sustain in the commercial space. A printing cluster in Dhamadka Kutch, western Indian state, traditionally printing textiles for the local population had become confined to ajrakh fabrics, lungis, turbans, sarees, etc. over the years. The other is Ajrakhpur, in Kutch, a recently developed cluster, post-earthquake 2001, formed by migrated traditional block printers from Dhamadka who adapted to changes much faster due to their proximity to town Bhuj which is well connected by road, rail and air and visited by tourists from all over the world. The printer communities have moved on to producing products for the urban global market, yet have retained their cultural identity. In recent times, input by developmental agencies and individuals have freshly invigorated the scenario by reviving interest in a traditional product by playing around with motifs, colour combinations and experimentation with layouts, raw material and product development. Rannotsav initiated in 2009, brought in a revolution of tourism. Sudden inflow of tourist from all parts of India and the world created a new beginning for locals of Kutch including the craftspersons in the international niche markets.

IP_0401	Emirate Costumes of Traditional Title Holders of Northern Nigeria	
First Author (Main Author)	Hadiza Dikko (Ahmadu Bello University)	Nigeria
Co-Author(s)	Mather Ahuwan (Ahmadu Bello University) Sidi Ajayi (Ahmadu Bello University) P. E Onuigbo (Ahmadu Bello University)	
Presenting Author	Hadiza Dikko (Ahmadu Bello University)	Nigeria

AIMS/OBJECTIVES

The objectives of the study are to:

1. Identify the different royal costumes used by the Traditional Title Holders (TTH) of Northern Nigeria;
2. Identify the type of costumes given to the TTH of Northern Nigeria during turbaning;
3. Determine the number of garments used by the TTH of Northern Nigeria for official palace functions;
4. Identify the types of embroidery designs used on the costumes of the Traditional Title Holders of Northern Nigeria;

METHODOLOGY

Descriptive research survey method was used to document the different emirate costumes and types of embroidery designs used by the Traditional Title Holders of Northern (TTH) Nigeria and the costumes given to the TTH during turbaning. Population of the research consisted of 551 TTH in North-West Geo-political zone of Nigeria. The zone has seven states (Kano, Katsina, Kaduna, Kebbi, Jigawa, Sokoto and Zamfara). Stratified random sampling technique was used to select four states, while Hat Drawn method was used to select one emirate council from each state (Zazzau from Kaduna State, Daura from Katsina State, Kano from Kano State and Sokoto Caliphate from Sokoto State). A total of 134 TTH (114 District Heads and 20 King Makers) were used to collect data for the study using structured questionnaire. Descriptive statistics of frequency and percentage was used to analyse the data collected.

RESULTS

The findings revealed that the costumes of the District Heads and King Makers (TTH) of Northern Nigeria include Babbar riga, alkyabba, hula, big trousers (buje/wando kamun kafa/wandon zina/wandon Kano), embroidered shoes, jabba, falmara, kubta, yar ciki, and rawani. The embroidery designs preferred by the TTH are farfesu, yar madaka, shabka, two needles (allura biyu), hand and machine embroidery. The average number of garment they use for official functions is six, even though only babbar riga, hula, alkyabba and rawani were given to them during turbaning. The horses of the TTH are not left out in special regalia. They have costumes like jalala, dan kai tunjimi, banten doki, suka budu, labbati, layun wuya, saddle, likkafa, Kalfazuru, Dan goshi, Dan kirji, dan kokuwa and so on.

CONCLUSION

The emirate costumes of the Traditional Title Holders (TTH) of Northern Nigeria include among others big gown (babbar riga), turban (rawani), cap (hula), big trousers (buje/wando kamun kafa/wandon zina/wandon Kano), embroidered shoes (takalma), 'yar ciki, cloak (alkyabba), jabba, kufta, falmara and kaftan. From all these items of costumes, only four items (babbar riga, hula, rawani and alkyabba) were given to the TTH

during turbaning. However, the average number of garments used by the TTH for palace functions is six. Some of the accessories like falmara, kayan yauki, kuffa and jabba which were formally imported in to the country, but now some designers/tailors are trying to sew these costumes locally. The horses of the TTH have their own special regalia attached to them including babban sirdi, kalfazuru, dan gaba and so on.

IP_0409	The Usage of Ethnographic Belts in Promoting Pupils' Creativity	
First Author (Main Author)	Maija Kulakova (IFHE)	Latvia
Co-Author(s)		
Presenting Author	Maija Kulakova (IFHE)	Latvia

AIM

The territory of Latvia is not big but Latvian ethnography is very rich. The amount of belts is varied and interesting. Historically belts were used to contain clothing, in household, for example to set a cradle. Belts have been made in many techniques in different Latvia regions and they have a great variety of pattern compositions and setting of colours.

Our task is to preserve and hand over to future generations our cultural heritage. At school pupils get much information about folk art and traditions. The rich amount of belts is a good material to develop many-sided skills of pupils and indirectly acquaint them with ethnographic materials.

The aim of the paper is to find out whether using elements of ethnographic belts for performing different tasks pupils indirectly deepen their knowledge about ethnography, belts and their patterns.

METHODS

The information was obtained studying literature and ethnographic materials, investigating articles, interviewing and summing up the results.

RESULTS

Pupils working with belts, their fragments, pattern elements, get acquainted with the values of national culture thus promoting their familiarization and preservation. While doing tasks with belts' elements pupils' creative thinking and memory are developed because creative thinking is one of the main human's essence detectors.

At household lessons pupils, while making compositions for modern articles which are made of various materials, creatively use patterns of belts and their colour variations.

CONCLUSION

Teaching pupils think, creatively use the obtained knowledge, skills and abilities, pupils get accustomed to non-standard situations which help to form personalities who will know the culture of their country, will be able to create ideas and realize them in independent work in any life situation.

IF_0190	I'm Free Now! A Cognitive Generalization of the Self through Experiences: The Self-Esteem and Self-Schema of African American Women Wearing Natural Hair	
First Author (Main Author)	Tameka Ellington (Kent State University)	USA
Co-Author(s)		
Presenting Author	Tameka Ellington (Kent State University)	USA

AIM

The hopefulness for beauty acceptance continues to be a battle for African American (AA) women (Thompson, 2009). The valuations of AA

beauty, particularly concerning natural (unprocessed/unstraightened) hair, are negative due to the hundreds of years of brainwashing during the slave trade. Africans were made to believe they were worthless and unattractive (Robinson, 2011; Thompson, 2009). The phenomena known as the White Standard of Beauty materialized in the process of this encoding. This standard is still relevant today; and many AA women feel pressure to conform from the overall society as well as from those within the AA culture. As a result their self-esteem and self-schema suffer. However, AA women are beginning to redefine their own standard of beauty with their natural hair (Patton, 2006).

METHODS

The current research is a continuation of a previous study conducted in 2003. A purposive sample of 25 African Americans women with natural hair were interviewed in 2003. An additional 13 African Americans women with natural hair were interviewed in 2012 via snowball sampling. Individual interviews were conducted as well as a The Perceptions of African Americans on their Natural Hair questionnaire which included the Rosenberg Self-Esteem Scale (1981). The interviews were transcribe verbatim and analyzed via open coding followed by an axial coding approach.

RESULTS

Three themes emerged from the data: 1) the past experiences of AA women being told they have "bad" hair; 2) the unsupportive society including family and friends regarding women wanting to wear their own natural hair; and the now positive self-image and self-acceptance the women have of their natural hair texture regardless of the still dominate White Standard of Beauty.

CONCLUSION

This study's contribution offers a better understanding of the AA culture, in hopes of fostering a more widely acceptance of AA hair textures and other body characteristics.

Workshop

Room 205	Promotion of IFHE to Non-Members	
Chair	Elisabeth Leicht-Eckardt (IFHE EC)	Germany
Presneter(s)	Rie Imoto (Kagawa Nutrition University) Faiza Hussein (Ahfad University for Women) Stefan Wahlen (Wageningen University) Sidiga Washi (Ahfad University for Women)	Japan Sudan Netherlands Sudan
WS_0945	Promotion of IFHE to Non-Members	
First Author (Main Author)	Elisabeth Leicht-Eckardt (IFHE EC)	Germany
Co-Author(s)		
Presenting Author	Elisabeth Leicht-Eckardt (IFHE EC)	Germany

AIM

The aim of the Session/workshop is to present successstories of IFHE as INGO at the UN and UN agencies as well as highlighting the options for IFHE Members and the IFHE global network in the different fields of home economics such as home economics research; home economics education; family life and household challenges and advocacy at all levels. The session/workshop will also introduce the IFHE programme 2020 of IFHE upcoming President Prof. Dr. Sidiga Washi including the perspectives of the IFHE Young Professionals Network followed by a discussion with participants.

METHODS

- The workshop will start with a short 2-3 Minutes introduction about IFHE Challenges the chair of the IFHE Finance and Membership Committee
- A 20 minutes presentations of IFHE experts in the related fields from various regions i.e. Africa, Pacific, Americas, Asia, Europe highlighting their experiences with IFHE as an international non governmental organisation; with Home Economics as an interdisciplinary field of research, and with Home Economics Education as basis for development and well-being to motivate non members to join IFHE when reflecting their success stories.
- A 15 minutes Presentation by IFHE upcoming President Sidiga Washi to highlight her presidency program period 2016 – 2020 and beyond
- A discussion will follow with participants to reflect their commitment to advance IFHE.

SESSION/WORKSHOP OUTCOME

The outcome anticipated is the commitment by the non member individuals and organisations to join IFHE and to get more professionals to be involved with the process of promoting IFHE to more non members

CONCLUSION

Output will be a collection of ideas for the membership committee for the next four years to attract more professionals to join IFHE all over the globe.

Submitted by: Prof. Dr Elisabeth Leicht-Eckardt, Chair of the IFHE Finance and Membership Committee.

Concurrent Session

Room 101	Rational Consumer Decisions	
Chair	Hester Steyn (University of the Free State)	South Africa
IF_0110	Factors Influencing Consumer Behaviour in a Sequence to Food Waste	
First Author (Main Author)	Barbara Freytag-Leyer (Fulda University of Applied Sciences)	Germany
Co-Author(s)	Reem Al-Naib (Fulda University of Applied Sciences, Kassel University)	
Presenting Author	Barbara Freytag-Leyer (Fulda University of Applied Sciences)	Germany

AIM

The research was conducted to find out the factors that lead consumers to waste food. The analysis of consumer behaviour during their shopping trips and at home was conducted to measure the level of its negativity.

METHODS

Data from 115 consumers in two German cities was collected by a quantitative questionnaire.

RESULTS

The results showed that nine factors influence and drive consumers to food waste which are divided into three stages of the food journey at their homes.

Factors due to food shopping: buying too much food, fresh moves and buying big packages.

Factors due to food storing: not eating the items that should be eaten first, forgetting products in the cupboards that lead to be unfit for consumption and doing distant or non systemic "spring cleaning" leading to dispose old and forgotten products.

Factors due to preparing and cooking food: preparing too much food in one meal which owes to poor portion size control, forgetting leftovers in the fridge and high sensitivity to food hygiene.

Besides, the majority of consumers does have structured behaviour before taking off to the supermarket by checking their inventory needs and preparing a shopping list at least sometimes. Some (20%) have unorganized behaviour. They get influenced by market offers and promotions that lead to buying more food than planned and overshopping. Consumers like to cook more food than can be eaten especially for holidays. The majority of the consumers do not partake the habits of leaving food on the plate as a deed out of courtesy.

CONCLUSION

According to the nine factors found, campaigns for reducing food waste can be planned.

IP_1219	Price Discount Effects in Fashion Products: A Range Theory Approach	
First Author (Main Author)	Jung Eun Lee (Virginia Tech)	USA
Co-Author(s)		
Pre senting author	Jung Eun Lee (Virginia Tech)	USA

Although price promotion is a popular marketing strategy in the apparel industry due to the short product life cycle of fashion products, there has been very limited study focusing on customers' perceptions towards price discount in the fashion product context.

Based on the Price-Quality-Value model, we propose that price discount has influences on perceived quality and perceived savings, which in turn impact purchase intentions. Building on range theory, we also investigate the moderating role of range of expected price discount (REPD), and the factors influencing REPD.

This study conducted an online experiment with a pair of jeans as a product. A total of 148 responses were collected. MANOVA with 3 price discounts (10%, 30%, vs. 50%) × 2 REPD (wide vs. narrow) was used for the analysis. Perceived savings was higher for discounts of 50% than 10% and 30%, and 30% than 10%. Perceived quality for a 10% price discount was lower than 30% and 50%. Perceived savings for the narrow REPD group were higher than that for the wide REPD group. For both wide and narrow REPD groups, perceived savings significantly increased as price discounts increased. On the other hand, perceived quality was lower for a 10% price discount than 30% and 50% only for wide REPD group. Using regression analysis, we found that product involvement and frequency of purchasing were significant indicators of REPD.

Due to high product involvement and frequency of purchase, customers are exposed to a large variation of price discounts, resulting in a wider REPD. Consequently, wide REPD leads customers to perceive lower saving than a narrow REPD. However, compared to the narrow REPD group, the wide REPD group had a stronger relationship between price discount and perceived quality. This indicates the high REPD group infers quality based on price discount. This study provides a better understanding of how customers respond to discounts for fashion products and practical implications for fashion marketers.

IP_0264	Consumer Perspective of Phytonutrient Food Sources and Functional Food Application in the Market for Food Management and Sustainable Future	
First Author (Main Author)	Mona Abdelgalil (Household Management)	Egypt
Co-Author(s)		
Presenting Author	Mona Abdelgalil (Household Management)	Egypt

AIM

Food management is the application of management principles of planning, organizing, implementing and evaluating in solving the problems associated with feeding or the provision of foods. it involves the utilization of the human resources of knowledge and skills in planning controlling and organizing the non human resources of money, food supplies and equipment to achieve good health (Anozie&Ekeh,2009). Plant foods contain thousands of natural chemicals. These are called phytonutrients or phytochemicals. Fruits and vegetables contain phytonutrients. When man eat or drink phytonutrients, they may help prevent disease and keep the body working properly. Phytonutrients play an important role in the relationship between diet and the prevention of chronic diseases. The scientific data offers the food industry the opportunity to develop functional foods that phytonutrients emphasized. Consumers who are unfamiliar with phytonutrients is hampering the successful marketing of such functional foods because it is a consumer with requires knowledge and understanding of diet and health. Good management of food is aimed at providing the consumers with nutritious and safe food to achieve good health.this demands appropriate knowledge, skills which many consumers may not possess. these consumers has limited time for food preparation. Because Alexandria is an emerging market for phytonutrients and functional foods, the study explore the following

- consumer Knowledge of the term "phytonutrients", dietary supplements, functional food
- Knowledge of the food source and the associated health benefits of specific phytonutrients;
- consumer behavior in purchasing phytonutrients and functional foods dietary supplement, and what are the strategies consumer adopt in food management?

METHODS

The study employed a survey research design using a questionnaire. It was conducted in Alexandria city center. A purposive sample of 150 consumers was selected.structured questions had response options of agreed, undecided, disagreed,corresponding to the values of 3,2 and 1,respectively, on a Likert Scale. SPSS program for statistical analysis.

RESULTS

About third of participants were aware of the term " dietary supplements, function food ", most of the participants were aware of the food sources as health benefits. Broccoli is the food by most of the participants (75.6%) is indicated as a rich source of antioxidant. More participants were aware of the term "phytonutrient" was the daily recommended number of servings of vegetables indicate correctly (58.5%), than those who do not know it (40.8%). Some participants expense more than 10% of their monthly income for purchasing dietary supplements, about 30% of them depend on their friends and family relatives whom residing abroad in obtaining the dietary supplements products. Time factor, expensive food resources or buying cheap ingredients, preparing only meals that require less time and poor preservation facilities are facing

feeding management and lead consumer sometimes to purchase the dietary supplements when urgently needed.

CONCLUSION

The consumer were likely less aware. Significant exposure is necessary to introduce the importance of phytonutrients in health and disease prevention.

RECOMMENDATIONS

Family and consumer's associations should stress the need for adequate meal planning, choosing and purchasing healthy food.

IP_0331	Labels & Certifications for Hospitality Services – An Overview	
First Author (Main Author)	Désirée Hagger (Zurich University of Applied Sciences)	Switzerland
Co-Author(s)	Claudia Hiestand (Zurich University of Applied Sciences) Mario Lippuner (Zurich University of Applied Sciences) Manuela Bader (Zurich University of Applied Sciences) Franziska Honegger (Zurich University of Applied Sciences)	
Presenting Author	Désirée Hagger (Zurich University of Applied Sciences)	Switzerland

BACKGROUND

For hospitality services, as provided in institutional households, there are increasing options to certify services or products and their ingredients in terms of their environmental sustainability, geographical origin, nutritional values and other attributes. Such certifications are often reasoned with having a positive impact on marketing and reputation.

AIM

To develop an overview of common certifications / labels used in hospitality services with a focus on catering in institutional households in Switzerland, Germany, Austria, Canada and USA. Thereby the questions, what certifications are on the market, what they have in common and how both providers of labels and hospitality services experience this market, are answered.

METHODS

Qualitative research design, underpinned by the pragmatism paradigm and a primarily inductive approach. Data collection methods include document research and semi-structured interviews with providers and users of labels. Data is analysed thematically, using a coding strategy especially developed for the purpose of this research. The research will be conducted in autumn term 2015 by a group of four students studying facility management with focus on hospitality services in institutional households.

RESULTS

The findings will show that the market of certifications and labels for hospitality services in the countries focused on is large.

CONCLUSION

It is anticipated that there is a booming market for certifications and labels for the hospitality service industry. This adds to the body of knowledge in the field of Home Economics by providing decision makers with an overview of this market including reasoned pros and cons why the use such labels might be of benefit or not.

Room 102	Responsible Consumption and Happiness	
Chair	Sarah Mizener (Kent State University)	USA
IP_0783	What Conditions Are Required for Becoming an Ethical Consumer?	
First Author (Main Author)	Megumi Okutani (Fukuoka University of Education)	Japan
Co-Author(s)	Mayuko Suzuki (Osaka Kyoiku University) Kumiko Ohmoto (Osaka Kyoiku University)	
Presenting Author	Megumi Okutani (Fukuoka University of Education)	Japan

PURPOSE

There is a need for consumers to learn an "ethical" attitude, i.e. to recognize the effect of their consumption on the surrounding environment and humanity's future through consumer education. Research on the "ethical consumer" has been ongoing since the 1980s. It is important to take into account the influences of the era and national characteristics and culture, however such discussions have not been fully considered in Japan.

This research attempts to organize the conditions for becoming an "ethical consumer" in Japan through a review of previous research and interview research about the concepts underlying this phrase both domestically and internationally.

METHOD

Respondents were academics who have studied about consumer education and home economics, and participated in activities of the Conscious Consumer Network. Before meeting, interview sheets were prepared and sent in advance (semi-structured interview). The period of research was from July 2014 to December 2015. Respondent nationalities were: Japanese (3 persons), Canadian (1), Norwegian (1), Swedish (1), Finnish (1), Korean (2).

RESULTS & DISCUSSION

National policy and life values form the background for the concept and behavior of the "ethical consumer". It was found that people think deeply from an "ethical" viewpoint regarding aspects such as what and how they can change their daily lives. They discuss and assess their actions depending on their own situation. Furthermore, the requirement for people as individual citizens to have the capability to make changes to their behavior and general society, including poverty and disparities in economic power, was raised.

In Japan, the key phrase "ethical consumer" is used as part of CSR, and affects market principles. Consequently it is lacking in an international perspective for thinking about the backgrounds of phenomena, and there is concern about the essence of ethical consumption being inaccessible to consumers.

There is a necessity for the proposal of educational methods integrated into everyday life that spread the life values required for being an ethical consumer.

This work was supported by JSPS KAKENHI Grant No. 26381267.

IP_1120	Corporate Use of Private Property: Consumer Rights?	
First Author (Main Author)	Irene Leech (Virginia Tech)	USA
Co-Author(s)		
Presenting Author	Irene Leech (Virginia Tech)	USA

Most consumers seek to own private property to achieve hope and happiness. Across the globe private landowners face challenges when corporations desire to use or access those landowners' property. Often the government helps the corporations, with little consideration of the

landowners goals.

In the United States fracking is leading to explosive proposals for new natural gas infrastructure. Many landowners in many states are faced with corporate demands to use or access private property, generally providing landowners with little compensation. The legal concept of eminent domain is used by corporations when it is determined that their use is in the public interest. In recent years US citizens have increasingly challenged the use of eminent domain by corporations, especially when the purpose is to obtain private financial rewards for the company owners, not public use. A number of states have passed laws and constitutional amendments that speak to the priority of individual landowner property rights. However, as numerous proposals for new interstate transmission pipelines have been made, landowners are often finding that corporate interests trump individual rights.

Interstate transmission pipelines in the United States are approved by the independent Federal Energy Regulatory Commission (FERC), which is funded by the energy industry and has an employee "revolving door" with the industry. Other federal agencies whose responsibilities are affected by natural gas transmission pipelines must work through FERC to address them. The responsibility for safety inspections lies within the Department of Transportation which is chronically short-staffed and under-funded. It has not met Congressional requirements made four years ago when the agency was last reauthorized and it does not appear that this will improve anytime soon. Landowners in rural areas have especially challenging situations since they are low priority for government safety and environmental inspections. Often less rigorous standards for safety are required in rural areas, allowing pipeline owners to save money but exposing landowners to greater risks. Citizens get little to no help from local and state government as they seek to protect themselves, the environment, and their property.

Citizens are organizing new non-profit grassroots groups and coalitions of groups across geographic areas and with a wide range of organizations to fight the pipelines. They are using internet technology to communicate with each other and the government and to search for information. Websites, Facebook groups, and email listservs quickly share information about the problems with pipelines that is often not covered by newspapers and televisions. Fundraising and educational events support citizen efforts to protect their own and their neighbors safety and property. Citizens have not been so engaged in policy issues in decades.

This paper will explore and compare current policy and recommend changes for to achieve more fairness and better landowner ability to achieve hope and happiness. It will also investigate citizen advocacy activities and propose strategies to keep citizens engaged in policy processes so they can continue to influence decisions. If citizens can maintain the grassroots organizations and activities they are more likely to achieve fair balance of power between corporations and private landowners and will be more likely to find hope and happiness.

IP_0943	Teaching Sustainable Food Consumption in Home and Consumer Studies: A Case Study of a Teacher's Classroom Practice	
First Author (Main Author)	Emmalee Gisslevik (University of Gothenburg)	Sweden
Co-Author(s)	Inga Wernersson (University West) Christel Larsson (University of Gothenburg)	
Presenting Author	Emmalee Gisslevik (University of Gothenburg)	Sweden

The introduction of sustainable development into the Swedish national syllabus of Home and Consumer Studies, anticipates teachers to offer opportunities for pupils to make conscious choices and act as responsible consumers. However, little is known what the term sustainable development entails in Home and Consumer Studies education and the subject's knowledge area of food. The aim of the present study was to explore the content of teaching food from the perspective of sustainable development in the classroom practices of Home and Consumer Studies. In an exploratory case study, data in the form of audio recordings, field notes, assignment questionnaires and, to some extent, video recordings from 14 lessons in grade 8, were analyzed using qualitative content analysis. The analysis reveals that education about food from the perspective of sustainable development in this classroom entails a teaching content that places the self/homemade meal in the center of education for sustainable food consumption. The content in the teacher's classroom practice emerges as three main categories: sustainable food selections, sustainable cooking, and sustainable food utilization with a base in the multidimensional meal process that reaches far beyond the kitchen walls. In conclusion, the study indicates that Home and Consumer Studies is a school subject that offers education for sustainable food consumption with the self/homemade meal in focus. However, clarification of what teachers in Home and Consumer Studies are expected

to offer in regard to content, width, and depth when teaching sustainable food consumption in classroom practice is needed.

IP_1009	Young Consumer-Citizens on the Door to Service Society	
First Author (Main Author)	Eliisa Kylkilahti (University of Helsinki)	Finland
Co-Author(s)		
Presenting Author	Eliisa Kylkilahti (University of Helsinki)	Finland

In consumers' everyday life service encounters are frequent and crucial episodes which reveal the cultural norms of the interactive situations. As we enter service scenes we are positioned either as acknowledged, appreciated consumers or as marginal (mistrusted, invisible) consumers. Especially when young people enter service scenes Goffman's principles of equality and politeness guiding service encounters are contested. It has been argued that it is relatively easy to deny the rights of young people as consumer-citizens and place them in the marginal. This study focuses on the role of doors in the marginalization of young service consumers in the context of both private and public sector services. The study aims to shed light on how the service encounters begin at the doorway and how the doors carry symbolic meanings as borders to cross already before the actual service encounters. The data are generated using narrative and ethnographic methods. The analysis draws on a data set of service narratives and field notes including photographs collected in ethnographic field work. The analysis applies close reading and narrative methods. In their stories the young people use the metaphor of a heavy door which captures vividly their struggle between seeking for help and crossing borders. In addition, their agency as fully-fledged service consumers is contested also in the commercial service environment: they may not be greeted at all or it is implied that they are considered as potential shop-lifters. Thus, tentative findings indicate that for young people entering the space of services is charged by meanings – especially meeting public sector authorities. The borders and barriers are built in the strong cultural middle class norms and adult order. The door and events at the door play pivotal role in relational exclusion/inclusion of young people.

Room 103	Scale Development	
Chair	Jung Ha Lim (Korea University)	Republic of Korea

IP_0324	The Development and Initial Report of the Transracial Adoption Parenting Scale - Revised	
First Author (Main Author)	Jaegoo Lee (Jackson State University)	USA
Co-Author(s)		
Presenting Author	Jaegoo Lee (Jackson State University)	USA

AIM

Literature concerning cultural and racial socialization in international adoption strongly suggests the need for a reliable, valid, and practical instrument for empirical research. Thus, this study aims to revise the original Transracial Adoption Parenting Scale (TAPS) and examine the factor structure of a revised version of the TAPS (TAPS-R) with a sample of international adoptive parents.

METHODS

Data were collected using a cross-sectional online survey design. As part of cultural and racial socialization study, the survey was administered in 2012. A convenience online sample (N = 310) was recruited through parenting support groups. The majority of the participants were Caucasian mothers (90%). The average age was 48.30 years (SD = 7.10). The average income was approximately \$134,000 (SD = 83,275).

Exploratory factor analysis (EFA) identified and extracted an expected factor structure. The number of factors retained was decided based on

existing literature, an examination of the produced eigenvalues, a scree plot, and parallel analysis. Using oblique promax rotation, the factors were then rotated to allow for correlated factors. Each item was examined and assigned to the factor on which it had the largest loading. Items that did not meet a cutoff point (≤ 0.30) were not retained in the final structure.

RESULTS

The EFA revealed a reduced 47-item form of the TAPS-R with a 4-factor underlying structure. The three factors Racial Awareness (10 items), Multicultural Planning (17 items), and Coping Skills (15 items) confirmed theoretical expectation (Vonk, 2001). A fourth factor, Integration (5 items) also emerged.

CONCLUSION

The findings suggest that the TAPS-R is a sound instrument that captures socialization beliefs and practices among international adoptive parents. The results can contribute to literature related to cultural and racial socialization in transracial adoption. As this is an initial study of the TAPS-R, future study is needed to further establish its reliability, validity, and factor structure.

IF_0248	Ergonomic Evaluation of ICT Facilities in Schools of Mumbai	
First Author (Main Author)	Roopa Rao (University of Mumbai)	India
Co-Author(s)		
Presenting Author	Roopa Rao (University of Mumbai)	India

AIM

To evaluate the computer laboratory facilities provided by private schools in Mumbai and to learn about the perceived discomfort faced by the students of class three and class four due to the concept of 'design for the average' concept adopted by schools today.

METHODS

237 students aged 8 – 10 years from five schools in Mumbai were observed during their computer classes at school. These children were interviewed (self-constructed questionnaire) about their perceived feeling of comfort (modified musculoskeletal discomfort questionnaire) while using the computer laboratory facilities. Relevant anthropometric data was collected to check for good fit between the user (child) and her workstation (computer).

RESULTS

Most of the students were satisfied by the computer lab facilities provided by the school. Their (82.3%) main complaint was that they are asked to work in groups. The seat height was appropriate for 85.2% (n = 202) but the pressure in the popliteal area was evident in 60.3% (n = 143). The seat height was adjustable but the children were not aware of this. The work surface height was uncomfortable for 34 children (14.3%). 67.1% (n = 159) did not have arm/hand support too, increasing the prevalence of awkward work postures.

CONCLUSION

Comparison of the user anthropometric data and working heights revealed misfit, but these can be rectified with incorporation of adjustable furniture. The working environment was also evaluated ergonomically and a few recommendations were suggested. The school authorities were open to suggestions and willing to incorporate ideas discussed.

IP_0325	An Exploratory Factor Analysis of the Socialization Self-Efficacy Scale (SSES) with International Transracial Adoptive Parents in the United States	
First Author (Main Author)	Jaegoo Lee (Jackson State University)	USA
Co-Author(s)		
Presenting Author	Jaegoo Lee (Jackson State University)	USA

AIM

Cultural and racial socialization in international transracial adoptive families are mainly initiated by parents. As parenting self-efficacy is suggested as a predictor of socialization practices, there is a need for a reliable, valid, and practical instrument with which to measure self-efficacy. Thus, this study aims to provide examine the factor structure of the Socialization Self-Efficacy Scale (SSES).

METHODS

Data were collected using an online survey in 2012. A convenience sample (N = 310) was recruited through parenting support groups. The majority of the participants were Caucasian mothers (90%). The average age of the participants was 48.30 years (SD = 7.10). The average income was approximately \$134,000 (SD= 83,275).

RESULTS

The EFA, as expected, revealed a 10-item SSES form with a 2-factor underlying structure similar to that suggested in relevant literature: Cultural Socialization Self-Efficacy (CSSE, 6 items) and Racial Socialization Self-Efficacy (RSSE, 4 items). The CSSE factor includes items relevant to parents' motivation and beliefs about their capability to perform cultural socialization. Items in the RSSE factor are relevant to parents' motivation and capability to perform racial socialization.

CONCLUSION

The findings suggest that the newly developed SSES is a sound instrument that captures parents' motivation and beliefs about their capability in socialization. As this is an initial study of the SSES, further research is needed to further establish its reliability, validity, and factor structure.

IP_0884	Study on the Feasibility and the Design to Support Child Care for a Child to Do Chores with an Interactive Robot Pepper	
First Author (Main Author)	Kanae Kochigami (The University of Tokyo)	Japan
Co-Author(s)	Yohei Kakiuchi (The University of Tokyo) Kei Okada (The University of Tokyo) Masayuki Inaba (The University of Tokyo)	
Presenting Author	Kanae Kochigami (The University of Tokyo)	Japan

Previous studies on a daily assistant robot have been focused on the achievement of completely autonomous household tasks. However, it is also important to consider the robot system which enables a robot to do chores with a child from the perspective of supporting child care in family. The aim of this study is to consider the recognition / manipulation ability and the interaction design required for the robot to do so. We focused on tidying up stuffed animals among the chores three-year-old children can try.

Pepper robot, which has been commercially available recently in Japan, and is about 120 cm in height, was chosen for our study. We observed its ability of grasping / carrying some objects including stuffed animals and the world recognition by cameras.

We found Pepper has difficulty in holding solid objects like dishes, but it can grasp flexible objects like stuffed animals and towels. Pepper can put an object on a table or a shelf and release it to a box on the floor even though it is weak in bending down because the motor load becomes high. The performance of the cameras is almost same as other robots, but it is not enough to see the world closely and widely in a real daily environment.

This study considers how a commercially available communication robot could achieve doing chores with a child through one example of tidying up stuffed animals. To achieve this, new sensors for seeing the world closely and widely, the ability to keep holding a stuffed animal and the interaction design of relying on a child when dropping it are required. Our study is important in specifying what a commercially available robot can / cannot do, and revealing the direction of the study of the robot system for supporting child care.

Room 104	Home Economics Curriculum from around the World	
Chair	Hille Janhonen-Abuquah (University of Helsinki)	Finland
IF_0134	American and South Korean Family and Consumer Sciences Secondary School Programs: A Cross-Cultural Comparison	
First Author (Main Author)	Sally McCombie (Indiana University of Pennsylvania)	USA
Co-Author(s)	Eun Jin Hwang (Indiana University of Pennsylvania)	
Presenting Author	Sally McCombie (Indiana University of Pennsylvania)	USA

AIM

Education and problems related to education are greatly influenced by economic, political and social factors. This cross-cultural comparison of the educational systems in the United States and Republic of Korea shed light on how these factors influence the value placed on Family and Consumer Sciences/Home Economics curricular offerings.

METHODS

This study is a qualitative comparison of the structure and offerings of Family and Consumer Sciences to those in Republic of Korea. The information was gathered through interviews and governing policies and educational mandate documents.

RESULTS

The educational systems differ in many ways, however, secondary programs in Family and Consumer Sciences (FCS) have a long history in both countries. In the United States, where secondary public education is free, fifty states continue to offer courses in secondary schools. The courses are either elective or required depending on each states' requirements. Students may opt to attend career and technical schools (formerly called vocational) where they can specialize in FCS content areas like culinary or child care. There are two types of high schools in Korea, general and vocational. Vocational schools offer specializations in agriculture, technology, commerce, fishery, industry and Home Economics. Admission to high school is dependent on the results of competitive entrance examinations. Content area teachers move between classrooms teaching core subjects, including, English, Korean, Mathematics, Social Science and Pure Science. Home Economics is one of the optional programs as is Art, Music, Physical Education and Technology.

CONCLUSION

There is a paucity of studies comparing Family and Consumer Sciences/Home Economics secondary programs in the United States and Republic of Korea. Findings from this study indicate that a follow-up empirical study be conducted. Also, work on building relationships between FCS professionals would enhance learning for all.

IP_0708	Development of a Guide Book for Learning Japanese Life Culture	
First Author (Main Author)	Yoko Ito (Chiba University)	Japan
Co-Author(s)	Miho Kawamura (Saitama University) Akiko Ueno (Kinjo Gakuin University)	
Presenting Author	Yoko Ito (Chiba University)	Japan

AIM

There are an increasing number of children with non-Japanese cultural backgrounds or heritage in Japan. They have been facing educational problems. They need not only Japanese language instruction but also facilitation for understanding culture and life in Japan. "Kateika (Japanese Home Economics)" is a compulsory subject at the elementary and secondary school levels in Japan. This enables students to acquire fundamental knowledge and skills for living in Japan. "Kateika" also helps students cultivate values to respect culture of everyday life. The purpose of this research is to develop a guide book for students with non-Japanese cultural backgrounds or heritage who are living in Japan.

METHOD

At first, the framework for the guide book was made on the basis of data about students with non-Japanese cultural backgrounds or heritage, as well as the current Kateika textbooks contents. The data was gathered concerning what and when they had felt difficulties at school and home. Secondly, after a tentative guide book was written and screened by those students and graduates, the final print of the guide book was created.

FINDINGS AND CONCLUSIONS

The contents of the guide book are as follows:

Food and Cooking

1. Japanese traditional food culture
2. Using kitchen tools and cooking stove
3. Preparing rice and miso soup
4. Nutrition and meal planning

Clothing

1. Traditional Japanese clothing
2. Basic sewing
3. Clothing for warm and cold seasons
4. Clothing maintenance and washing

Housing

1. Traditional Japanese housing
2. Home maintenance
3. Home safety

Family life

1. Characteristics of modern families in Japan
2. Annual cultural events

Consumer skills

1. Universal designs and signs
2. Clothing labels
3. Consumption and environment

The effectiveness of the guide book was proved by interviewing non-Japanese children. How to use this guide book beneficially will be discussed continuously for future improvement.

IP_0621	Comparison between Bento Competition in Japan and Food Fight Competition in Denmark for Junior High School Students: Focused on Differences and Similarities	
First Author (Main Author)	Miho Kawamura (Saitama University)	Japan
Co-Author(s)	Jacob Cristensen (Aarhus University)	
Presenting Author	Miho Kawamura (Saitama University)	Japan

AIM

For a healthy life it is necessary to choose and buy everyday groceries through understanding foods and how to cook them. This ability is recognized as 'Food literacy'. Food literacy has been identified in many countries in the world, and there is a consensus that food literacy education is important for all students in school.

Many programs for food literacy education have been proposed. However, in these programs, little attention has been paid to the relationship between food literacy education and the country's culture. We should think how to use cooking knowledge with food literacy in daily life. This will lead to a theory that will be useful in making programs of cooking and food literacy education.

This study aims to compare the Bento Competition with the Food Fight competition and to analyze differences and similarities. What influences do the differences and similarities implicate? This question is the main epistemological interest of this study.

METHOD

The authors compare both competitions guidelines and criteria through tables. 13 categories are observed and compared, and the authors discuss observations for each competition.

RESULTS AND DISCUSSION

There are some differences and similarities between the Bento Competition and the Food Fight. The overall goals of improving students' daily life in the Bento Competition is the same as in the Food Fight. However the didactical approach of the Bento Competition to realize the goal is different from the didactical approach of the Food Fight. The Bento Competition fosters independence, and the Food Fight fosters innovation and experimentation. Each approach depends on its culture. For example, the Bento Competition approach is based on respects for skills by Japanese. The element of competition helps to motivate students.

IF_0082	Home Economics Education for the Palestinian Refugees at UNRWA School in Hashemite Kingdom of Jordan	
First Author (Main Author)	Tetsuya Danno (Otsuma Women's University)	Japan
Co-Author(s)	Akiko Suzuki (Hiroshima University)	
Presenting Author	Tetsuya Danno (Otsuma Women's University)	Japan

AIM

After the foundation of State of Israel, people fled from their residential places and became the Palestinian refugees. Nowadays children of the Palestinian refugees are taking education according to the educational system of the host countries. Jordan accepts the largest number of Palestinian refugees over 2 million, and there are 173 schools with 110 thousand pupils studying under the management of UNRWA (The United Nations Relief and Works Agency for Palestine Refugees in the Near East). This paper focused home economics education at UNRWA school in Amman, Jordan, including an observation of class room and analyses of the contents of the textbooks for vocational education, which corresponds to the home economics for each grade. From the surveying, actual state and problems of the home economics education at UNRWA school in Jordan have been comprehended.

METHODS

One of the authors visited UNRWA Girls' Preparatory School No. 1&2 located at Amman New Camp in March 2013, and observed a class room of the vocational education at 9th grade with the unit of the practical project for patching and applique. Thereafter a brief interview was carried

out with teachers for the vocational education about the actual problem they are daily issued. Finally tables of contents of the textbook for the whole grades were analyzed by translating the Arabic language into English followed by Pareto analysis. Some kinds of documents, e.g., a progress chart of the daily class and an evaluation sheet were also analyzed after English translation.

RESULTS

Up to the 10th grade after the enrollment, pupils study a variety of field of the home economics, e.g., public health, national life, home electronics, primary repair of home machines, agriculture, environmental conservation, customer-care program, tourism, etc. Class management was well established with the schedule sheet or the evaluation sheet for each pupil. From the Pareto analysis of the tables of contents of the textbooks, teaching units for the health and hygiene, home electronics and home machinery, and food and nutritional science are most frequently taught in the preparatory school.

CONCLUSION

Home economics education is moderately well carried out at UNRWA school in Jordan as the vocational education. Detailed results and discussion will be argued in the proceedings and at the presentation.

IP_1104	Home Economics in the Caribbean 2016 and Beyond	
First Author (Main Author)	Geraldene Hodelin (IFHE)	Jamaica
Co-Author(s)		
Presenting Author	Geraldene Hodelin (IFHE)	Jamaica

AIM

The Caribbean Examinations Council (CXC) has recently revised the Home Economics curriculum used in secondary schools. The aim of this research is to elicit the points of view of leading Caribbean Home Economists on the discipline as taught in Caribbean schools and based on the stated objectives, content coverage; career preparation, personal and emerging needs for family education in this curriculum.

METHODS

A simple survey using a short open ended questionnaire gives each respondents ample opportunities to reflect on and share their understanding and concerns about the new curriculum guide. Thirty five respondents from across the Caribbean that are deemed to be leaders in the field because they are educated in the discipline; they also interface with the home economics curriculum at the tertiary and secondary levels where home economics is taught in the region. As teachers, school administrators and consultants to the CXC with responsibilities for assessing students' performance in the regional examination, the respondents are most influential in the management of the home economics curriculum in the Caribbean. Qualitative data will be collated and analyzed for themes. Simple counts and averages will be applied where appropriate. Direct quotes will be used to add depth of understanding the emerging themes.

RESULTS

Key themes based on the information gleaned will be highlighted as significant issues impacting the teaching of home economics in the Caribbean. Adequacy of the curriculum to meet the emerging needs of the Caribbean family will be highlighted as well as views of the new curriculum fulfilling high school graduates' employability needs will be presented.

CONCLUSION

The results will inform the examination focus and possible review of the Home Economics Curriculum used in Caribbean Schools. This curriculum revisit will advance any adjustment to the under developed objectives and content of the new curriculum.

IP_1063	Linking Home Economics and Science Curricula in Three Nordic Countries - Possibilities for Integration and Dialogue	
First Author (Main Author)	Erik Fooladi (Volda University College)	Norway
Co-Author(s)	Janni Vanhanen (University of Helsinki) Maiju Tuomisto (University of Helsinki) Maija Aksela (University of Helsinki)	
Presenting Author	Erik Fooladi (Volda University College)	Norway

AIM

Home economics is an integrative discipline providing numerous possibilities for interdisciplinary teaching and learning. Furthermore, food and cooking, due to their universal and multifaceted nature, provide relevant contexts for teaching and learning across school subjects. Within science education, major challenges are lack of experienced relevance amongst students, and their difficulties in transferring learnt knowledge to real life situations. To overcome these challenges, "science for all"- and humanistic perspectives, as well as context-based approaches have been suggested. Herein, we study to which degree home economics and science/chemistry in three Nordic countries have curricular support for interdisciplinary teaching, allowing for such "science for all"- and context-based teaching. Our main research question is thus: When food and cooking is used as context, which possibilities for interdisciplinary teaching are supported by Nordic curricula in home economics and science/chemistry?

METHODS

A quantitative document analysis was conducted of lower secondary school home economics and science/chemistry curricula from three Nordic countries: Finland, Norway and Sweden. Although curricular overlap between these subjects is obvious in some areas, e.g. health and nutrition, we were particularly interested in food and cooking as interdisciplinary learning context. Thus, home economics curricula were coded for instances of natural science, chemistry and "nature of science and multiliteracy". Conversely, science/chemistry curricula were coded for instances of food/cooking as well as "nature of home economics and multiliteracy".

RESULTS AND CONCLUSION

The results indicate a considerable potential for the two subjects to benefit from each other. Not surprisingly, home economics draws important parts of its content from science, but the results herein show that there are also numerous possibilities for science/chemistry to draw on home economics, particularly food and cooking as context for science teaching. This sheds light on possibilities for innovative education; how home economics might benefit from a scientific perspective on cooking and how science education may benefit from being acquainted with content and contexts provided by home economics. However, epistemic differences in the two disciplines must be taken into account to understand how ways of thinking/working in science and craftsmanship knowledge in home economics can be beneficial as well as challenging in such collaboration. Examples are given, and possibilities and challenges are discussed.

Room 105	Building Capacities and Competencies through Education	
Chair	Jung-Hyun Chae (Korea National University of Education)	Republic of Korea
IP_1122	Read, Write, Learn: Five Content Literacy Strategies for the Family and Consumer Sciences Classroom	
First Author (Main Author)	Karen Alexander (Texas Tech University)	USA
Co-Author(s)		
Presenting Author	Karen Alexander (Texas Tech University)	USA

Many students enrolled in Family and Consumer Sciences (FCS) courses struggle with reading and writing. Comprehending written texts, for

many, results in great joy, contentment, and happiness. Further, knowing that one possesses strong literacy skills contributes to his or her hope for the future because the ability to read and write well is critical for academic and career success.

Conley (2010) argues that a student's reading ability is foundational to all other academic skill development. Essentially, if a student cannot read well, then comprehension of other subjects such as math, science, and social studies is limited. This academic skill is continually scrutinized and regularly assessed by our educational system. However, as noted by the Annie E. Casey Foundation (2015), "reading proficiency remains unacceptably low [in the United States] in an economic environment that requires increasing levels of education and skills for family sustaining jobs."

FCS teachers face two issues with content literacy. First, they are not reading teachers; however, like every other teacher in the nation, they are held accountable for student progress in FCS content and all academic areas including literacy. Second, a wide range of students including those who are reading below grade level enroll in FCS courses. Therefore, FCS teachers are confronted with varying reading levels within one class and often receive little to no training on how to integrate reading in the classroom.

The aim of this presentation is to provide five research-based strategies that can be easily integrated in the FCS classroom to build content literacy skills of students. These strategies have been the focus of numerous professional development trainings for FCS teachers provided by this author. The five strategies cover the reading process (pre-reading, during-reading, and post-reading stages) and the writing process. The five strategies include:

- Anticipation Guide
- Cubing
- ReQuest
- GIST Summarization
- RAFTS

IP_0280	Competencies of Thai Food Entrepreneur in Creative Economy Era	
First Author (Main Author)	Narumon Saratapun (Kasetsart University)	Thailand
Co-Author(s)	Suwimon Ukraisa Shipesumon Rungsayathon	
Presenting Author	Narumon Saratapun (Kasetsart University)	Thailand

AIM

One of cultural heritage of the creative economy of Thailand is Thai food which Thai indigenous knowledge. Thai dishes reflected the culture, environment, ingenuity and values, therefore, Thai cuisine is one of the most popular cuisine in the world. The objective of this research was to investigate the competencies of Thai food entrepreneur in creative economy era.

METHODS

Combined research method was the approach of this research. Quantitative data, collected from 33 Thai food course lectures, 24 Thai food entrepreneurs and 18 Thais who work in Thai restaurant, using a questionnaire, were analyzed to acquire percentage and mean. Qualitative data, collected from 5 Thai food course lectures, 5 Thai food entrepreneurs, using a semi-structure interview form, were analyzed by content analysis.

RESULTS

The finding found that the competencies of Thai food entrepreneur in creative economy era consisted of four aspects: 1)The knowledge of fundamental Thai food and the history of traditional Thai food. 2) Entrepreneur aspects which emphasize on patience, intention, management skills, self-responsibility, awareness to others and environment. 3) Creative thinking skills especially observation skill and divergent thinking and 4) Specific skills which emphasize on Thai food cooking skills, information communication technology skills and team work skills.

CONCLUSION

The recommendation of this study were Thai food entrepreneur in creative economy era curriculum should consist of fundamental Thai food knowledge, entrepreneur, creative thinking skill and specific skill.

IP_1103	Utilizing Household Competencies and Business Family Roots When Educating Higher Education Students for Entrepreneurship	
First Author (Main Author)	Tarja Römer-Paakkanen (Haaga-Helia University of Applied Sciences)	Finland
Co-Author(s)		
Presenting Author	Tarja Römer-Paakkanen (Haaga-Helia University of Applied Sciences)	Finland

The goal in entrepreneurship education is to provide the students with tools that enable realistic self-evaluations and that help them to recognize their own strengths and competencies. The students should also be trained to learn to recognize the opportunities that their family background and their family businesses can provide them.

The growth to entrepreneurship stems from a long process of learning in different environments and the students create their personal learning environment in the triangulation process of socialization, education and different experiences in different fields of life. In this process family gives them the values and some core competencies that are necessary for managing household and one's private economy. Those competencies are close to skills that are also important for entrepreneurs and in business life. The studies at higher education institutions and the early experiences in the work life help the students to understand the structures and some realities in the society and business life. And the passion to do, work and study frequently comes from their hobbies.

Home and family, school and free-time activities are the core components that influence pre-understanding of the students as they start planning their studies and career. The theoretical studies and practical exercises with the supervision of teachers, entrepreneurs and other experts form a process where the students' understanding grows. The process can lead to internal entrepreneurship, external entrepreneurship and entrepreneurial orientation. In this process the students can utilize the skills that they have learned in their business family and household. Neither the educators nor the students or other family members are still not aware of this potential that the students coming from business families already have as they start their studies and their journey toward entrepreneurship.

The results of this study can be implemented when developing entrepreneurship education.

IP_0986	The Formation of Attitudes toward Family and Home Life among Japanese and Korean High School Students in Home Economics Education	
First Author (Main Author)	Hyojung Jung (Shinshu University)	Japan
Co-Author(s)	Midori Otake (Tokyo Gakugei University)	
Presenting Author	Hyojung Jung (Shinshu University)	Japan

AIM

Currently, in Japan and Korea, family characteristics and values are undergoing diversification. This is thought to affect students' attitudes about family and home life. Accordingly, it is necessary to incorporate this situation into the teaching of home economics, in which students study the family and home life.

This research paper seeks to clarify the differences in attitudes toward family and home life among students in both countries in their study of home economics.

METHOD

From July to October 2015, a questionnaire survey was administered to 309 Korean (152 male, 156 female) and 405 Japanese (181 male, 224 female) high school students.

RESULTS

Stereotypical attitudes toward gendered division of labor were stronger among male students compared to female students in both countries,

and stronger in Japan than in Korea for both genders. Regarding attitudes toward marital functions, it was clear that in both countries, female students attached importance to family functions, whereas male students attached importance to social valuation by marriage.

In Korea, the most memorable part of home economics for male students was sex education, whereas for female students, it was spouse selection, pregnancy, and childbirth. In Japan, the most memorable aspects for both genders related to post-marital tasks, such as child development and childcare.

Our research on educational curricula and teachers' guidance indicated that teaching in Korea emphasizes marital functions, whereas in Japan, the emphasis is on childcare, and the aforementioned results are related to these findings.

IP_0697	Challenges for Developing Global Citizenship through Home Economics Education in Japan	
First Author (Main Author)	Akiko Ueno (Kinjo Gakuin University)	Japan
Co-Author(s)	Yoko Ito (Chiba University) Hiromi Hoshino (Tokoha University)	
Presenting Author	Akiko Ueno (Kinjo Gakuin University)	Japan

AIM

Over the past 10 years, Japan has kept on breaking its own record for the highest numbers of non-Japanese working in Japan. Those workers bring their families and making new families in Japan. This results in more and more children who do not have Japanese as their mother language. Since Home Economics (HEc) education includes teaching culture of everyday life, we understand that HEc education can actively take an important role to instruct global citizenship where students understand and appreciate other cultures as well as their own. Therefore, the purpose of this research project was to clarify what kind of challenges we have for developing global citizenship through Home Economics Education in Japan.

METHODS

In accordance of the course of study in Japan, the concept of living harmoniously in local society needs to be taught in junior high school HEc. In order to find current difficulties for teaching cultural diversity for global citizenship, we interviewed 6 junior high school HEc teachers who had taught HEc to students with non-Japanese cultural backgrounds or heritage.

FINDINGS AND CONCLUSIONS

The students with non-Japanese cultural backgrounds or heritage, the interviewed HEc teachers taught, were from various countries such as Brazil, China, Philippines, etc. It was found that the teachers were giving those students extra individual instructions during and after class so that they could understand what was being taught in class. Those students still sometimes had difficulties in class. For example, they could not prepare sewing tools and bring them to their class. The teachers also recognized that those students were enthusiastic, especially in cooking labs, and desired to have lessons where those students could introduce their cultural foods and clothing to Japanese students. However, they were not able to do such lessons due to the limited class hours.

IP_1412	Implementing Lesson-Planning Tools of Family Welfare Science Course to Enhance Problem-Solving Skills of Students of Home-Economics Education	
First Author (Main Author)	Luthfiah Nurlaela (Universitas Negeri Surabaya)	Indonesia
Co-Author(s)	Ita Fatchur Romadhoni (Universitas Negeri Surabaya)	
Presenting Author	Luthfiah Nurlaela (Universitas Negeri Surabaya)	Indonesia

The main purpose of education is to help students learn in a way that allows them to use what they have learned in solving problems in new situations. Problem solving is the basis for education; therefore lecturers are expected to develop students' ability to solve problems. The study

aimed to describe: (1) the workability of the course plan of Family Welfare Science applying learning models for solving problems, (2) students activity during the learning, and (3) the problem solving skills after the learning process. The study employed descriptive method. What to implement in the study were therefore the lesson-planning tools to boost the problem solving skills of students. It was conducted at the Department of Pendidikan Kesejahteraan Keluarga, Universitas Negeri Surabaya (PKK-Unesa), with 67 students participated in the study. The research instruments included course plan workability sheet, observation sheet of learning activities, and test. The collected data were analyzed using descriptive qualitative and quantitative analyses.

The results showed: (1) all learning activities in the course plan were implemented and categorized as "very good", except the student presentations fit into the category of "good", (2) the student activities included team-working, contributing ideas, being responsible, and caring were increased by N-gains: .70; .67; .58; and .65, and (3) the implementation of the tools could enhance the problem solving skills of students that involved understanding the problem, planning how to solve problems, planning to implement problem-solving, and reflecting on the results of solving the problem with the N-gains: .764; .627; .580; .707. The conclusion is that the adoption of the lesson-planning tools can improve the problem solving skills of students.

Room 106	Food and Technology	
Chair	Tony Worsley (Deakin University)	Australia
IP_0182	Opuntia Mucilage as Jelling Agent in Marshmallows	
First Author (Main Author)	Carina Bothma (University of the Free State)	South Africa
Co-Author(s)	Liezl du Toit (University of the Free State) Maryna de Wit (University of the Free State) Arnold Hugo (University of the Free State)	
Presenting Author	Carina Bothma (University of the Free State)	South Africa

AIM

The aim of the study was to compare the gelling abilities of mucilage from cactus pear cladodes to that of gelatine, by combining it with other hydrocolloids, in the making of marshmallows.

METHODS

Ten different formulations were prepared: control (100% gelatine); 75% mucilage + 25% xanthan (MX); 75% mucilage + 25% agar-agar (MA); 75% mucilage + 25% guar (MG); 80% mucilage + 20% xanthan (8M2X); 80% mucilage + 20% agar-agar (8M2A); 80% mucilage + 20% guar (8M2G); 75% mucilage + 12.5% xanthan + 12.5% agar-agar (MXA); 75% mucilage + 12.5% xanthan + 12.5% guar (MXG); and 75% mucilage + 12.5% agar-agar + 12.5% guar (MAG). Marshmallows were prepared and the following analysis were done: line spread tests, penetrometer readings (both flat and cone), percentages sag and Warner Bratzler Shear measurements; colour (a*-, b*- and L*-values) and water activities. The best formulation was compared to commercially available marshmallows in South Africa.

RESULTS

There were significant ($p < 0.001$) differences between the different experimental samples for all measurements. The best replacement for gelatine, in marshmallows, was found to be the 75% mucilage + 12.5% xanthan + 12.5% agar-agar (MXA) combination, as it only differed significantly from the control (100% gelatine) sample in regard to toughness, as measured by the Warner Bratzler Shear. It was significantly ($p < 0.001$) tougher than all the other experimental formulations and resembled the toughness of commercially available marshmallows in South Africa. When compared to four of these commercially available white marshmallows, the MXA sample had the lowest shear and L* -values. It compared very well to 'Manhattan' white marshmallows in regard to a*-values, % sag and penetrometer measurements with the cone attachment. It had the highest water activity value; however, it was still in the range of an intermediate moisture food, making it microbiologically safe.

CONCLUSION

It was found that in combination with xanthan and agar, cactus pear mucilage formed a gel which imparted desirable characteristics to marshmallows.

IP_0787	There Is Mucilage in My Marshmallows... Say What?!	
First Author (Main Author)	Liezl du Toit (University of the Free State)	South Africa
Co-Author(s)	Carina Bothma (University of the Free State) Maryna de Wit (University of the Free State) Arnold Hugo (University of the Free State)	
Presenting Author	Liezl du Toit (University of the Free State)	South Africa

AIM

The AIM of this study was to determine consumer acceptability of marshmallows made with wet mucilage, by combining it with other hydrocolloids, in the making of marshmallows.

MATERIALS AND METHODS

One hundred regular consumers of marshmallows tasted the following six samples: white commercial (Manhattan); white homemade (gelatine); white mucilage (75% mucilage + 12.5% agar + 12.5% xanthan); pink commercial (Manhattan); pink homemade (gelatine); pink mucilage (75% mucilage + 12.5% agar + 12.5% xanthan). The pink samples were flavoured with strawberry essence. Consumer liking was tested for taste, aftertaste, texture and overall acceptability, by using a nine-point hedonic scale.

RESULTS

The white mucilage marshmallows had the lowest score for taste, aftertaste, texture and overall acceptability and differed significantly ($p < 0.001$) from all the other samples. However, the pink mucilage marshmallows did not differ from the pink commercial marshmallow (which had the highest scores for taste, aftertaste, texture and overall acceptability), and pink control marshmallow. The differences between the white mucilage marshmallow and pink mucilage marshmallow ranged between 2.75 and 2.89 on the hedonic scale.

CONCLUSION

It was concluded that flavouring successfully masked the distinctive taste and aftertaste of the mucilage in the marshmallows, thereby also increasing scores for texture and overall acceptability.

IP_0860	How Do to Research Cooking at Home as Everyday Foodwork?	
First Author (Main Author)	Kaisa Torkkeli (IFHE)	Finland
Co-Author(s)		
Presenting Author	Kaisa Torkkeli (IFHE)	Finland

Cooking is a part of daily life in almost every home and a central topic of home economics science. Food can be prepared at home in many different ways: sometimes food is just microwaved, and occasionally a whole day is spent in the kitchen. These different styles tell not just about skills or motivation. Everyday food is rather prepared in a particular material and social environment and is suitable for a prevailing situation. Therefore different cooking practices connect rather to the experience of happiness.

Thus it is relevant to ask, how the person responsible for cooking makes the action suitable for her or him and simultaneously survives the demands of environment. How do families with children manage to prepare daily food, if both parents are working outside the home? Where, how and who decides, "What is cooked today"? What practices are related to foodwork?

These questions are part of my home economics science research aiming at a doctoral thesis. In the research, everyday life is understood as a process, a continuous interaction in the social and material environment. Thus domestic cooking cannot be seen only as an individual action in a home context. Food preparation is not just cooking. It includes planning, shopping, co-operation with others and interaction with the material world.

The presentation at the IFHE World Congress is based on the first part of the qualitative research about foodwork. To attain a holistic view of foodwork in situational everyday life, it is important to observe activity as it happens. Therefore an empirical data is recorded with a video camera which is attached to temple at eye level. The first empirical data is collected from the researcher's own daily foodwork. This autoethnographical research gives an opportunity to develop both a methodology of the research and the theoretical background.

IP_1180	Collection, Identification and Analysis of Non-Alcoholic Drinks in Cape Coast	
First Author (Main Author)	Sarah Dartkwa (University of Cape Coast)	Ghana
Co-Author(s)	Thelma Dasoberi (University of Cape Coast)	
Presenting Author	Sarah Dartkwa (University of Cape Coast)	Ghana

INTRODUCTION

Non-alcoholic drinks form part of the daily diets of families and include juices, sodas, milk, tea, coffee and energy drinks. These drinks provide some health benefits from antioxidants, nutrition and vitamins which help prevent heart diseases, cancer and diabetes. On the contrary, the sugars, calories and caffeine they contain can be detrimental to health in high doses. The study aimed at identifying the health impacts of the numerous non-alcoholic drinks sold in the Cape Coast Metropolis.

METHOD

Non-alcoholic drinks were collected from ten purposively selected supermarkets, and grouped into six (malt, carbonated, non-carbonated, fruit juices, locally manufactured drinks and others). Ph, titratable acidity, percent acid and total sugars of drinks were determined and Plate Count Agar method (PCA) was used to identify possible microorganisms in locally manufactured fruit juices. Other microbiological analyses for determining yeast, mold, E. coli and coliform loads were also carried out.

RESULTS

A total of 25 juice samples were examined microbiologically. Numerous microbial species including bacterial, yeast and mold isolates were isolated from locally manufactured fruit juices. Yeasts and molds caused spoilage in the juices. Aspergillus species were observed in most juice samples. Escherichia coli were detected in few samples while Salmonella were absent.

DISCUSSION

The presence of these pathogens have negative implications on health and are potential hazards to public health. These pathogenic microorganisms are a clear indication of food borne outbreaks and the high sugars associated with probable increase in diabetes and cancer which are on the rise in the metropolis in recent times.

CONCLUSION

Families need to be cautious of non-alcoholic drinks they patronize so as not to be blinded by the nutrition aspect and end up with the negative health impacts these drinks offer.

Room 107	Biochemical Effect of Food Components	
Chair	Jae Eun Shim (Daejeon University)	Republic of Korea
IP_0023	The Effects of Taurine on Plasma Glucose Concentration and the Active Glucose Transport in the Small Intestine	
First Author (Main Author)	Yo Tsuchiya (Tohoku Women's College)	Japan
Co-Author(s)	Koichi Kawamata (Tohoku Seikatsu Bunka University)	
Presenting Author	Yo Tsuchiya (Tohoku Women's College)	Japan

AIM

Taurine is a free beta-amino compound and a normal component of the human diet. Especially mollusks, major materials of seafood, contain large amount of taurine to maintain osmolarity in those body. Taurine has many important physiological roles in mammalian systems, including anti-oxidation, membrane stabilization, neuro inhibition, and cardiovascular functions. Taurine is also known to lower blood glucose levels and improve hyperglycemia. However its effects on glucose transport in the small intestine have not yet been investigated. In the present study, we elucidated the effect of taurine on glucose absorption in the small intestine.

METHODS

For the oral glucose tolerance test (OGTT), glucose solution (2 g/kg) with or without taurine was orally administrated via a gastric tube in a single time. To perform portal blood sampling, we inserted a polyethylene tube in the rat portal vein. To measure the value of the active glucose transport in the small intestine, the everted sacs were prepared from rat jejunums.

RESULTS

In OGTT, addition of 10 mM taurine suppressed the increase of the hepatic portal glucose concentrations. To investigate whether that suppressive effect of taurine is occurred via down-regulation of active glucose transport in the small intestine, we performed the assay using the everted sac of the rat jejunum. Addition of taurine to the mucosal side of the jejunum suppressed active glucose transport via sodium-glucose cotransporter 1 (SGLT1). After elimination of the chloride ion from the mucosal solution in the experiment using the everted sac, taurine did not show suppressive effects on active glucose transport.

CONCLUSION

These results suggest that taurine suppressed the increase of the hepatic portal glucose concentrations via the suppression of SGLT1 activity in the rat jejunum depending on the chloride ion.

IP_0681	Effects of Cooked Pumpkins, a Functional Foods as Hypoglycemic and Hypolipidemic Factors on Diabetic Rats	
First Author (Main Author)	Tesby Lotfy (Faculty of Specific Education)	Egypt
Co-Author(s)	Marwa Mahfouz (Faculty of Specific Education-Home Economics) Mohammed Youssef (Faculty of Agriculture)	
Presenting Author	Tesby Lotfy (Faculty of Specific Education)	Egypt

This study aimed to evaluate the hypoglycemic and hypolipidemic effects of functional foods made from pumpkins on diabetic rats. Three treatments were used (boiling, stir frying and roasting). Seventy rats were randomized into 7 groups each consisted of 10 rats as follows: Group 1: normal control, group 2: diabetic control, group 3: diabetics fed on pumpkins powder (2g/kg), group 4: diabetics fed on fried pumpkins (2g/kg), group 5: diabetics fed on roasted pumpkins (2g/kg), group 6: diabetics fed on boiling pumpkins(soup) and group 7: diabetic treated with

glibenclamide (2g/kg), as a positive control. The rats were made diabetic by alloxan and were fed for 4 weeks on daily basis. Blood samples were collected following the experiment. Pancreatic specimens were also collected for histological analysis. Glucose, total lipid (TL), cholesterol, triglycerides (TG), low density lipoprotein (LDL), and very low density lipoprotein (VLDL) were found to increase significantly, while insulin and high density lipoprotein (HDL) decreased in diabetic rats as compared to the normal control group ($P \leq 0.05$). Treatment with cooked pumpkins (soup, fried and roasting) of diabetic rats caused significant decrease in glucose, TL, TG, LDL, VLDL, and cholesterol, while increase in insulin and HDL compared to diabetic group ($p \leq 0.05$). Pumpkins soup due to its higher fiber content was found to be superior in lowering glucose and elevating insulin of the diabetic rats. Histological analysis also revealed a significant increase in the diameter and number of Langerhans islets in rats fed on pumpkins, which further confirmed the latter findings. Consequently, cooked pumpkins might be beneficial in diabetic patients, and it can be utilized as hypoglycemic and hypolipidemic food.

Key words: pumpkins, functional foods, hypoglycemic, hypolipidemic

IP_1340	Effects of Actinidia Pectin on the Expression of M-AchR/ β -arrestin and Filament Mechanism of G-actin/F-actin in the Intestinal Cells	
First Author (Main Author)	Bang-Quan Jin (Nanjing Normal University)	China
Co-Author(s)	Sha-Sha Zhao (Nanjing Normal University) Yan-Qiang Xin (Nanjing Normal University) Zhi-Min Yin (Nanjing Normal University) Ya-Dong Li (Nanjing Normal University)	
Presenting Author	Bang-Quan Jin (Nanjing Normal University)	China

BACKGROUND

Acetylcholine M receptor (M-AchR) is a membrane receptor on the intestinal epithelium or smooth muscle cell (SMC), belongs to super family member of G protein coupled receptors (GPCRs). As acetylcholine (Ach) or similar materials stimulating, M-AchR binds with β -arrestin to mediate GPCRs chain reaction, initiate downstream signal transduction and increase in intracellular $[Ca^{2+}]$, lead to specific physiological phenomena, such as intestinal fluid secretion and intestinal peristalsis speed.

OBJECTIVES

In this research, actinidia pectin (AP) was studied to how influent on the expression of M-AchR/ β -arrestin and filament mechanism of G-actin/ F-actin in the intestinal cells.

MATERIALS AND METHODS

Caco-2, DLD-1 and mice smooth muscle cell were cultured respectively, used to observe M-AchR endocytosis and its protein expression, intracellular $[Ca^{2+}]$ changes with actin filament sliding and skeletal contraction.

RESULTS

20 μ M AP could induce M-AchR endocytosis with the increase of intracellular $[Ca^{2+}]$, because of β -arrestin1/2 action. While G-actin/ F-actin coupled and led to actin filament, the length of SMC was shortened by 20-30% significantly ($p < 0.05$). In the future, M-AchR protein on membrane was less 35%-65% ($p < 0.05$) significantly and transported into cell.

CONCLUSION

When AP binds to the GPCRs downstream signaling molecule, it produces a non dependent signal transduction, lead to M-AchR endocytosis and the selective activation of downstream signal, as β -arrestin1/2 and G-actin/ F-actin. AP maybe is as incomplete preference ligand and used to give a new bio-function for human health.

IP_0035	Nutritional Evaluation of Weaning Food Produced from a Combination of Rice, Sorghum and Corn Flour	
First Author (Main Author)	Patricia Mbah (Michael Okpara University of Agriculture Umudike)	Nigeria
Co-Author(s)	L.I. Salami (University of Benin) Ozioma C. Azubuikwe (Michael Okpara University of Agriculture Umudike) Chidindu Kalu (Michael Okpara University of Agriculture Umudike)	
Presenting Author	Patricia Mbah (Michael Okpara University of Agriculture Umudike)	Nigeria

The use of rice, maize and sorghum flour blends in the formulation of economically high nutritive weaning diet were studied. The weaning food samples were analyzed for their nutritional, functional and sensory properties in 3 proportionate ratios of 60% rice:20% maize:20% sorghum (diet I); 50% rice:25% maize:25% sorghum (diet II) and 40% rice:30% maize:30% sorghum (diet III). The nutritional composition of the samples were compared with a known commercial infant compounded weaning formula (Nutrend). The result in nutrient composition were not highly significant except in protein content. The results showed that the carbohydrate content increased with increasing inclusion of rice flour from the local formulated samples. The functional properties of the samples showed an increase in the swelling index and water absorption capacity from diet I to diet III while bulk densities were relatively constant in all samples. The organoleptic evaluation showed that all the samples were well accepted by the judges in terms of taste, aroma and consistency. The results of the proximate composition showed that there was no significance difference in the protein contents of the local weaning food samples but lower than control. The result indicates that diet III has the lowest moisture content, therefore will have high storage stability. The carbohydrate contents amongst the samples that have low fat contents were high. The findings showed that there is high level of carbohydrate and low fat contents amongst the samples. It is therefore recommended that adding up to 10% protein to the local weaning food by including soya bean products, legumes and or pulses will enhance its nutritional composition.

Key Words: Evaluation, Weaning, Diet, flour, blends.

Room 108	Fuctional Clothing	
Chair	Ela Dedhia (University of Mumbai)	India
IF_0175	The Relationship between Muscular Activities and Sensory Tests When Wearing Jackets: Analyses by Each Activity of Daily Living	
First Author (Main Author)	Kaori Murakami (Hiroshima University)	Japan
Co-Author(s)	Tomoe Masuda (Mie University)	
Presenting Author	Kaori Murakami (Hiroshima University)	Japan

AIM

University students regularly wear jackets when interviewing for jobs and when they practice teach as student teachers in Japan. However, they feel uncomfortable in particular because they are not used to the tight fit of the jackets. It is necessary to study the level of comfort when wearing jackets.

METHODS

We researched how comfortable wearing jackets was for some activities of daily living (ADL) by means of questionnaire surveys. Experiments to measure muscular activities were also carried out by electromyogram (EMG) when wearing jackets. Wear comfort was analyzed based on the results of the research and experiments. Two hundred university students participated in a survey.

RESULTS

The restriction of each ADL was evaluated by the sensory tests for eleven regions of the bodies using a five-point system on a survey. Respondents felt major constriction when they held the strap on the train and the bus, crossed their hands behind their heads, and raised their hands up above their heads. In the case of male respondents, those with a well-developed muscular body felt more constrained than those with a non-developed muscular body. In the case of the female respondents, many of them were used to wearing size M; however, they frequently wore smaller sized clothing. The EMG of the deltoid muscles and the latissimus dorsi muscles of some students recorded findings for the restriction of each ADL when wearing a jacket. In the EMG, the contraction by male students with a well-developed muscular body was remarkable. In particular, the muscular activities of the deltoid muscles showed some marked increases. The muscular activities of the deltoid muscles in female students' wearing smaller sized jackets had more remarkable increases than when wearing their usual size.

CONCLUSION

It was effective that wear comfort was analyzed based on the results of the research and experiments. There were also some difference in the relationship between the results of the research and experiments.

IP_0713	Evaluation of Bellows Effect of Coins - Inserted Design of Track T-Shirt to Prevent Heat Stroke in Hot Environment	
First Author (Main Author)	Yayoi Satsumoto (Yokohama National University)	Japan
Co-Author(s)	Izumi Kikuchi (Prefectural Seya high school)	
Presenting Author	Yayoi Satsumoto (Yokohama National University)	Japan

AIM

The aim of this research is to evaluate the effectiveness of two coins inserted at the both sides of back pockets of sports T-shirt to prevent the heat stroke during exercise in the hot environment.

METHODS

The swing distances of the sports T-shirt with two coins (with coins) inserted at the both side of back were compared with one without coins (without coin) by the motion analysis (KC-1HICam-Sys) during 10km/hr running on the treadmill in the climatic chamber of the 20°C, 65%rh. The ventilation rate and the heat transfer coefficient under running of T-shirt with coins were compared one without coins by the ventilation experiments of the tracer gas method and measuring heat flux and skin temperature of breast and back.

RESULTS

The swing distance of T-shirt with coins had been amplified more greatly than that one without coins. Ventilation rate and the heat transfer coefficient of the back also increased when the coins were inserted to the back. Therefore it was confirmed that inserting the coins in the back amplified the bellows action, and it contributed to the heat transfer of clothing.

CONCLUSION

It was found that two coins inserted at the both sides of back pockets of sports T-shirt were more effective than without one to prevent the heat stroke during exercise in the hot environment.

IP_1107	Using Online Tools to Create a Global Textiles Education Network	
First Author (Main Author)	Gwendolyn Hustvedt (Texas State University)	USA
Co-Author(s)		
Presenting Author	Gwendolyn Hustvedt (Texas State University)	USA

There are only a handful of countries that include textiles education beginning at the primary level. The role of curricula in textiles, with a

focus on the fundamental of fabrication and design based problem solving, is well recognized by educators in Finland as contributing to STEM learning outcomes for all students, but especially for women. The goal of this presentation is to present a plan for building a global online learning network that focuses on textiles in order to bridge the gap in the availability, quality and objectivity of curricula that is currently scarce and not pleasingly shared. Resources from industry associations, online education sources such as the BBC and also a university based online course will be examined and additional resources solicited from Congress participants in order to further clarify those resources not currently publicly available that might be contributed to an online network. The presentation will also outline similar learning networks that provide a model for open, online learning and identify potential funding sources for IFHE members to consider for funding such an effort. Fundamentally, without providing simple, universal access to the basic science behind our field, home economists who work in the area of textiles and clothing cannot anticipate expanding our participation in the critical conversations of the future and need to explore avenues of putting familiarity with our discipline on a higher footing.

Workshop

Room 108	Through the Lens - A Profile of the Work of YPN Members of IFHE	
Chair	Amanda McCloat (St Angela' College)	Ireland
WS_1547	Through the Lens - A Profile of the Work of YPN Members of IFHE	
First Author (Main Author)	Amanda McCloat (St Angela' College)	Ireland
Co-Author(s)		
Presenting Author	Amanda McCloat (St Angela' College)	Ireland

Futureproofing the Federation and the Home Economics profession has been identified as a key strategic action for the IFHE. The engagement of young professional Home Economists is critical to the future of the Federation and the profession. This workshop profiles the varied work of the members of the Young Professional Network of IFHE. It facilitates a number of those young professionals to present on their work in Home Economics and have an opportunity to engage in critical discussion in relation to strengthening the Home Economics profession and the Federation.

Room 205	Workshop for Consumer Economics in CEEC Outreach Committee	
Chair	Leena Savisalo (IFHE)	Finland
Presenter(s)	Joanne Pearson (IFHE-US)	USA
WS_1217	Workshop for Consumer Economics in CEEC Outreach Committee	
First Author (Main Author)	Leena Savisalo (IFHE)	Finland
Co-Author(s)		
Presenting Author	Leena Savisalo (IFHE)	Finland

Workshop Title:

United Nations Hunger Challenge and Reducing Waste in the CEEC

Presenters:

Leena Savisalo, CEEC Committee Chair and 'other authors'

Key Words

United Nations, Hunger Challenge, Waste Reduction, Food Waste, CEEC

IFHE has committed its members and the students, families, organizations, and businesses with whom they work to the United Nations Zero Hunger Challenge. The goals of the challenge are five in number, with the focus of the Outreach to Central and Eastern Europe Countries (CEECC) Committee being zero loss or waste of food.

The objectives of the workshop are to:

1. Explain the five points in the United Nations Zero Hunger Challenge.
2. Present actions taking place in the CEEC regarding reducing waste, especially food waste.
3. Elicit from workshop attendees ideas of how home economists around the world can educate clients and students about ways to reduce

food waste.

Roughly one third of the food produced globally for human consumption is lost or wasted. Worldwide much of this waste occurs at the wholesale level. However, since home economists work most closely with students, households and retail markets, rather than wholesale markets, the former levels will be the focus of the presentation. Follow-up activities based upon the ideas elicited at the workshop will be the major committee actions in the coming two years.

WS_0918	Distance Support the Learning Process on a Base of E-Scenarios	
First Author (Main Author)	Tetyana Kalna-Dubinyuk (National University of Life and Environmental Sciences of Ukraine)	Ukraine
Co-Author(s)	Leena Savisalo (IFHE)	
Presenting Author	Leena Savisalo (IFHE)	Finland

One of the important areas of educational development is the use of innovative technologies to support the learning process. The aim of the study is a disclosing of peculiarities of organizing a distance learning process support on a base of e- scenarios. The main problem that must be solved was to outline the potential application of innovative technologies in distance education from the Home Economics, the formation of the learning process on a base of e- scenarios and development curriculum and program of training courses. Methods that were applied for this are economic and mathematical methods and statistical methods, and programming tools. As a result, there were developed a distance system to provide educational services to study Home Economics, with online access to the necessary training courses and information for them, the best of their curriculum, expanded and faster search capabilities for learning at any time and in any plays. Consequently organization of a distance learning process on a basis of e-scenarios become an integral part of innovative educational programs on Home Economics, will quickly choose the best options of training programs, including their development with using contemporary information, provide easy access to knowledge for everyone.

Room 206	Home Economics and Sustainability - European Perspectives	
Chair	Stefan Wahlen (Wageningen University)	Netherlands
Presenter(s)	Barbara Freytag-Leyer (Fulda University of Applied Sciences) Karin Hjalmskog (Uppsala University) Gerda Casimir (Wageningen University) Elisabeth Leicht-Eckardt (IFHE EC)	Germany Sweden Netherlands Germany

WS_0323	Home Economics and Sustainability - European Perspectives	
First Author (Main Author)	Stefan Wahlen (Wageningen University)	Netherlands
Co-Author(s)	Gerda Casimir (Wageningen University) Elisabeth Leicht-Eckardt (IFHE EC) Karin Hjalmskog (Uppsala University) Barbara Freytag-Leyer (Fulda University of Applied Sciences)	
Presenting Author	Stefan Wahlen (Wageningen University)	Netherlands

AIM

This workshop aims to highlight European perspectives on Home Economics and sustainability. We want to build up and strengthen a European agenda for the upcoming years.

METHODS

Four speakers present their views about Home Economics and sustainability and we discuss a possible convergence in a joint agenda.

RESULTS

The topics range from more abstract theoretical perspectives on sustainable development education and policy making, to more concrete contributions on food waste, time management, energy efficiency and resource management.

CONCLUSION

We finally want to scrutinize similarities and differences in the European region on sustainability in Home Economics. That will assist in setting up an agenda for the upcoming years.

WS_0688	Best Practices for Food Waste Prevention by Households	
First Author (Main Author)	Barbara Freytag-Leyer (Fulda University of Applied Sciences)	Germany
Co-Author(s)	Konstadinos Abeliotis (Harokopio University) Jasmin Geppert (Bonn University) Rainer Stamminger (Bonn University)	
Presenting Author	Barbara Freytag-Leyer (Fulda University of Applied Sciences)	Germany

Food waste is an increasingly important topic of interest due to the ethical, financial and environmental implications that it relates to. Recently, the Food and Agricultural Organization of the United Nations estimated that approximately one third of food produced for human consumption is either lost or wasted through the food supply chain, from agricultural production and post-harvest handling and storage, to processing, transportation, distribution and consumption.

Regarding the causes underlining the dynamics of food waste generation, they seem to be sector and country specific. In affluent economies, such as those in industrialised countries, post-consumer food waste accounts for the greatest part of the losses and most of the avoidable food waste fraction is derived from households. These statements are supported by a preparatory study for food waste generation in the EU-27, which reports that households produce 42% of the total amount of food waste.

The goal of this paper is the presentation of a proposal on the best practices in the household sector for food waste prevention. The content is prepared within the framework of the Programme Committee on Household Technology and Sustainability of the IFHE. Best practices are based on the review of relevant published peer-reviewed scientific literature. Recommendations for avoidable actions and best practice tips will be given.

Concurrent Session

Room 101	Rethinking the Dimensions of Home Economics Education	
Chair	Hyojung Jung (Shinshu University)	Japan
IP_1057	Relevance of Home Economics Programme to the Career Aspirations of Today's Learner	
First Author (Main Author)	Hannah Benyaba Edjah (University of Cape Coast)	Ghana
Co-Author(s)		
Presenting Author	Hannah Benyaba Edjah (University of Cape Coast)	Ghana

This research is part of a thesis research which sought to explore the issue of skill development in relation to aspirations and employability

of home economics students of the University of Cape Coast (UCC), Ghana. The home economics programme of UCC focuses on providing students chiefly with knowledge and skills that will help them function in the education sector, however, a previous study suggests that students' interest in the education sector has dwindled. Food and Nutrition students for example, are now more interested in the health sector and will thus appreciate being offered experiences that will aid them acquire skills for the health sector. As the central focus of any curriculum or its components is the learner, there is the need to ensure that programmes of study help to meet the aspirations of today's learners.

The aim of the study was therefore to investigate the nature of practical experiences provided to students, students' skill expectation as against skill acquisition and also the nature of relationship between students' top career interest and skills highly acquired through the home economics programme. The quantitative approach to survey the opinion of learners concerning nature of practical work, skill development and aspirations was utilized. The descriptive design aided in examining the difference between students' level of skill expectation and acquisition. Third and final year students totalling 140 formed the sample and data was collected using a structured questionnaire. Means, dependent t-test and Pearson's correlation were used in analysing data. One interesting finding from this study is that unlike food and nutrition students, clothing and textiles students' level of skill expectation was not met. This invariably calls for a second look at the nature of practical experience offered home economics learners in UCC.

IP_0605	Building Comprehensive Learning Space in a Culturally Responsive Manner	
First Author (Main Author)	Hille Janhonen-Abuquah (University of Helsinki)	Finland
Co-Author(s)	Leena Heino (University of Helsinki) Sirpa Tammissuo (University of Helsinki)	
Presenting Author	Hille Janhonen-Abuquah (University of Helsinki)	Finland

Culturally responsive teaching aims that learner's home and school cultures are meaningfully connected in learners' learning environment. To put the theoretical thinking into practice, an action research was conducted in a school to answer the following questions: How can culturally responsive learning environment be created within compulsory school? How could the schools benefit from the cultural knowledge and skills possessed by the learners and their families? Which kinds of tools can create learning space for culturally responsive learning?

Action research "Family at school – school at home" seeks to answer these questions. In addition to the already existing forms of parent – school interaction like meetings, on-line notebook, newsletters this intervention aimed to develop new ways for communication and sharing. The need to develop new ways for parent – teacher interaction had risen from the fact that the home and school cultures may be very different and to help the learning process of a child mutual understanding between school and home should be created. The intervention took place during one semester. Participant voice – pupil, teacher, parent, school administration - was studied in order to develop the practices further.

The theoretical framework for the study is drawn from culturally responsive education and social theory of learning. Culturally responsive education addresses the learner in a comprehensive way through multi-dimensional engagement in learning activities. As culturally responsive learning aims for change and freedom it is both transformative and emancipatory. On the other hand, social theory of learning sees learning as an experience, as doing, as belonging and as becoming. The focus is on the process of being an active participant in the practices of social communities and constructing identities in relation to these communities.

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IF_0127	Promoting Self-Reliance through the Enhancement of Creativity among Home Economics Students in Higher Education Institutions for Sustainable Development	
First Author (Main Author)	Stella Ngozi Lemchi (Alvan Ikoku Federal College of Education)	Nigeria
Co-Author(s)	Priscilla Ezema (Michael Okpara University of Agric) Catherine Ijeoma Iloeje (University of Nigeria)	
Presenting Author	Stella Ngozi Lemchi (Alvan Ikoku Federal College of Education)	Nigeria

AIM

Creativity is very crucial for individuals to achieve self-reliance for sustainable development. This study was a descriptive survey designed to determine strategies for enhancing creativity among Home Economics (HE) students in higher education institutions in Nigeria, so as to promote self-reliance. Specifically, the study ascertained the benefits of developing creativity, obstacles to enhancing creativity, activities that can stimulate creativity, and ways of promoting creativity in HE students.

METHODS

Four research questions guided the study. The population comprised 185 HE lecturers and students in higher education institutions in Imo and Abia States, South Eastern Nigeria. Questionnaire was used for data collection, while descriptive statistics (mean) was used for data analysis.

RESULTS

Result showed that benefits of developing creativity include; enhancement of skill acquisition, promotion of entrepreneurship and self-reliance among others. Result also showed that obstacles to creativity include, fear of criticism, insistence on routine ways of doing things, and lack of motivation by teachers among others. Several activities that can stimulate creativity and ways of promoting creativity were also determined.

CONCLUSION

The study concluded that there is serious need to inculcate creativity in HE students for them to succeed in entrepreneurship and be self-reliant. The study thus recommended that HE practitioners should embrace the above strategies and make deliberate efforts to foster creativity among students to enable them become self-reliant upon graduation considering the high level of unemployment in the country. The study also recommended that HE lecturers should encourage critical and divergent thinking in their students, and use more of learner centered teaching methods in teaching.

IP_1483	Contents Analysis on Safety Education in Korean Middle School	
First Author (Main Author)	Nam-Eun Kim (Busan Keoje Gilrs' Middle School)	Republic of Korea
Co-Author(s)		
Presenting Author	Nam-Eun Kim (Busan Keoje Gilrs' Middle School)	Republic of Korea

The purpose of this study was to determine how safety education contents were presented in HE(Home Economics: 'Family Life' area of 'Technology-Home Economics, textbooks at Korean middle schools. The subjects of analysis were 12 types of middle school HE textbooks: in total 24 books written by 12 publishers in terms of the revised curriculum in 2009. The analysis criteria was developed by the researcher referring to preceding studies regarding safety education based on the safety education seven-standard presented by the Ministry of Education (2015). With such analysis criteria, all words related to the contents of the safety education of analysis criteria were extracted from each textbook, such as words directly mentioned as 'safety', words mean as 'psychological safety' and 'happy life', words related to 'attention', 'note', 'stability' etc. Under the analytic frame of safety education contents according to a HE textbook, content analysis method was used for producing the frequency and percent of those words.

The results of the HE textbook analysis showed that the number of pages regarding safety education was 336.3 pages, as 9.8% in total 3,412 pages of 12 types of HE textbooks. As following results of the analysis of each HE textbook volume of the proportion in the contents related to

safety education, 224.9 pages were on the first volume and 111.9 pages were on the second volume. As levels of grade were high from year one to year three, the proportion of safety education in HE textbooks was decreased. The highest number of safety education contents unit was 'Self-management of youth' which included three parts of safety education. In the case of a unit for emphasizing practice, experience and practical exercise such as 'Life of youth' and 'Practice of eco-living', safety education content in the area of 'life safety' were mostly contained. Safety accidents related to the most student experienced, Household accidents (1.4%) and experiment or practice accidents (0.3%) were presented in a low figure. The contents of universal housing and school violence were duplicated on first and second volume of the texts. The most presented safety education contents in the 12 types of textbooks were 'sexual attitude', 'dietary problems', 'family conflict', and food choice. The least presented safety education contents were 'dangerous drugs', 'family welfare', 'internet addiction', and 'industrial accident compensation insurance'.

IP_1712	Development of Home Economics Teaching and Learning Strategies to Reinforce Protective Factor of School Violence-Focusing on the Practical Problem-Based Home Economics Instruction Using Multiple Intelligence	
First Author (Main Author)	Seong Youn Choi (Manjeong Middle School)	Republic of Korea
Co-Author(s)		
Presenting Author	Seong Youn Choi (Manjeong Middle School)	Republic of Korea

The purpose in this study was to reduce risk factors of school violence and reinforce protective factor of school violence, to reduce learner's impulsivity and aggression heightening their self-esteem and empathy and correctly to change their attitudes toward school violence through developing Home Economics teaching and learning strategies focusing on the Practical Problem-Based Home Economics instruction using multiple intelligence.

Specifically, this research has 4 objectives as follows:

1) To identify the school violence triggers by using diagnostic tests and in-depth interviews.: 2) To design the practical problem-based instruction using multiple intelligence and teaching and learning strategies for each protective factor both in teaching methods aspects and learning contents aspects. 3) To develop 29-period of lesson plans.: and 4) To evaluate the effects of the instruction, that is to say, the changes of pre-andpost-impulsivity and aggression, self-esteem and empathy and attitudes to school violence, by the paired t-test and a questionnaire after applying Home Economics lesson plans to 288 students in one high school in Gyeonggi from March 14th. to September 5th in 2014. The effect of the instruction by the paired t-test results showed that the learners' the aggression and impulsivity had been lowered, on the other hand, their empathy and self-esteem had increased. Also, learners' attitudes toward school violence had changed positively. The self-esteem in school as sub-variables of self-esteem had slightly increased, but there was no statistically significant difference.

Although students felt difficulty in the 'Explore Solution' and 'Widening Thought' process of the instruction, this instruction was effective to improve the learners' problem-solving abilities, to reduce their impulsivity through practical reasoning, to have students to practice what they've learned in the real world, and to improve their cooperation and intimacy with friends. Lastly, the high school students to take this instruction showed higher satisfaction with this instruction focusing on the Practical Problem-Based Home Economics instruction using multiple intelligence.

Room 102	Philosophy and Perspective of Home Economics Education	
Chair	Tae Myung Yoo (Ewha Womans University)	Republic of Korea
IF_0180	Home Economics Literacy - What in the World Are We Saying?	
First Author (Main Author)	Donna Pendergast (Griffith University)	Australia
Co-Author(s)		
Presenting Author	Donna Pendergast (Griffith University)	Australia

AIM

Building on previous research which presented a folksonomy of home economics (Pendergast, 2013) through the analysis of all refereed papers published in the International Journal of Home Economics, this paper presents an updated and more comprehensive analysis extended to consider the presence of the notions of hope and happiness.

METHODS

Content analysis of all publications and the application of Leximancer was employed to identify the major themes in the professional literature of the field. A specific search for the concepts of hope and happiness was also conducted using this methodology.

RESULTS

Early results suggest that a number of key themes continue to resonate in the field, and wellbeing remains one of those featured. Within wellbeing, the prevalence of 'hope' and 'happiness' is less evident. Statistical insights are shared in this presentation.

CONCLUSION

The findings suggest that the explicit connections to hope and happiness may not be evident in our field and this is a strategy for moving the profession into a sustainable position

IP_0935	Developing the Capacity of Civil Society: Philosophically Strengthening the Home Economics-Global Perspective	
First Author (Main Author)	Janine Duncan (Murray State University)	USA
Co-Author(s)		
Presenting Author	Janine Duncan (Murray State University)	USA

With the approval of the Sustainable Development Goals which emphasize the importance of civil society in securing their achievement, it becomes clear that home economics preparation must strengthen the competencies of new professionals to enhance the ability of others to work for the wellbeing of all. This might best be accomplished by integrating throughout the curricula strategies to foster a global perspective, as a means to develop the knowledge, dispositions, and appreciation for the complex, multicultural perspectives in the local and global environments. Such a global perspective is consistent with the International Federation for Home Economics position statement and the family and consumer sciences body of knowledge. The purpose of this paper is to explore how this home economics-global perspective might be informed by the interrelated philosophical perspectives of Henri Bergson and Paulo Freire, who through his critical consciousness methodology, leaned heavily on the Bergsonian notions of duration and reversal when outlining his Pedagogy of the Oppressed. Working from the premise that freedom is essential to human completion, Freire argued for structural transformation so that all could become 'beings for themselves,' and that such a transformation is made possible through developing the conscientization of the oppressed. By distinguishing between a humanistic rather than a humanitarian approach, Freire suggests a means by which the home economics-global perspective might be strengthened, permitting development of citizens capable of shaping and strengthening their own sense of community. Such a perspective would enhance

the ability of home economics professionals to support and promote a civil society capable of addressing the Sustainable Development Goals.

IP_1102	Food and Health in Light of Luhmanns' Theory of Social Systems	
First Author (Main Author)	Lilja Palovaara Søbereg (University Collage of Hedmark)	Norway
Co-Author(s)	Sølvi Thuv (Nesna University Collage)	
Presenting Author	Lilja Palovaara Søbereg (University Collage of Hedmark)	Norway

The aim of this presentation is to contemplate the way of using Luhmanns' (1995) theory of social systems in a PhD-project. The research question of the project is "How do teachers and students understand the professional pedagogical practice in teacher training education in the subject matter of "Food and health" (Home Economics) in the contemporary Norwegian society. This theory is universal and sociological, providing interesting perspectives for understanding different social phenomena in a contemporary society. Researchers in education have found this approach useful in exploring the complexity in pedagogical practices during the past decades. It also supplies tools for discussing research quality. The theory of social systems elaborates a framework for reflexively modern societies as polycentric and hyper-complex systems. It includes and combines a substantial amount of recognizable concepts from many disciplines and apply them in an unexpected and innovative manner and challenges the dichotomous thinking between the sciences and the humanities. This presentation considers term of self-producing systems of communication and concepts of structural coupling, media, code, complexity and contingency. Luhmanns' theory implies a methodological reduction in distinctions between systems and surroundings, the "guiding difference", that reduce the complexity in an investigated social phenomenon. The society's educational system is one differentiated functional social system that makes up society. The professional pedagogical practice in "Food and health" is seen as a subsystem to the educational system. It is self-referential and based on communication with other systems, observes its surroundings through specific media that are rooted in a specific code. The application of these terms can contribute to clarify the specific nature of pedagogical practices in "Food and health", philosophically, methodologically and methodically. This presentation may show how conceptual applications of Luhmann enables new observations and contribute to construct new knowledge of pedagogical practices in the subject of "Food and health".

IP_0303	Study on Value Orientations of Family Moral Education - An Analysis on Changchun of Jilin Province in China	
First Author (Main Author)	Xiao Qiang (Jilin Agricultural University)	China
Co-Author(s)	Wu Hongying (Jilin Agricultural University)	
Presenting Author	Xiao Qiang (Jilin Agricultural University)	China

AIM

Study on Value Orientations of Family moral Education

METHODS

According to the achievements of the analysis on abroad and the educational objectives for the ideological, the value orientations are classified into 3 categories: ideological education, moral education, citizen consciousness education. 837 parents in Changchun of Jilin province are chosen to participate in this study Which including the family moral education of value orientation questionnaire investigation. The questionnaires consist of 3 parts, part 1 is about the ranking towards citizen consciousness education, moral education and ideological education, and the various items under each category as per the degree of importance, part 2 is about the basic situation of moral education value orientation difference, part 3 is about the sources for the value orientation of moral education;

RESULTS

Moral Education is the most valuable value orientation for family education. The statistical data of this survey reveals that there are no significant differences for different educational background, different working places, different salary, and kids in different genders and parents in different genders. Variation analysis of 5 dimensions between parents' basic information and family education value orientation, this is the only value orientation that has no difference. Also this is the proof on explaining why parents put Moral Education on the top position in the third category. Responsibility Consciousness education is the most important value orientation that parents concern. Through the statistical data of this survey, we can see that there are significant differences for different educational background, different working places and parents with different genders. Also variation analysis of 5 dimensions between parents' basic information and family education value orientation, this is the value orientation which is one of value orientation with the most significant difference. This also tells us that, in order to improve kids' Responsibility Consciousness, parents' civic literacy matters a lot. The value orientation of family education exists in different sources. The statistical data of this survey reveals that idealistic formation on how a parent educates the kid, which is heavily affected by social environment and parents.

CONCLUSION

Suggestions are that we should follow the socialism core value. Such as some measures should be taken for leading parents pay more attention on citizen consciousness education, clearing the way to the parent-child communication.

Room 103	Professional Development in Education	
Chair	Yukiko Kudo (Yokohama National University)	Japan
IF_0137	Class Practice in Primary School about Kasanegi (Wearing Clothing in Layers) for ESD	
First Author (Main Author)	Naoe Nishihara (University of the Sacred Heart)	Japan
Co-Author(s)	Yoko Ito (Chiba University) Kyoko Ono (Hiroasaki University)	
Presenting Author	Naoe Nishihara (University of the Sacred Heart)	Japan

AIM

ESD entails including key sustainable development issues into learning and requires learning methods that empower and motivate learners to take action for sustainable development. In Japanese Kateika (Home economics education), a lot of class practices have developed for ESD. The unit named "Comfortable Clothing and Housing" in primary school "Kateika" is addressed as one of them. To stay warm and comfortable in cold winter, we usually wear clothing in layers, which is called "Kasanegi". This creates immobile layers of air between the body and clothing and between layers of clothing, which increase heat insulation. For sustainable life style and conserving energy, it is important to have knowledge and skills of comfortable and appropriate clothing. The research objectives were as follows: 1) To develop an ESD practice for wearing clothing in layers in primary school Kateika Curriculum, and 2) to assess the effectiveness of it.

METHODS

The class practice was to focus on the ways to wear their daily clothes in a comfortable manner with the scientific knowledge of the function of clothes. The scientific knowledge was addressed to think critically about the relationship between human life and environmental issue. The class practice was conducted and evaluated in the 6th grade of primary school. Students indicated their degree of agreement before and after the lesson on a five point scale.

RESULTS

Assessment of the class practice's effectiveness revealed that the students graded significantly higher score after the lesson for 'I know what 'sustainability' is', 'I know why layered clothing keeps people warm', 'I can contrive a way to stay warm in winter with energy conservation', and 'It is effective to contrive a way to make better clothing and living for sustainable future'.

CONCLUSION

The ESD practice with scientific knowledge of wearing clothing was effective on empowering the students to learn about sustainability and to improve their life style for sustainable future.

IP_0254	Building a Home Economics Competency Model in Manitoba, Canada	
First Author (Main Author)	Diana Mager (Manitoba Association of Home Economists)	Canada
Co-Author(s)		
Presenting Author	Diana Mager (Manitoba Association of Home Economists)	Canada

AIM

A multi-level competency model is being developed by the Manitoba Association of Home Economists (MAHE) to identify the skills and knowledge individuals must learn to become a home economist adequately trained in the profession. In Manitoba, The Professional Home Economists Act defines the practice of Home Economics as every act which has as its objective the discovery, integration and application of physical and social science principles for the purpose of enhancing the quality of people's lives. The competency model is being built on the vision and values of the practice of Home Economics and the role Home Economists have in increasing the well-being of individuals in relation to their physical, cultural, natural and social environments. The competency model will also support the need for foundational knowledge and skills required to teach Home Economics within the provincial school system. Home Economics teachers educate people about healthy living, building positive relationships and enhancing emotional well-being through experiential learning, meaningful communication and sustainable resource management. This knowledge encourages positive behaviour changes and strengthens fundamental skills that can help individuals live meaningful and fulfilled lives.

METHODS

A Professional Home Economists Action Team was created to develop a model defined by the three disciplines of Home Economics – Human Nutritional Sciences, Family Social Sciences and Textiles Sciences; and the requirements for Home Economics teacher education. Four team leads were established to identify competencies and proficiency levels in each of these areas. A Human Ecology Advisory Team was also established. This team consists of University of Manitoba faculty members in collaboration with the Professional Home Economists Action Team. The purpose of the Human Ecology Advisory Team is to help build new Human Ecology program requirements dependent on the identified competencies for the practice of Home Economics. Team work is based on research and curriculum reviews, workshops, interviews, and professional job requirements.

RESULTS

The competency model is in the process of being developed.

CONCLUSION

Once completed it will clearly identify the professional knowledge and skill level requirements needed to help increase people's well-being through each of the three disciplines. Increased well-being can directly impact the state of happiness people can achieve. The competency model will also provide consistency in the requirements for the practice of Home Economics which will play a crucial role in curriculum development, employment and on-going professional development.

IP_0607	Birds of a Feather Flock Together: Integration of Migrants in Group Work within Vocational Teacher Training	
First Author (Main Author)	Ursula Smaland Goth (Oslo and Akershus University College)	Norway
Co-Author(s)	Oddhild Bergsli (Oslo and Akershus University College) Else Marie Johansen (Oslo and Akershus University College)	
Presenting Author	Ursula Smaland Goth (Oslo and Akershus University College) Oddhild Bergsli (Oslo and Akershus University College)	Norway

This case study qualitatively tests a pedagogical approach to enhance skills related to cultural diversity among Norwegian university students preparing to become vocational teachers in the fields of health care and social studies. Our aim was to see if, early in their first academic year, breaking students up into small working groups that were deliberately selected to be culturally diverse would enhance integration of minority students, intercultural communication skills, and/or cultural sensitivity.

Subjects constituted the entirety of a single class of 47 students in their first two months of vocational teacher training at the University College, Oslo. Students were assigned to culturally diverse groups comprised of fellow classmates and assigned a task that required full group collaboration. We observed the class before, during group work and during the presentation of the results of each groups assigned task. Follow-up on the students continued for ten weeks. In addition we conducted a strategic literature search, and an analysis of 42 reflection notes.

Our data were analyzed in terms of: 1) learning outcomes 2) experience during the group work and 3) longitudinal results of the initial work group. Learning outcomes in mixed groups were larger than in previous years and student self-reports show that both the individual and the group as a whole benefited from diversity. We propose that emphasizing skills in managing cultural diversity at the very beginning of a student's tertiary academic career sets a standard of what is expected of students, and that students then respond positively in cultivating requisite attitudes and skills, both individually and collectively.

IP_0656	Professional Identity Development of Home Economics Teacher Students during Their Study Program	
First Author (Main Author)	Kristi Paas (Tallinn University / University of Helsinki)	Estonia
Co-Author(s)	Päivi Palojoki (University of Helsinki)	
Presenting Author	Kristi Paas (Tallinn University / University of Helsinki)	Estonia

AIM

This research project focuses on Home Economics teacher education. The aim is to find out how teacher students' professional identity develops during their studies. The preparation of Home Economics teachers is different in every country. For example, in Finland in order to become Home Economics teacher, one has to study for five years to earn a Master's degree, and subject and pedagogical studies take place concurrently in the study program. Finnish teacher students have also an opportunity to choose a minor subject, which they can teach in schools. In Estonia, Home Economics is historically connected to Handicraft subject, and teachers are educated as Handicraft and Home Economics teachers. These studies last for 3 + 2 years, where teacher education program takes place in the latter two-year part, in the Master's level.

METHOD

Our study uses qualitative, i.e. narrative, approach, as it provides an opportunity to see the complexity of the development a professional teacher identity. In order to grasp this complexity, different data sets are collected to find out how identities are formed and constructed.

RESULTS / FINDINGS

In this study, different stories of becoming a Home Economics teacher are being told. The analysis of the data compiles a complete overview (a story) of a professional identity building process.

CONCLUSION

This study provides designing tools for revising Handicraft and Home Economics teacher education. Improvement in higher education leads also to the development of Home Economics as a school subject in Estonia and Finland. Such improvement is a long-term process, and based on our results it is possible to establish a dialogue over the various teacher generations and to focus more systematically on the professional identity development also during the in-service training courses of Home Economics teachers.

IP_1594	Development of Smart Education Program for the STEAM Oriented Home Economics(H-STEAM) - Based on an Analysis of the Overlapped Contents of Other Subject Textbooks in the Middle School -	
First Author (Main Author)	Seho Joung (Korea University High School)	Republic of Korea
Co-Author(s)	Jung Hyun Chae (Korea National University of Education)	
Presenting Author	Seho Joung (Korea University High School)	Republic of Korea

In attempt to overcome the limitations of the STEAM education and SMART education pilot study, a comparative analysis of redundancy using twelve textbooks of the current first year middle school students -Home Economics, Science, Technology, Music, Art, Mathematics, Korean Language, Ethics, Social Studies, Chinese Character(Hanmoon), Physical Education, English- which follow the 2009 revised curriculum has been conducted.

Based on the results of the analysis, study topics aligned with H-STEAM education which is at the heart of Home Economics textbook were selected, subject-oriented integrated instruction was designed, and the SMART education program was developed to maximize the effect of the integrated instruction.

Six-periods-worth of lesson plans and digitalized learning materials based on the selected topics were approved for the validity and quality of the content by 11 teachers from Science, Technology, Music, Art, Mathematics, Korean Language, Ethics, Social Studies, Chinese Character(Hanmoon), Physical Education, English subject matter, five teachers of Home Economics, and a professor of Home Economics through interviews. Following the supplementation of the SMART education program, the modeled instructions was delivered to 209 students of grade 7 class 6 of a middle school in Seoul from 11/08/2013 to 12/19/2013. After each class, students were surveyed concerning the instruction. The results of this study are summarized as follows:

First, according to the analysis of the overlapped contents of other subject textbooks in the middle school, redundancy was evident in 18 subtopics of the 25 in the Home Economics textbook. Overlapping was shown to be the highest in the subject of Ethics, and Physical Education, Social Studies, Art, Mathematics, English, Science, Korean Language, Music, Technology, and Chinese Character(Hanmoon) followed respectively. Second, the SMART program and six lesson plans and instructional guide of the Home Economics centered H-STEAM to be taught in six periods were developed for the following topics: 'Enhancing Problem Solving Ability', 'Establishing Appropriate Gender Roles', 'Forming Positive Self-Esteem', 'Building Appropriate Friendship', 'Stress Management', 'Forming Good Consumer Habits'.

Third, STEAM education instruction reflecting the analysis of the redundancy of the 12 subject areas reduced learning materials for the students, prevented loss of interest, and provided teachers with faster pacing by eliminating the redundant elements across the subjects.

Fourth, the instruction can be seen as having had a positive impact on the students in the areas of participation, communication, and self-directiveness as shown in the student survey responses: "The increase in participation in the learning, overall accidents increased, rapid information retrieval, self-directed learning, active communication, and the teacher's quick response, cooperation and good SMART newness of education," However, some weaknesses such as "insufficient amount of time, lack of smart devices, malfunctioning of smart devices, incorrect uses of smart devices" were among the student responses.

The results of the study will be used as the basis for the development of instructional design and teaching resource of STEAM education targeting the integration of curriculum in the teaching subject matter.

IP_1742	A Longitudinal Study of Adolescents' Self-Esteem and Its Related Variables	
First Author (Main Author)	Nansook Yu (Chonnam National University)	Republic of Korea
Co-Author(s)		
Presenting Author	Nansook Yu (Chonnam National University)	Republic of Korea

This study investigated the influence of life satisfaction, accomplishment value, peer attachment, relationship with teachers, and parents' perception of their children's friends on self-esteem of adolescents. The study population consisted of a nationally representative sample of middle school 1st grade students who completed the Korean Children and Youth Panel Survey of the National Youth Policy Institute in 2010, 2012, and 2014. Descriptive statistics used included frequency, average, and standard deviation; in addition, reliability, repeated measure ANOVA, and regression results were reported using SPSS statistics. The results were as follows. First, this study showed that the longitudinal changes of self-esteem, life satisfaction, accomplishment value, peer attachment, relationship with teachers, and parents' perception of their children's friends were significantly different across three time points. Self-esteem increased across the three time points. Second, life satisfaction was the most influential to self-esteem and peer attachment was the second most influential in the three data set after controlling for gender, parents' academic attainment, and residential area. The influence of life satisfaction on self-esteem decreased across the three time points, but that of peer attachment increased over time. Instruction on life satisfaction and peer attachment needs to be more highlighted in Home Economics classes to enhance the self-esteem of adolescents.

Room 104	Family Relationship	
Chair	Patricia Mbah (Michael Okpara University of Agriculture Umudike)	Nigeria
IP_0667	A Causal Relationship between Adult's Parent Attachment and Emotional Intelligence	
First Author (Main Author)	Jinkyung Chang (Sookmyung Women's University)	Republic of Korea
Co-Author(s)	Jongmi Jung (Geumcheon-Gu Healthy Family Support Centre) Younghye Jung (Geumcheon-Gu Healthy Family Support Centre)	
Presenting Author	Younghye Jung (Geumcheon-Gu Healthy Family Support Centre)	Republic of Korea

According to psychosocial development stage of Erikson (1968), it can be said that college student period falls under the latter part of an adolescent period when an adolescent period converts to an adult period. The base of emotional development is formed by influence of interaction with one's parents during infancy, and this parent attachment is a very important element for the development of emotional intelligence. The relationship limited in family starts to expand its magnitude to the relationship with non-family members in the community they belong to. Considering that parent attachment is an element to have an influence not only on childhood but also on the whole life (Bowlby, 1969; Steinberg, 1990).

AIM

This study aims to look for the relationship between college students' parent attachment and EI with regard to Dr. Moon's new model of Emotional Intelligence designed to examine adults.

METHODS

This study conducted a survey on college students the age from 18 to 24 from June to November, 2013 in Seoul, Incheon and Gyeonggi-Do. The data is analyzed 481 questionnaires by SPSS. 18.0.

RESULTS

The summarized results of this study are as follows. First, the groups with high degree of adult attachment show that all subordinate variables broken down in Dr. Moon's model have leveled high compared with those groups with low degree of adult attachment. Second, the group with the high level of adult attachment who find themselves feeling greater attachment to mothers indicates that more impacts are imposed upon Dr. Moon's model of EI. Third, the level of adult attachment to fathers is relatively proportional to the level of managing emotions with positive influence.

CONCLUSIONS

To sum up, parent attachment can be seen to have a critical impact on EI. The more stable the maternal attachment becomes, the higher the level of EI is. The group with a low adult attachment can be inferred that it has lower impact on developing EI when is compared to that of the counterpart. Therefore, well-grounded parental attachment would influence on the level of EI.

IP_0692	The Effects of Parent Memory Disease Onset on Adult Children Caregivers' Mental and Physical Health Outcomes	
First Author (Main Author)	Jinhee Kim (University of Maryland)	USA
Co-Author(s)	Saeun Choi (Korean National University of Education) Ally Pakstis (University of Maryland)	
Presenting Author	Jinhee Kim (University of Maryland)	USA

Memory related diseases such as dementia or Alzheimer are a devastating syndrome that involves the deterioration of cognitive function. It is the sixth leading cause of death in the U.S. and treatment costs were estimated to be between \$159 and \$215 billion in 2010 (Heron, 2013; Hurd, Martorell, Delavande, Mullen, & Langa, 2013). Family members make up an overwhelming majority of the caregiving. In 2014 it is estimated that family members provided nearly 18 billion hours of unpaid care (Alzheimer's Association, 2015). The onset of dementia in an aging parent can provoke an increase in physical and mental health stress for their adult-child caregiver (Richardson, Lee, Berg-Weger, & Grossberg, 2013; Schulz & Sherwood, 2008). The purpose of this study is to examine the effects of the onset of parent's memory disease on the adult-child caregiver's physical and mental health. Using the 2010 and 2012 waves of the RAND Health and Retirement Study (HRS) dataset in the United States, the present study selected, 2,082 main respondents (male=812, female=1,270), who had at least one living parent and none of their parents experience the memory disease by 2008. Using the logistic regression model, the effects of the onset of a parent memory disease were examined on the psychiatric problem of an adult child. Controlling for the psychiatric problem at T1, demographical variables, family related variables, and finance related variables, respondents whose parent showed the onset of memory disease at T1 were more likely to be diagnosed with psychiatric problem between T1 and T2 ($B=0.97$, $p<.01$). However, physical health outcomes such as, blood pressure problem, diabetes, heart problems, and stroke were not found significant. The findings are consistent with prior research on caregiver stress. Psychological effects are more intrusive than on the physical health outcomes, most specifically depression, anxiety, and subjective well-being (Schulz, O'Brien, Bookwala, & Fleissner, 1995; Pinquart & Sorenson, 2003). Additional analyses will be conducted to include health behaviors (smoking and drinking) and multiple types of caregiving transfers, at varying levels of dosage in addition to physical and mental health outcomes. This research will expand the scope of adult children caregiver health, especially related to memory diseases such as dementia or Alzheimer. The distinct collection of variables adds unique insight into adult children caregiver health that has not yet been recognized in the literature.

IP_0407	Ensuring Happiness in the Family through Effective Management of Conflict/Crises in Edo State	
First Author (Main Author)	Ethel Idialu (Ambrose Alli University)	Nigeria
Co-Author(s)		
Presenting Author	Ethel Idialu (Ambrose Alli University)	Nigeria

AIM

The study investigated how family living can be enhanced to ensure happiness in the home and the family through effective management of conflict/crises in Edo State of Nigeria. The specific objectives were to identify the nature and type of family conflict prevalent in the study area, identify possible causes for the conflict, assess its impact and make appropriate policy recommendations arrived at ameliorating such conflicts.

METHODS

To achieve this data was collected through questionnaires 1201 respondents randomly sampled from the three (3) senatorial districts of the state. The data were analysed using frequency distribution mean, standard deviation, graphs and chi-square.

RESULTS

Finding revealed amongst others

1. That family conflict were prevalent in the study area (82.4%)
2. The commonest forms of family conflict are intense arguments, quarrels, silence and verbal assaults.

CONCLUSION

The study recommends amongst. The study recommends others, that effective communication amongst family members enhancing the capacity of key institutions such as religions organizations, traditional leadership as a way of resolving family conflict and creating happiness in the family.

IF_0158	Home Economics Research: Instilling Hope and Re-Directing Source of Happiness in Individuals and Families of Contemporary Society	
First Author (Main Author)	Aurorita Roldan (University of the Philippines Diliman)	Philippines
Co-Author(s)		
Presenting Author	Aurorita Roldan (University of the Philippines Diliman)	Philippines

Ninety-four years have passed since the discipline of Home Economics was established in the University of the Philippines (UP) under the College of Education in 1921. Forty years later, in 1961, the College of Home Economics (CHE) was established. Presently the College has five Departments and offers seven undergraduate and ten graduate programs. While many Home Economics institutions around the world have either disintegrated or changed their names and "identities", the UP College of Home Economics remained intact and continues to thrive and gain its rightful recognition in the various sectors it was mandated to serve – the academe, the government or general public; industry, individuals, families and households. Research in different forms played a key role in all these linkages, either in terms of understanding a certain phenomenon, policy development/review, product development, curricular review or program evaluation.

Through a systematic review of a total of eighty-six (86) reported research and creative work outputs in the College the past twelve years, from 2003-2014, an exhaustive summary is provided and studies examined at various levels. Patterns in the process of identification of research problems and their purposes, frameworks and methodologies used and utilization of results will be used to determine the breadth and depth of the relevance of Home Economics in instilling hope and re-directing happiness in individuals, families, and households of contemporary society. The themes of the studies and creative work outputs are essentially examined in the light of modern day concerns such as mass production of goods and consumerism; nutrition, health and food safety; the welfare of children, elderlies and strengthening of families; and

care of environment, sustainability of development and natural disasters.

Key words: home economics, research, contemporary society

* Aurorita T. Roldan, PhD is an Associate Professor of the Department of Family Life and Child Development and currently the Dean of the College of Home Economics, University of the Philippines Diliman.

Room 105	Programs and Intervention for Childhood Health and Nutrition	
Chair	Dong-Yean Park (Dongguk University at Gyeongju)	Republic of Korea
IP_0345	Hope and Happiness for Sickle Cell Anaemic Children on Dietary Management in Federal Medical Centre, Abeokuta, Ogun-State, Nigeria	
First Author (Main Author)	Taibat Tunrayo (University of Ilorin)	Nigeria
Co-Author(s)	Deborah Oluyemisi (University of Ilorin) Azeezat Damilola (University of Ilorin)	
Presenting Author	Taibat Tunrayo (University of Ilorin)	Nigeria

AIM

The study assessed Hope and Happiness for Sickle Cell anemic children in Federal Medical Center Abeokuta, Ogun-State Nigeria.

METHODS

Descriptive design was used for this study. The population was made up of all 90 cell sickle cell children between the ages of 5-12 years that are attending the hospital from January 2014 to march 2015. Structured questionnaire was used to collect information from the parents, guardians and medical reports. The data was analysed with frequency distribution and percentage. Chi-square was used to test research hypothesis at 0.05 level of significance.

RESULTS

It was observed that majority: 62(68.9%) of the respondents had normal weights, 90(86.7%) agreed that fruits such as carrots, oranges and watermelon are good for maintaining healthy life. Furthermore, 78(86.7%) of the respondents had access to vegetables like pumpkin, amaranthus, and craincrain drawing leaves that contains fibers which aid digestion and stimulate production of hemoglobin that supply red blood cells very frequently. 60 (66.7%) of the respondents had access very frequently to beef, 86 (62.2%) of the respondents had access very frequently to snail meat while 48 (53.3%) had very frequent access to liver. Also, 74 (82.2%) of the respondents agreed that they took breakfast, dinner and home-made foods regularly and 78 (86.7%) also agreed that their foods are usually prepared in good condition. Furthermore all 100 (100%) of the respondents agreed that special diets consumed lessened pains and thereby giving them hope of survival. Statistically there is significant relationship between dietary pattern of respondents and their health status.

CONCLUSION

Conclusively, nutritional knowledge of the patients and dietary patterns had relationship with health status. Good nutrition leads to healthy living and reduce pain and money spent on diseases associated with poor diets. This promotes healthy community and reduce children mortality.

IP_0353	Supplemental Feeding Program: A Nutrition Intervention to Promote Health in School Children	
First Author (Main Author)	Anna Marie Barroga (Ilocos Sur Polytechnic State College)	Philippines
Co-Author(s)	Olivia Directo (Ilocos Sur Polytechnic State College (retired))	
Presenting Author	Anna Marie Barroga (Ilocos Sur Polytechnic State College)	Philippines

AIM

Adequate nutrition is vital in the proper growth and development of children as it conditions their learning ability and their capacity to work. The nutritional security of young and growing children is a great challenge to the food supply and nutrition programs of a country. This research aimed to implement a supplemental feeding program for Grade 1 pupils and to evaluate the effect of this program on the weight of the beneficiaries. It also tried to gather information on the family status of the pupil-beneficiaries and feedback on their school performance. An information dissemination drive on proper health care and nutrition was also conducted to both pupils and their parents.

METHODS

The supplemental feeding was made for a duration of five months wherein meals following a cycle menu are served after the Flag Raising Ceremony. An initial activity of getting the Body Mass Index of the pupils was undertaken before the implementation of the program. Three weight-ins were undertaken during the implementation of the program and another weighing three months after the program was terminated. A survey questionnaire was utilized in eliciting data from parents regarding the family profile particularly on the age of parents; occupation; number of children in the family; ages of children and foods served during meal time and snack time.

RESULTS

Result reveal that the age of parents particularly on fathers ranges from 24-46 with 31-35 age bracket having the highest while the age of mothers ranges from 21 to 46 years old. Farming is the number one occupation of the fathers with 73.91%. Seventy-two percent of the mothers are housekeepers. The study also shows that there are 4 families with three children; 8 families with four children; 6 families with five children and 5 families with six children. From this information, it shows that there are 104 total children for the 25 families of the pupil-beneficiaries. Most of the children are aged 2-12 with majority (38) within the 3-6 bracket, 28 within the 7-12 age bracket and 12 belonging to 0-2 age bracket. The families can be considered "young families" as indicated by the ages of the children in the family. As to foods served during meals and snacks, the study revealed that eggs are commonly served during breakfast followed by noodles, hotdogs and vegetable dishes. Milk is the most beverage served. During lunchtime, vegetable dishes is the most commonly served followed by fish dishes and then chicken dishes. For supper, vegetables again is served the most followed by fish dishes and pork dishes. The snack items served by parents are biscuits together with juice during both the morning and afternoon snacks. The study revealed that on the first month of implementation positive observations were already noted on the weight of pupil-beneficiaries with a mean weight score of 17.53 kilograms or a gain in weight of an average of two kilograms per pupil. After the final weighing, a total mean weight of 20.25 kilograms was noted which showed a 4.46 increase from initial total weight of the beneficiaries. The alertness as well as regular and punctual attendance to classes was also observed.

CONCLUSION

As per results of the weights of the pupils before, during and after the implementation of the program, it can be concluded that the program provided the beneficiaries the needed food supply for them to have gain in weight. It is recommended that the continuation and possible expansion of the program to more schools be done.

IP_0947	Childhood Obesity Prevention in UAE: A School-Based Intervention Study	
First Author (Main Author)	Sidiga Washi (Ahfad University for Women)	Sudan
Co-Author(s)	Ayesha Al Dhaheri (UAE University) Carine Platat (UAE University) Habiba Ali (UAE University) Amjad Jarar (UAE University) Farah Helou (UAE University) Emad Musaudi (UAE University) Ihab Tewfik (University of WestMinister)	
Presenting Author	Sidiga Washi (Ahfad University for Women)	Sudan

AIM

Childhood obesity has been attributed to unhealthy lifestyle behavior, resulting from unbalanced diet, sedentary lifestyle and inconsistent knowledge, attitude and behavior. This cluster-randomized intervention was designed to address childhood obesity and its related risk factors through implementing public health nutrition strategies and employing a selected behavior modification approach.

METHODS

Eight public primary schools were randomly selected in Al-Ain city, UAE. Validated questionnaires, base line anthropometric, dietary and physical activity behavior data were collected from 1054 children (male and female 6-9 years) prior to the intervention. Trained teachers from four selected schools applied the school-based nutrition and physical education intervention among 503 pupils. The study outcome measures were the positive deviation in dietary and physical activity knowledge, attitudes and practices after a 2-month intervention period.

RESULTS

Baseline anthropometric measurements showed normal BMI-for-age among in both intervention and control schools (82.8% male, 79.6% female). However, 10.9 and 10.7 % of the girls and 6.5% and 9.6% of the boys in all intervened schools were overweight and obese respectively. After eight-week intervention, no significant change in BMI was observed among both intervention and control school-children. Asignificant positive change has occurred in knowledge, attitude and practice and decreased sedentary activities among intervention school children (95% CI - 00.02).

CONCLUSION

This pilot school-based intervention study that was funded by Emirates Foundation has proven to be effective and its framework could be tested at larger scale in UAE to prevent and manage childhood obesity.

Keywords: obesity, primary school children, nutrition, intervention, UAE

IP_1028	Engaging Preschoolers in Nutrition Education through Stories, Music, Dance and Magic Tricks	
First Author (Main Author)	Virginie Zoumenou (Universityof Maryland Eastern Shore)	USA
Co-Author(s)	Dionne Ray (University of Maryland Extension/UMES) Susan Jayne (University of Maryland Extension/UMES) Nakisha Johnson (University of Maryland Extension/UMES) Luz Escobar (University of Maryland Extension/UMES)	
Presenting Author	Virginie Zoumenou (Universityof Maryland Eastern Shore)	USA

INTRODUCTION

Education has shifted away from simple dissemination of knowledge to using reinforcing communication channels (i.e. stories, music, dance,

and magic tricks). Piaget’s theory suggests that 2-7-year olds are in the pre-operational stage. The preschoolers think symbolically, use language, classify and represent objects by images and words. In addition, studies indicated that preschool children need appropriate outlets to express their energy in a positive and creative way. Two outlets, dance and music, should be considered among preschoolers. By adapting an established curriculum to include creative movement and music, preschoolers will have a better understanding of the arts while learning. Magic tricks are ageless and relevant across cultures.

PURPOSE

The present program aimed to measure the effectiveness of stories, music, dance, and magic tricks in reinforcing nutrition education among 3-5-year old Head Start preschoolers

METHODS

The curriculum, “Eagle Book Series”, was developed by the Center for Disease Control and Prevention (CDC) in response to the burden of diabetes among Native Americans. After evaluation among African American children, a two-year program was implemented at three Head Start Centers on the Lower Eastern Shore of Maryland. Approximately 300 preschoolers participated. Four lyrics with accompanying movement were created emphasizing each book’s main message. The reading of each book was followed by music, dance, and magic tricks. A growing ball (food safety), magical tube (importance of exercise), colorful scarves (variety of food choices), and an oversized mouse trap (healthy eating habits) were used as magic tricks. The effectiveness of stories, music, dance, and magic tricks was measured using surveys and caregivers’ feedback. All activities were videotaped. Descriptive statistics and content analysis were used.

RESULTS -CONCLUSION

Approximately 300 preschoolers participated 90% were African American, 75% of them understood the main message in each book and remembered the lyrics of the songs. Direct observation indicated that magic tricks increased their attention. Qualitative data indicated that preschoolers were able to share the messages at home with their siblings and caregivers. Overall, stories, music, dance, and magic tricks should be considered as an educational reinforcement tool for preschoolers.

Room 107	Different Types of Families and Family Strengths	
Chair	Virginia Vincenti (University of Wyoming)	USA
IF_0146	Role of Home Economics in Creating Disaster Resilient Families	
First Author (Main Author)	Florenda Gabriel (University of the Philippines)	Philippines
Co-Author(s)		
Presenting Author	Florenda Gabriel (University of the Philippines)	Philippines

AIM

Around the world, disasters from natural hazards occurred more frequently in the last 20 years affecting around 218 million people each year (CRED, 2015). Disaster risk is a concern for the Home Economics discipline because this directly affects the daily life of individuals and families. Disaster events have short and long term impact on quality of life and for those who experienced severe losses, their vision of hope and happiness are often shaken.

METHODS

This paper explores the role of Home Economics in achieving the United Nation’s goal of creating disaster resilient households and communities. The first part reviews literature on Disaster Risk Reduction and Management (DRRM) particularly disaster studies at the household and community levels. It highlights key concepts in DRRM relevant to family studies, such as risk, vulnerability, resilience, and coping and adaptive capacities. The second part presents the contribution of Home Economics to the disaster field of study.

RESULTS

Home Economics offers a unique frame for DRRM with its focus on family as the unit of study, its integrative approach, and the common goals

and basic needs concerns of both DRRM and Home Economics. The critical science paradigm of Home Economics gives a comprehensive understanding of family vulnerability, resilience and well-being pre and post-disaster.

CONCLUSION

DRRM literature shows the need for disaster-related home economics researches for more evidence-based information that determines how and why families and communities are affected by disasters and how they can be empowered to respond to, recover and resist the adverse effects of disasters. These would provide much needed inputs for more effective government programs and policies on DRRM.

IF_0217	Acquisition of Basic Tailoring Skills: Implications for Well Being of Beneficiaries of Tailoring Programme of School-On-Wheels (SOW) Scheme in Nigeria	
First Author (Main Author)	Chinwe Anowai (University Of Nigeria, Nsukka)	Nigeria
Co-Author(s)	Elizabeth Anyakoha (University Of Nigeria, Nsukka)	
Presenting Author	Chinwe Anowai (University Of Nigeria, Nsukka)	Nigeria

AIM

Unemployment and poverty are very serious challenges in Nigeria. As a result, Nigerian government established many poverty alleviation programmes to abate the challenges, one of which is the School-on-Wheels (SOW) scheme. The scheme aims at equipping women with skills for self-employment in tailoring for increased income and well being. This notwithstanding, available evidence indicates that unemployment is still high in the state, implying that most of the scheme's beneficiaries are still unemployed and neck deep in poverty. This makes the efficacy of the scheme in alleviating poverty to be questionable, hence the study. The study aimed at determining the level of acquired tailoring competencies of beneficiaries of the scheme, their: income earnings before and after participating in the scheme, level of expenditure on needs and challenges facing the scheme. Four research questions and two hypotheses guided the study.

METHODS

The study used descriptive survey research design. It was carried out in Anambra State, Nigeria. The population was 328 beneficiaries of the scheme trained on tailoring. Snowball sampling technique was used to draw a sample of 103 of them. Two duly validated instruments (a questionnaire and a Focus Group Discussion guide) were used for data collection. Internal consistency reliability co-efficient of the instrument (.780) was determined using Cronbach Alpha. The data were analyzed using: frequency, percentage, mean and standard deviation including t – test and Chi-square that tested two hypotheses at 0.05 level of significance.

RESULTS

Beneficiaries possessed 9 tailoring competencies ($x \geq 2.50$) out of 28. There were no differences in income earnings of beneficiaries before and after participation in the scheme, income expenditure were on meeting basic biological and social needs and 15 challenges facing the scheme (15) were identified.

CONCLUSION

The minimum tailoring skills acquired by beneficiaries of the scheme did not enable them to be in employment in tailoring occupation. There was no improvement in their wellbeing as their state of poverty remained the same.

IF_0259	Low-Income French-Speaking Single-Parent Mothers in New Brunswick and the Educational Achievement of Their Children	
First Author (Main Author)	Julie Caissie (Universite de Moncton)	Canada
Co-Author(s)	Jeanne d'Arc Gaudet (Université de Moncton) Marie Lachance (Université Laval) Godin Jeanne (Université de Moncton)	
Presenting Author	Julie Caissie (Universite de Moncton)	Canada

The purpose of this phenomenological study was to understand the relationship of single mothers—as heads of some of the poorest single-parent families—with the academic and educational achievement of their children attending Francophone schools in Anglo-dominant settings in the province of New Brunswick (Canada). Semi-structured individual interviews were conducted with eight single-parent Francophone mothers. The analysis, based on Giorgi's (1997) analytical approach, revealed how the mothers experienced their single-parent situation as well as the type of relationship they have with the school environment.

Results indicate that these single-parent mothers attached great importance to the school that plays a crucial role in the education of their children. In fact, several of the mothers claimed that they maintained a positive relationship with their children's school.

Interestingly, even if most of the single-parent mothers with little schooling themselves are struggling with difficult financial situations, this does not prevent many of them from actively taking part in their children's school life, despite having sometimes strained relationships with the school. Moreover, while most of the participants take part to varying degrees in their children's school life, they state that they need additional French-language resources to better support their children.

This study supports the need for French-speaking elementary schools in the province of New-Brunswick (Canada) to develop and provide parenting skills programs promoting improved relationships between the poorest single-parent French-speaking mothers in New Brunswick and their children's schools.

IP_0370	Everyday Skills to Prisoners	
First Author (Main Author)	Kaisa Härmälä (Martha Association)	Finland
Co-Author(s)	Terhi Lindqvist (Martha Association)	
Presenting Author	Kaisa Härmälä (Martha Association)	Finland

BACKGROUND

The Martha Association is a 116-year old Finnish NGO that works in the field of Home economics, promoting the wellbeing of home and family. Both volunteers and professionals are involved in its activities. The professional networks organize home economics workshops in 16 districts of Finland to teach everyday skills to the population. Since 2012 workshops have also been organized in prisons in cooperation with the Finnish Criminal Sanctions Agency, which is in charge of implementing punishments and all activities that are organized during imprisonment.

OBJECTIVES

An important aim is to support prisoners in a way that decreases the sentenced offenders' risk of reoffending. According to the findings of the Criminal Sanction Agency more than half of the offenders lack everyday skills such as cooking, housekeeping, managing one's economy, health and social relationships. The time in jail can be an opportunity to learn these skills. NGOs' cooperation in this work is vital.

METHODS

The practical cooking workshops are organized with offenders who will be free in the near future. In this way the acquired skills remain active in civil life. Also prisoners serving longer time can profit from workshops because they are allowed to cook for themselves in the evenings and

during weekends.

A practical cooking workshops includes preparation of healthy and tasty food, cleaning, doing the laundry and taking care of one's own money. Sharing the meal together increases social skills and ability to work in group. The work is carried out in small groups in a series of 3 to 6 meetings, either in prisons or at the Martha Association's training kitchens. The trainer brings the training material and raw materials to the meeting place. One workshop takes about 3 hours. All participants get their own recipe leaflets and a certificate of participation.

RESULTS

200 workshops with 1000 participants are organized every year. In 2014 altogether 18 prisons were involved.

CONCLUSION

The offenders and the prison staff has given very positive feedback of the trainings. The workshops strengthen home economics skills, promote healthy nutritional choices and support social skills and skills to work in group. They also give a positive feeling of doing it yourself and succeeding.

IP_0474	Objective and Subjective Indicators of Poverty and Health: To What Extent Can Happiness Explain the Disparities?	
First Author (Main Author)	Andrej Srakar (Institute for Economic Research)	Slovenia
Co-Author(s)	Nada Stropnik (Institute for Economic Research)	
Presenting Author	Andrej Srakar (Institute for Economic Research)	Slovenia

AIM

Many indicators of socio-economic and health condition of individuals contain both an objective and a subjective component. The composite indicator of self-rated health (a single-item health measure in which individuals rate the current status of their own health) has become popular and has been extensively studied in Western populations (Wu et al. 2013). Similarly, assessments of subjective poverty frequently use questions asking household representatives how are they »able to make ends meet« (Diener et al. 1992; Van den Bosch et al. 1993). Econometric analyses have studied the differences between subjective and objective measures of health and poverty from an individual perspective (Etile and Milcent 2006; Hernandez-Quevedo et al. 2005; Humphries and van Doorslaer 2000; Lindeboom and Van Doorslaer 2004), yet few have explained the disparity on a country level. In our study we use datasets of the international SHARE survey and Veenhoven's happiness database to assess to what extent can the differences between objective and subjective indicators of poverty and health be explained by individual and intercountry differences in the level of happiness.

METHODS

To this end we use limited dependent variable' econometric models (multinomial logit, ordered probit), including instrumental variables (following Hahn and Hausman 2003; Imbens 2010) to take into account the reverse causality in the model.

RESULTS

We verify three main hypotheses: a) a large part of (individual and intercountry) differences between objective and subjective indicators of poverty and health can be explained by levels of happiness; b) the differences between countries are similar no matter what indicator we analyse (health or poverty); c) the unexplained part can to a large extent be attributed to institutional factors (economic, political and legal). Preliminary results confirm the first two hypotheses while providing partial support for the third.

CONCLUSION

In conclusion we present policy consequences of our findings and provide recommendations for future research.

Workshop

Room 205	The Green Consumer Sees Red	
Chair	Hester Steyn (University of the Free State)	South Africa
WS_0399	The Green Consumer Sees Red	
First Author (Main Author)	Hester Steyn (University of the Free State)	South Africa
Co-Author(s)		
Presenting Author	Hester Steyn (University of the Free State)	South Africa

AIM

The aim of this workshop would be to discuss and plan ways to inform consumers and to make them aware of their responsibility to adapt to sustainable lifestyles.

METHODS

Members will be invited to contribute with their knowledge and expertise from their respective fields of specialization.

RESULTS

Introduction

The consumer and sustainable development committee focus on the role of the consumer in sustainable development. This implies that the consumers should be equipped with the knowledge that can lead to a sustainable lifestyle.

Consumer education programs would obviously be at the heart of it. A substantial amount of work is already done in this regard. The e-book and other resources report on this research, reports and programs completed.

The sad fact is that the majority of consumers still do not adopt sustainable lifestyles.

a) Why don't the consumers adopt more sustainable lifestyles? - Is it a matter of not caring, not knowing or don't they realise that their actions are not in harmony with the principles of sustainability?

b) What should we as committee do to bring about the required change?

Although the consumer often realises the importance of adopting a more sustainable lifestyle, many lack the knowledge needed to implement it.

Misconceptions about the impact of the stages of the lifecycle of a product have on the environment and sustainability is most probably the biggest challenge. Production, manufacture and processing, transport, storage, use and maintenance of a product and also disposal of the wasted product require resources from environment and cause damaging outputs.

Consumers need to be informed to make responsible choices and adopt a sustainable lifestyle. The Consumer and Sustainable Development Committee has the responsibility to plan and execute programs to bring about awareness and disseminate information.

CONCLUSION

Development of an awareness plan.

Room 206	Partnerships: The IFHE-DAP Honduras Home Economics Education Initiative	
Chair	Juanita Mendenhall (Disaster Assistance Partnerships-Council Committee)	USA
WS_0556	Partnerships: The IFHE-DAP Honduras Home Economics Education Initiative	
First Author (Main Author)	Juanita Mendenhall (Disaster Assistance Partnerships-Council Committee)	USA
Co-Author(s)	Nancy Granovsky (Texas A&M)	
Presenting Author	Juanita Mendenhall (Disaster Assistance Partnerships-Council Committee)	USA

The Honduras Initiative, launched in 2015 as requested by IFHE, is a collaboration bringing home economists together to create home economics programs in Honduras, allowing youth to stay in Honduras by improving their well-being, health, and ability to thrive. Progress report and engagement.

Concurrent Session

Room 101	Family Stability and Happiness	
Chair	John Brady (Seoul National University)	Republic of Korea
IP_0700	Hope in the Midst of Challenge: Refugees Economic Transitions	
First Author (Main Author)	Catherine Solheim (University of Minnesota)	USA
Co-Author(s)		
Presenting Author	Catherine Solheim (University of Minnesota)	USA

Since the 1970s, Minnesota has been the resettlement location for many SE Asian refugee families from Laos, Cambodia, Vietnam, Burma/Myanmar, and Bhutan. Refugee families experience a myriad of challenges upon arrival in their new homes, one of which is establishing a secure economic base from which to raise their families and pursue their goals. Although they initially receive help from the government in the form of temporary economic assistance, this support is relatively short-lived and families must quickly become self-sufficient in many areas including housing, employment, healthcare, and basic living expenses. Additionally, they must repay their loans for airplane tickets. Most families also remit money to support family members who still reside in their home countries or refugee camps.

Although voluntary organizations provide initial support for newly arriving refugee families, the length of time they work with them is very limited. Families quickly find themselves navigating the US economic world without much guidance. We know little about the economic stresses faced by refugee families or how they achieve economic well-being over time. Therefore, the purpose of this paper is to identify challenges faced by refugee families and strengths they bring to the resettlement process and to make recommendations for educational interventions to support arriving refugees' transitions.

Ten key informant interviews with key informants with staff from refugee-serving non-profit agencies, three focus groups with Karen young adults, and one focus group with Laotian adults provided insight on the financial acculturation needs of newly arriving refugee individuals and families. Preliminary analysis identified difficulties in understanding and accessing financial systems, and finding ways to meet family needs with limited financial resources were key challenges in these communities. Many of these challenges are interdependent. Strengths included accessing social capital of other refugee families and willingness to work in physically demanding jobs to earn income.

IP_1047	Adolescent Mobile Phone Addiction and Health: Focus on Physical and Psychological Health	
First Author (Main Author)	Jung Eun Kim (University of Maryland)	USA
Co-Author(s)	Ji-Ha Kim (Korean Educational Development Institute) Ui Jeong Moon (University of Maryland) Wonsuk Yoo (Augusta University)	
Presenting Author	Jung Eun Kim (University of Maryland)	USA

This study will discuss the relationship between adolescent obesity, physical education classes in school, psychological aspects, and mobile phone addiction using a longitudinal analysis with two waves from the Korean Children and Youth Panel Survey (KCYPs), which has tracked the respondents since 2010. The authors use the middle school student cohort with the average age of participants being 13 in wave 1 (2010) and 16 in wave 4 (2013), respectively. The final sample includes 4,459 observations (1,175 girls and 1,176 boys in wave 1; 1,033 girls and 1,075 boys in wave 4).

The dependent variable, mobile phone addiction was measured with 5 questions from the KCYPs items regarding mobile phone dependency, and each item ranged from 1 to 4 (more severe). The estimate model covers (a) physical health related factors including obesity (ranging from 0 to 4 indicating more severe obesity) and weekly hours of physical education class in the school curriculum (0 - 4 hours), and (b) psychological and emotional factors such as parental attachment, self-resilience, life satisfaction, and whether there is a parent at home after school were included. To see the relationship between mobile phone use and the level of addiction, the extent that respondents have used their mobile phone for calling, texting, and entertainment (photos, music, movies) were included, while other control variables (level of father's education, gender, household income, and year dummies) were inserted in the model.

The results from a random effects model showed that mobile phone addiction decreases as obesity becomes more severe, which was not consistent with previous research regarding media use (e.g., Council on Communications and Media, 2011; Jordan et al., 2008). The average number of hours of physical education class in school exhibited a significant and negative influence, which stresses the important role of school and teachers to prevent/decrease adolescents' addictive or excessive media use. Psychological factors were significant (e.g., Takao et al., 2009; Janero et al., 2007) except for whether a parent was home after school. Texting was a significant factor of mobile phone addiction, whereas other functions (calling and entertainment) were not (e.g., Hofferth & Moon, 2012). The level of father's educational attainment showed a positive influence, while household income was not significant. Girls were more likely to be addicted to mobile phones, while as respondents grew older, they became more addicted. A fixed effects model was also tested for comparison, and as the incidental parameter problem may still exist, the authors focus more on the random effects model.

This article concludes with a discussion on the findings and suggestions for parents, schools, policymakers and future research.

IP_1270	Processing Locust Bean Pulp into Some Variety of Food Items towards Economic Empowerment of Rural Women in Nigeria	
First Author (Main Author)	Esther Kantiok (Federal College of Education)	Nigeria
Co-Author(s)	Rose Alkali (Federal College of Education) Hauwa Illiya (Federal College of Education) Faith Komolafe (Federal College of Education Katsina)	
Presenting Author	Esther Kantiok (Federal College of Education)	Nigeria

The locust bean fruits are very important source of raw material to most women in the rural areas in Nigeria. The fruit is made up of the bean and the pulp. The bean is processed as a food condiment called "dadawa" "iru" which is used to prepare a variety of local foods (soups, jollof)

as well as sold to generate little income. The yellowish powder is used to enrich the locally made pap called "kunu", and leaked as a sweet. It is obvious that the fruits of the locust bean tree are very useful among many rural households as a source of food and income generating activity. However, it is observed that the pulp is left without much economic uses resulting into waste. This paper therefore intends to examine the various possible ways in which the pulp can be harnessed for a variety of uses. Four (4) recipes namely; making African chocolate, toffee, chin-chin and spread were developed and tested for palatability and acceptability using simple frequency and percentage. Result obtained showed high acceptability hence the recipes were recommended for use in the food industries among which are confectionary stores. The research will also help drive the food manufacturing industries to seek for the locust bean pulp by using it to develop other new products thereby give hope of a market for the pulp. This will spur the women into entrepreneurial practice towards income generation and empowerment.

IP_1123	College Students' Satisfaction with Financial Situation and Perceptions of Income Adequacy	
First Author (Main Author)	Carolyn Bird (North Carolina State University)	USA
Co-Author(s)		
Presenting Author	Carolyn Bird (North Carolina State University)	USA

AIM

Few studies have examined college students' satisfaction with their financial situation and its relationship to their confidence to find sufficient funds to meet an emergency. The aim of this study was to examine reports of high levels of satisfaction with their current financial situation among 18 to 27 year-old college students.

METHODS

Economic stress theory (McKenry & Price, 2000) advances that a family's resources can moderate the impact of stressors and that degree of stress is determined in part by the adequacy of the resources. IRB approval was obtained to survey a random sample of college students in fall 2010 using a web-based survey tool. Respondents providing complete data included 180 undergraduate students and ranged in age from 18 to 40. A sub-sample was drawn based on responses indicating an above average satisfaction with their current financial situation.

RESULTS

High levels of satisfaction with current financial situation was associated with high confidence in the ability to find emergency funds. An inverse relationship appeared with increasing emergency fund dollar amounts leading to deteriorating confidence in their ability to find the specified increment of money to meet an emergency. Interestingly, students reported they regarded their current level of income as low, but temporary or low, but tolerable. Regression results showed a relationship between reports of high levels of satisfaction with current financial situation. High satisfaction with their current financial situation was related to students' confidence in their ability to find money to meet an emergency in the amounts of \$100, 300, 500, and \$1,000.

CONCLUSION

Students recognize that their current income levels are low in relation to income levels expected once graduated and having attained professional employment. Students are likely to benefit from education that reinforces the temporal nature of college students' low-income. Education efforts should emphasize financial management strategies designed to avoid excessive debt and promote savings.

IP_1286	Agriculture as the Source to Avoid Hunger	
First Author (Main Author)	Leena Savialo (IFHE)	Finland
Co-Author(s)	Ludmilla Kabelova	
Presenting Author	Leena Savialo (IFHE)	Finland

Project : Rural Development

The project is prepared according to REGULATION (EU) No 1305/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 December 2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and repealing Council Regulation (EC) No 1698/2005

We are the Association of agricultural and ecological education for the general public. We cooperate with the The Secondary School of Agriculture in Chrudim and other agricultural organization to inform the general public about the school activities, system of agricultural education and its new technologies in agricultural production and labor market. We prepare the multilateral project in the programme ERASMUS+ (K2 partnership- Grundtvig) with these topics:

- 1) fostering knowledge transfer and innovation in agriculture, forestry, and rural areas
- 2) enhancing farm viability and competitiveness of all types of agriculture in all regions and promoting innovative farm technologies and sustainable management of forests
- 3) promoting food chain organization, including processing and marketing of agricultural products, animal welfare and risk management in agriculture
- 4) restoring, preserving and enhancing biodiversity, including Natura 2000 areas, and in areas facing natural or other specific constraints, and high nature value farming, as well as the state of European landscape
- 5) promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors
- 6) promoting social inclusion, poverty reduction and economic development in rural areas The target group will be people working in agriculture, owners of lands, farms, producers of agricultural products and others. We will organize the project on regional level.

The project will include mobilities and workshops in each country for general public. We will communicate to each other through the established project website where the general public as well will be able to provide their experience of the mentioned topics.

We are looking for the partner of various organizations which are interested in these topics and the target group.

More information will provide Michaela mvcentr@centrum.cz

IP_0265	The Effects of Domestic Boiling and Microwave Cooking Practices on the Nutritional Quality of Some Selected Vegetables	
First Author (Main Author)	Neveen Agamy (High institute for Public Health)	Egypt
Co-Author(s)	Mona Sharaf Abdelgalil (Household Management)	
Presenting Author	Mona Sharaf Abdelgalil (Household Management)	Egypt

AIM

The effects of boiling and microwave cooking practices on certain components of nutritional quality - β carotene, vitamin C, lycopene, total antioxidant activity, total phenolic acid and flavonoids (hesperidins) – in commonly consumed vegetables - artichoke, green haricot, okra, pea, squash and tomato – were examined. The aim was to define the best practices that the consumer could follow to preserve the antioxidant component.

METHODS

Raw and cooked vegetables were homogenized in a blender (Moulinex–France) for 2 min. Homogenized samples were analyzed for the determination of vitamins and antioxidant components including vitamin C, β carotene, flavonoids (hesperidins), and total antioxidant capacity, total phenolic. Lycopene level was determined only in tomato sample since it is not present in other tested vegetables.

RESULTS

Result showed that tomatoes cooked with a microwave device had higher retained lycopene content in the tissues than boiled tomato. Cooked vegetables using a microwave contained a higher vitamin C and β carotene content than boiled vegetables. The total phenolic content significantly ($p < 0.05$) reduced in most vegetables, although, a little increase in total phenolic of green haricot (23.28%, 16.72%) was observed in boiling and microwave cooking respectively. There was a significant decrease at $p 0.01$ in the hesperidins content in artichoke, okra and pea, a significant decrease at $p 0.05$, in hesperidins content for green haricot, squash and tomato cooked by boiling. While, no significant decrease is noticed with microwave cooking practice for green haricot, squash and tomato.

CONCLUSION

Cooking vegetables in microwave may be a good strategy to increase antioxidant intake. Compared to household budget; using microwave could avoid dependence on supplements, this is important inter-relationship between vegetable cooking by microwave and consumption of antioxidants that is of critical relevance to sustainability, this include economic dimension: particularly in view of supplement's market, and indicating that there is considerable scope for food management at home to make a significant contribution to raise the level of family health.

Room 102	Ecology of Parenting	
Chair	Hyojin Ahn (Incheon National University)	Republic of Korea
IP_0238	Studying Resourcefulness: Current Stage and Future Direction	
First Author (Main Author)	Xiaohui Li (Northern Illinois University)	USA
Co-Author(s)	Anastasia Theisen (Northern Illinois University) Lorena Gonzalez (Northern Illinois University)	
Presenting Author	Chanran Seo (University of Minnesota)	Republic of Korea

AIM

Being resourceful is a desirable quality as we often see that the resourceful person is better able to approach a problem from all different angles, tends to think objectively, and is more likely to solve problems effectively through utilizing the resources around him or her. However, resourcefulness, as an ability or quality, is difficult to measure. In 1980, Rosenbaum introduced the self-control scale to assess resourcefulness; since then, many studies have been conducted to examine resourcefulness. The current paper aims to investigate the current stage of studying resourcefulness by review existing studies and to suggest directions for future research.

METHODS

Databases including EBSCOHost, PSYInfo, and Google Scholar were used to search for articles for this literature review.

RESULTS

The empirical studies reviewed for this article mainly focus on the characteristics that can be found in resourceful children, the programs that have been created to promote resourcefulness in both parents and children as well as their effectiveness, how resourcefulness is utilized and promoted in the areas of education and caregiving, and the benefits of resourcefulness. Some of the findings in the reviewed studies include:

- Individuals with high resourcefulness are able to deal with stressful situations more effectively and display reformative self-control behaviors.
- Resourcefulness is learned from childhood but it may also be learned in adulthood.

CONCLUSION

Two scales were developed to assess resourcefulness. Three intervention programs exist for the purpose of promoting resourcefulness. Various

studies focusing on several populations have been done to test the factors influencing resourcefulness and to examine the positive outcomes of being resourceful. Further studies need to be conducted to verify the validity of the scales, as well as to examine the effectiveness of the existing programs.

IP_0150	Are Routines and Structure a Part of Happy Family Life? Developing a New Method to Family Work	
First Author (Main Author)	Marja Saarilahti (University of Helsinki)	Finland
Co-Author(s)		
Presenting Author	Marja Saarilahti (University of Helsinki)	Finland

AIM

How to have a happy and balanced life in a family with children? What are the basic elements for wellbeing? And how could we reach all that? The main objective of my paper is to present a new family work method that aims to improve the wellbeing of so called drifting families, and especially of children in the families. The method is based on timing and structuring daily life so that children and parents can anticipate and prepare themselves better for the coming days and weeks, even for a longer time.

METHODS

The research data consists of team meetings where the project team members evaluate their work with families. The main focus in my research is the development of a working tool called sequence map. The sequence map is one part of the so called sequence method that aims to empower family members so that they could find their capacities and be able to seek help outside the home if needed.

RESULTS

The key elements in the sequence method are doing together all kinds of household work that family members find difficult. The doing is based on the use of the sequence map, where daily and weekly chores are planned for certain time of the day. The discussions are the third element to support and to help the families. The discussions contain an evaluation of the co-operation process, reflections about targets and achievements as well as listening to all family members.

CONCLUSION

The data was collected in the context of a family work project by the Family Federation of Finland (Väestöliitto) during 2007-2010. The target group was families who face many kinds of difficulties with everyday life: children come too late to school or day-care, their basic needs are not fulfilled properly and many duties of the parents remain unattended.

IP_0046	Family Law Awareness: The Hope and Happiness of Family Members in Anambra State, Nigeria	
First Author (Main Author)	Uzoka Florence Amara (Federal College of Education (T) Asaba)	Nigeria
Co-Author(s)		
Presenting Author	Uzoka Florence Amara (Federal College of Education (T) Asaba)	Nigeria

The study seeks to investigate the hope and happiness of Family Law Awareness among family members in Anambra State, Nigeria. Three purpose of the study and three research questions guided the study. The study adopted survey research design. The area of the study was Anambra State. The population was made up of 395,065 persons namely; 3,500 Nigeria Civil Defence Corps, 500 Social Welfare Officers; 10 Human Right Activist, 2000 Home Economics Teachers and 377,505 family members. The sample was 1,365 respondents. A structured questionnaire was used for the study. The instrument was subjected to face validation by three experts; a Home Economist, a family law

practitioner in Anambra State and a police officer in charge of prosecution in Onitsha, Anambra State. Cronbach alpha was used to determine the interval consistency. The reliability coefficient obtained was 0.96. Conclusion and recommendations were made based on the findings of the study. The identified hope of family law Awareness in the study were; family members are aware of family law, widowhood cases, child abuse cases and neglect, child labour cases will be settled, issue of violation of rights by landlords and estate agents. The identified Happiness of Family Law Awareness in the study will make lawyers work towards prevention of family conflicts rather than separating and dissolving marriages. The family members will use the knowledge acquired from family law awareness in living harmoniously with each other. Ignorance of the law, is not an excuse for either violating the law or suffering some forms of denial of the rights provided for in the laws or abuses.

IP_1776	Universal Design Characteristics Shown in an Outdoor Play Environment in Japan Designed as Developmentally Appropriate for Children	
First Author (Main Author)	Maria Victoria Paz (Yonsei University)	Republic of Korea
Co-Author(s)	Yeunsook Lee (Yonsei University) Yoonsoo Kim (Yonsei University)	
Presenting Author	Maria Victoria Paz (Yonsei University)	Republic of Korea

During the past 20 years great efforts have been made in the creation of friendly and safe spaces for children to engage in outdoor play environments that contribute to their early education and development. The use of outdoor spaces has proven to be as valuable learning instance as classroom learning experience. Therefore, the correct assessment and design of these spaces in order to promote and enhance children's cognitive, social, physical development skills is imperative. The purpose of this study is to assess the design of an outdoor model playground facility in the perspective of Universal Design. The example-case study is a park area located in a recreational-healing complex "shiwase-no-mura" - Village of Happiness on the outskirts of Kobeshi, Japan which was built using universal design concept. The analysis of this case was carried out using 2 universal design model principles, 7 principles by the Center of Universal Design in North Carolina State University and 996 principles by Dr.Lee. The results showed that even though this playground which was built under a welfare vision, it only meets the minimum requirements for Universal design facilities. This is due to the fact that the concept of universal Design as a Strategy or a movement has been in constant development ever since it was first used in 1970s. This implies that even though at the time of construction it was considered innovative, within the course of 20 years no further improvements have been made therefore a reform needs to be implemented. Since contemporary society is turning more culturally diverse the use of universal design in playground areas needs to be constantly updated allowing children to play together, regardless a disability, which is beneficial physical, cognitive, emotionally and socially for their development.

Key Words: Outdoor Environment Design, Playground Environment, Universal Design, Child Development.

Room 103	Sustainability in Home Economics Education	
Chair	Sueun Ju (Dongguk University at Gyeongju)	Republic of Korea
IP_1079	Opportunities for Students Meaning Making Regarding Sustainable Food Consumption in Home and Consumer Studies Classroom	
First Author (Main Author)	Lolita Eriksson (Uppsala University)	Sweden
Co-Author(s)	Karin Hjalmskog (Uppsala University)	
Presenting Author	Lolita Eriksson (Uppsala University)	Sweden

In Sweden, sustainable development is to be seen as an overarching perspective on all teaching in Home and consumer studies. Within this subject, sustainable development is divided in three perspectives: health, economy and environment as representations of the three

dimensions of the concept: the social, the economic and the ecological. On the basis of this, one knowledge requirement states that the pupils should know how to make informed and sustainable choices and actions, for example, when buying food. We are interested in studying what and how the students develop knowledge and skills, what experiences they have and what habits they develop, to meet this knowledge requirement. To do this we study the meaning making processes in the Home and consumer studies classroom.

This paper aims to illustrate students' meaning making regarding sustainable food consumption during cooking activities in Home and consumer studies classroom.

Through accompanying video observation material from ten classes in Home and consumer studies has been collected, resulting in just over 1000 minutes of data. This video-audiovisual recording provides a unique access to details of social actions. Beside these actions, the students' language use was focused. By using Practical Epistemology Analysis (PEA) it becomes possible to analyze the actual actions, including language use, and interactions that occur in the classroom. In this approach, we sought for meaning making shown in the pupils' actions.

Our preliminary findings show that students do reason with their classmates during lesson. They talk about what they are doing and how to continue the food preparation process. But sustainable development seems relatively unreflective in both the pupils' speech as well as in their actions. Rather, it is taste that seems important for the pupils when preparing food. Taste affects their meaning making process and thus what experience they have and the habits they develop in the Home and consumer studies classroom.

The result from this study contributes to a critical reflection regarding education for sustainable food consumption within the field of Home Economics teaching and learning.

IF_0230	Ecological Solid Waste Management Literacy: A Measure of Knowledge, Attitudes, and Practices	
First Author (Main Author)	Jona Biongocog (Caraga State University)	Philippines
Co-Author(s)		
Presenting Author	Jona Biongocog (Caraga State University)	Philippines

AIM

This is a study using both quantitative and qualitative research methods conducted to:

(1) determine the extent of ecological solid waste management knowledge, attitudes, and practices of secondary school students, faculty, and staff in Cabadbaran City, Agusan del Norte; and (2) to develop an Aptitude Test Scorecard that could be used by schools in assessing the students, faculty, and staff's extent of involvement in solid waste management (knowledge, attitudes, and practices).

METHODS

Five hundred nineteen (519) high school students, faculty and staff from Cabadbaran Agusan Norte were chosen as respondents through complete enumeration (faculty and staff) and random sampling (students) using a researcher-designed survey questionnaire. Thirty percent of the high school students, all Technology and Livelihood Education teachers, and one staff per school were interviewed to elicit data on ecological solid waste management problems and possible programs that could be conducted within the school environment. A focus group discussion was utilized to validate the data gathered from the respondents of the study. Through the use of cluster analysis, the study was to identify four underlying clusters among the respondents. Using the characteristics generated and the researcher-analyst constructed typology, these four clusters of respondents were labeled as "disengaged", "uncommitted", "sensible", and "devoted".

RESULTS

Findings revealed that out of 519 respondents, 30 % belong to cluster 1 (the disengaged); 20 % in cluster 2 (the uncommitted); 35 % in cluster 3 (the sensible); and 15 % in cluster 4 (the devoted). Result show that respondents in cluster 1 have below average scores in knowledge, attitudes, and practices; cluster 2 have above average score in knowledge but below average in attitudes and practices; cluster 3 have above average scores in knowledge, attitudes, and practices; and cluster 4 have below average scores in knowledge but above average in attitude and practices. An aptitude test on ecological solid waste management using the questions and logistic regression analysis was done on the data.

The tool could be used to assess the students, faculty, and staff's level of involvement in ecological solid waste management activities.

CONCLUSION

Based on the findings, the following conclusions were drawn from the study:

1. Age is not a factor that influences environmental awareness.
2. Cluster Analysis results show four clusters of respondents: Disengaged, Uncommitted, Sensible, and Devoted.
3. A solid waste management aptitude scoring instrument was developed as a result of the logistic regression analysis. This tool could be used to test the ESWM level of involvement of students, faculty members, and staff.

IP_1306	Positioning Family & Consumer Sciences Education in the United States to Respond to a Hotter, Hungrier, More (dis)Connected Planet	
First Author (Main Author)	Ahlishia Shipley (University of Maryland University College)	USA
Co-Author(s)		
Presenting Author	Ahlishia Shipley (University of Maryland University College)	USA

In the year 2050, there will be 9 billion people living on this planet who will need to be fed, clothed, sheltered, cared for, and protected in an economically and environmentally sustainable manner. These issues are global in scope, therefore, the burden to solve these grand societal challenges rest on all of us. Similarly, professionals across disciplines must continue to organize their collective expertise and innovate together consistently examining the strengths and influences of interlocking human and environmental systems. From this view, it is beneficial for home economists to cultivate and maintain a baseline of knowledge about issues in these systems in addition to our foundational academic focus areas. We should have working literacies of how issues in these systems affect the work we would like to accomplish with individuals, families, and communities in the local community or on the world stage.

University programs in the United States have the opportunity to prepare family and consumer sciences students to address these global challenges through identifying areas to bridge our coursework with public health, environmental sustainability, food security, agriculture, cultural competence and knowledge as well as leadership. AIMS: The paper will offer recommendations for expanding collegiate family & consumer sciences education programs to include training and experiential learning reflective of the global challenges related to health, hunger, poverty, the environment, and diversity while also observing the intellectual foundations of home economics.

METHODS

These recommendations will be based on an environmental scan of family & consumer sciences education programs at land-grant universities in the United States a) examining curriculum requirements, b) opportunities for cross-discipline study, c) the scientific, technical, economic, social, and political trends relevant to this topic, as well as d) voices of professionals in the field on the future of FCS education.

Room 104	Home Economics Education for Happiness	
Chair	Yoon-Jung Lee (Korea University)	Republic of Korea
IP_1361	Action for Happiness	
First Author (Main Author)	Kathryn McSweeney (St. Angela's College)	Ireland
Co-Author(s)		
Presenting Author	Kathryn McSweeney (St. Angela's College)	Ireland

This study was prompted by an interest in the extent to which Home Economics education in Ireland addresses the well-being of children and families in society. This interest led to an empirical investigation of key stakeholders' perceptions of the role of Home Economics in developing

life skills that contribute to a better home and social environment and the impact of Home Economics education on the well-being of children and families in society. The data collection primarily comprised interviews with a selection of teachers and students. The analysis of interview data revealed the subtle role of Home Economics education in the enhancement of well-being and impact of Home Economics education on student learning experience and outcomes.

IF_0179	Home Economics, Happiness and Literacy: Pulling the Threads Together	
First Author (Main Author)	Donna Pendergast (Griffith University)	Australia
Co-Author(s)		
Presenting Author	Donna Pendergast (Griffith University)	Australia

Well-being researchers have identified many variables related to happiness. For home economists, the notion of well-being has arguably underpinned our field for more than a century and hence our connections with happiness have also been fundamental to our philosophical development, though interestingly not generally in an explicit way.

IF_0079	Spirituality: A Link between Crisis, Hope and Happiness in Home Economics	
First Author (Main Author)	Jay Deagon (Griffith Institute for Educational Research)	Australia
Co-Author(s)		
Presenting Author	Jay Deagon (Griffith Institute for Educational Research)	Australia

AIM

In the face of adversity, how can a 'crisis' become a catalyst for hope and happiness? In addition, how do home economists see spirituality as playing a role in the transition from crisis to hope? Very little is known about the impact that spirituality has on the personal and professional lives of home economists. Explored through a theoretical framework for understanding spiritual health and wellbeing, this research elicited home economists' views and perceptions from cross-cultural backgrounds about their spiritual, religious and personal beliefs (SRPB) and perceived relationships with home economics ideology and practice.

METHODS

Data derived from a sample of 56 home economists' written responses to an online survey and four confirmatory email interviews. Bricolage techniques revealed trends and themes in participant discourse.

RESULTS

The study discovered that SRPBs have a significant impact on the personal and professional lives of home economists. For example, crisis, hope and happiness were three themes that converged in the participants' responses. Viewed through a spiritual lens, some home economists recognised that from a crisis, hope and happiness can grow. Other insights shared by the participants manifest as service to others in times of crisis in order to provide hope. Interestingly, participation in the study provided an opportunity for participants to critically reflect on an aspect of their home economics practice that they do not often think about or see as having a connection. Some participants expressed that participating in the study provided an invaluable opportunity to reflect on their beliefs which in turn facilitated articulating connections between home economics and spiritual health and wellbeing, including relationships with self, others, the natural environment and a global consciousness.

CONCLUSION

Home economists' are encouraged to critically reflect on their SRPBs and the impacts their beliefs have on home economics ideology and practice.

IP_0801	Empowering Individual Happiness through Home Economics Education	
First Author (Main Author)	Mary Magdalene Stevenson-Yong (National Institute of Education)	Singapore
Co-Author(s)	Joyce Mok Chiu Fui (National Institute of Education)	
Presenting Author	Mary Magdalene Stevenson-Yong (National Institute of Education)	Singapore

Home Economics education has become microscopic in its curricula emphasis, focusing mainly on technical and factual knowledge (Gale, 1991). System of actions regarding communication of values within the family and society as well as the liberation of individuals, families and society from exploitative social forces, appear to have lost their foothold in most school curricula. This void in the curricula could cripple the discipline's mission to effectively facilitate the maturation of the individual's ego identity, which, according to Brown (1980), is paramount to building a person's capability for achieving personal happiness and their ability to contribute toward the happiness of others.

While there has been literary discussion on the importance for the subject to move toward 'global Home Economics education' (Gale, 1991) that would encompass all three systems of action, there is a lack of research on its actual implementation and the consequential impact the subject has on empowering personal happiness.

This paper will examine the evolution of the Singapore Home Economics syllabus over the years and the impact it has on student perception regarding the subject's role in achieving personal life happiness at any one of the following three levels: pleasant, good and meaningful life (Seligman, 2010). Changes made to the curricula over the years were implemented with the intention to equip students with the necessary skills and knowledge that would enable effective living, moving toward and for the 21st century. However the development of the curricula does not appear to include the action systems that go beyond the inculcation of technical skills and factual knowledge. Thus students may not perceive the subject as instrumental in facilitating the achievement of personal happiness.

In conclusion, by examining the implementation impact of Singapore's Home Economics curricula, it would provide the fraternity with a sample insight as to how efficaciously Home Economics education today is truly fulfilling its mission of empowering individuals to experience, create and contribute toward happiness for all.

Room 105	Family and Happiness	
Chair	Saeun Choi (Korea National University of Education)	Republic of Korea
IP_0367	Family Conflict in Dual-Career Couple Households in Ondo West Local Government Area (Owlga), Ondo State Nigeria	
First Author (Main Author)	Mopelola Brownson (Adeyemi Federal University of Education)	Nigeria
Co-Author(s)	Tolulope Femi-Ibitoye (Adeyemi Federal University of Education)	
Presenting Author	Mopelola Brownson (Adeyemi Federal University of Education)	Nigeria

AIM

- Identify the reasons for dual-career in the family
- Ascertain the influences of dual-career on the family
- Determine the challenges encountered by dual-career couples
- Proffer strategies to reduce family conflict in dual-career couple households

METHODS

The study adopted a survey design. Three hundred and six (306) married men and women were selected using simple random sampling

method from six wards in Ondo West Local Government Area, Ondo State. Four research questions were posed to guide the findings of the study and two hypotheses were formulated and tested at 0.05 level of significance. Questionnaire was used for data collection. The data was analysed using frequencies, mean and t-test.

RESULTS

Couples have dual-career in the family in order to meet up with the demands within and outside the family as well as the social trends in the society; dual-career in the family has its own positive and negative influences on the well-being of the family in terms of responsibilities at work and home as well as economy, dual-career couples still have financial concerns; experience difficulties in home keeping, work responsibilities, child-raising; setting priorities (family or work) and at times insufficient sleep.

CONCLUSION

Unlike what used to be obtainable in the society both men and women want an economic independence and stability as well as a broader view of life. This has prompted the outburst of dual-career family in the contemporary society. The influence of dual-career in family has not just been felt in the family in terms of economic stability, greater roles and responsibilities but also in the society. Dual-career has interfered with job efficiency and effectiveness of couples as well as the workload and conflict at work. Additionally, some dual-career couples despite their level of involvement in economic activities are faced with financial concerns, difficulties in home keeping and child-raising, work-family conflicts, insufficient sleep and added complexity of managing household supports such as housekeepers and daycare providers.

IP_0618	Contributions of Home Economics in Promoting Individual Fulfillment and Quality of Family Life for More Stable Economy: The Case of Nigeria	
First Author (Main Author)	Patricia Mbah (Michael Okpara University of Agriculture Umudike)	Nigeria
Co-Author(s)	Ozioma Azubuike (Michael Okpara University of Agriculture Umudike)	
Presenting Author	Patricia Mbah (Michael Okpara University of Agriculture Umudike)	Nigeria

Home Economics philosophy and mandate is to equip individuals and families with skill acquisition, integration of knowledge, and attitudes drawn from wide varieties of relevant disciplines that would help individuals and families to proffer solutions to daily practical problems of living emanating from home, family and society. The study examined the contributions of Home Economics in promoting individual fulfillment and instituting more stable economy to improve quality of family life in Nigeria. Two research questions were raised for the study and a descriptive survey design was employed in the methodology. The instrument for data collection was a structured interview. The sample size was 200, (100 individuals and 100 households) selected using multi-stage sampling techniques from Michael Okpara University of Agriculture Umudike, out of the population of 1582 of both academic and non-academic staff. Mean responses revealed that most of the items on the individual fulfillment had a mean of 2.5 and above and the items on quality of family life had mean of 3.45, 2.50 and 4.00 respectively which indicates that Home Economics is a discipline with potential attributes for skill acquisition capable of positive influence in promoting individual fulfillment and improving quality of life. The study recommended that adequate and regular advocacy from practitioners of Home Economics as a discipline to individuals and families so as to educate general populace on the benefits of Home Economics philosophy and objectives as contributions towards promoting individual fulfillment and quality of family life for more stable economy is very important. The study therefore suggested inclusion of a viable extension services/advocacy as a core aspect of Home Economics curriculum in schools, colleges and universities.

Keywords – Individual, Fulfillment, Quality, Family, Life.

IP_0854	Household Living Arrangements and Livelihood Generation in Ulundi, a Non-Urban Local Municipal Area in Kwazulu-Natal, South Africa	
First Author (Main Author)	Corrie Du Preez (University of Zululand)	South Africa
Co-Author(s)		
Presenting Author	Corrie Du Preez (University of Zululand)	South Africa

Various household classifications or typologies have evolved over time, illustrating that households can be classified in many different ways, including socio-demographic and relationship based. Livelihood is a complex concept encompassing many other concepts warranting investigation and discussion. In its simplest sense it means gaining a living, while it is more than just an income and encompasses assets, capabilities and activities.

In the first place the research aimed to describe the living arrangements of the households in terms of household composition, relationships between household members, and demographic and socio-economic dependency. Secondly, the research aimed to establish how households generate livelihoods by assessing all the activities households engaged in and all the resources and services they accessed and utilised to generate a living.

A total of 488 households were conveniently sampled from 11 wards in non-urban Ulundi local municipal area. A survey questionnaire was developed to collect demographic, socio-economic data at the level of the household and for some variables at the level of the individual. The questionnaire was pilot tested after which data were collected during 2013 and 2014 by means of interviews to improve the response rate and allow for variations in literacy levels.

Preliminary analysis of the data show significant demographic and socio-economic differences between male- and female-headed households as well as non-significant differences between households from different wards. Across the wards, significantly more households are headed by females, these households are bigger than male-headed ones and, have significantly more demographic and effective dependents residing at their homesteads. Female heads are significantly older than their male counterparts, the majority of them widows relying on old age pensions as their main source of income. Households rely on child grants and old age pensions as a major source of income.

In conclusion it can be said that household boundaries are fluid and livelihoods extremely diversified.

IP_0227	Happiness or Hindrance: Digital Competencies in Families and in Retirement Homes	
First Author (Main Author)	Jeanne Godin (Université de Moncton)	Canada
Co-Author(s)	Manon LeBlanc (Université de Moncton) Michel Léger (Université de Moncton) Viktor Freimen (Université de Moncton) François Larose (Université de Sherbrooke) Yves Bourgeois (University of New Brunswick)	
Presenting Author	Jeanne Godin (Université de Moncton)	Canada

AIM

Although the need to develop digital competencies is widely accepted in countries where technology is available, how they are acquired at various stages of life is not fully understood. Precisely, our research aims to understand how digital competencies are acquired and transferred from one educational stage of life to another, namely from the home to kindergarten, from elementary school to high school, from high school to college, from college to the workplace and, finally from workplace to retirement.

METHODS

In an attempt to better understand the evolution of these acquired digital skills throughout one's life stages, a research partnership uniting representatives of educational institutions (schools, colleges), employers and community actors such as families and non-profit organisations was created. Using a Delphi method, interviews with families, experts and retirees aimed to understand how they perceive digital competencies and how they are developed.

RESULTS

The results obtained from semi-structured interviews conducted during the first two years of this three year project will be presented.

CONCLUSION

Technology is reshaping every facet of our daily lives. Developing digital competencies is becoming a necessity from childhood to retirement. As part of a partnership development network created in the province of New-Brunswick, Canada, our results contribute to the creation of a lifelong continuum of digital competencies in respect to what is transferable and how to adapt to the rapid changes in technology.

IP_0600	Home Economics Theory: Considering Household Life Course Practices	
First Author (Main Author)	Stefan Wahlen (Wageningen University)	Netherlands
Co-Author(s)		
Presenting Author	Stefan Wahlen (Wageningen University)	Netherlands

Home Economics is essentially concerned with well-being and happiness in the everyday life of individuals and communities. According to the IFHE position statement from 2008, the academic branch of Home Economics assists in curriculum development as well as policy initiatives by providing empirical as well as theoretical insight on the everyday life of individuals and communities. The aim of this paper is to contribute a theoretical perspective on Home Economics philosophy, amalgamating theories of social practices and life course approaches.

The theoretical concept of "household life course practices" concatenates life course approaches with theories of social practices. It is thereby not only possible to trace socio-demographic trajectories and transitions associated with well-being and happiness of individuals and communities, but also to highlight the meaning and cultural significance of day-to-day activity. Life course approaches stress social stratification in social, economic and historical contexts following five principles: (1) agency and life-span development; (2) location in time and space; (3) linked lives (i.e. social networks); (4) Timing; (5) Trajectories. Theories of social practices on the contrary assume everyday activities to be located in a nexus of doings and sayings. The entity of social practice is considered to consist of particular elements, i.e. of (1) understandings, (2) procedures and (3) engagement.

The innovative theoretical framework of "household life course practices" extrapolates and stipulates the two theoretical streams of investigation and contributes to Home Economics theorizing in various ways. The framework accounts for everyday activity by searching for novel vistas on specific linkages, interfaces and mechanisms with regard to activities of individuals and communities.

IP_1309	The Household Learning Present in the Life Stories of Women Providers in Fortaleza, Ceara, Brazil	
First Author (Main Author)	Sande Maria Gurgel D'Ávila (Universidade Federal do Ceara)	Brazil
Co-Author(s)	Margarida Maria Demarchi (Brazilian Association of Home Economics)	
Presenting Author	Margarida Diniz Demarchi (Brazilian Association of Home Economics)	Brazil

This article is part of the doctoral thesis in Sociology at the Federal University of Ceará in Fortaleza, Ceará, Brazil. It aimed to carry out a

comparative study of nuclear families, of lower tier and middle class tier, in the city of Fortaleza, regarding "female family providing," sole or shared with her husband / partner, and its implication in the relationships of daily family life. As a qualitative research, the study investigated similarities and differences between the families of the two social layers in the experiences of daily family life, to identify continuities and changes in contemporary society. The families analyzed in this study, have characteristics inherent in the concept of social class that takes as indicators: profession, education, income, location and type of housing. This account presents the life stories of 19 women regarding their learning of domestic work, which begun in their childhood, in their own homes (middle class) or the homes of other families (women of lower social class) when living as maids or nannies. Working is not a problem in itself, however, if the work takes place in childhood, it overwhelms the child, and it becomes an obstacle to school enrollment and attendance; it is termed child labor and constitutes a social problem. Most of the women participating in this study experienced childhood labor, resulting in their low level of education. Domestic work of girls is strongly associated with household poverty and, or, with the transmission of knowledge or profession from mothers to daughters. It can also happen in immigration status, when rural families send their daughters to work as domestic workers in the homes of nearby towns. The use of children and adolescents as labor for housework is a reality that still needs to be combated.

Room 106		Happiness and Home Economics	
Chair	Jung-Hyun Chae (Korea National University of Education)		Republic of Korea
IP_1146		Hope and Happiness- Break Down the Silos	
First Author (Main Author)	Ritu Sehji (Westlake Boys High School)		New Zealand
Co-Author(s)			
Presenting Author	Ritu Sehji (Westlake Boys High School)		New Zealand

Research area: B.
Health, Nutrition and Food Science with links to D. Home Economics Education

BACKGROUND

Current teaching practice in New Zealand secondary education sector has shown a marked shift towards planning of courses to create opportunities for cross curricular links. Educators in NZ schools are looking for common ground to create such opportunities for their students. Although, this is a start, is it enough to build hope and happiness for 21st century learners and the society they live in? How can we leverage the potential of global connections, of digital tools and social media communities in purposeful ways to build hope and happiness? Most of the collaboration that is evident across curricular is at junior and junior high levels and are teachers able to sustain the collaboration and cross curricular links into senior classes.

AIM to determine the effectiveness of cross curricular links between Health, Science, Home Economic, Food Technology and other disciplines in education in New Zealand schools.

The presentation will focus on:

- * assessing prior knowledge and understanding of the same within our school community- staff, students, parents
- * how well we currently encourage hope and happiness for all? How will we encourage hope and happiness for all in the future?
- * how important the cross curricular links are?
- * If the contexts, knowledge and skills covered at schools are preparing students for the 21st century and beyond school?

METHODOLOGY

- Survey students, wider community at the start and end of study to gather data.
- Result, assessment data will provide evidence of in depth understanding.
- 21st century digital and collaborative learning

EXPECTED RESULTS

Heightened understanding of why healthy nutritional practices and educating others is important. Students engaging in higher orders thinking skills, achieving better grades, being aware of links with society and other disciplines.

EXPECTED CONCLUSION

Learning about healthy nutritional practices will have significant positive implications for our learners and their whanau's overall well being (Hauora).

IP_1203		Recipes for Success: The Promotion of Home Economics in a Community Sports Setting	
First Author (Main Author)	Amanda McCloat (St Angela's College)		Ireland
Co-Author(s)	Elaine Mooney (St Angela's College) Roisin Lydon (St Angela's College)		
Presenting Author	Amanda McCloat (St Angela's College)		Ireland

Adequate nutrition and food skills for young athletes are critical not only to their sporting performance, but more importantly to their overall health. Research demonstrates that despite a positive attitude towards nutrition, poor nutritional knowledge and dietary practices are observed in many players. The aim of this study was twofold. Firstly, to promote Home Economics in a community sports setting as a discipline which develops important life skills. Secondly, to develop food skills and nutritional knowledge among a group of young Gaelic football players. Initially a Recipes for Success Toolkit was designed and published by the research team containing daily menu plans; recipes and nutritional guidelines to optimise sporting performance. Subsequently, an intervention was designed and delivered by Home Economists for young sports players (n=220) in the community. Using the Toolkit, players completed a practical hands-on cookery session and completed a questionnaire post-intervention. Statistical analysis was conducted using SPSS version 22. Pearson's chi-square test was performed to test for gender differences in nutritional knowledge, food skills and attitudes to learning. Multiple regression analyses were performed to adjust for possible confounding variables.

Findings indicate that the majority players had not previously studied Home Economics however a positive attitude towards learning about nutrition and developing cooking skills were apparent. Home Economics classes and participants' mothers were cited as the main sources of information and cooking skills. Although, the majority were reportedly confident in following a simple recipe, almost all players relied on their mother to prepare meals. Notably, all players reported to enjoy the cookery session and acknowledged learning that had taken place in terms of nutrition. Home Economists can utilise their food knowledge, skills and pedagogical expertise to work with athletes in designing and delivering appropriate nutritional education interventions in a community sports setting. The lessons learned from this food based intervention can act as a learning model for similar interventions

IP_1234		Nurturing Home Economics Growth through Community Program Partnerships	
First Author (Main Author)	Lindsey Mazur (Manitoba Association of Home Economists)		Canada
Co-Author(s)	Diana Mager (Manitoba Association of Home Economists)		
Presenting Author	Diana Mager (Manitoba Association of Home Economists)		Canada

The Manitoba Association of Home Economists (MAHE) is supporting the practice of Home Economics in Canada by partnering with community programs that promote local food, value food security and provide hands-on nutrition and food preparation education to families. Farm to School is a not-for-profit healthy choice fundraiser that promotes healthy eating by supporting school and daycare nutrition policies. The program provides locally grown vegetables as a fundraising option to schools and licensed daycare centres throughout the province of Manitoba. MAHE started the program as a shared vision with the Manitoba government (provincial) and Peak of the Market, a grower-owned, not-for-profit vegetable supplier operating in Manitoba. The program started in 2010 with 68 participating schools. Now in its sixth year, a total of 1,869 schools and day cares have participated in the fundraiser.

Fruit Share was also started in 2010 by a Professional Home Economist who recruited ten friends and neighbours to start a neighbourhood program to help minimize food waste. They adopted a model where homeowners with too much fruit request volunteer pickers to harvest

their fruit and then share it equally between the homeowner, the pickers and a community organization. Within six years, Fruit Share spread throughout the city and five other communities. Together, they have rescued and shared over 80,000 pounds of fruit. Ongoing growth, funding and insurance needs led Fruit Share to seek a parent organization that shared its values and could provide it with stability and organizational support. In 2015, the MAHE became that organization. The partnership allows Fruit Share volunteers to focus on rescuing fruit while MAHE increases its reach by supporting the work of others.

Hear the story of how these community partnerships, led by Professional Home Economists, came to be and how we can continue to work develop partnerships that support common goals.

IF_0198	Acceptability of Soy Fortified Gari: Implication for Food Security in Nigeria	
First Author (Main Author)	Felicia Okwulehie (Alvan Ikoku Federal College of Education Owerri)	Nigeria
Co-Author(s)	Stella Lemchi (Alvan Ikoku Federal College of Education Owerri) Jovita Obi-Anyanwu (Alvan Ikoku Federal College of Education Owerri)	
Presenting Author	Stella Ngozi Lemchi (Alvan Ikoku Federal College of Education)	Nigeria

AIM

Gari is one of the major staple foods in Nigeria but has a drawback with regard to its crude protein content which is as low as 1%. The study therefore examined the general acceptability of gari fortified with soy flour.

METHODS

Improved Cassava TMS 30575 and raw Soybean seeds were used. Cassava was peeled, washed, milled, fermented spontaneously for five days and de-watered. Soybean seeds were boiled in 2.5% sodium bicarbonate for 20 minutes to remove beany taste, de-hulled, dried and milled into flour. The de-watered cassava mash and soy flour were mixed into six samples coded thus; CaS30, CaS50, CaS100, CaS150, CaS200 and CaS300. Two samples; Ca1 and Ca2 were used as control. Sensory evaluation was carried out with a twenty man panel using a nine – point hedonic scale. The data obtained were subjected to Analysis of Variance (ANOVA) to compare the means of the samples. The least significant difference (LSD) technique was used to separate the treatment means.

RESULTS

The result showed that the strong acid taste of gari which is desirable was not affected by fortification with soybean as there was no significant difference (P<0.05) in taste eaten as snack (soaked in cold water). Its consumption as either Fofo (Eba) or snack was generally accepted.

CONCLUSION

The fortification of gari with soybean flour to improve its nutrient content should be promoted both in the rural and urban areas as a means to reduce food insecurity in Africa where gari is a major staple food.

IP_1114	Hope and Happiness: Evidence of Home Economics Relevance through Publication and Scholarship	
First Author (Main Author)	Carole Makela (Colorado State University)	USA
Co-Author(s)	Catherine Amoroso Leslie (Kent State University)	
Presenting Author	Carole Makela (Colorado State University)	USA

The purpose of this study was to explore the research and application articles from a selection of Home Economics journals and publications representing at least five countries from each of the continents as to the inclusion of studies to determine the extent to which the research topics identified for the 2016 Congress—hope and happiness of children and families in society; health, nutrition, and food science; clothing

and design; housing and environments; home economics education; and government and policies—are being addressed in the published work in the journals. Content analysis explored the article titles, abstracts, and, when available electronically, the articles to determine inclusions and trends from 2010 to the present. It is estimated that the complete analysis will include more than 300 articles. Initial analysis suggests that the breadth of topics was greater than the six identified above and that an increasing number of studies are based on theories and frameworks that intersect across topics. Examples include sustainability, consumer behavior and choice, and quality of life, often related to two or more of the topics or to home economics in its totality. This research provides tangible evidence from publication and scholarship that Home Economists throughout the world are doing very timely and relevant research which continues to add to the body of knowledge and explore issues, theories, and frameworks, which are advancing the field. Recommendations include an ongoing international database of research and applications articles, greater inputs to assure access and availability to more students and professionals in more countries, and refined clarity of content in abstracts and titles to ease the challenges of productive searches for content of interest.

Room 107	Programs and Strategies for Better Health	
Chair	Jung Eun Lee (Sookmyung Women's University)	Republic of Korea

IF_0161	Texas Grow! Eat! Go! Using Family-Focused Garden, Nutrition and Physical Activities to Prevent Childhood Obesity: Cohort 1 Results	
First Author (Main Author)	Judith Warren (Texas A&M AgriLife Extension Service)	USA
Co-Author(s)	Alexandra Evans (University of Texas School of Public Health, Austin, TX) Nalini Ranjit (University of Texas School of Public Health, Austin, TX) Elissa L.J. McKyer (Texas A&M University, College Station, TX)	
Presenting Author	Judith Warren (Texas A&M AgriLife Extension Service)	USA

AIM

Texas! Grow! Eat! Go! has the primary aim to assess the efficacy of a Coordinated Approach to Child Health (CATCH) enhanced with family-focused, experiential gardening, nutrition, and/or physical activity programs on the prevalence of child overweight and obesity.

METHODS

Independent and combined effects of the 2 school-based Extension interventions – Junior Master Gardener (JMG) and Walk Across Texas (WAT), with CATCH as control- were evaluated related to children and parent's nutrition and physical activity behaviors and children's body mass index (BMI). A randomized controlled trial methodology was used with 16 Title 1 schools in four areas of Texas for Cohort 1. Child and parent measures developed for this study included behavioral outcomes (i.e. diet, physical activity, and gardening), psychosocial variables related to these three behaviors, knowledge, and demographic data. Pre- post-intervention survey data was collected four times over two years from children and three times from parents. Child BMI was collected four times.

RESULTS

The combined treatment: CATCH + JMG + WAT resulted in significant, positive changes in vegetable exposure & preference, physical activity behaviors in children and with parent physical activity involvement. Data from 734 children and 560 parents showed positive behavior changes including: increased self-efficacy to consume health beverages, reduced consumption of sugar-sweetened beverages, increased healthy family meal practices, and increased knowledge about plant science and nutrition. Mixed effects were found for children classified as overweight or obese: % obese & obese/overweight decreased for CATCH & CATCH + JMG and obese/overweight decreased for CATCH + WAT.

CONCLUSION

The combined intervention was shown to be feasible and effective in improving nutrition and physical activity behaviors in children, parents and at home. Variation in classroom implementation (fidelity) across treatments indicates a need for further analysis related to outcomes.

IP_0491	Impact of Nutrition Knowledge of Mothers on the Nutritional Status and Intellectual Development of Preschool Children in a Rural Area of Lagos State, Nigeria	
First Author (Main Author)	Ifeoma Akeredolu (Yaba College of Technology)	Nigeria
Co-Author(s)	Taiwo Omomia (Yaba College of technology) Patricia Mbah (Federal University of Agriculture) Adetola Adegbite (Yaba College of Technology)	
Presenting Author	Ifeoma Akeredolu (Yaba College of Technology)	Nigeria

AIM

This study examined the relationship between mother's nutritional knowledge and their children's nutritional status and intellectual development.

METHODS

Descriptive survey design was employed. Validated questionnaire was used to collect both demographic and nutrient intake (24hr dietary recall) information from 195 mothers and 206 pre-school children (2-4yrs) from Ibeju Lekki LGA in Lagos. Anthropometric data were taken and analyzed using NCHS/WHO standard. Developmental milestones were also used to determine the children's intellectual development. The relationship between the diet and intellectual development was analyzed using chi-square and Pearson's correlation.

RESULTS

Majority (87.4%) of mothers of preschoolers have good nutritional knowledge. Their mean caloric intake was 1583kcal with most (95.0%) of them meeting the Dietary Reference Intake (DRI) only 85.0%, 75.0% and 65.0% met the DRI for Protein, Zinc and Iron respectively. There was a very high prevalence (43.7%) of stunting, (35.0% mild, and 8.7% moderate). There was also a very high prevalence (28.2%) of wasting, (20.4% mild, 3.9% moderate, and 3.9% severe). Prevalence of underweight was very high (26.7%). Majority (45%) of preschoolers (age 2) had low intellectual development, whereas, 55% of age 3 preschoolers and 40% of age 4 had average intellectual development. There was a significant relationship ($p < 0.05$) between the children's intellectual development and their nutrient intake.

CONCLUSION

The study provides evidence that the children in Ibeju Lekki have a high prevalence of stunting, wasting and underweight. It is therefore suggested that Nutrition Practitioners should plan and implement Nutrition Education programmes that can boost mothers' dietary practices which would impact positively on their preschoolers' nutritional and intellectual status.

IP_0519	Healthy Eating Indexes of Adult Women	
First Author (Main Author)	Ayşe Nur Songür (Ankara University)	Turkey
Co-Author(s)	Funda Pinar Çakiroğlu (Ankara University) Zeynep Büyükbaş (Ankara University)	
Presenting Author	Ayşe Nur Songür (Ankara University)	Turkey

AIM

In this study, it was aimed to determine the nutrition patterns of adult women with "Healthy Eating Index" used in measuring the total diet quality.

METHOD

The study was conducted with volunteer 125 adult women. Research data was collected with the help of questionnaire form. First part of it was composed of the general information. In the second part, food consumption of the women was calculated with the method of "Remembering

of 24 Hours". Healthy eating indexes of the individuals were determined by identifying the diet patterns and food variety of individuals. Portion measures in "Nutrition Guide Particular to Turkey" were used in the calculation of Healthy Eating Index (HEI). Healthy Eating Index is composed of 10 diet components. Score was determined in the range of 0-10 for each component of the index. Maximum total score is 100 points. If the HEI score is above 80, between 51 and 80 and under 51, these scores are classified as "qualified", "normal" and "insufficient" respectively. High scores show that recommended amount or portions in diets are consumed sufficiently. Moreover, women are evaluated in terms of nutrition variety. The nutrition variety which is consumed by women within the scope of their nutrition patterns was determined by considering 19 different nutrition groups. Nutrition variety scores were categorized as 0, 5 and 10 points respectively. Those who consume ≤ 6 , 16 and ≥ 16 kind of nutrition took 0, 5 and 10 points respectively. SPSS Statistics Program was used in data evaluation.

RESULTS

Average age of the women participated to the study is 55.50 ± 5.53 (min.40, max. 65 years old). It was determined that 29.6% of women is illiterate and 19.2% of them is literate; 48.0 of them had 5 years and 3.2% of them had 8-11 years education. Average Body Mass Index (BMI) value of the participants is 34.5 ± 6.51 . Respectively, 6.4%, 20.0%, 31.2%, 41.6% and 0.8% of women took place in groups of normal, overweight, 1st degree, 2nd degree and 3rd degree obese. Average healthy eating index score of participants is 52.04 ± 11.24 . None of the participants have "qualified" eating score. On the other hand, 52.0% of them have "insufficient" and 48.0% of them have "normal" eating index score. Once again, none of the participants have 10 points in nutrition variety scoring rubric (average $:5.04 \pm 0.45$; min.5, max.10). The relation between age groups, BMI and education and HEI was statistically insignificant ($p > 0.05$). The relation between education and nutrition variety scores was only statistically significant ($p < 0.05$).

CONCLUSION

In the result of HEI scores of participant women, it is concluded that their diets should be developed. Low scores in terms of nutrition variety supports current result. In previous studies, it is stated that nutrition variety is related to mortality of cardiovascular and cancer diseases and there is a positive relation between higher nutrition variety and low BMI in especially women. Thus, regulation of diet becomes one of the important part of protective and curative health services. Establishing a diet pattern in accordance with individual and social features help decreasing pathogenesis and increasing the life qualities of individuals. Health is the greatest happiness. Healthy people may make plans for future and be hopeful for their future.

IP_0962	Dieting Practices among Youth	
First Author (Main Author)	Faiza Abd Alla (Ahfad University for Women)	Sudan
Co-Author(s)	Sumya Gutobi (Ahfad University for Women) Asma Khair (Ahfad University for Women) Shaymaa Al samani (Ahfad University for Women) Sarah Aldaw (Ahfad University for Women) Alaa Salih (Ahfad University for Women) Hadeel Malik (Ahfad University for Women) Salma Babiker (Ahfad University for Women) Riham Yousif (Ahfad University for Women) Hajer AbuGor (Ahfad University for Women) Sarrah AbdAll (Ahfad University for Women)	
Presenting Author	Faiza Abd Alla (Ahfad University for Women)	Sudan

Case of: Ahfad University for Women's Students

AIM

Overweight and Obesity are becoming big problems among youth. And so dieting is becoming a popular phenomenon among university students to achieve or maintain a healthy weight. A cross-sectional study using a questionnaire and anthropometric measurements for students was conducted to know the dieting practices and reasons behind dieting.

METHODS

All schools of Ahfad University for Women in Omdurman city, Sudan were involved. Validated questionnaires, anthropometric, dietary and physical activity behavior data were collected from 545 (female 17-26 years)

RESULTS

The study found that most of the students failed to achieve their goal due to many reasons: lack of knowledge about healthy diet and the type of food that serve their goal, haven't enough time for following the diet, couldn't continuing in the diet, or not haven't enough money to offer the proper diet food. Also there were a number of obese students.

CONCLUSION

This pilot study show differences in attitude and knowledge among dieters in the different schools. It could be tested at larger scale among students of other universities.

RECOMMENDATION

1. Nutrition education should be implemented to all students
2. Teach the student's about anthropometric measures and advice them to conduct regular weighing;
3. Nutritionist, physicians and other health professionals should incorporate the use of simple indices {weight, height, and waist circumference} into routine clinical examination or screening among adult population.
6. Information on managing lifestyle changes, in particular eating healthily and taking regular exercise should be available to students;
7. Ensure that the students learn that cooking their own food from their natural state is the best way to control what they put into their bodies
8. Make practical food education a compulsory part of the school curricula

IP_1346	Students Nutritional Investigation of Middle and High School in Nanjing City	
First Author (Main Author)	Bangg-Quan Jin (Ginling College Nanjing Normal University)	China
Co-Author(s)	Xue Jiang (Ginling College Nanjing Normal University) Chen Liu (Ginling College Nanjing Normal University)	
Presenting Author	Bangg-Quan Jin (Ginling College Nanjing Normal University)	China

AIM

To investigate the nutritional knowledge and attitude with healthy status and dietary habits of middle and high school students in Nanjing city. [Materials and methods] The questionnaire was divided into five sections: health status, nutritional knowledge and attitude, dietary habits, school canteen service and family economy. It was total of 1301 students, male was 53.89%, female was 46.11%.

RESULTS

As their body weight (BW) and body mass index (BMI=BWkg/BHm², BH is body height), the normal BW was 44.57% or 62.32% in total, overweight was 14.34% or 13.74%, and obesity was 7.75% or 8.93% in middle school or high school, respectively. The average of student nutritional cognition was up to 67.24%, the high school was better than middle school. For their attitude, it was over 40% students concerned about nutrition. About 28% students hope to learn more and 40% like to be taught nutritional knowledge. Most of students knew breakfast was very important for their health, but 20% had no their breakfast usually. It was 84% students could eat 3 eggs, 93% took in soya products and 87% ate for aquatics one week, only 53.36% like to eat vegetables every day. There was partial eclipse of 27.1% middle school students and 35% high school students. It was about 91.08% middle school students had their lunch in school canteen, but only 38.8% high school students in school canteen.

CONCLUSION

We found the eating behavior of part students needed to improve. Their nutritional cognition and attitude was not positive relation with their eating behavior at all.

Workshop

Room 206	Transforming Our World: The 2030 Agenda for Sustainable Development the Role of Families and the IFHE	
Chair	Geraldene Hodelin (IFHE)	Jamaica
Presneter(s)	Patricia Mbah (Michael Okpara University of Agriculture Umudike) Yukiko Kudo (Yokohama National University) Margaret Jepson (IFHE UK) Mary Hayes (IFHE) Sidiga Washi (Ahfad University for Women)	Nigeria Japan United Kingdom Ireland Sudan
WS_0651	Transforming Our World: The 2030 Agenda for Sustainable Development the Role of Families and the IFHE	
First Author (Main Author)	Geraldene Hodelin (IFHE)	Jamaica
Co-Author(s)		
Presenting Author	Geraldene Hodelin (IFHE)	Jamaica

AIM

The International Federation for Home Economics (IFHE), demands innovative actions for sustainable development. Currently the IFHE promotes diverse socioeconomic and environmental developments programmes that promote integration, coordination and coherency in its strategies at all levels, aiming at poverty eradication and the security of an enhanced well-being of families globally. A sustainable future requires social change that respects and protects human rights, cultural diversity, a healthy environment, a reduction in economic inequalities and achieve social inclusion everywhere.

The workshop will focus on the role of families, home economists and IFHE in the process of Transforming our world: the 2030 Agenda for Sustainable Development.

In this dynamic and interactive workshop participants will discuss the challenges for families, home economists and the IFHE and will propose options and strategies, for family education professionals to support and contribute to the process of Transforming our world.

METHODS

- As Chair of the PC Family, Professor Geraldene Hodelin will introduce the most relevant SDG's to set the stage for the discourse
- Challenges for Transforming our world will be demonstrated by three IFHE experts from different regions of the IFHE
- Participants will be divided into groups to work on select themes. Groups will be chaired by Prof. Dr. Geraldene HODELIN, Prof. Dr. Sidiga WASHI, Mary Hayes Leader of the PC Family

WORKSHOP OUTCOME

The outcome will be suggestions /stimulation for individual/ organisational members of IFHE and allied professionals to get involved in the process of Transforming our world: the 2030 Agenda for Sustainable Development

CONCLUSION

Output will be a collection of ideas for innovative actions for sustainable development creating the basis for a plan of action for the PC Family for next four years.

Symposium

Room 205	Meeting the Needs of Families in a Changing World: Perspectives from the Americas	
Chair	Jacqueline M. Holland (Morgan State University)	USA
Presenter(s)	Jacqueline M. Holland (Morgan State University) Julie Caissie (Université de Moncton) Margarida Diniz Demarchi (Brazilian Association of Home Economics) Audrey Jones-Drayton (Caribbean Association of Home Economics)	USA Canada Brazil Barbados
SP_1253	Meeting the Needs of Families in a Changing World: Perspectives from the Americas	
First Author (Main Author)	Jacqueline M. Holland (J.C. Research and Consultation)	USA
Co-Author(s)	Julie Caissie (Université de Moncton, Canada) Margarida Diniz Demarchi (Margarida Demarchi Association of Home Economics) Audrey Jones-Drayton (Caribbean Association of Home Economists Inc.)	
Presenting Author	Jacqueline M. Holland (Morgan State University)	USA

In today's world, changes in society significantly impact families. In turn, decisions made by families impact social, economic, cultural and demographic trends which reciprocate changes in societies as a whole. The United States has experienced diverse changes in race, use of technology, tolerance, marital status, and aging. (Pew Research, 2010). Similarly, crime and the effects of the drug culture are apparent and affect families in the region of the Americas. Canada has also experienced demographic shifts in family structure, immigration, aging and poverty (Statistics Canada, 2015). Since the 2009 recession in Canada, many families are struggling financially. Nearly five million Canadians live in poverty unable to meet their basic needs (Statistics Canada, 2011). Consequently, many provincial governments, with the exception of British Columbia, have created regional poverty alleviation programmes. In Brazil and the Caribbean, similar programmes are aimed at easing families out of poverty and helping them to enjoy basic necessities. As a result social inequality in Brazil has decreased by 15% (Campello e Neri, 2013) but Brazil, like most of the Caribbean, continues to suffer from the impact of this ethical-political-financial crisis in which increases in the cost of living and easy access to credit has greatly increased the indebtedness of some families. As in the other regions, the Caribbean family continues to recreate itself as it is impacted by these global trends, more particularly the intra-regional changes in cultural, religious, economic and political policies and practices. Poor access to current statistics for the critical variables of familial roles and structure, immigration, repatriation and their impact on the family tend to diminish the magnitude of the changes, their effects and interventions to mere conjecture. This presentation will explore many of these recent demographic, social, and economic changes in the region of the Americas and discuss solutions and the implications for home economics towards improving the quality of life for families.

Concurrent Session

Room 101	Happiness and Life Design	
Chair	Stefan Wahlen (Wageningen University)	Netherlands
IP_1174	Hospital Catering – A Comparative Look at Purchasing Prices in Switzerland	
First Author (Main Author)	Susanne Hofer (Zurich University of Applied Sciences)	Switzerland
Co-Author(s)	Gabriela V. Züger (Zurich University of Applied Sciences) Franziska C. Honegger (Zurich University of Applied Sciences)	
Presenting Author	Franziska C. Honegger (Zurich University of Applied Sciences)	Switzerland

BACKGROUND

Hospitals have to purchase a wide range of food items in order to cater for their different consumers. Traditionally Swiss hospitals purchase their goods individually and purchasing conditions are not disclosed. So far there has not been any study looking at prices of food items purchased by Swiss hospitals.

AIM of this research was to detect how much hospitals pay to purchase popular food items. This in order to provide hospital decision makers with a basis to compare and hence improve their purchasing conditions.

METHODS

Quantitative research design, underpinned by the pragmatism paradigm. The inquiry strategy was a multi methods case study. Case study entity is 43 hospitals catering facilities – focusing on purchasing prices. Main data collection method was document research. Data was primarily analysed using descriptive statistics.

RESULTS

Overview and comparison of prices hospitals pay to purchase popular food items. It shows that prices for similar products, such as 1 litre milk, differ up to 50% due to different purchasing conditions. Projected for one year, these differences have a significant financial impact. The research discloses an interesting range of purchasing prices.

CONCLUSION

For hospitals to know where their purchasing conditions stand, compared to others, is a major benefit to negotiate competitive purchasing conditions. This adds to the body of knowledge in the field of Home Economics by providing a sound argumentation basis to negotiate competitive purchasing conditions for food items in (Swiss) hospitals.

IF_0169	Income and Long-Term Care Planning	
First Author (Main Author)	Eunju Hwang (Virginia Tech)	USA
Co-Author(s)	Chungwen Hsu (Virginia Tech) Nancy Brossoie (Virginia Tech) Karen Roberto (Virginia Tech)	
Presenting Author	Eunju Hwang (Virginia Tech)	USA

AIM

With increasing numbers of adults in the U.S. turning age 65 each day (AARP, 2011), the demand for long-term care supports and services is expected to rise. Many of these rising seniors report hoping to avoid institutionalization and aging in place in their homes and communities - a strategy expected to place increased demands on household finances and existing healthcare systems. Although low income has been

associated with higher risks of disability, nursing home placement and healthcare costs, there has been a lack of attention to how income affects personal long-term care planning. The goal of this study is to examine the relationship between long-term care planning by household income.

METHODS

A nationally representative telephone survey on current and future use of long-term care services and supports, was conducted with 714 adults aged 45+ . Using chi-square, analysis of variance, and multiple regression techniques, intention to utilize long-term care planning was explored by income (< \$25,000, \$25,000 – \$49,999, and \$50,000+), age, living arrangement, race, self-rated health status, being alone, ability to take care of oneself, ability to drive, feeling a burden on one’s family, not being able to do things one likes to do, and not having enough money.

RESULTS

Household income alone was not enough to influence intention to use long-term care planning. For participants in the lowest income group, being alone contributed significantly to their intent to use. Age, not having enough money to stay in home, and not being able to take care of oneself influenced participants in the highest income group.

CONCLUSION

Findings suggest that financial counselors and planners should encourage their clients to include advanced care planning needs and costs into their long-term care planning and tailor financial advice in light of personal needs, concerns, and income.

IF_0053	An Exploration of Health and Household Saving Behavior	
First Author (Main Author)	Patti Fisher (Virginia Tech)	USA
Co-Author(s)	Sophia Anong (University of Georgia)	
Presenting Author	Patti Fisher (Virginia Tech)	USA

AIM

Health has not generally been a focus of theoretical and empirical work on motivations to save. We use a life-cycle saving framework and data from the 2013 Survey of Consumer Finances to investigate the relationship between health and household saving behaviors.

METHODS

Using a method presented by Jackson and Lindley (1989), we decompose the existing difference in saving between households in poor/fair and good/excellent health, allowing the impact of the explanatory variables in the model to differ between those in poor or fair health and those in good or excellent health. This allows us to better understand the link between health and saving for the future and what factors are behind the difference in saving behaviors between those in poor/fair health and those in better health.

RESULTS

The results indicate that the difference in saving behaviors between households in poor/fair and good/excellent health comes from two sources: (a) differences in the relationship between independent variables and saving for the two groups, and (b) poor/fair health in and of itself. We find that the effects of private health insurance, being separated/divorced, and income uncertainty on saving behaviors differ significantly for households in poor/fair health and those in good/excellent health. The results show that those in poor health are less likely to save, which has implications for financial security.

CONCLUSION

Future research could further determine whether this is because medical expenditures are higher, income is lower, or households choose not to save because they do not think they will live much longer. It is important to include health in discussions of personal finance among home economics educators and researchers.

IP_0447	The Co-Integration Analysis of Financial Development and Residents’ Property Income	
First Author (Main Author)	Xiaoyan Xiong (Ginling College, Nanjing Normal University)	China
Co-Author(s)	Zhao Ziqiang (Nanjing Normal University Accounting Department)	
Presenting Author	Xiaoyan Xiong (Ginling College, Nanjing Normal University)	China

AIM

Financial development is able to promote economic growth, and one main positive result of economic growth is to help residents earn more money. As an important part of residents’ income, property income comes mainly from the capital market. So, what is the relationship between regional financial development and the increase of its residents’ property income? This article will discuss on this question.

METHODS

By using co-integration tests as well as error correction models, and taking advantage of the data between the year 1990 to 2009, this article makes an empirical analysis of the relationship between the financial development of Jiangsu Province and the increase of its residents’ property income.

RESULTS

The result of our research shows that the financial development of Jiangsu Province and the increase of its residents’ property income have a long-term and a short-term positive relationship. Granger Causal Relation Test also proves that the financial development of Jiangsu Province and the increase of its residents’ property income have a one-way relationship of causality.

CONCLUSION

First of all, accelerate financial innovation, open up more investment markets, expand investment channels and diversify the sources of property income. Secondly, improve the market order concerning property income so more people can participate in the market transactions equally, fairly and publicly. Thirdly, we should build a Chinese multi-layer stock market. The fourth point is that the government is supposed to proceed the necessary macroscopic guide at the right time and keep the appropriate relevance between asset prices and entity economy to avoid excessive asset-price bubbles.

IF_0215	Linking Happiness, Home Economics, and Sustainable Development	
First Author (Main Author)	Nancy Granovsky (Texas A&M AgriLife Extension Service)	USA
Co-Author(s)		
Presenting Author	Nancy Granovsky (Texas A&M AgriLife Extension Service)	USA

AIM

Compare the term, "happiness" to the conventionally used terms in home economics, "well-being" and "quality of life."

Examine the research methods reported in the 2015 World Happiness Report.

Share key research findings,, educational materials and relevant policy examples that can be used to integrate the language and concepts of happiness, home economics, and sustainable development.

METHODS

(This will be an illustrated presentation). Rarely has the home economics profession utilized the term, "happiness" in descriptions of its mission, goals, or work, perhaps because happiness is perceived as a subjective concept, difficult to measure. As home economics researchers, educators, practitioners, and policy-makers, we have had a greater comfort level with the terms, "well-being" and "quality of life," largely because measures

of well-being and quality of life are perceived as more easily measured objectively, and thus are viewed as more scientifically credible. However, none of us would disagree that the end result we desire through the practice of home economics is the attainment of happiness by individuals, families, communities and nations.

RESULTS

This paper will argue that as home economists we need to understand both the measures that are in current use to assess happiness and the factors that contribute and sustain human happiness. The paper will present findings from the 2015 World Happiness Report, the third such landmark survey of global happiness published by the Sustainable Development Solutions Network, a global initiative launched by UN Secretary-General Ban Ki-moon in August 2012. As United Nations member states prepare to adopt post-2015 Sustainable Development Goals (SDGs), more governments are using happiness data and research to design policies and public services that result in better lives for people. Happiness and well-being are becoming important components of the dialogue about sustainable development.

CONCLUSION

Finally, the paper will provide a summary of key research findings, educational materials and relevant policy examples that can be used to integrate the language and concepts of happiness, home economics, and sustainable development. These materials may be helpful to IFHE members at the community or national level, as well as to the future work of IFHE at the global level as it continues its work with United Nations entities as an international NGO.

IP_1175	Typical Breakfast & Lunch & Dinner in a Swiss Hospital	
First Author (Main Author)	Susanne Hofer (Zurich University of Applied Sciences)	Switzerland
Co-Author(s)	Gabriela V. Züger (Zurich University of Applied Sciences, Institute of Facility Management) Franziska C. Honegger (Zurich University of Applied Sciences, Institute of Facility Management)	
Presenting Author	Susanne Hofer (Zurich University of Applied Sciences)	Switzerland

BACKGROUND

Patients in Swiss hospitals receive three main meals a day, depending on their health condition.

AIM

Aim of this research was to detect the typical three main meals provided in Swiss hospitals.

METHODS

Mixed METHODS research design, underpinned by the pragmatism paradigm. The inquiry strategy was a multi methods case study. Case study entity is hospitals catering facilities – focusing on patient meals. Data collection method includes visual analysis of more than 1000 photographic data, taken by the researchers, of prepared patient meals. Data was primarily analysed using content analysis.

RESULTS

The research provides an overview of how patient meals in Swiss hospitals look like. Resulting in the representation of a typical breakfast, lunch and dinner. The last two meals predominantly consist of four items soup, salad, a warm main course and dessert.

CONCLUSION

Swiss hospitals provide their patients an extensive range of food. This is can be questioned in terms of effective nutritional necessity and regarding resources spend to provide this offer. The findings add to the body of knowledge in the field of Home Economics by providing a basis to further investigate the nutritional necessity of this rather extensive range of food provided to patients and or to compare Swiss customs with divergent cultural practices in hospitals in other countries.

Room 103	Gender Issues in Education	
Chair	Saeun Choi (Korea National University of Education)	Republic of Korea
IP_0371	Understanding Gender Differences in Finnish Home Economics Classrooms	
First Author (Main Author)	Salla Venäläinen (University of Helsinki)	Finland
Co-Author(s)	Jonna Wirén (University of Helsinki) Hille Janhonen-Abuquah (University of Helsinki) Päivi Palojoki (University of Helsinki)	
Presenting Author	Jonna Wiren (University of Helsinki)	Finland

All Scandinavian countries have in general a strong ideology of gender equality. In this societal context the Finnish home economics, as a school subject, aims to educate both boys and girls for gender equality. Traditionally home economics has been, and in many countries still is, female gendered. The aim of this study is to assess whether Finnish teachers' assessment practices and students' learning outcomes reflect gender differences. The recent (2015) National Home Economics Learning Assessment in Finland showed differences in boys' and girls' learning outcomes. It assessed ninth graders (n = 3 541) level of competence in relation to curriculum objectives, students' attitudes and off-school activities as well as teachers' views on assessment, the curriculum and their own teaching practices. Written part was completed by 3 473 pupils and 817 pupils participated in the practical assessment. Teachers (n=163) filled a questionnaire and 92 principals took part in the survey as well. The research was carried out in 104 different schools.

The striking result showed that girls' scored higher in each of the home economics content area and succeeded better both in written as well as in practical assessment. This current study seeks to find answers for the unequal learning out comes from the national data. The study answers how can the differences in girls' and boys' achievement be explained in Home Economics subject? The differences in boys' and girls' attitudes in relation to their actual performance in the National Assessment were compared. Also boys' and girls' own views towards their own skills were analysed. Furthermore, the results of teachers' survey was viewed in relation to boys' and girls' attitudes towards Home Economics school subject. The study shows how normative gender roles are easily maintained in classroom practices. Therefore home economics teachers and teacher educators need to pay special attention to gender issues.

IP_0704	Possibility of Family Life Education in Social Settings in Japan: Comparing Fathers with and without Home Economics Education in Secondary School Education	
First Author (Main Author)	Kinuyo Kurokawa (Naruto University of Education)	Japan
Co-Author(s)	Ayako Kuramoto (Kagoshima Prefectural College) Keiko Takahashi (Jissen Women's University)	
Presenting Author	Kinuyo Kurokawa (Naruto University of Education)	Japan

AIM

The number of dual-income households has been increasing constantly since 1980 in Japan. How to share household work between husband and wife has been a social concern. Home economics became a required subject for both genders at junior high schools in 1993 and senior high schools in 1994. By targeting fathers in their 30s, this study aims to examine home economics education (HEE) effectiveness and experiences of family life education (FLE) and to investigate the possibility of FLE in social settings.

METHODS

An Internet survey was conducted in March, 2014. The participants were 2,056 fathers in their 30s with a child/children under 6 years old. The questionnaire included questions about HEE and FLE in social settings (university extension, workplaces, community, and PTA meetings). In

the analyses, the participants were divided into 2 groups according to home economics education level. The data of the 2,018 participants who completed the questionnaire were used. "HEE effectiveness," "FLE opportunity," "Need for FLE" and "Intention to participate in FLE" were compared by T-tests.

RESULTS

All of the results of T-tests showed significant differences between the groups. Fathers who had HEE in secondary school education recognized more HEE effectiveness and need for FLE than fathers without HEE in secondary school education. They also had more FLE opportunities and would like to participate in FLE more than fathers in the other group. Among FLE in social settings, "workplaces" showed the highest percentage of their choice in "FLE opportunity," "Need for FLE" and "Intention to participate in FLE."

CONCLUSION

The results imply HEE in secondary school education would be effective for fathers. After finishing high school, in order to maintain the HEE effectiveness, continuing education about family life should be offered. FLE in social settings, especially at workplaces, would be great opportunities for fathers.

IP_0006	An Examination of the Potential of Final Year Pre-Service Home Economics Teachers in Further Encouraging and Supporting the Inclusion of Lesbian, Gay, Bisexual and Transgender Learners In Post-Primary Schools	
First Author (Main Author)	Conor Fennell (Our Lady of the Sacred Heart Thamarrurr Catholic College Wadeye)	Australia
Co-Author(s)		
Presenting Author	Conor Fennell (Our Lady of the Sacred Heart Thamarrurr Catholic College Wadeye)	Australia

This research examined the role of Home Economics teachers in further encouraging and supporting the inclusion of Lesbian, Gay, Bisexual and Transgender (LGBT) learners. Home Economics as a subject concerns itself with the betterment of individuals, family and society. Issues regarding sexuality have become prevalent in post-primary schools. It is the opinion of the researcher that Home Economics as a subject area has great potential to further the inclusion of LGBT learners. The study employed a questionnaire using a sample population of final year pre-service Home Economics teachers whom the researcher feels have the most immediate potential to encourage and support the inclusion of LGBT learners. Although all participants stated that they would endeavour to encourage the inclusion of these learners in their classrooms, recommending methodologies such as discussion and case-study, the findings highlight a limited knowledge relating to the issues surrounding sexuality, particularly regarding LGBT learners, and a further difficulty in approaching these topics. It is recommended therefore that these findings be used to further the Initial Teacher Education of Pre-Service Home Economics teachers in this area. Furthermore, the findings could also form the basis for the development of policy which could be used in post-primary schools and in turn, create a more inclusive learning environment for LGBT learners.

IP_0701	Twenty Years Later: Student's Consciousness on Gender Equality, Views on Citizenship, and Co-Educational Home Economics-in Japan and Sweden	
First Author (Main Author)	Noriko Arai (Osaka University of Health and Sport Sciences)	Japan
Co-Author(s)	Karin Hjalmskog (Uppsala University) Ryoko Haruki (Fukui Prefectural Wakasa high school)	
Presenting Author	Noriko Arai (Osaka University) Karin Hjalmskog (Uppsala University)	Japan Sweden

PURPOSE

This study aims to study students' consciousness on gender equality, views on citizenship, and the role of co-educational Home Economics

education (HE) currently, compared with the 1990s. A comparison is made between Japan and Sweden, both economically developed countries, but with differences concerning culture, school systems, ways of living, welfare policy, and gender equality.

METHOD

A survey is conducted among students aged 15–17 in 2014–2015, in Japan and Sweden. The same surveys were conducted about twenty years ago; therefore, differences in students' views between the mid-1990s and 2015 have been analyzed.

Preliminary findings: This study does not depict a clear drop in students' gender bias currently, compared to twenty years ago. However, we argue that there seems to be a gradual decrease in gender bias. Girls' views are less gender biased than boys' views in both countries. However, Swedish students have a more gender equal view than students in Japan. Students with more gender equal views are more likely to do housework as well as act as responsible citizens in both countries.

ORIGINALITY/VALUE (ADDITION TO THE BODY OF KNOWLEDGE OF THE FIELD OF HE)

With this comparative study, we contribute to Home Economics knowledge and practice, by showing that home and family life, responsible citizenship, and gender equality are interconnected. This study confirms that co-educational Home Economics education has the unique potential to unite views on gender equality and literacy to facilitate being an active, responsible citizen in a holistic manner.

IF_0030	Home Economics Education in Papua New Guinea: Changing Perceptions and Challenges Facing Male Students Taking Home Economics in University of Goroka, Papua New Guinea	
First Author (Main Author)	Limu Vagi (University of Goroka)	Papua New Guinea
Co-Author(s)	Kikising Salley (University of Goroka)	
Presenting Author	Limu Vagi (University of Goroka)	Papua New Guinea

AIM

This research aims to explore whether the male students who undertook Home Economics courses are teaching Home Economics courses in Secondary schools and if they are employed in equivalent and related industries and whether the University of Goroka produced sufficient graduates in Home Economics that is meeting the demands of the country in producing skilled people to teach in secondary schools. The research also aims to discover the challenges facing all Home Economics Teachers teaching Home Economics in Primary and Secondary schools in Papua New Guinea, challenges we argue are rooted within the ecological systems and social exclusion theory.

METHODS

The study focuses on male students undertaking Home Economics courses and male students who graduated with Home Economics as well as teachers teaching Home Economics courses in the Secondary schools in Papua New Guinea. The study uses a mixed method approach through the use of focus groups and quantitative.

RESULTS

The findings identified that although students are trained to teach Home Economics at the Secondary School in Papua New Guinea, most of them teacher their second choice of course leaving the Home Economics subject being taught poorly in schools. Teachers not qualified in Home Economics are recruited to teach Home Economics. In addition, Home Economics facilities in the schools across Papua New Guinea are improper and are disintegrating leading to lack of interest in the course.

CONCLUSION

This suggests that for Home Economics courses to be taught effectively, schools across the country need to improve the infrastructure for all the skills courses like Home Economics. The government should realign the needs of the country so that the skills learnt in schools will have an impact in improving the lives of the family both in rural and urban societies of Papua New Guinea.

Room 104	Integrating Technology into Home Economics Classes	
Chair	Nansook Yu (Chonnam National University)	Republic of Korea
IP_1072	Do We Need Campus? – Evaluation of Blended Education in Home Economics	
First Author (Main Author)	Anne Selvik Ask (University of Agder)	Norway
Co-Author(s)	Margrethe Røed (University of Agder) Mona Linge Omholt (University of Agder) Ingebjørg Aarek (University of Agder)	
Presenting Author	Anne Selvik Ask (University of Agder)	Norway

INTRODUCTION

Online teaching and blended education are becoming more relevant. The University of Agder is giving online education in Home Economics with 2-3 gatherings of about 3 days at campus, blended education. In this subject, practical skills are important learning goals. To give students good practical education online is challenging. Different digital teaching aids, such as instructional films and social media are used.

AIM

The aim of the project Do we need Campus? is to explore the advantages and disadvantages of blended education in Home Economics, compared to education on campus.

We are trying to find answers to these questions:

- What are the success criteria for blended education?
- What are the learning outcomes for students in blended education in Home Economics?
- Is there a difference in learning outcomes in practical and theoretical subjects?
- How are the learning outcomes for online students compared to on-campus students?

METHOD

A questionnaire has been sent to students in Home Economics in two blended education courses (37 students), and to students on campus in (42 students). In depth interviews are being conducted with chosen students. We also look at the evaluation of the courses.

RESULTS

The results indicate that both groups have a high satisfaction score on the theoretical and practical teaching. The blended education students have a higher satisfaction score on both items. The on-campus students have a higher satisfaction score on the IT-training and administrative support. The in-depth interviews should explain more about the difference in the learning outcomes.

CONCLUSION

The presentation shows how we have organized the blended education in Home Economics and which digital teaching methods are used. Result from the research project Do we need Campus? will be presented together with success factors for blended education in Home Economics.

IP_0882	Developing a Growth Mindset in the Home Economics Classroom	
First Author (Main Author)	Louise Ruzic (Luther College)	Australia
Co-Author(s)		
Presenting Author	Louise Ruzic (Luther College)	Australia

During our daily lives, we can either have a Fixed Mindset, where we let failure or success define who we are, or a Growth Mindset, where we see setbacks as opportunities to grow and improve ourselves. The research of internationally renowned psychologist Carol Dweck has demonstrated the importance of a Growth Mindset on student motivation and achievement.

Developing a Growth Mindset "the belief that abilities are malleable and not fixed" as opposed to a Fixed Mindset "the belief that intelligence is static" is critical to adopting a passion for learning. Its foundation is the idea that human qualities like intelligence and creativity, can be cultivated through effort. Out of these two mindsets, which we develop from a very early age, springs a great deal of our behaviour, our relationship with success and failure in both professional and personal contexts, and ultimately our capacity for happiness.

Teaching a Growth Mindset in the Home Economics classroom creates motivation, productivity and improved educational outcomes for students. It helps students deal with criticism, be resilient to setbacks and increase their creativity. If a teacher or parent encourages effort and improvement rather than praising talent and discouraging failure, this will have a lasting influence on how the child views themselves.

"The moment we believe that success is determined by an ingrained level of ability as opposed to resilience and hard work, we will be brittle in the face of adversity" Josh Waitzkin- Chess Grandmaster and Marital Artist

In this presentation I will share some strategies and approaches to engender and develop a Growth Mindset in the classroom and I hope to inspire others to model this mindset themselves.

IP_0390	Digi Dialogues - Case Studies of Using Digital Technologies in the Home Economics Classroom	
First Author (Main Author)	Leanne Compton (Home Economics Institute of Australia)	Australia
Co-Author(s)		
Presenting Author	Leanne Compton (Home Economics Institute of Australia)	Australia

AIM

To work with teachers and senior secondary students to create a digital publication to showcase how digital tools could be used in the classroom to enable learning and teaching in home economics-related studies. The SAMR (substitution, augmentation, modification and redefinition) model was used to explore how digital tools could be used in the classroom. Specific digital tools used included Mind Mapping software, comic strip creators, online polling, Google mapping and collage creators.

METHODS

- Semi-structured questions about the value of using digital technologies to learn content, with responses of teachers and students videotaped and uploaded onto an open website <https://fuse.education.vic.gov.au/digipubs/VCE%20Health%20and%20Human%20Development/Home.aspx>
- Collection of artefacts such as lesson plans and student work to showcase how digital technologies can enable learning and teaching

RESULTS

The development of a digital publication was published on an open website to showcase ways that digital technologies could be used in the home economics classroom. This digital publication includes lesson plans, video reflections from both teachers and students and examples of student work completed using digital technologies, along with links to tutorial and other support to learn about and use the digital technologies.

Both teachers and students reported increased engagement when using digital technologies in the classroom and the use of Mind Mapping tools for some students, particularly males enabled a better understanding of the relationships of concepts to be exhibited in assessment tasks. Other tools used also afforded a range of benefits for learning and teaching in the classroom.

CONCLUSION

The use of digital tools in the home economics classroom was limited prior to the project but both teachers and students reported increased engagement with using the digital technologies for learning and teaching. Each case study includes video of the teacher providing an outline of the content being taught and learning intentions, along with indicators of success and tips for future use. Overall, key points included focusing on the learning intentions, the importance of planning and using a range of resources in the classroom including students. The use of

technologies was mainly in the S (substitution) and A (augmentation) dimensions of the SAMR model but was considered beneficial for both teachers and students.

IP_0207	Global Perspectives on Mobile Learning in Home Economics/Family and Consumer Sciences in Secondary and Tertiary Education Programs	
First Author (Main Author)	Roxie Godfrey (Texas Tech University)	USA
Co-Author(s)	Sandra Duke (Texas State University)	
Presenting Author	Roxie Godfrey (Texas Tech University)	USA

AIM

This study identified Home Economics and Family and Consumer Sciences (HE/FCS) educators' perspectives regarding mobile learning and information and communication technology (ICT).

Mobile learning offers greater access to current relevant information, increases connectivity and improves access to people worldwide. Learning can take place anytime and anywhere. Home economists can integrate mobile technology in their educational environment to help individuals and families improve the quality of everyday life for their households and communities. A review of literature for HE/FCS programs indicated minimal use of mobile technology as an instructional tool.

METHODS

A descriptive study was used to collect data to identify attitudes, characteristics and variables that affect the use of mobile technology by educators. Participants in this study were home economics professionals from twelve countries. An online survey was distributed to HE/FCS professionals from the International Federation for Home Economics (IFHE), the American Association for Family and Consumer Sciences (AAFCS) and the HomeEcConnect website. The study also highlighted both advantages and barriers to mobile technology use.

RESULTS

The findings of this survey offer a preliminary understanding of how HE/FCS educators view mobile learning and the issues that play a role in the adoption and integration of mobile technology in the educational context. The adoption of mobile technology has been slowed by both the perception that mobile technology may be a distraction in the classroom and the lack of understanding of how mobile technology can be an instructional tool.

CONCLUSION

The results indicate the importance of support and training for educators.

This research sought to establish a baseline upon which future research and initiatives that incorporate HE/FCS content via mobile technology can be accomplished.

IF_0073	Development of a Mobile Learning Course to Unleash Households' Business Potential - M-House Project	
First Author (Main Author)	Barbara Freytag-Leyer (Fulda University of Applied Sciences)	Germany
Co-Author(s)	Barbara Pfindel (Fulda University of Applied Sciences)	
Presenting Author	Barbara Freytag-Leyer (Fulda University of Applied Sciences)	Germany

AIM

In developing an online course, the project wants to provide a means for household members to improve and raise the awareness of entrepreneurial skills gained by running a household as well as digital skills. Participants will be enabled to increase the exploitation of

alternative employment pathways (e.g. entrepreneurship) and personal fulfilment.

METHODS

The project partners determined 11 key learning situations (KLS) with the potential to train entrepreneurial skills faced by a household. 104 semi-structured interviews were conducted with different stakeholders in each partner's country to ascertain the relevance of the 11 KLS and their contents. A usability test with contents of 3 prototype modules of the learning platform was done with 9 test persons in Germany. The modules were tested in 2 pilot runs with 46 and 45 learners from each partner's country. In the course of the project, the modules have been revised and adapted continuously as a participatory cooperation of 8 partners from 6 European countries.

RESULTS

8 KLS were chosen to be most relevant and the basis of the modules. The usability test provided the means to adapt the prototypes of the modules according to the test persons' opinion. The experiences gained during the pilot runs served to adapt the modules ending in the completion of the online course.

CONCLUSION

Involving many stakeholders was found to be a meaningful process because a wide range of different opinions and preferences could be implemented. The cooperation across different EU-countries helped to increase intercultural skills and provided new experiences for the project partners. However, matching and prioritising was a challenge. The course will be translated in each national language. Further measures are necessary to popularise the link of household and business skills.

Room 105	Transforming the Teacher Education	
Chair	Donna Pendergast (Griffith University)	Australia
IP_0402	Towards an Improved Internal Quality Assurance Practice in Home Economics Programme: A Self Appraisal Cycle	
First Author (Main Author)	Mariam Ahmed Abubakar (Ahmadu Bello University Zaria)	Nigeria
Co-Author(s)		
Presenting Author	Mariam Ahmed Abubakar (Ahmadu Bello University Zaria)	Nigeria

AIM

1. To identify challenges of internal quality assurance faced by Home Economics programme at Federal and State Colleges of Education.
2. To propose a framework to enhance internal quality assurance practices at colleges of education.

METHODS

The study adopted the descriptive survey design. The sample size for study was the 97 academic staff of the nine colleges (both federal and state) used for study. The instrument for data collection was a questionnaire designed based on literature reviewed. Independent t-test was used to test difference at 0.05 level of significance.

RESULTS

Both Federal and State Colleges of Education were challenged by a number of factors in assuring the quality of Home Economics programme. The biggest challenge to those in the Federal Colleges of Education laid in the evaluation and utilisation of results of internal quality assurance while for those in the States colleges of education the biggest challenge was in the provision of learning resources and infrastructure, amongst others.

The study proposed a framework to guide enhanced implementation of internal quality assurance of Home Economics programme at colleges of education.

CONCLUSION

On the whole, it was observed that there were no innovative practices in the implementation of internal quality assurance. It must be noted that quality assurance is a dynamic and continuous process; therefore, the end of one cycle marks the beginning of the next. Its effectiveness and efficiency in fostering improvement all depends on continuous monitoring and the development of innovative practices aimed at addressing weaknesses and striving for the best.

IP_1012	Student Teachers' Articulation of Belonging during School Placement Experiences: An Hermeneutic Phenomenological Study	
First Author (Main Author)	Yvonne Dewhurst (IFHE)	United Kingdom
Co-Author(s)		
Presenting Author	Yvonne Dewhurst (IFHE)	United Kingdom

An extensive body of research has indicated that school-based experience is one of the most influential factors concerning student teachers' professional development and learning. Yet the inconsistency in the nature and quality of these experiences especially in the level and quality of support given to student teachers remains a national concern. Addressing student teachers' needs has thus become a central professional and policy issue (Donaldson, 2010; Menter et al, 2011). This qualitative study investigates the ways student teachers experience belonging, a fundamental human need, during school placements.

By adopting hermeneutic phenomenology as methodology and method, data collection was undertaken by means of semi-structured conversational interviews with a purposive sample of three student teachers following a one year PGDE (Post Graduate Diploma in Education) programme. Hermeneutic phenomenological analysis of the participants' lived experiences during school placements led to findings indicating that belonging exerts a powerful influence on each student teacher's lifeworld and in particular their emotion, cognition, motivation and wellbeing. Their sense of belonging is context specific and embedded in the social, cultural and professional conditions of the setting. It is also experienced as comprising respectful, positive, supportive and trusting relationships and being valued as a human (cared about, accepted, involved and included). Failure to resolve some of the belonging tensions and meet this need can have damaging consequences on student teachers' health and wellbeing. In conclusion, recommendations for initial teacher education programmes and associated partners are made as well as areas for future research.

IP_0271	Module Development in Home and Family Living for College TLE Students of State University in the Philippines	
First Author (Main Author)	Mark Limon (University of the Philippines)	Philippines
Co-Author(s)		
Presenting Author	Mark Limon (University of the Philippines)	Philippines

AIM

The paper evolved a module in Home and Family Living along the six units in Technology and Livelihood Education (TLE): The Filipino Family; The Teenager; Making and Keeping Friends; Looking towards Marriage; Towards Responsible Parenthood; and Home Care Nursing. This instructional material was prepared on the assumption that given adequate and meaningful instruction in the different units, a module can enhance the teaching-learning process and help students master the content and skills required of a TLE teacher.

METHODS

In the development of the module in HFL, the researcher followed the research and development (R and D) cycle called researched-based development technology using the ADDIE Model's stages. The major steps in developing the module included analysis; design; develop; implement; and evaluate. Each stage is composed of different phases.

RESULTS

After the construction of the module, it was read and content-validated by seven experts from the MMSU College of Industrial Technology and College of Teacher Education, retired supervisors in Home Economics, and Department of Education with regard to objectives, content, instructional characteristics and practice test items using a rating scale. The module was found highly valid in all its aspects. Revisions were made based on the suggestions given.

The usefulness of the module was then assessed by twenty-five TLE students of the Mariano Marcos State University – College of Teacher Education. The evaluators found the material to be useful as revealed by their testimonials.

CONCLUSION

Thus it was concluded that the material was more effective than traditional classroom teaching strategy.

It was recommended that this validated module be used to supplement the existing material being utilized by the students and teachers to help them develop the required competencies and further master the content and skills required of a TLE teacher.

IP_0608	Home Economics Education for Diversities (HEED)	
First Author (Main Author)	Hille Janhonen-Abuquah (University of Helsinki)	Finland
Co-Author(s)	Hanna Posti-Ahokas (University of Helsinki) Salla Venäläinen (University of Helsinki)	
Presenting Author	Hille Janhonen-Abuquah (University of Helsinki)	Finland

The research focuses on developing Finnish Home Economics Education for diversities at both university and compulsory school levels in order to effectively contribute to implementing the aims of the new university degree requirements and the national curriculum for comprehensive schools 2016. In this study, these new documents are scrutinized in dialogue with pupils, teachers and teacher students. The research combines quantitative approaches to study of learning outcomes, qualitative student-voice research and school-based action research aiming at teacher's professional development. Data for the study is drawn from the recent National Assessment of Home Economics learning outcomes, curricula texts for Home Economics education, students' essays and feedback from University courses and school-based action research. Through the project, shared knowledge on diversities in Home Economics education is constructed amongst researchers, teacher students and practicing teachers. The integral connection to Home Economics Teacher Education ensures an immediate impact on teacher education development. By connecting the research with the National Learning Assessment and the work of Finnish Home Economics Teachers' Association, the research will support collaboration among national and local actors. The study contributes to research based development of Home Economics Education and enhances the role of Home Economics in supporting sustainable futures.

In this research, a particular focus is on diversities related to cultural background and gender. As a school subject characterized by collaboration and communication, Home Economics provides a favorable context to learn the skills needed in an increasingly diverse world. To benefit from this potential, Home Economics teachers need both theoretical and practical tools that help them to better understand the ongoing changes in society and to work with diverse learners. In this research project hosted by the Department of Teacher Education, University of Helsinki, Finland, student voice and collaborative approaches to teacher education development are utilized to create a shared space for knowledge construction on critical aspects of diversities in relation to teacher professionalism.

IP_0430	Blended Learning in Home Economics and Livelihood Education (BEEed-GC Content Course) for Pre-Service Elementary Teachers in St. Mary'S College of Quezon City, Philippines	
First Author (Main Author)	Ruth Arsenu-Salazar (UP Open University)	Philippines
Co-Author(s)	Gloria Peralta (College of Education, SMCQC)	
Presenting Author	Ruth Arsenu-Salazar (UP Open University)	Philippines

AIM

Distance education for teacher training was cited in numerous studies with positive results. However, it was not a cheap substitute due to the use of multimedia or ICT. Thus, blended learning is more common in traditional colleges today.

STATEMENT OF THE PROBLEM

- How can blended learning be done in a traditional General Education HELE class?
- How can GE HELE class be designed and developed to make it blended learning?
- What course model or framework for General Education HELE can be used?
- What could be the difficulties or challenges that the teacher or the students encounter in the implementation of a blended learning course?

METHODS

Michael Power's BOLD was adapted for the course design. The ADDIE, horizontal course syllabus, lesson plan template, course calendar, survey questionnaires and interview were also used.

RESULTS

There were 12 students who responded to the pre-course survey and 11 students for the post-course survey. They were able to utilize print, Web-based and computer-based resources, e-mail, chat/messenger, wiki, and mobile communications.

CONCLUSION

The blended learning course was beneficial to students learning. The horizontal course syllabus, videos, online learning sites, and slide presentations were very helpful teaching tools to diverse students. Limited amount of classroom time and the students' difficulty to absorb the lessons immediately contributed to dissatisfaction to some students. Computer skills and access to the Internet were necessary for blended learning.

To improve this blended learning course:

- There should be brief slide presentation for each module.
- The Computer Laboratory should be used every meeting to hone the ICT skills of the students.
- Activity sheets and checklist of requirements should be prepared for the students.

IP_1035	Pursuit of Good Relationship! An Altruistic Approach Curriculum Design for Improving Interpersonal Relationships in NTNU	
First Author (Main Author)	Hsiu-Chen Wei (National Taiwan Normal University)	Taiwan
Co-Author(s)		
Presenting Author	Hsiu-Chen Wei (National Taiwan Normal University)	Taiwan

AIM

This study is designed to develop an altruistic approach curriculum to enhance interpersonal intelligence and quality on interactions among

college students. Interpersonal relationship is one of the most important learning issues for college students. After considering how current college students interact problems: over-individualism and struggling in poor interaction qualities with others. Applying relevant theories, this curriculum is based on altruistic approaches. Both philosophical and course of action altruistic approaches were implemented to the curriculum.

METHOD

In the curriculum, students were guided to find a key person as his object (mostly family members). Besides reading papers and discussing about interpersonal relationships issues, applying this theory for 8 consecutive weeks, students must utilize the language according to the altruistic approach to interact with the object. All actions were recorded and analyzed for any changes in the relationship by themselves. To effectively assess the achievements of this study, using a perception scale (16-items interpersonal relationship skill, $\alpha=.85$) was converted into quantitative data to validate the outcomes of the curriculum. Meanwhile, qualitative data from students' reaction paper about their altruistic action.

RESULTS

Through qualitative and quantitative data analysis, content analysis procedures and interpersonal intelligence and ability questionnaires were used to collect data for the study. The effects are significant: (1) baseline measures taken before and after the curriculum showed that students' scores in interpersonal intelligence and ability at the end of the course revealed a significantly higher effect (reached the .001 level of significance) post curriculum (2) qualitative data showed the vast majority of students experienced unfamiliar and awkward feelings at the beginning of the study. Later in the study, students showed higher approval and willingness to continue using techniques of interpersonal intelligence.

CONCLUSION

Based on these results, the altruistic approach curriculum for interpersonal relationships can enhance the quality of personal relationships in college students.

Key words: altruistic approach, curriculum design, interpersonal relationship

Room 106	Youth and Gender	
Chair	Woochul Park (Duksung Women's University)	Republic of Korea
IP_0964	The Differences of Consciousness between Students and Company for Gender Equality Society	
First Author (Main Author)	Chiho Oyabu (Gifu University)	Japan
Co-Author(s)	Seiko Miwa (Gifu Women's University) Naomi Shibata (Gifu University) Masayuki Okuda (Juroku Research Institute) Hiromi Hayakawa (Juroku Research Institute) Shizuka Noda (Gifu University)	
Presenting Author	Chiho Oyabu (Gifu University)	Japan

AIM

In Japan, law for "Gender-equal Society" has enacted in 1999. Since then, many related laws are enacted such as "Child Care and Family Care Leave Law". However, still many companies do not put these programs into practice properly and many workers face the difficulties to apply to these programs.

This paper focuses on the differences of recognition and consciousness toward gender equal society between students who will start working after graduation and companies which take these students as workers in order to promote gender-equal society.

METHOD

The questionnaires on recognition and consciousness of gender-equal society, the programs of childbearing leave and nursing leave are asked for 1,473 university students and 600 companies in Gifu area and analyzed.

RESULTS

As a result, most of women students are interested in work and childbirth, childbearing. More men are interested in law and society. More students tend to choose full-time workers and have interest to continue their job when their mother work full-time, which means the working style of their mother have strong influences on children's lifestyle. More than 90 percents of students want to use the system to have holiday for childbearing and nursing parents.

As for companies, major firms have those systems and workers are receive benefit from systems, however in small and medium-sized enterprises, the system itself is not established even related laws are already enacted. Although the companies where systems are established, only 30 percents of employers use these systems properly.

CONCLUSION

It is important to promote gender-equal society and utilize Child Care and Family Care Leave Law in all firms. For this, it is important to work on two sides, teach students and guide companies. Students who will work after graduation should have more interests on gender-equal society, so education on gender-equal society becomes urgent. Also local-government should guide especially small and medium-sized enterprises toward gender friendly society.

IP_0176	Does Adolescent Mobile Phone Use Really Have a Positive Effect on Academic Achievement? Evidence from Panel Data	
First Author (Main Author)	Jung Eun Kim (University of Maryland)	USA
Co-Author(s)	Ui Jeong Moon (University of Maryland) Ji-Ha Kim (Korean Educational Development Institute) Wonsuk Yoo (Augusta University)	
Presenting Author	Jung Eun Kim (University of Maryland)	USA

AIM

Mobile/smartphones are ubiquitous in children's lives. In the U.S, 72% of children under 8 have used smartphones (Rayman, 2013), while 85% of elementary students own smartphones in Republic of Korea (Kostat, 2014). Previous studies are indeterminate regarding the effects of smartphone use on academic achievement; some reported a negative relationship with reading ability (Levine et al., 2007), whereas others argued a positive association (Hofferth & Moon, 2012). This study examines the relationship between smartphone use and academic performance using longitudinal/panel data to clarify the effects of adolescent media use.

METHODS

This study used Korean Youth Panel Survey (KYPS) data, accumulated for 6 years from 2003 with subjects at the time being 8th graders in Seoul and 11 cities/provinces. The final sample size using the 1st to 4th waves was 11,640 individuals (boys=5,808; girls=5,832; strongly balanced). A panel regression analysis was performed to see changes over time.

The dependent variable was respondents' scores in Korean, English, and math (1-5; 5=highest). Whether the main purpose of smartphone use was texting (1=texting) was an independent variable. For control variables, how hard respondents studied for course (1-5; 5=very hard), whether respondents received private instruction (1=yes), and time spent on the course (hours/week) were included, as were academic stress (a known correlation to school performance) and self-esteem (reported as a factor of school performance and/or media use). Gender, household income, and father's education were used for the SES variables.

RESULTS

Result showed some positive relationships with reading/literacy-related courses, while estimates from the panel analysis were mostly insignificant. Additionally, gender differences were found through gender-specific analyses; girls showed some positive effects from texting.

CONCLUSION

From the panel analysis, this study obtained constant estimates, enabling a clarification of the relationship between smartphone use/texting and school performance. The results support the existence of some positive effects of smartphone use, although boys generally showed negative effects. Researchers argue that texting represents more exposure to written words and that such exposure by adolescents may improve literacy/reading skills. Controlling adolescent smartphone use may not be the best way to optimize electronic devices in the Digital Era, thus it is necessary to guide and educate adolescents on the constructive use of digital devices.

IF_0256	Problems Faced by Women Hawkers	
First Author (Main Author)	Roopa Rao (University of Mumbai)	India
Co-Author(s)		
Presenting Author	Roopa Rao (University of Mumbai)	India

AIM

- (i) To identify the reasons that influence women to take up hawking
- (ii) To gain knowledge about the challenges faced by women hawkers in Mumbai
- (iii) To learn about work related stress problems faced by the women hawkers in Mumbai city and its suburbs.

METHODS

This study is based on primary data to probe the status of women hawkers in Mumbai city and its suburbs. The sample size is 141 (109 street and 32 train) female hawkers chosen through purposive sampling technique. A self-constructed questionnaire was used to collect personal as well as demographic data of the women hawkers. Personal and group interview method helped elicit information on savings/investments, occupational health and primary stressors.

RESULTS

The results revealed that a majority of the vendors have chosen this profession in order to have a regular source of income, whereas a few felt that they were forced into hawking by their family. The main challenge faced by these women is extortion. And commuting for purchase and sale of their wares was incidentally the primary stressor.

CONCLUSION

The distaste of activists, journalists and municipal authorities towards this section of the community is obvious! Though there is a provision for granting licenses, most women street vendors in Mumbai are denied this. The literacy levels of these hawkers is very low and the average monthly income is about Rs. 5500 (Rs. 5447.29)

Street vendors in Mumbai, especially those in the central business district and the affluent residential areas in the city (and suburbs), work under constant threat of eviction. If there are no authentic reasons for eviction, and if hawking is legal as per the 1989 Supreme Court judgement... it is then justified that every individual has the right to earn a livelihood as a fundamental right.

IP_1312	Empowerment of Ethnic Minority Women in Denmark through Food and Health Literacy	
First Author (Main Author)	Irene Norlund (Metropolitan University College)	Denmark
Co-Author(s)		
Presenting Author	Irene Norlund (Metropolitan University College)	Denmark

This presentation addresses social inclusion and empowerment of ethnic minority women living in Denmark. The specific thematic focus is how ethnic minority women perceive food and health promotion activities. The paper takes departure in an ongoing research project based on the following research question: How do ethnic minority women from the perspective of sense of coherence, social inclusion and empowerment perceive their health, eating habits and well-being? The research is based on a study of a women's group of Moroccans living in Denmark for 3-4 decades.

The methods used to retrieve data include qualitative, narrative based interviews about life-stories and participatory action-oriented research. The participatory, action oriented research is based on commonly decided activities in making and understanding food and taking part in yoga lessons and physical training. The cooperation has lasted for more than one year.

Migrants started to arrive in Denmark in the 1970s. Mostly men came to seek employment and their young wives joined them. The public policy at that time did not encourage women to learn Danish nor to take work. Among the target group of the 17 Moroccan women most of them are able to speak proper Danish and read and write; however, a few are illiterate. The women have created a network providing them with a platform to share knowledge, skills, and information about living in the Danish society. The paper provides insights into the dual identity of the Moroccan women who have lived and learned in an alien culture balancing between their Moroccan and Danish customs through their food and health understandings.

The presentation is based on a project developed in co-collaboration between ethnic minority women and researchers from Metropolitan University College.

Room 107	Quality of Life and Wellbeing	
Chair	Jun Ha Kim (Kyung Hee University)	Republic of Korea
IP_0144	Disabilities, Home Accessibilities, and Residential Satisfaction of US Seniors Living Alone	
First Author (Main Author)	Hyun Joo Kwon (Purdue University)	USA
Co-Author(s)	Eunju Hwang (Virginia Tech)	
Presenting Author	Hyun Joo Kwon (Purdue University)	USA

AIM

In 2010, about 29.3% of older non-institutionalized persons age 65 and over lived alone in the US (Administration on Aging, 2011). It is predicted that between 2015 and 2035 the number of seniors living alone will nearly double (Joint Center for Housing Studies, 2014). Seniors living alone tend to be poor, to feel lonely and isolated, to have mobility issues and housing problems, and to show lower residential satisfaction. Residential satisfaction has been recognized as an important predictor of older adults' well-being in housing environment. However, it is still unknown how home accessibility contributes to residential satisfaction for the senior living alone. The purpose of this study is to identify the relation between disabilities, home accessibility features and problems, and residential satisfaction among seniors living alone.

METHODS

This study analyzed the 2011 American Housing Survey data with a sample of 7,350 seniors living alone aged 65 and over. The dependent variable was residential satisfaction. The independent variables included four major parts: 1) socio-demographic and housing characteristics;

2) disabilities; 3) home accessibility features; and 4) home accessibility problems. T-test, one-way ANOVA, and correlation were used for data analysis.

RESULTS

Lower-income, non-white and female seniors living alone showed lower residential satisfaction and had more disabilities and lived in less accessible housing. Participants with greater disabilities perceived more home accessibility problems and expressed lower residential satisfaction. Those who lived in housing with more home accessibility features reported higher residential satisfaction.

CONCLUSION

This study revealed empirical evidence that accessible housing can improve the residential satisfaction of senior residents. This study provides useful information for housing planners, designers and policy makers in improving residential satisfaction and quality of life of seniors living alone. Particularly, since seniors living alone with greater disabilities are more likely to have limited financial resource, these vulnerable senior households will need cost-effective modifications and accessible solutions to improve their quality of life.

IF_0040	Optimisation of Nutritional Situation – A Case Study at a School for Adults in Switzerland	
First Author (Main Author)	Gabriela Verena Zueger (Zurich University of Applied Sciences)	Switzerland
Co-Author(s)	Susanne Hofer (Zurich University of Applied Sciences)	
Presenting Author	Gabriela Verena Zueger (Zurich University of Applied Sciences)	Switzerland

AIM

Purpose: This research set out to optimise the nutritional situation at a school with students on average 26 years old. Based on the nutritional habits of students and customer behaviour in the schools catering areas a set of optimisation possibilities was developed. These were then tested in practise during several weeks before certain measures were implemented permanently.

Theory: Individuals eating habits have a great influence on their health. Nutrition also plays an important role in maintaining middle- and long-term physical and mental capacity.

Investments on the part of students and employees in a health-promoting and maintaining nutrition pay off for all parties.

METHODS

Methodology: Embedded mixed methods design within a quantitative research design, underpinned by the pragmatism paradigm. The inquiry strategy is a multiple methods case study. Data collection methods include a self-administered online questionnaire, structured observations and structured interviews. Data was primarily analysed using descriptive statistics.

RESULTS

Findings: The results show that regarding the optimisation of the nutritional situation at this school different factors are important and therefore need to be optimised. Like the arrangement of the offerings in the catering areas, to focus the offers more on the main customer groups, easy and quickly understandable information, as well as frequent training of catering staff and meal plans based on nutritional guidelines.

CONCLUSION

Originality/value. The findings of this research add to the knowledge about which measures around catering offers are able to improve the nutritional situation of adults students.

IF_0058	Financial Well-Being of North Carolina (US) Elderly Homeowners with Limited Resources	
First Author (Main Author)	Sung-Jin Lee (North Carolina Agricultural and Technical State University)	USA
Co-Author(s)	Kathleen Parrott (Virginia Tech) Valerie Giddings (North Carolina Agricultural and Technical State University) S. Renee Robinson (North Carolina Agricultural and Technical State University)	
Presenting Author	Sung-Jin Lee (North Carolina Agricultural and Technical State University)	USA

AIM

This was a case study of factors influencing financial well-being of elderly, limited resource homeowners. In North Carolina (NC), USA, over 80% of those aged 65 and older are homeowners (Institute on Aging, 2013). Yet, little research exists on their financial well-being, particularly for those with limited resources.

METHODS

Between June 2013 and May 2014, personal interviews with 30 limited-resource NC homeowners, aged 55 and over, who had completed home modifications, were conducted regarding financial and future housing plans. Responses were taped and transcribed for qualitative data analysis.

RESULTS

Most participants (average age of 73 years) were female (29), single (28), living in one-story, single detached housing (29) of two to three bedrooms (28), with income of less than \$25,000 (29). Eighteen lived alone; nine lived with children or grandchildren. Half reported their education level as high school graduate or less. The majority was dependent on government resources, especially Social Security or Social Security Disability Insurance (18). Half had a mortgage payment (15), and most had no financial resources for emergencies. Their informal support network (family, church, friends, or neighbors) was important for financial well-being, independent living, and health. Few elders received or knew about care support within the community. Religion was important when interpreting their financial well-being. Few had any plan for their future, especially aging in place or managing a health crisis.

CONCLUSION

Factors influencing financial well-being of poor elders include government benefits and informal or community support. All participants had completed home modifications suggesting a desire to age in place, which can benefit their community's economy. This study suggests need for financial management skills, knowledge of community resources, and access to government assistance to increase financial well-being of elderly homeowners with limited resources, particularly those having caregiver burdens, poor health conditions, and single females.

IF_0204	Rural Women, Food Security and Agricultural Cooperatives in Nigeria	
First Author (Main Author)	Esther Osahon (IFHE)	Nigeria
Co-Author(s)	Lovina Odoemelam	
Presenting Author	Esther Osahon (IFHE)	Nigeria

AIM

To investigate how culture and illiteracy hinders women freedom, social interaction and productivity.

METHODS

Study area was Abia State, Nigeria. Out of 17 Local Government areas, 5 LGAs were randomly selected for the study. 30 rural women who are actively involved in agricultural production and members of registered cooperatives were selected, bringing the total to 150 respondents. Data were generated through the use of structured questionnaire and participatory observation. Data collected was analyzed with simple descriptive statistics.

RESULTS

Result showed that in terms of ratio of membership of women in agricultural cooperatives, the percentage is rather low. The result further showed that their contributions to other sector of the economy remained concealed and unaccounted for. Consequently, they are generally invisible in plans and programmes. They also lack access to productive resource which will eventually enhance their social and economic contributions to their society.

CONCLUSION

If women will come together and form women cooperative societies, it will jointly give them access to productive resources, thereby enhancing their household food security. Based on these premise there will be hope and happiness in their communities.

IP_0093	Benchmark Practices in the Area of Home Economics	
First Author (Main Author)	Gabriela Verena Zueger (Zurich University of Applied Sciences)	Switzerland
Co-Author(s)		
Presenting Author	Gabriela Verena Zueger (Zurich University of Applied Sciences)	Switzerland

AIM

AIM and potential benefits of international collaboration :

We seek for international collaboration to exchange expertise in the area of benchmarking practices within the field of home economic services. This enables to question the topic from different perspectives. Benefit is knowledge expansion from different approaches and challenges in the area of benchmarking practices.

RESULTS

Research topic:
Benchmarking practices in the area of home economics.

CONCLUSION

Research background:
In Switzerland institutional households such as hospitals need to analyse their processes in order to meet a tightening economic environment. Thereby benchmarking services with the ones from similar organisations can provide valuable information. However, there are not yet many profound benchmark opportunities for services in the field of home economics. This research looks for expertise and experiences abroad to develop practices in this field.

Room 108	Clothing & Textiles for Family Happiness	
Chair	Tameka Ellington (Kent State University)	USA
IF_0129	Clothing Management by Literate and Non-Literate Homemakers for Family Happiness	
First Author (Main Author)	Diana Agbo (University of Agriculture)	Nigeria
Co-Author(s)	Shirley Odey (University of Agriculture) Rosemary Enoch (University of Agriculture)	
Presenting Author	Diana Agbo (University of Agriculture)	Nigeria

AIM

This study was designed to assess the various methods adopted for clothing management by literate and non-literate homemakers in Makurdi metropolis for family happiness. The study adopted a survey research design. Specifically, the study 1. Identified specific clothing terms that require special care by homemakers, 2.determined various methods adopted for clothing management literate and non-illiterate homemakers, 3. identified problems associated with clothing management by literate and non-literate 4.assessed level of awareness of homemakers on contemporary clothing management techniques. Four research questions guided the study. A sample of 400 respondents made up of 200 literate homemakers and 200 non-literate homemakers. Questionnaire was used for data collection. Data were analyzed using frequency and percentage. Findings include among others: Jewelries, hand bags and foot wares need special care. Washing is the most predominant means of cleaning clothes by homemakers. The hypotheses were tested using T-test. There is no significance different between the method adopted for clothing management by literate and non-literate homemakers, $P < 0.05$. Based on findings, four recommendations were made including: Home Management extension workers should include clothing management in their programs to disseminate information to homemakers on clothing management.

METHODS

The study adopted a survey research design.

RESULTS

Findings include among others: Jewelries, hand bags and foot wares need special care. Washing is the most predominant means of cleaning clothes by homemakers. The hypotheses were tested using T-test. There is no significance different between the method adopted for clothing management by literate and non-literate homemakers, $P < 0.05$.

CONCLUSION

Both literate and non literate homemakers need training in clothing management.

IP_0344	Influence of Fabric Scraps on the Stigmatized Adults for Hope, Happiness and Sustainable Living in Ilorin, Kwara-State, Nigeria	
First Author (Main Author)	Taibat Tunrayo (University of Ilorin)	Nigeria
Co-Author(s)		
Presenting Author	Taibat Tunrayo (University of Ilorin)	Nigeria

AIM

The aim is to examine the influence of fabric scraps on the Stigmatized adults for hope, happiness and Sustainable living in Ilorin, Kwara-State Nigeria.

METHODS

It was a descriptive survey design. The sample for the study was drawn from Ilorin metropolis, Kwara State, Nigeria. A total of 106 respondents were used for the study. Three groups of adults were used: the Skilled Stigmatized (47), the Unskilled Stigmatized (59) and the Non-skilled Stigmatized adults (59). The number of Stigmatized adults remain constant (47). The instrument used to solicit information form the respondents was questionnaire. The reliability for the instrument was 0.76. The data generated for the study were analyzed using mean, standard deviation and t-test as statistical tools. The mean of 3.00 was used as decision rule for research question while research hypotheses were tested at 0.05 level of significance.

RESULTS

Findings showed the grand mean score 3.60 for the Skilled Non Stigmatized adults, 3.61 for the Skilled Stigmatized adults while 0.33 was the grand mean score of Unskilled Stigmatized adults. Statistically, the observed t-value was 0.38 and the critical-value was 1.98. This implied that there is no significant difference between the Skilled Non Stigmatized and the Skilled Stigmatized adults in the utilization of fabrics scraps to produce various articles. In addition, the t-test comparison of Skilled and Unskilled Stigmatized adults was 23.42 and the t-value was 1.98. This implied that there is significant difference between the Skilled Stigmatized and the Unskilled Stigmatized.

CONCLUSION

Conclusively, it is better to be gainfully skilled and shun idleness, laziness, soberness no matter the predicament of challenges one is facing. When we have opportunity to access fabric scraps, we should make use of them wisely, collect them and keep to have sufficient quantities that can be utilized to make brand new articles.

IP_0184	Happiness Is to be Comfortable and Well Dressed in Your Working Clothes even if You Are Middle Aged!	
First Author (Main Author)	Sonia Van Zyl (University of the Free State)	South Africa
Co-Author(s)	Suzette Blom (University of the Free State)	
Presenting Author	Sonia Van Zyl (University of the Free State)	South Africa

AIM

To determine the middle aged working women's perception of the availability of suitable working clothes in Bloemfontein, South Africa.

METHODS

A phenomenological research study was decided on because this type of study is more in the hands of the participants than those of the researcher. The aim was to understand the perceptions, perspectives and understandings of this specific situation. To represent the target market of middle aged working women a sample of 50 participants were used. They consisted of multi-racial working women who represented various workforce environments. Questionnaires were used to collect the data. A comparison of the information given was the main method of analysis. Result were indicated through tables and charts. Data were also analysed by using the ANOVA analysis of variance.

RESULTS

The results proved that middle aged working women do struggle to get fashionable suitable clothes. Ninety eight percent of the ladies experienced body changes and sixty two percent indicated that they are not satisfied with the available working clothes. They consider style, fit and comfort as the three most important qualities to be well dresses and to still feel comfortable and fashionable in their clothes.

CONCLUSION

The world's population is growing older and specifically there are more middle aged women in the work force today. But designers still focus on younger working women while there is greater need for more suitable working clothes for middle aged ladies with a physical changed body.

IF_0097	A Case Study: Fashion Design and Merchandising Core Assessment to Improve Overall Future Curriculum	
First Author (Main Author)	Tameka Ellington (Kent State University)	USA
Co-Author(s)	Kim Hahn (Kent State University)	
Presenting Author	Tameka Ellington (Kent State University)	USA

AIM

The fashion industry is ever evolving, thus educational institutions are faced with the challenge of staying current in their curriculum while instilling traditional core knowledge. "To continue in patterns of the past is not good enough; denial does not divert change," (Lauglin & Kean, 1995, p. 196). The assessment was necessary due to recent updates that were implemented in the Fashion Design and Merchandising (FDM) core curriculum. The purpose of this research is to assess the sophomore level students' foundation knowledge and skills required for both design and merchandising majors. The results of this study will improve overall core curriculum for incoming students and raise the standard quality of current students. The research questions guiding the study assessed the foundational knowledge retained, the difference between design and merchandising majors, as well as the level of core knowledge of transfer versus non-transfer students.

METHODS

Over the course of 2 ½ years, the researchers have developed a comprehensive exam concerning the pedagogical focuses of the FDM core curriculum: color theory, fundamentals of fashion, apparel analysis, fabrics, and fashion technology (i.e. Adobe Suite). After two pilot tests, the assessment exam questions were finalized encompassing a total of 112 questions which included 99 core curriculum questions and 13 demographic questions. Data was analyzed using SPSS.

RESULTS

Results revealed that less than 50% of students had correct answers for 19 questions. The majority of these questions were concerning basic knowledge of fabric and apparel analysis. Design major students scored higher than merchandising students on 12 questions that were related to technology, fabric, and garment construction terms. Non-transfer students scored higher on three questions regarding color theory and apparel analysis terms compared to transfer students.

CONCLUSION

This study's contribution offers a model that others can utilize to in hopes of enhancing curriculum and building a vision for the future.

IF_0223	Challenges Facing Teaching and Learning of Clothing and Textiles as a Subject in Abia State Secondary Schools	
First Author (Main Author)	Anthonia Obeta (IFHE)	Nigeria
Co-Author(s)		
Presenting Author	Anthonia Obeta (IFHE)	Nigeria

AIM

To identify Challenges Facing Teaching and Learning of Clothing and Textiles in Abia State Secondary Schools. Specifically identified by the study are Challenges facing teachers and Students and suggested possible ways of amelioration. Three research questions guided the study.

METHODS

Design:Survey research.Sample of 298 subjects was purposively selected and used for the study.Instrument was structured questionnaire. Data collected was analyzed with frequency,percentages and mean.

RESULTS

Challenges facing the teachers among others include lack/inadequate instructional materials, no incentives while challenges facing students

among others are incompetent teachers,time and financial consuming nature of the subject. Possible ways of amelioration among others include adequately equipping clothing and textile laboratory, financing practical lessons by school authorities, giving incentives to hard working teachers and prizes for outstanding performing students.

CONCLUSION

If the above efforts are put in place, teaching and learning clothing and textiles will be enhanced in the state.

Workshop

Room 205	IFHE and the United Nations	
Chair	Carol Warren (Home Economics Victoria)	Australia
Presneter(s)	Sidiga Washi (Ahfad University for Women)	Sudan
	Anita Ferron (IFHE)	USA
	Anne-Marie Lüdi	Switzerland
	Ingrid Ute-Leonhauser (Justus Liebig University Giessen)	Germany
	Gertraud Pichler (IFHE)	Austria
	Mona Abdelgalil (Household Management)	Egypt
WS_1209	IFHE and the United Nations	
First Author (Main Author)	Carol Warren (Home Economics Victoria)	Australia
Co-Author(s)		
Presenting Author	Carol Warren (Home Economics Victoria)	Australia

IFHE is an International Non-Governmental Organisation having consultative status with the United Nations and the Council of Europe. IFHE representatives participate in meetings and conferences at the UN headquarters in New York, at the UN offices in Geneva and Vienna as well as UN agencies in Paris, Rome and at the Council of Europe in Strasbourg. Their role also includes presenting statements and preparing reports on behalf of IFHE and working with other International Non-Governmental Organisations. Activities are concerned primarily with programmes related to the wellbeing of the family and its members, particularly women.

This information session will provide you with information about the structure of the United Nations, its agencies and departments and the networking role of INGOs. You will also have the opportunity to hear first-hand from our IFHE representatives about their role, how a Home Economics perspective can contribute to UN objectives and how UN involvement provides a platform to advocate for improved quality of life.

Symposium

Room 206	Research and Teaching in the Area of Housing and the Residential Environment for Emerging Consumers in the United States	
Chair	Eunju Hwang (Virginia Tech)	USA
Presneter(s)	Eunju Hwang (Virginia Tech)	USA
	Julia Beamish (Virginia Tech)	USA
	Sung-Jin Lee (North Carolina Agricultural and Technical State University)	USA
	Hyun Joo Kwon (Purdue University)	USA
SP_0789	Research and Teaching in the Area of Housing and the Residential Environment for Emerging Consumers in the United States	
First Author (Main Author)	Eunju Hwang (Virginia Tech)	USA
Co-Author(s)	Hyun Joo Kwon (Purdue University)	
	Mira Ahn (Texas State University)	
	Kathleen Parrott (Virginia Tech)	
	Julia Beamish (Virginia Tech)	
	Sung-Jin Lee (North Carolina A & T)	
Presenting Author	Eunju Hwang (Virginia Tech)	USA

Our society and workforce are both becoming more diverse. There is growing research and public policy interest in understanding diverse consumers and their home environments in the United States. Nevertheless, current challenges include: a) better understanding of the pathways in which home environments influence the needs of emerging and diverse consumers; b) valid and reliable measures of housing needs among special segments of population; and c) developing and sustaining interdisciplinary teaching mechanisms linking housing students, researchers, design professionals, and industry. This symposium consists of four presentations addressing some of these challenges. The first presentation discusses housing behavior of emerging baby boomers by analyzing the past, current, and future housing needs of residents 55+ living in multifamily housing. This study identifies the unique characteristics of multifamily housing in seeking a viable housing option for aging-in-place. The second presentation examines housing satisfaction and affordability of Hispanic families and elderly single-person householders who represent the recent demographic trend in the US. This presentation discusses the association of socio-economic, housing, health, and financial factors with their housing perceptions. The third and fourth presentations are based on development of teaching tools addressing cultural diversity and emerging consumers in residential environments and design classes. A sizable percentage of students in the US are not native. Teaching strategies incorporating cultural diversity in residential design classrooms and the unique challenges of rapidly increasing numbers of international students are shared in the third presentation. The fourth presentation examines the ability of trans-institutional cooperation between faculty and industry in a kitchen design studio class to address the needs of emerging consumers such as multi-generational families, families with autistic children, and aging adults in the US. Finally, the symposium closes with discussion on potential challenges of conducting research and teaching in the area of housing and environment in a diverse society.

SP_1560	Bringing Diversity into Residential Design Classroom	
First Author (Main Author)	Eunju Hwang (Virginia Tech)	USA
Co-Author(s)	Kathleen Parrott (Virginia Tech)	
Presenting Author	Eunju Hwang (Virginia Tech)	USA

The United States has become diverse. As a result, curriculum and accreditation requirements can focus a class to an understanding of residential design from the perspective of various cultures, lifestyles, and life stages. Recognizing cultural uniqueness and identifying various abilities across the lifespan is a start. To show how the authors brought diversity in residential design classes, three case studies will be presented from multicultural aspects and engaging with local communities. In the first case, the process of developing multicultural housing projects will be discussed. In the second case, the examples of factors that can exacerbate the challenge of non-native student learning in residential design classrooms will be discussed. These include: family structures and sizes that influence common house designs; social and religious customs and lifestyle factors that influence relationships of spaces in the home; foods prepared and eaten in the home; technology and its role in the home; house forms influenced by factors such as climate, terrain, available materials, and historic events; policies that determine codes for individual residential buildings as well as neighborhood and community planning. Finally, the third case will provide the strategies how to work in an integrated design team approach to improve local multifamily housing community's accessibility and walkability. To provide more inclusive and welcoming learning environments, techniques successful for the authors include: using global housing policies and styles for class examples; clarifying where American residential design practices have been influenced by diverse global and regional influences; coordinating class activities with campus diversity events; encouraging students to share their own cultural or family heritage; engaging with diverse local communities for projects; organizing group projects on multicultural or lifespan housing design. Committing to integrating diversity into residential design classroom takes time, but it is very rewarding experience both for instructors and for students.

SP_1590	Collaborating with Industry for Kitchen Design Studio Project	
First Author (Main Author)	Julia Beamish (Virginia Tech)	USA
Co-Author(s)		
Presenting Author	Julia Beamish (Virginia Tech)	USA

The Center for Real Life Kitchen Design was established at Virginia Tech in 1998 to study kitchen design and residential technologies. Renovations of two kitchens in the Center facilities are underway based on student designs planned with cooperation from appliance, cabinet, and other manufacturers and businesses. The new designs focus on universal design in single-family housing and sustainability in multifamily housing.

Universal Design: The design criteria for the universal design kitchen was to address the needs of a multi-generational household, Variations in physical and cognitive abilities were considered. Solutions included adaptable and flexible storage, easy to use appliances, color, texture, and lighting selections that support visual and emotional health.

Sustainable and Multifamily: The design criteria for the sustainable and multifamily kitchen used criteria based on green building and market segments who selected apartment living in the United States. Recycled materials, certified wood in cabinetry, and energy efficiency were considered. Final selections also incorporate solutions that support sustainable consumer behavior, such as recycling and composting.

Conclusions: As the final product selections based on student and faculty design solutions were analyzed and discussed, the design program was expanded and considered based on industry contributions and costs. University and industry partnerships were important to the final design solutions, as well as the renovation process.

SP_1591	Housing Research for Growing Demographic Segments: Focusing on Older Single-Person Householders and Hispanic Families in the U.S.	
First Author (Main Author)	Sung-Jin Lee (North Carolina Agricultural and Technical State University)	USA
Co-Author(s)	Mira Ahn (Texas State University)	
Presenting Author	Sung-Jin Lee (North Carolina Agricultural and Technical State University)	USA

The increase of older single-person households and the Hispanic population are two of the most significant demographic trends in the U.S. that influence housing markets, policies, and designs. This presentation focuses on housing satisfaction of older single-person householders in rural areas and housing affordability of Hispanic householders in the urban areas, along with each group's housing (environmental) and demographic characteristics. For both studies, a secondary dataset, the 2011 American Housing National Survey (AHS) was employed.

Study 1. Older single-person householders in rural areas: This study focused on a hypothesized relationship between older single-person rural householders' (N=1,017) housing satisfaction and their personal, physical, financial, and environmental characteristics. The results of simultaneous multiple regression showed that personal (age and gender), physical (health status), and environmental (age of house, structure type, and unit location) factors had effects on their housing satisfaction; and that health status was the strongest factor impacting on their housing satisfaction. The findings can help in developing a robust framework in understanding the housing satisfaction of single elders in U.S. rural communities.

Study 2. Hispanic householders in urban areas: This study tested a hypothesized relationship between Hispanic householders' (N=15,808) housing affordability and their demographic and housing characteristics. The results of logistic regression revealed that Hispanic householders in U.S. urban areas were less likely to afford their housing if they were younger (age variable); did not complete high school (education); lived in the West (census region/unit location); were not married (marital status) or female (gender); were not U.S. native citizens (U.S. citizenship status); had larger structure size (structure size); or were renters (tenure status). This study highlights the present housing challenges of Hispanic families living in U.S. urban areas.

SP_1592	Senior Residents in Multifamily Housing in the U.S.	
First Author (Main Author)	Hyun Joo Kwon (Purdue University)	USA
Co-Author(s)	Julia Beamish (Virginia Tech)	
Presenting Author	Hyun Joo Kwon (Purdue University)	USA

Aging population is rapidly increasing as baby boomers grow older in the United States. In 2030, the number of people age 55 and older will be more than 30% of the total U.S. population. Single-family housing has been recognized as the U.S. housing norm which accounts for 70% of the total U.S. housing type. However, recently multifamily housing (i.e., apartment or condominium) provides attractive services and amenities for senior residents such as 24-hour maintenance, and a fitness center and a business center. Moreover, most multifamily housing community is located near to local services such as a medical center and grocery shopping which is one of the most important features for older adults. This presentation discusses housing behavior of emerging baby boomers by analyzing the past, current, and future housing behavior of residents 55+ living in multifamily housing in the United States (N = 431). The results showed that almost half of the participants lived in a single-family housing in the past. The most frequently mentioned reasons for moving into the current housing were related to multifamily housing community, location and housing unit. From a segmentation analysis based on reasons for choosing multifamily living, three types of multifamily housing seekers were identified: neighborhood seeker, upscale housing seekers and affordable housing seekers. Almost half of the participants wanted to remain in the current multifamily housing for their later life. Particularly, participants who were older, lived in a larger and more expensive housing unit which was recently built and located in a city showed higher residential satisfaction and more likely to stay in the current multifamily housing in the future. This study identifies the unique characteristics of multifamily housing in seeking a viable housing option for aging-in-place.

Concurrent Session

Room 101	Parent-Child Relationship	
Chair	Miai Sung (Korea National Open University)	Republic of Korea
IP_0281	Effect of Parent-Child Relationship Patterns on Adolescent Conflicts among Families of Secondary School Students in Abuja and Nasarawa State, Nigeria	
First Author (Main Author)	Aisha Mohammed (Ahmadu Bello University Zaria)	Nigeria
Co-Author(s)	Zainab Mohammed (Ahmadu Bello University Zaria)	
Presenting Author	Aisha Mohammed (Ahmadu Bello University Zaria)	Nigeria

AIM

The study aimed to determine the effect of Parent –Child relationship patterns on Adolescent conflicts among families of secondary school students in federal capital territory and Nasarawa state of Nigeria.

METHODS

Descriptive method of research was used, obtained from the six area council of federal capital territory (Abuja) and the three educational zone of Nassarawa state. The population for the study comprised of 41,400 adolescences and 16,500 parents from 383 secondary schools from the study area. Proportionate sampling technique was used to obtain the sample size of 414 adolescences (students) and 165 parents giving a total number of 579. Two set of questionnaire was designed for the adolescence students and their parents respectively. Statistical treatment employed were the mean, standard deviation, t-test and the Pearson product moment correlation (PPMC) set at 0.05 alpha levels. All computations were done using SPSS software.

RESULTS

Findings among others were that all the four parenting patterns have significant impact on the adolescences, for example strict and rigid parents but fair in reason when taking decision helps more in the reduction of conflict. In addition the level of conflict of the boys was significantly higher than that of the girls.

CONCLUSION

The four parenting patterns have significant impact on adolescence conflicts.

IP_0237	Risk and Stratagem for Child Abuse among Middle Childhood Years	
First Author (Main Author)	Farhana Nosheen (Government College Univerity Faisalabad Punjab)	Pakistan
Co-Author(s)	Sidra Naseem (Government College Univerity Faisalabad Punjab)	
Presenting Author	Farhana Nosheen (Government College Univerity Faisalabad Punjab)	Pakistan

AIM

The Modern concern about child abuse is not the product of some epidemic increase in the nature of the problem but it is rather the result of a broad social movement and a historic moral transformation. It is global issue which is ruining hope & happiness of children and their families. The main aim of the study was to conduct exploratory study on child abuse effect on developmental pattern of middle childhood years.

METHODS

A sample of 35 respondents selected from socially protected homes (child protection welfare bureau Faisalabad (Government of Punjab, Pakistan), through simple random sampling technique. The interview schedule was developed in the light of research objectives. Descriptive analysis such as mean frequencies and percentage were used for interpretation of the data.

RESULTS

The results of the study indicated that poverty, neglecting, illiteracy, deficiency of economic opportunities were main roots of child abuse. Survey showed that physically abused were tend to crimes, mental sickness, unemployment and deprived of their homes. Findings of the study reveal that 94.3% respondents' parents have not provided information about abuse because their parents are ignorant to abuse or they are illiterate and do not eligible to tell about abuse to their children. 63.0% respondents physically, 26.0% verbally and 11.0% faced sexual abuse. 54.3% respondents were abused by street member, 31.4% respondents by family member and 14.3% respondents by any other.

CONCLUSION

The study concluded that it is a great need of awareness at public level about the child protection. Children should be given knowledge how they can be abused by adults and how they can protect themselves from the clutch of abusers. At state level, seminars and workshops should be conducted to stop child abuse. Hope & Happiness of children and families is promised to protect children from all types of abuses.

IP_0587	Cluster Analysis on Developing Course of Self-Determined Motivation on Learning: Effects of Parental Behavioral and Psychological Control	
First Author (Main Author)	Suhyun Lee (Seoul National University)	Republic of Korea
Co-Author(s)	Kangyi Lee (Seoul National University)	
Presenting Author	Suhyun Lee (Seoul National University)	Republic of Korea

Reduction in fertility and intense investment on each child are worldwide phenomenon (Adams, 2004). High emphasis on childhood education 'makes each child a treasure to be nurtured and developed' as Adams (2004) put it. In Korea, this tendency is combined with Confucian values regarding family relations, which emphasize parental control and corresponding obedience from children, resulting in high parental control for their children's better academic achievement.

Self-Determination Theory (SDT), however, casts doubts about the effectiveness of such parenting: empirical works suggests that 'autonomously-motivated students thrive in educational settings' (Reeve, 2002), and motivationally facilitative environments support individual's autonomy, providing choices and minimizing controls (Deci & Ryan, 1985). This study investigates the effects of parental control on the developing course of children's self-determined motivation on learning. As Barber (1996)'s categorization which differentiates behavioral control from psychological one corresponds most closely with SDT's structural dimensions (Grolnick & Farkas, 2002), we explored the distinct effects of each type of control on developing motivation. Behavioral control was expected to positively affect the motivation in that it provides structures which allows the experience of competence; in contrast, psychological control was expected to negatively affect the motivation in that it threatens the autonomy (e.g. Steinberg et al., 1992).

Participants were 2,014 children in Korea Children and Youth Panel Survey (KCYPs) who were in age of 10 in 2010. The study utilized self-determined motivation on learning reported in 2010, 2012, and 2014 to analyze the developing course. Perceived parental behavioral and psychological control were reported in 2010. We first conducted cluster analysis to generate clusters among developing courses of motivation. Multinomial logistic regression was then conducted to investigate the course-predicting power of both controls.

Four clusters of developing courses were identified high-maintaining (522), high-low decreasing (638), low-high increasing (657), and low-maintaining (197). Analysis of variance and post hoc tests verified the suggested groups. Result in regressions demonstrated that the psychological control predicts high-low decreasing compared to high-maintaining ($B=.029^*$) and low-high increasing ($B=.027^*$). Behavioral control predicted high-maintaining compared to low-maintaining ($B=.435^{***}$) and low-high increasing ($B=.350^{***}$). Especially interesting was that high behavioral control also predicted high-low decreasing compared to low-high increasing ($B=.322^{***}$), implying the growing negative effect of psychological control which offsets the positive influence of behavioral control along the timeline.

Result were consistent with our hypothesis psychological control exerts negative effects on children's self-determined motivation on learning while behavioral control has opposite effects. In addition, their effects are longitudinal child-reported parental control in 10-year-old predicts the developing course of motivation in next 5 years. Implications for current parenting was discussed with regard to SDT.

IP_0989	How Mother's Affection Could Improve Character of Children? A Study among Rural Families in Bogor, Indonesia	
First Author (Main Author)	Dwi Hastuti (Bogor Agricultural University)	Indonesia
Co-Author(s)	Alfiasari Kridiarto (Bogor Agricultural University)	
Presenting Author	Dwi Hastuti (Bogor Agricultural University)	Indonesia

Mother's affection could be predicted through its warmth dimension (Rohner, 1983). The study was conducted among children ages 4-19 years old, living in rural areas in Bogor, West Java Province Indonesia, involving 400 children and their families. Majority of families work as employees on agricultural activities or as small vendors. Parental education was less than 7 years and 44.5 percent of families were classified as poor with income less than Rp271,970 per month per capita as poor families (National Statistic Bureau, 2013). Parental Acceptance Rejection Questionnaire (Rohner, 1983) was used as an instrument to measure acceptance of mothers toward their children. A correlation test and Regression Analysis was applied to analyze variables under study. Results showed that scores of parental acceptance classified as low with average index ranging from 55.95 up to 69.11, while the score tends to decrease as the age of children increases. The study found that boys tend to have lower character than girls, and as they got older, mothers' affectional expression and practice to discipline and guide children become fewer. The study revealed that the more affection of mother and the less neglect of mother it was, the likely the better character of children. It was recommended to improve parenting knowledge and practice of mothers, especially for those having teenage children to help improve their method of parenting through communication and verbal expression, direction and guidance. Challenges to be a good parent were also identified in this study, especially in regulating and selecting proper activities and plays, which include limiting access to media and games (online or offline) which becomes more accessible to rural teenagers since there were a lot of internet and playstation corners in their neighboring area. Meanwhile, mobile phone ownership also makes it easier for children to get information, play (game) and entertainment.

Room 102	Professional Learning Community	
Chair	Eun-Sook Park (Wonkwang University)	Republic of Korea
IP_0900	Developing Home Economics Teaching with Developmental Collaboration	
First Author (Main Author)	Hanna Kuusisaari (University of Helsinki)	Finland
Co-Author(s)		
Presenting Author	Hanna Kuusisaari (University of Helsinki)	Finland

Homes and the society at large, including its trends and advances in education, provide new knowledge and make new demands with regard to learning and teaching. In Finland, the national curriculum, that provides basis for teaching, also changes about every ten years. The changes of society and learning-theoretical changes to the curriculum present a challenge to Home Economics (HE) teachers, as new ways of teaching need to be developed and implemented in daily teaching. In order to help teachers in developing their teaching, an in-service education course was organized for HE teachers. This in-service education was intended to help teachers to learn and create new knowledge for their HE teaching work.

The research focuses on the teacher teams' processes of collaborative knowledge-creation during the first session of the in-service education course. The theoretical grounds for the research is based on Vygotsky's concept of the zone of proximal development. The research data were videotaped during the teachers' group discussions at the in-service education session. The research method was a data driven, systematic qualitative analysis of the content of the discussion. The analysis focused on finding how new knowledge can be created and how new ideas are developed in a peer-to-peer teacher collaboration setting.

According to the research results, new knowledge was created, as defined in this research, through developmental collaboration. This

process can be described as a theory-based further development of ideas with questioning and reifying of ideas in symmetrical peer-to-peer collaboration. Nevertheless, the research results also indicate that peer-to-peer setting may be difficult, and therefore in-service education courses are needed to help the development of HE-teaching. Further development of in-service education for HE teachers is needed in order to support the development of HE-teaching.

IP_0742	Comparative Analysis of Current Home Economics Curriculums Worldwide: Focusing on Competencies and Peer Learning System among Teachers	
First Author (Main Author)	Noriko Arai (Osaka University)	Japan
Co-Author(s)	Noriko Kishi (Fukuoka University of Education) Rie Imoto (Kagawa Nutrition University) Yuko Hane (Nagoya Future Culture College) Reiko Isshiki (Yasuda Women's University) Yuko Kamei (Aikoku Gakuen Junior College) Shino Kanzawa (Kojimachi Gakuen Girls' Junior and Senior High School) Mayuko Suzuki (Osaka Kyoiku University)	
Presenting Author	Noriko Arai (Osaka University)	Japan

AIM

In the 2000s, competency-based educational reforms were performed in many countries. In these reforms, problem solving, critical literacy and reflective thought are becoming increasingly important for students to acquire. Along with these perspectives, good practice of everyday lesson became more important and the peer-learning system among teachers to improve their lesson is more focused than ever. The purpose of this research is to perform a comparative analysis of current home economics curriculums worldwide, especially focusing on competencies and peer-learning systems that help teachers create better lessons.

METHODS

1. Document analysis of the syllabus in each country, 2. Questionnaire and interview survey with teachers concerning curriculums focusing on required competencies and peer-learning systems in each country. 3. Comparative analysis of the data. The data were collected from 15 European, North American, Oceanian, and Asian countries.

FINDINGS

1. The features of the curriculum were divided into the following four types: (1) Ensure that students acquire knowledge and skill about home and family life comprehensively and nurture problem-solving literacy (the U.S., Japan, Korea, and the Philippines), (2) Ensure that students learn mainly about food and nurture practical literacy and citizenship to manage healthy, economic, and ecological living (Sweden, Finland, Norway, and Denmark), (3) Ensure that students learn about food and textile focusing on the technological perspective, and contents on family, financial management, and other items are included in other related subjects (the U.K., Australia, and Hong Kong), and (4) the others (Canada, etc.). 2. In almost all countries, food and nutrition were important learning fields. The fields of individuals, family, child development, and welfare are included in home economics in the U.S., Japan, Korea, and the Philippines; however, these fields have been shrinking or included in other subjects in the U.K., Australia, the Nordic countries, and some Asian countries. 3. Competencies to implement practical knowledge and skills in daily life were frequently required within home economics in all countries. Decision-making and problem-solving literacy seemed to be more emphasized in the U.S. and Japan, while independence, citizenship, and living culture are more focused in the Nordic countries. 4. The peer-learning system among teachers, named "lesson study" is very common in Japan. This helps teachers formulate lesson plans by obtaining advice, being observed, and reflecting on lessons together with observers. The survey indicated that the peer-learning system was quite rare in other countries. However, several free writings demonstrate an interest in peer-learning, and positive comments willing to implement it in their own countries.

CONCLUSION

New educational reforms have an impact on home economics curriculums that clarify competencies to be nurtured, and evidence-based assessments are more focused upon than ever. Considering these trends, it is important that teachers create effective lessons in which students

obtain these competencies. From this perspective, a peer-learning system to formulate better lessons has a greater possibility to empower teachers, and we need to implement it through an international network.

IP_0659	General Academic Ability Fostered by Home Economics Lessons Developed in 'Lesson Study': Evidence from Elementary, Junior High, and High School Reports	
First Author (Main Author)	Rie Imoto (Kagawa Nutrition University)	Japan
Co-Author(s)	Yuko Hane (Nagoya Future Culture College) Yuko Kamei (Aikoku Gakuen Junior College) Shino Kanzawa (Kojimachi Gakuen Girls' Junior and Senior High School) Noriko Kishi (Fukuoka University of Education) Noriko Arai (Osaka University of Health and Sport Sciences) Reiko Isshiki (Yasuda Women's University) Mayuko Suzuki (Osaka Kyoiku University)	
Presenting Author	Rie Imoto (Kagawa Nutrition University)	Japan

AIM

Home Economics is compulsory for all school levels in Japan. The subject encompasses a wide range of content about life as a whole. The content is divided into several categories in the Course of Study, and it is the task of teachers to plan lessons covering knowledge and skills in each category, and also to teach family life as a whole by making connections between the various categories. That is why 'lesson study'* is actively done and several national home economics teachers' organizations hold annual conferences about 'lesson study'. The aim of this study is to clarify the characteristics of 'lesson study' and the abilities fostered in the lessons in home economics by analyzing reports of lessons in elementary, junior high and senior high school levels.

* 'lesson study' refers to a professional development process that Japanese teachers engage in to systematically examine their practices with the goal of becoming more effective.

METHOD

- The brochures of three different annual home economics conferences from different national organizations were assembled, including an elementary school organization: 2014, a junior high school organization: 2013, and a high school organization: 2012, 2013, and 2014. The number of lessons analyzed included nine for elementary school, twelve for junior high school, and eleven for senior high school.
- Five abilities were determined as the object of analysis by referencing the key competencies identified by the OECD's DeSeCo project and the 'key abilities needed for the 21st century' as identified by the National Institute for Educational Policy Research in Japan.
- The five abilities are 1) The ability to use skills, 2) The ability to use knowledge and information, 3) The ability to use critical thinking, decision making and problem solving, 4) The ability to communicate and cooperate, and 5) The ability to plan and practice for a better life.

RESULTS

The main results of analyzing the lessons are as follows.

- Lessons developed in 'lesson study' were in line with the annual research themes.
- The ability to use skills: The range of skills needed in elementary to junior and senior high school were fostered. Those include the traditional cultural skills which students are encouraged to practice in daily life.
- The ability to use knowledge and information: Students are encouraged to use a variety of sources of information in all school levels. The scope of knowledge is family for elementary students, community for junior high school students, and sustainable society for high school students.
- The ability to use critical thinking, decision making and problem solving: These abilities were barely found in elementary school level, as expected. However, the ability was fostered in many lessons in junior and senior high school levels.
- The ability to communicate and cooperate: This was emphasized in all school levels. In addition, group activities were often used as teaching methods in order to experience cooperation with others.
- The ability to plan and practice for a better life: This was also emphasized in all school levels. And students were encouraged to practice learned knowledge and skills in daily life.

CONCLUSIONS

The five abilities determined as the object of analysis in this research were included in many of the lessons developed in 'lesson study'. The five abilities were fostered by a variety of teaching methods and lessons straddling of multiple categories.

IP_0615	How Japanese Teachers Improve Their Teaching Skills through Lesson Study: A Case Study of Home Economics Education in Fukuoka	
First Author (Main Author)	Noriko Kishi (University of Teacher Education Fukuoka)	Japan
Co-Author(s)	Mayuko Suzuki (Osaka Kyoiku University) Noriko Arai (Osaka University of Health and Sport Sciences) Yuko Hane (Nagoya Future Culture College) Rie Imoto (Kagawa Nutrition University) Reiko Isshiki (Yasuda Women's University) Yuko Kamei (Aikoku Gakuen Junior College) Shino Kanzawa (Kojimachi Girl's Junior and Senior High School)	
Presenting Author	Noriko Kishi (University of Teacher Education Fukuoka)	Japan

AIM

Lesson study is a group activity wherein teachers study a curriculum, set goals, and then plan and conduct a research lesson while other group members observe the lesson to improve their teaching skills. Then those members apply their observations to conduct their own lessons. Japan has a well-organized home economics lesson study system. Home economics lesson study groups are categorized into several types according to group members' characteristics or the objectives. However, it is unclear how lesson study affects a teacher's professional growth. This study explores how Japanese home economics teachers were trained through lesson study, facilitating their subject understanding and improving their teaching skills.

METHODS

A semi-structured interview was conducted, examining five teachers from elementary or junior high school in Fukuoka Prefecture who participated in a home economics lesson study between 2014 and 2015. The data was collected using a questionnaire, followed by a one-hour face-to-face interview. The subjects were asked about their previous lesson study stages, and the impact, merits, and demerits of lesson studies.

RESULTS

This survey suggested the following about the respondents. 1. They realized the importance of the scientific approach in the subject through discussions on goal setting and lesson planning with colleagues or a home economics researcher. 2. They better understood the importance of communication with students and the concepts in teaching materials by observing the group members' lessons and interacting with each other. 3. Some identified multiple meanings of teaching materials. Others grasped the importance of a child-centered approach. 4. They reported that the lesson study allowed students to respond more actively.

CONCLUSION

The teachers had a multifaceted experience with lesson studies. Collaborative lesson study enabled them to better understand the concepts and theories of practical home economics. Practicing the lessons from the perspective of research made them confident of their teaching skills.

Room 103	Food Literacy, Behaviors and Capabilities	
Chair	Tarja Römer-Paakkanen (Haaga-Helia University of Applied Sciences)	Finland
IP_1399	Taste as Didactic Approach in Food Education	
First Author (Main Author)	Karen Wistoft (Arhus University)	Denmark
Co-Author(s)		
Presenting Author	Karen Wistoft (Arhus University)	Denmark

This paper focus on how taste is used in contemporary food education. Furthermore the focus is how taste is used in a specific food education program in Danish schools. By critically discussing a sample of academic studies that design and evaluate taste education programs for children, the paper argues that most of the research literature on taste education has a very reductive understanding of taste and is essentially totally distrustful concerning children's taste. Taste is seen as a barrier for 'correct' eating habits and not as an important sense, a source to pleasure or happiness or a central way of sensually understanding and approaching the world. In other words, taste literacy in general becomes a tool to push children towards 'hegemonic nutrition'. In addition the paper presents results of a new quantitative study that investigates school students' work with taste in relation to their own expected learning, viewed in the light of three didactic elements: motivation, student participation and innovation in school. The method is a survey based on questionnaire among students (N= 769) who have participated a cooking competition that forms part of the subject Food Knowledge in the national Danish school. The connection between taste and learning is a relatively unexplored field, and the analysis indicates that student's experience of working with taste have an impact on students' learning that is equally positive – or even more so – as that of known didactic elements like student participation and innovation. The paper conclude that food education building on 'hegemonic nutrition' and traditional didactic elements do not necessarily condition the best learning outcome; food education that balance between traditional didactic elements and incorporate taste as a didactic approach enable students to achieve new competencies of cooking and food knowledge.

IP_0007	Developing Food Literacy in Aboriginal School Aged Children	
First Author (Main Author)	Conor Fennell (Our Lady of the Sacred Heart Thamarrurr Catholic College Wadeye)	Australia
Co-Author(s)		
Presenting Author	Conor Fennell (Our Lady of the Sacred Heart Thamarrurr Catholic College Wadeye)	Australia

The aim of this presentation is to showcase the implementation of a food literacy programme for Aboriginal school aged children in a remote Aboriginal community setting in Australia.

Food literacy means having the knowledge, skills and the capacity to source, prepare and cook food in a sustainable manner to promote a healthy and balanced lifestyle. Food literacy is also about individuals understanding the role that food plays in communities and cultures. (Home Economics Victoria, 2013).

Aboriginal people and communities are frequently associated with obesity, diabetes, poor food choices and food poverty to name a few. Aboriginal youth are particularly vulnerable in this situation with their limited food experiences, particularly in a community setting. Today more than ever Aboriginal communities need to change behaviors related to health and nutrition.

The food literacy programme to be delivered allows learners to draw on and enhance their rich and diverse knowledge of traditional Aboriginal foods and flavours, and develop the food literacies required to knowledgeably, skilfully and sustainably source, prepare and cook food which encourages a healthy and balanced lifestyle.

This skills base is necessary to determine and enhance the nutritional and economic life of learners, and it is hoped that learners will be empowered to change their dietary behaviors and in turn improve their quality of life, ultimately promoting hope and happiness for present and future generations.

IP_1078	Food Safety as a Part of Home and Consumer Studies Education	
First Author (Main Author)	Marie Lange (Uppsala University)	Sweden
Co-Author(s)	Helen Göranson (Uppsala University) Ingela Marklinder (Uppsala University)	
Presenting Author	Marie Lange (Uppsala University)	Sweden

INTRODUCTION

Foodborne diseases are a global health problem where ignorance related to Food safety has a major impact. Education related to Food safety is of importance and Home and Consumer Studies (HCS) is a unique opportunity to teach students a safe behavior as it is mandatory for all students in the Swedish Compulsory School. The teaching of Food safety has been indicated by earlier studies in this ongoing project to be influenced by the teachers working years and their formal education. Important risk areas related to the four C in Food safety; Cooking, Chilling and Cross-contamination risk being neglected, while areas related to Cleaning often became routines. Boys reported a more risk related behavior and mother is an important as well as trusted source for Food safety knowledge.

AIM

To investigate what affect food safety teaching in HCS practice.

METHOD

Qualitative interviews with focus on Food Safety issues were performed individually with nine HCS teachers. A mind map with four themes was used and all interviews were recorded and transcribed verbatim.

RESULTS

The teachers' makes different didactic choices for their teaching which are influenced by their education, personality and experience. These didactic choices and the special HCS context create a teaching that is often based on routines. Food safety is often included into teaching through routines and without reflections. Frame factors i.e. time, budget, purchases and class room will also have an impact on food safety teaching.

CONCLUSION

Food safety knowledge is of importance from a health perspective but is often included quite unreflect into HCS teaching which might have consequences for the students learning process. Teaching of food safety in HCS needs improvement and reflection in the classroom practice as well as in the policy documents in order to create safe future consumers.

IP_0423	Why Are Cooking Skills Important to Health and Wellbeing: A Synthesis of the Qualitative Literature	
First Author (Main Author)	Stine Erbs Ludvig (Metropolitan University College, Institute of Nutrition and Midwifery)	Denmark
Co-Author(s)	Jon Fuglsang (Metropolitan University College, Institute of Nutrition and Midwifery)	
Presenting Author	Stine Erbs Ludvig (Metropolitan University College, Institute of Nutrition and Midwifery)	Denmark

AIM

It is argued that cooking skills may be important to health, through a positive impact on dietary intake. This abstract explores the further

mechanisms underlying the association between cooking skills, health and wellbeing.

METHODS

Articles were retrieved from PubMed and Web of Science in September 2015. Searches were performed using the terms "cooking skills", "health", "wellbeing", "dietary intake", and "food skills". Studies published between 1995-2015 were included. 40 articles were retrieved, 8 were duplicates and 9 did not meet inclusion criteria. Of the 23 remaining articles, 7 articles of qualitative design were analyzed. Inclusion criteria for retrieved studies were; Studies conducted 1) with healthy adolescents or adults 2) in Europe, Australia or North America 3) with some theoretical background.

RESULTS FINDINGS FROM THE ANALYSES WERE ARRANGED AROUND FOUR THEMES

1. Independence and identity: Teenagers from participating families experienced being able to cook as a way of gaining independence. Being a good cook was furthermore mentioned as an identity and an asset.
2. Confidence: Learning how to cook increased participants' self-confidence. Furthermore confidence and pride were related to being able to manage food and eating for oneself and one's household.
3. Social skills: Social skills were developed during the process of learning how to cook, and participants engaged in community kitchen activities often improved their social interaction skills.
4. Nutritional knowledge: Being able to cook or learning to cook enabled participants to cook complex meals with a variation of produce, thereby increasing the nutritional value of the meals.

CONCLUSION

The results indicate that having cooking skills or learning how to cook may be important to health and wellbeing as it increases confidence and independence in participants. Furthermore, engaging in cooking activities improves social skills and nutritional status through a more varied dietary intake.

IP_1130	Access to Educate Food Production and Avoid Food Waist among Multicultural Women in Espoo City in Finland	
First Author (Main Author)	Leena Savialo (IFHE)	Finland
Co-Author(s)		
Presenting Author	Leena Savialo (IFHE)	Finland

The education of women to produce food for families is the focus of this research. Especially the education of simple food production in order to use it in rural development is studied here.

Multicultural women have come to Finland for different reasons. Many of these ladies have not had previous experience of food production in new Finnish culture. They have come to Finland for different reasons e.g. studies, love, work, as refugees, as family members. There is a new group of foreign women who have come to Finland seeking asylum protection 2015.

All of them want to be happy in the new culture in Finland. Most of them want to get back to their home starting country in peace. They are missing the culture where they are familiar but eager to learn this peaceful different Finland.

The first step is to teach them how to adapt new culture of food. In this regard was shown the food stuffs available in shops, and how to grow a crop from seed to flowering stage or to product potato, the most commonly eaten vegetable in Finland.

The women are from societies where they take care of feeding families as it is difficult to buy foodstuffs from the shop. The study is about educating the newcomers to produce themselves foodstuffs in the vegetable garden.

Forward is the idea to let women teach their learned systems to their families in their own original countries. The education works among the immigrants themselves. Usually the education works when the workers / teachers are sent to underdeveloped countries. This study is to analyze the opportunity to teach multicultural women here in Espoo city for the rural development. The aim is to educate women to profit the Finnish society.

The side line result is to teach them the more developed European issues in small scale agriculture, at least food production, in order to be independent for achieving food security. The traditional advisory work in home economics and consumer economics made by the women's organizations is very much in demanding issue in Espoo city Finland.

This paper is to introduce the starting of education and to present the present situation of education activities for contributing to rural development. The results from present studies are in progress.

Keywords: Multicultural women, food waist, food production, education, development.

IP_1523	Study on the Association between Family Meals and Personality of Adolescents	
First Author (Main Author)	Nansook Yu (Chonnam National University)	Republic of Korea
Co-Author(s)	Hyoshick Shin (Chonnam National University) Lanhee Jung (Chonnam National University) Youngsun Heo (Seongdeok high school) Joohee Lee (Yongdu middle school) Soonjoo Kim (Shinchang middle school)	
Presenting Author	Nansook Yu (Chonnam National University)	Republic of Korea

This study described the status of family meals and personality of adolescents, determined the differences in family meals and personality according to personal variables, and examined the association between family meals and personality for adolescents. The Data were collected from self-reported inventory of the middle and high school students in a city and 1,259 data copies were used for analyses. Data were analyzed for frequency, percentage, mean, standard deviation, Cronbach's α , t-test, ANOVA, scheffe test, and Multiple regression analysis using SPSS/PC 18.0 program. The results obtained were as follows. First, as for the weekly family meal frequency, more than 7 times had the most number of responses(44.2%), followed by 1~2 times(20.8%), 3~4 times(18.1%), 5~6 times(12.9%). The average scores for family meal perception and family meal attitudes were 3.75 and 3.42 on a 5-Likert scale, respectively, which means moderately high. But, family dining rules was 2.80, which means moderate. Agreeableness was the highest(3.68) among the personality components followed by Openness/intellect(3.42), Extraversion(3.33), Conscientiousness(3.14), and Emotional Stability(3.05) out of 5-point Likert scale. Second, there were statistically significant differences in family meal frequency, family meal perception, family dining rules, and family meal attitudes depending on the gender, school level, and the father's academic attainment. There were differences in components of personality depending on the gender, school level, and the parents' academic attainment. Third, family meal frequency, family meal perception, and family meal attitudes had statistically significant influence on the personality of adolescents after personal variables are considered. But, there was no significant relationship between family dining rules and the personality. The outcomes indicate that family meals affects the personality of adolescents. School needs to offer quality programs with various teaching methods to enhance family meal frequency, family meal perception, and family meal attitudes.

Room 104	Marital and Partner Relationship	
Chair	Meejung Chin (Seoul National University)	Republic of Korea
IP_1036	Does Marriage Make People Happier in Korea? : A Longitudinal Analysis	
First Author (Main Author)	Su Young Nah (Seoul National University)	Republic of Korea
Co-Author(s)	Gyoung Hae Han (Seoul National University)	
Presenting Author	Su Young Nah (Seoul National University)	Republic of Korea

AIM

Koreans are spending more their lives unmarried due to a historical trend toward a late marriage. A number of previous studies have found that married adults are more satisfied with their lives than unmarried adults. If marriage is associated with better subjective well-being, does this demographic trend forecast a poorer well-being of Korean adults? However, the relation between marriage and well-being might exist because happier people get married, not because marriage makes people happier. This study analyzes the causal relationship between marriage and life

satisfaction in Korea.

METHODS

The current study uses four waves of the Korean Labor and Income Panel Study (KLIPS), spanning 2006 to 2009. In order to examine the effect of marriage on life satisfaction, we restrict the sample to adults who were single at 2006. The sample used for analysis consists of 127 participants who married between 2006 and 2007, and 337 adults who have remained single over 4 years (2006-2009). Using a latent growth modeling, whether marriage affects individuals' life satisfaction trajectories is analyzed. Overall life satisfaction is measured by a single question with a 5-point Likert scale.

RESULTS

The latent growth analysis reveals that marriage has a positive effect on the initial level of and the change in the life satisfaction, even after controlling for the influence of individuals' demographic characteristics. The initial level of life satisfaction was significantly higher among married participants than unmarried adults. Also, married adults had a significantly higher rate of increase in life satisfaction over time than their unmarried counterparts.

CONCLUSION

This study finds that happier people get married, and marriage makes people happier. The finding implicates that both marriage selection effects and marriage protection effects are operating in Korea.

IP_0226	Couple's Relationship and the Enneagram: An Optimistic Step towards Happiness	
First Author (Main Author)	Jeanne Godin (Université de Moncton)	Canada
Co-Author(s)		
Presenting Author	Jeanne Godin (Université de Moncton)	Canada

AIM

This study investigated whether the Enneagram personality system improves the quality of couples' relationship.

METHODS

A mixed method was employed, wherein couples married or living together for less than 5 years completed a pre and post questionnaire and participated in individual semi structured interviews. The participating six couples received three weekly educational sessions on the Enneagram personality system. The quality of the relationship was measured with the Locke Wallace marital adjustment test.

RESULTS

Although the results show that the knowledge of the Enneagram personality system does not have a significant effect on the quality of the relationship, the semi-structured interviews show that it contributed to positives changes in the couples' relationship.

CONCLUSION

This research conveys an optimistic step towards hope and happiness. In fact, recommendations include using a larger sample, increasing the number of educational sessions or their format, creating partnerships with family oriented organisations to facilitate recruitment.

IP_1459	Husbands' Contribution to Domestic Labor: Are Wives Satisfied?	
First Author (Main Author)	Soyoung Kim (Seoul National University)	Republic of Korea
Co-Author(s)		
Presenting Author	Soyoung Kim (Seoul National University)	Republic of Korea

Do husbands with working wives share domestic labor more equally than husbands with housewives? Is the husband's contribution sufficient enough to satisfy his wife? These questions have long inspired many researchers to find ways to more accurately estimate husband's domestic contributions and narrow the emotional gap following the different threshold of satisfaction within couples, but not without some limits. This study attempted to figure out an answer to the above-mentioned subject by using time diaries of Korean married couples with a preschooler as their first-born child and relying on the typology of husbands' sharing of housework and childcare, which allowed me to overcome some limitations of prior research. I analyzed a total of 1,716 diaries of 858 married couples from 2014 Korea Time Use Survey with descriptive statistics, cluster analysis, and multinomial logit. Result showed that husbands in dual-earner households did share domestic labor more equally than husbands in single-earner households, but there were different types of husband's contribution depending on time they spent in housework and childcare. While more than half of husbands with employed wives shared more or less than ten percent of domestic labor, the rest were divided into one group of husbands who shared both housework and childcare more heavily and evenly, and another group who were mainly involved in childcare duties. It is interesting that husbands who made the least contributions to domestic labor were not the ones with the lowest level of satisfaction with their sharing of household labor, whereas their wives were deeply dissatisfied, leading to a huge emotional gap within couples. Identifying factors associated with the three different types allowed me to find a point of intervention to narrow the emotional gap that is likely to harm the marital relationship if left unattended to.

Room 106	Food Service and Hospitality Management	
Chair	Jihyun Yoon (Seoul National University)	Republic of Korea
IF_0039	Hospital Catering – A Look at Offerings, Pricing and Atmosphere	
First Author (Main Author)	Franziska Honegger (Zurich University of Applied Science)	Switzerland
Co-Author(s)	Sandra Weilenmann	
Presenting Author	Franziska Honegger (Zurich University of Applied Science)	Switzerland

BACKGROUND

Food Services in hospitals are an important source of relaxation for employees. Catering facilities not only need to provide consumers with a suitable range of food and beverages at reasonable prices but also to offer a comfortable atmosphere. So far there has not been any study looking at these factors in Swiss hospitals.

AIM

Aim of this research was to detect, present and evaluate offerings, pricing and infrastructural atmosphere of catering facilities in Swiss hospitals. This in order to provide hospital decision makers with a basis to compare and contrast their services.

METHODS

Qualitative research design, underpinned by the pragmatism paradigm and a primarily inductive approach. The inquiry strategy was a multi methods case study. Case study entity is 18 hospitals catering facilities – focusing on public cafeterias. Data collection methods include document research, structured observations and semi-structured expert interviews. Data was primarily analysed thematically.

RESULTS

Detailed overview and comparison of food and beverage offers and corresponding price ranges and commented factors shaping the atmosphere of the catering areas. Employees benefit from notable pricing discounts.

CONCLUSION

Catering facilities are acknowledged to be an important image factor for hospitals. The findings correspond with literature stating key points for successful catering services. This adds to the body of knowledge in the field of Home Economics by providing a sound argumentation basis to set up and maintain competitive catering offerings in (Swiss)hospitals.

IP_1091	Exploring Hospitality Competencies in a Hospital Meal Context and Introducing Hospitality Competencies in Bachelor's Degree Program in Nutrition and Health	
First Author (Main Author)	Lise Justesen (Metropolitan University College Denmark)	Denmark
Co-Author(s)	Anna-Lise Stroejer (Metropolitan University College Denmark)	
Presenting Author	Lise Justesen (Metropolitan University College Denmark)	Denmark

AIM

To explore hospitality competencies among healthcare professionals in a hospital meal context and to consider how hospitality competencies can be strengthened in Bachelor's Degree programs in Nutrition and Health.

METHODS

The conceptual framework is based upon Philosopher Derrida's hospitality approach in combination with an ontological position which acknowledges public meals to be socio-materially constructed. The empirical data is based upon a six months ethnographic study of hospital meals served in the departments of gynaecology and cardiology at a Danish hospital in 2012. The empirical data is based on observations, visual methods and 22 semi-structured interviews with healthcare professionals and patients. The learning strategy is based upon Dewey's concept of learning by doing.

FINDINGS

Hospitality practices were based upon non-articulated culturally learned practices and revealed a need for strengthened hospitality competencies among professionals. Hospitality competencies include ability to co-create meal experiences in shifting atmospheres and evocative events. This includes ability to create opportunities for shifting host-guest roles and to perform culturally learned aesthetic form symbols in embodied practices. It also comprises a focus on open-ended planning processes that allow hospitality to be unpredictable.

CONCLUSION

Based upon findings from a hospital context, hospitality competencies are sought strengthened in the educational context of Bachelor's Degree program in Nutrition and Health. In the teaching module of food-culture 17 students were asked to create self-selected hospitality meal events which had to be held outside the university setting. Students were asked to reflect on their own hospitality performances as hosts and guests. This provided a platform for discussions on hospitality competencies as culturally learned and unpredictable.

IP_1126	Nutrition Knowledge and Food Safety Practices of Food Handlers for National School Nutrition Programme in Esikhaleni and Kwa-Dlangezwa Schools	
First Author (Main Author)	Bolyn Mosa Selepe (University of Zululand)	South Africa
Co-Author(s)	Kadi Prudence Legbara (University of Zululand) Nonkululeko Veronica Mdllovu (University of Zululand)	
Presenting Author	Bolyn Mosa Selepe (University of Zululand)	South Africa

The aim of the study was to investigate the nutrition knowledge and food safety practices of food handlers participating in National School Nutrition programme. Nutrition knowledge is knowledge of nutrients and foods. An adequate knowledge is needed to arrange and prepare a balanced meal which is essential to maintain the body by providing growth and physical wellbeing. Deficit in the knowledge of nutrition may affect dietary intervention resulting in unbalanced meal and when continued for an extended time frame, it may affect the body physiological processes leading to malnutrition.

Non experimental quantitative and qualitative approach was used in an interview schedule across twenty-eight schools in Esikhaleni and Kwa-Dlangezwa schools. Purposive sampling method of research survey was used involving sample size of 89 respondents (food handlers). Questionnaires were used as instrument for data collection. The questionnaire has three sections namely socio-demographic, nutrition

knowledge and observational questions. Data was analysed using Microsoft Excel and Statistic Package for Social Sciences (SPSS).

Majority of respondents said they have worked for school feeding programme over the years and it seem not to be a prerequisite for sound knowledge. Few of the food handlers have been involved in food-related training and majority have not been trained. Majority of the food handlers lacks adequate nutritional knowledge, while food safety practices are not adequate. Based on observations, personal hygiene is practiced by the food handlers, but there is lack of cleanliness in preparation areas. Risky practices were shown during hand washing, storage of food, cleaning of utensils and wearing of appropriate uniforms.

In conclusion, knowledge needs to be improved, as majority of the respondent's demonstrated moderate and poor knowledge of the various question asked during the course of the study. Nutrition education or food-related training program may be of help for improvement.

IP_1196	Survey on Eating and Cooking Habits of University Students Living in Student Residence : Implications for Food Literacy and Health Education	
First Author (Main Author)	Theresa Wai Ling Lai Yeung (The Hong Kong Institute of Education)	Hong Kong
Co-Author(s)		
Presenting Author	Theresa Wai Ling Lai Yeung (The Hong Kong Institute of Education)	Hong Kong

AIM

This study investigated boarding university students' perceptions of food choices, eating habits, food preparation experiences, and their tendency to consume readymade or self-prepare meals with a view towards helping young adults achieve better quality diet and lifestyle.

METHOD

An online questionnaire survey was conducted through the Moodle platform of the Hong Kong Institute of Education (HKIEd).

RESULT

Findings revealed that more than half of the respondents agreed that taste and food hygiene are their prime concern in food purchase (60%) and they will always look upon the price when they purchase food (55%) but not so many of them (22%) consider nutritional needs as important. Most of them have some experiences in using the residence hall kitchen facilities to prepare meals (44% <5 times a week and 38 % 6-12 times a week), and are confident in making up a simple meal. About two third of them (67%) believed that they are capable in modifying recipes to provide varieties in meals. The major reasons for those who seldom cook in the residence hall include inconvenient procurement of ingredients, lack of time, feeling troublesome, unsatisfactory food storage and limited facilities provided. Respondents also consume fast food and restaurants meals outside the campus (69%) and takeaway meals in the residence halls (54%) about 5 times a week. Up to 3 quarter of the respondents (75%) thought that their current eating habit in the dormitory has posed adverse effects on their health. The sample (68%) generally believes food literacy courses provide in HKIEd would help them live a healthier lifestyle.

CONCLUSION

Findings inform significance of food literacy education in the HKIEd general education curriculum to help improve diet quality of boarding students, and provide evidence base reference for policy implementation regarding facilities and environment in residence halls that support healthy eating lifestyle.

IP_0874	Food and Culture in Countries around the World	
First Author (Main Author)	Helen C. Brittin (Texas Tech University)	USA
Co-Author(s)		
Presenting Author	Helen C. Brittin (Texas Tech University)	USA

Information about food and culture in countries around the world can inspire and lead to better understanding of people and countries throughout the world. The purpose of this research was to investigate relationships among various aspects of culture in countries around the world and to identify some foods and relate them to the culture in their country. Methods used were: 1. correlation analysis to determine the relationship of an important measure of the economy (per capita gross domestic product) to health and wellbeing of people as indicated by life expectancy of males and of females and by infant mortality rate; and 2. to identify, depict, and describe a key dish from each of various countries around the globe and relate the dish to the culture of its country. Key dishes were a national dish of the country if one has been identified, possible national dish, native dish, specialty, and famous dish. Results for the 196 countries in the world were shown in figures depicting the relationships between the economy and life expectancy and between the economy and infant mortality rate. Some key foods, including 25-30 national dishes, were identified, depicted, and described, and the relationship of each dish to its country's culture was described. In conclusion, relationships between the economy and the health and wellbeing of people in countries around the world were reported and some important foods of some of the countries were presented and discussed in relation to the culture of their country. The information can inspire us and increase understanding of people and places throughout our world.

IP_1216	What Promotes and What Inhabits Seafood Consumption in Kindergartens. Implementation of Fiskesprell, Akershus Norway	
First Author (Main Author)	Daniel Bødtker-Lund (Oslo and Akershus University College of Applied Sciences)	Norway
Co-Author(s)		
Presenting Author	Daniel Bødtker-Lund (Oslo and Akershus University College of Applied Sciences)	Norway

Since 2007 Fiskesprell have offered activities to inspire, motivate and stimulate increased seafood consumption among children and adolescents. Fiskesprell is a collaboration between the Ministry of Health, Fisheries and Coastal Affairs and the Norwegian Seafood Council. Fiskesprell is a part of the preventive public health work, and aim to help to reduce social inequalities in diet. Public health in Norway is good, but there are big differences in how long each individual can expect to live in good health. Therefore, it is important to facilitate equal opportunities for all children and youth.

Most Norwegian children attend kindergartens and SFO (After-school service), and have many meals during growing up here. Therefore Fiskesprell wants to provide employees who work in kindergartens and SFO knowledge and skills that enable them to facilitate a good food supply, where seafood has its natural place.

Oslo and Akershus University College of Applied Sciences, in cooperation with Akershus County Council, have offered free day courses and materials for kindergarten and after-school staff. The courses provide an introduction to topics related to children's diet and health, with special focus on seafood. Participants also receive a practical introduction to cooking seafood on the child's terms.

My presentation will deal with some of the participants' experiences with the use of fish in their kindergartens and SFO after their attendance at the course. What promotes and what inhibits to implement use of fish in the kindergartens after they have attended the course? Do children eat more fish afterwards? Have food in kindergarten become healthier?

Room 107	Different Perspectives on Happiness	
Chair	Faiza Abd Alla (Ahfad University for Women)	Sudan

IP_0555	Building a Positive Future through Appreciative Inquiry	
First Author (Main Author)	Deborah Tippet (Meredith College)	USA
Co-Author(s)		
Presenting Author	Deborah Tippet (Meredith College)	USA

What would our world look like if we focused on the strengths within our groups to build a positive future? This session will use Appreciative Inquiry to guide participants through ways to use a collective inquiry to create a happier, more sustainable future. "Appreciative Inquiry is a strength-based, capacity building approach to transforming human systems toward a shared image of their most positive potential by first discovering the very best in their shared experience," Barrett & Fry, 2008, p. 25. This theory was developed by David Cooperrider in the 1990s to create a collective action to "evolve the vision and will of a group, organization, or a society as a whole," Cooperrider, Whitney & Stavros, 2008, p. 3. Examples of ways to use Appreciative Inquiry within the home economics profession to build capacity of individuals and communities will be presented by a member of IFHE who holds a "Certificate in Appreciative Inquiry in Positive Business and Society Change" from Case Western Reserve University and has led groups within the home economics profession using the Appreciative Inquiry Model. The theory has been used worldwide with groups such as the United Nations Global Compact, US Navy, Sustainable Cleveland, and organizations within Family and Consumer Sciences such as Kappa Omicron Nu and higher education academic units in the United States.

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IP_0330	"Home Economics" as a Word Cloud	
First Author (Main Author)	Ariane Blumentritt (Zurich University of Applied Sciences)	Switzerland
Co-Author(s)	Regula Fuchs (Zurich University of Applied Sciences) Laura Oberli (Zurich University of Applied Sciences) Sarah Wiget (Zurich University of Applied Sciences) Franziska Honegger (Zurich University of Applied Sciences)	
Presenting Author	Ariane Blumentritt (Zurich University of Applied Sciences)	Switzerland

BACKGROUND

Home economics is a broad field involving many different areas of expertise. People also attribute different characteristics to it, leading to a quite heterogeneous perception of its value to society.

AIM

To develop an evidence based word cloud based on the term "Home Economics". A word cloud is a visual representation for text data (in this case attributes of home economics) and the importance of each word is shown with font size or colour.

METHODS

Quantitative research design, underpinned by the pragmatism paradigm and a primarily inductive approach. Data collection methods include document research and a quantitative survey aimed at home economics professionals through the use of the IFHE data base. Data is analysed

using descriptive statistics. The research will be conducted in autumn term 2015 by a group of four students studying facility management with focus on hospitality services in institutional households.

RESULTS

An evidence based word cloud displaying characteristics attributed to the term "Home Economics" by professionals of the IFHE member countries. It is anticipated that there are differences in terms of geographical origin of these attributes.

CONCLUSION

The word cloud provides a current overview of which attributes the term "Home Economics" is perceived. This adds to the body of knowledge in the field of Home Economics by stating its variety and importance for society.

IP_0270	Role Performance of TLE Supervisors: Its Implications to Supervisory Practices in University Setting	
First Author (Main Author)	Mark Limon (University of the Philippines)	Philippines
Co-Author(s)		
Presenting Author	Mark Limon (University of the Philippines)	Philippines

AIM

The main purpose of this study is to better understand the practice of instructional supervision by examining supervisors' perspectives about how they experienced and conceptualized instructional supervision.

METHODS

A descriptive survey and research and development were the method used. Data gathered from a questionnaire, interviews, and policy documents on the role of supervision. Items for the questionnaires and interviews were guided by aspects of their roles as supervisors from the literature and included both traditional practices such as monitoring and evaluating teachers' work as well as more contemporary practices such as coaching and mentoring. The questionnaire included 34 Likert scale items. For each Likert scale item, participants were asked to answer how often they experienced a particular practice as well as the extent to which they agreed that it should be practised.

RESULTS

There is perfect positive correlation between mean responses of supervisors of colleges and laboratory schools. This study's findings also highlight a number of problems which are likely to negatively affect the conduct of instructional supervision in the university, thus, the researcher ventured him to develop a supervisory manual to fill in the gaps.

In the development of the supervisory manual, the researcher followed the research and development (R and D) cycle called researched-based development technology.

The usefulness of the supervisory manual was then assessed by the respondents from the MMSU. The respondents found the material to be useful as revealed by their testimonials. Thus it was concluded that material is suitable in preparing, guiding TLE future supervisors.

CONCLUSION

It was recommended that the school leaders use instructional supervision to improve teaching and learning by providing practicing teachers with on-going support and guidance after their initial teacher training programs, support supervisors in their endeavors like graduate studies. The validated material be used to supplement the existing material being utilized by the supervisor to help them develop the required competencies and further master their roles and skills required of a supervisor.

IP_1041	Procedural Hedonics: An Alternative Approach to the Economics of Happiness Exemplified with Japan's Life Satisfaction Paradox	
First Author (Main Author)	Grzegorz Mardyla (Kindai University)	Japan
Co-Author(s)		
Presenting Author	Grzegorz Mardyla (Kindai University)	Japan

I propose a new exploratory approach for analyzing individual happiness, which unifies the hedonic and eudaimonic views of subjective well-being within a framework based on one of the most orthodox tools of modern economic analysis – intertemporal dynamic optimization. Happiness is thought to be related to the complexity of intertemporal problems a decision maker faces and to the extent to which the decision maker has been successful at solving them, i.e. to the formulations and arguments of one's objective functions and to the measure of one's performance at solving the corresponding optimization problems relative to the optima. Preliminary empirical tests applied to OECD's life satisfaction data for Japan point to a tentative corroboration of this approach. The theory has implications for policies related to household consumption behavior and financial literacy education.

IP_1307	Life History of Cancer Patients Assisted by the Association of Friends of the Integrated Regional Centre of Oncology (CRIO) in Fortaleza, Ceará, Brazil	
First Author (Main Author)	Sammya Sand Coelho Dos Santos (Universidade Federal do Ceara)	Brazil
Co-Author(s)	Sammya Sand Coelho Dos Santos (Universidade Federal do Ceara) Sandra Bastos Alves Oliveira (Universidade Federal do Ceara) Sande Maria Gurgel D'Ávila (Universidade Federal do Ceara) Margarida Maria Demarchi (Brazilian Association of Home Economics) Maria Nilka de Oliveira (Universidade Federal do Ceara)	
Presenting Author	Margarida Demarchi (Brazilian Association of Home Economics)	Brazil

The Association of Friends of CRIO (ASSOCRIO) is a non-profit organization, created by employees and patients of CRIO, and their friends. CRIO is an institution specialized in cancer care, which offers chemotherapy, radiotherapy, hormone therapy, and specialized clinical consultation. CRIO has an interdisciplinary team of professionals who focus mainly on quality and humanization of treatment. CRIO's mission is to assist and support individuals with cancer and their families, prioritizing the most needy, and seeking their bio-psycho-social wellbeing. The ASSOCRIO facilitates special projects aimed to build human capacity through social activities, assistance and social reintegration. Most patients of CRIO are from the public health system (Sistema Unico de Saude) – SUS, and present socioeconomic difficulties, in addition to coping with the disease. They live in precarious conditions because they are constantly out of the labor market, have high levels of misinformation and limited access to health services. Contact with ASSOCRIO led to the qualitative research about the life stories of men and women who receive cancer treatment and benefit from this service. The age range of patients is from 45 to 87 years old. Ten women and ten men from municipalities in the State of Ceará, Brazil, were interviewed. They had a high level of illiteracy due to the need to work in agriculture since childhood to provide for the family livelihood, they lacked resources to fund treatments as well as access to information about the disease. This precarious condition of life makes the disease even more painful. The study concludes that this kind of philanthropic work is essential for improving the quality of life of the people accessing the service.

Room 108	Textile Sciences	
Chair	Sarah Wirth (HETTANZ)	New Zealand
IP_0122	A Comparison of Three Pilling Measurement Methods for Knitted and Woven Fabrics	
First Author (Main Author)	Usha Chowdhary (Central Michigan University)	USA
Co-Author(s)	Mominul Hoque (Central Michigan University) Crystal Hutson (Central Michigan University) Jennise Thurston (Central Michigan University) Alyson Vanderploeg (Central Michigan University) Robin Zfenix (Central Michigan University)	
Presenting Author	Usha Chowdhary (Central Michigan University)	USA

AIM

The purpose of the study was to compare knitted and woven washed garments by three methods of pill measurement.

METHODS

Three methods were used for the reported study. First, the researchers made visual comparison of the garment against the ASTM images for 3512-02 (Subjective). The second method used comparison of scanned images of the pilled specimen (600 dpi, dots per inch) against the ASTM images for 3512-02 (Semi-Objective). The third method compared the scanned images against the "Automatic Pill Classifier" developed by Periyaswamy (2010) and was treated as objective. Overall, 250 woven and 260 knitted scans were used from knitted and woven garments that had been washed at least five times. One way Analysis of Variance and t-tests were used to analyze the data. Level of significance was selected at .05 level.

RESULTS

Findings revealed that differences were significant for three measurement methods for both knitted ($F_{2,775} = 104.882, p < .001$) and woven ($F_{2,744} = 392.892, p < .000$) garments. Post hoc analysis indicated that differences were significant between the actual garment and the ASTM images, the scanned images and the ASTM images, and the scanned images and the "Automatic Pill Classifier". Ratings were highest for the scanned images followed by the actual garment and the "Automatic Pill Classifier".

CONCLUSION

Result showed that methods impact the outcome of an experiment. Both consistencies and inconsistencies were found with the previous research. The study attested that the differences between subjective and objective methods cannot be ignored. Within fabric construction differences (types of weaves and knits) and fabric count could also be examined. Scanning of images for varying dpi could also be studied. Future research could discuss number and size of pills. Study has methodological implications for extension of this work. Overall, the reported study will contribute positively toward quality control knowledge that can yield useful information for manufactures of textiles and apparel, and consumers as well.

IP_0974	Effect of Weak Acidic Polyester on Odor and Skin Condition	
First Author (Main Author)	Chiyomi Mizutani (Otsuma Women's University)	Japan
Co-Author(s)	Momoe Ukaji-Tsuchida (Otsuma Women's University) Ryoji Hirota (Kochi University) Kanji Kajiwara (Shinshu University)	
Presenting Author	Chiyomi Mizutani (Otsuma Women's University)	Japan

Sportswear is mostly made of polyester fabric. Although there is no direct proof that polyester itself causes allergic dermatitis, many athletes suffer from itching, and their skin becomes susceptible to inflammation by sweating and rubbing with polyester fabric. Since polyester is hydrophobic, polyester accumulates the fatty components from perspiration which eventually turn rancid (e.g., valeric acid) by bacteria and become smelly. Those components are not removed by washing and accumulated more to generate unbearable foul smell. The human skin surface is weak-acidic in its healthy condition, and the skin is protected by the weakly acidic moisture barrier. Normal inhabitant such as *Staphylococcus epidermidis*, provides natural moisturizing agents to keep it weak-acidic. However, much sweating causes pH to increase gradually. In consequence the skin surface becomes less acidic, and provides a vulnerable condition for the growth of non-resident bacteria. Once pH approaches an alkaline side, *Staphylococcus aureus*, which prefers an alkaline condition, starts propagating actively. The bacteria decompose sweat-secreted materials into odorous substances including ammonia, and foul smell is generated from the body. In this study, we prepare the sportswear made of weak-acidic polyester fabrics. Because the generation of foul smell and skin inflammation is expected to be suppressed by maintaining a weak-acidic condition at skin surface. The odor generated from normal sweat is alkaline in nature and neutralized by acidic components in weak-acidic polyester. Weak-acidic polyester also suppresses the growth of non-resident bacteria on skin, so that the decomposition of sweat components will be prevented.

IP_1336	Dyeing of Cotton Fabric with Acacia Arabica Bark	
First Author (Main Author)	Ela Dedhia (College of Home Science Nirmala Niketan)	India
Co-Author(s)	Anjali Srivastava (College of Home Science Nirmala Niketan)	
Presenting Author	Ela Dedhia (College of Home Science Nirmala Niketan)	India

Kutch, in Gujarat, Western India, is one of the block printing and dyeing centres in India where artisans are still practicing legacy of natural dyes. Their dye extraction and dyeing process are not standardized. They very often use hazardous chemicals in their dyeing process.

In this research work, a natural dye source *Acacia arabica* bark commonly known as Babul or Kikar or Indian gum Arabic tree which belong to family leguminosae was collected from Kutch where it is found in abundance and an attempt was made to optimize its extraction and dyeing conditions for cotton fabric. Standardized recipe of Dedhia, UNDP project of 2003 & UGC project 2006, was used for this research work. Testing of wash, light, rubbing and perspiration fastness properties were carried out subsequently. Physical properties of dyed samples were compared with undyed fabric.

Dye from *Acacia arabica* bark was extracted in aqueous and organic solvent to check the appropriate solvent for dye extraction. Pre-mordanting method was used for dyeing using eco-friendly mordants. To optimize dyeing conditions of cotton fabric with the dye extract, varied conditions of pH, temperature and time period were used.

Result showed higher optical density of *Acacia arabica* bark extract with aqueous medium than organic solvents indicating it to be a water-soluble dye. The dye produced reddish-brown colour on cotton fabric. Optimum conditions of dyeing were found as slightly acidic pH, at 800C for one hour time period. The dyed samples showed excellent rubbing, washing, perspiration and moderate light fastness. It can thus be used for dyeing cotton fabric for various end uses from apparel to home furnishings. Comparison of physical properties with undyed fabric showed increased absorbency making it suitable for all seasons. Showed increase in tensile strength although showed slight decrease in tearing strength.

IP_0498	Comparing Breaking/Slippage Strength and Seam Efficiency of Three Lining Fabrics	
First Author (Main Author)	Usha Chowdhary (Central Michigan University)	USA
Co-Author(s)	Mominul Hoque (Graduate Student)	
Presenting Author	Usha Chowdhary (Central Michigan University)	USA

AIM

Quality is of utmost importance for every business to get increased and repeated sales and consumer satisfaction. Durability and aesthetics are valued by consumers. Therefore, breaking/slippage strength and seam efficiency of three lining fabrics were determined using ASTM standards in pre and post laundered stages.

METHODS

Acetate, nylon and nylon/polyester were selected as lining materials because they have been historically used for lining the garments in ready-to-wear. Fourteen hypotheses were developed to compare three lining materials for breaking strength/slippage and seam efficiency using ASTM D-1683 and ASTM D-5034 tests before and after laundering. All specimens were conditioned in the environmental chamber (68-720F temperature and 63-67% relative humidity) prior to testing. ANOVA and t-tests were used to test the hypotheses.

RESULTS

Data analysis revealed that six of the fourteen hypotheses were rejected and eight were accepted. Acetate showed significant differences between washed and unwashed forms. However, differences were not significant for the other two lining fabrics compared in the study. Seam efficiency was highest in warp for nylon/polyester blend in warp and acetate in weft direction.

CONCLUSION

Comparison of three lining materials revealed that the nylon/polyester blend was the strongest of three lining fabrics and acetate was the weakest. So was true for the seam efficiency in the warp direction. However, acetate had the highest seam efficiency in the weft direction. Breaking strength was highest for the blend followed by polyester and acetate for both directions. Findings have implications for enhancing quality of lined garments using results from the reported study. The findings also provide support for shift from acetate to polyester by the apparel industry. The study may be extended to include other fiber contents, structural and performance attributes, and seam slippage.

Workshop

Room 205	Sustainable Development Goals	
Chair	Carol Warren (Home Economics Victoria)	Australia
Presenter(s)	Geraldene Hodelin (IFHE) Sidiga Washi (Ahfad University for Women) Anne v. Laufenberg-Beermann (IFHE) Elisabeth Leicht-Eckardt (IFHE EC) Rie Imoto (Kagawa Nutrition University)	Jamaica Sudan Germany Germany Japan

WS_1208	Sustainable Development Goals	
First Author (Main Author)	Carol Warren (Home Economics Victoria)	Australia
Co-Author(s)		
Presenting Author	Carol Warren (Home Economics Victoria)	Australia

The United Nations Post-2015 Development Agenda addresses the official agenda for Sustainable Development outlining 17 Sustainable Development Goals and 169 targets, which replace the Millennium Development Goals. Adopted in September 2015 by the 193 countries of the UN General Assembly, these goals define the 2030 Development Agenda entitled Transforming our world: the 2030 Agenda for Sustainable Development.

As an International Non-Governmental Organisation having consultative status with the United Nations and the Council of Europe, IFHE supports initiatives of the UN as they connect to the Home Economics profession. This roundtable session will identify key SDGs and targets of relevance to Home Economics, discuss their significance to the profession and identify actions for IFHE to support the goals. IFHE President Carol Warren, Chair IFHE UN Council Committee will chair the session with expert moderators to lead table discussions. Ideas generated will assist the IFHE UN committee, IFHE Programme Committees and IFHE members in countries around the world to identify actions to contribute to the 2030 Agenda for Sustainable Development.

Room 206	Art from the heart	
Chair	Anita Ferron (IFHE)	USA

WS_0206	Art from the Heart	
First Author (Main Author)	Anita Ferron (IFHE)	USA
Co-Author(s)	Lindsay Johnson (Family Consumer Sciences Teacher) Tina Garriety (Chair of Art From The Heart)	
Presenting Author	Anita Ferron (IFHE)	USA

AIM

In the United States, teach at Daniel Hand High School in Madison, Connecticut and am advisor for FCCLA (Family, Career, and Community Leaders of America). Our club focuses on service projects to help our community. Nine years ago, Tina Garrity, a volunteer at Smilow Cancer Center, asked if we would like to become involved with Circle of Care, an organization founded in Connecticut by three mothers who had children diagnosed with cancer. Circle of Care gives support to children with cancer and their families (informational, emotional, financial, practical).

We work with an organization within Circle of Care called "Art From the Heart". "Art From the Heart" is a community service project where we provide a "dream bedroom makeover" for a child with cancer. Working with a local Oncologist, we select a child from a nearby community, through a random drawing. This is where we become involved.

METHODS

We work in conjunction with Joanne Noonan, the Family Consumer Science teacher in the neighboring town, Clinton. Each room is completed on a budget. Through fundraising and donations, the students solicit involvement from the whole community. Students are involved in planning, designing, purchasing, and creating. Then all volunteers come together to renovate the room on one weekend. We have redesigned bedrooms for nine children from nine different communities.

RESULTS

This presentation will show how two Home Economists in neighboring towns have facilitated student involvement in bringing hope and happiness to a child and their family in a time of crisis. Students, teachers, parents, and local businesses come together to support a family and a child in need.

CONCLUSION

This project has helped build communication and friendship between two high schools. Students have shown responsible citizenship by helping someone in need in a surrounding community. The joy brought to the family is overwhelming.

Concurrent Session

Room 101	Child Development and Outcomes	
Chair	Ji Young Ha (Woosong University)	Republic of Korea
IF_0188	Developmental Changes in Sleep Schedule: Influences of Mother's Time Use	
First Author (Main Author)	Yuka Sakamoto (Naruto University of Education)	Japan
Co-Author(s)		
Presenting Author	Yuka Sakamoto (Naruto University of Education)	Japan

AIM

In 2010, It has been found that around 1/3 of Japanese preschool children go to bed after 10 p.m. Some of the empirical evidences support the negative effect of delayed sleep schedule emotional or academic development. This study shows developmental changes of Japanese children in sleep schedules from 0 to 15 years of age, focusing on the influences of their mothers' time use.

METHODS

Data used for this study were derived from a web questionnaire survey conducted in September 2013. The sample is consisted of women having husband and children (under 15 years old), who reside in the Tokyo metropolitan area. In order to correct the potential bias of the registered monitors, we adopted stratified random sampling based on job status and the age of the smallest child. The valid sample size excluding quite short time response and/or inappropriate answers was 502.

RESULTS

The averages of going to bed time during 0-9 years old are between 9:00 and 9:30 p.m. and shifted later from 10 years old. Children's sleep schedules of employed mothers significantly later than non-employed mothers during ages from 0 to 12. However, sleep schedules had not showed linearly correlation with mothers' working hours. Logistic regression analysis with subsample limited 0-12 years old (n=233) tested the factors affecting delayed sleep. The result showed that whereas later getting home of mothers and having support from grandparents increased the probability of delayed sleep, fathers' childcare and co-residents with grandparents decreased the probability.

CONCLUSION

To prevent delayed sleep, it is important that mothers can get home earlier and fathers do more child care. Receiving support from grandparent has double-edged effects; support from non-resident parents are more likely associated with delayed sleep. This study speaks to the need for a fundamental change of Japanese full-time employees work schedules so as to retrieve children's sound life.

IP_0851	A 2-Year Interval Longitudinal Analysis of the Effect of Adolescents' Physical Health on Peer Relationships in Korean Adolescents	
First Author (Main Author)	Boram Lee (Seoul National University)	Republic of Korea
Co-Author(s)	Hye-jun Park (Seoul National University)	
Presenting Author	Boram Lee (Seoul National University)	Republic of Korea

The number of adolescents who have chronic diseases like obesity, diabetes, asthma, rhinitis, atopic dermatitis have rapidly increased in Korea. Individuals with chronic diseases should adapt to the changes in lifestyle since such chronic diseases have an unpredictable progression and ongoing medical management(Shin & Cho, 2012). Especially adolescents with chronic illness, because of constraints on the activities due to illness, may have difficulties in daily interactions and school adjustment. However, their school life is very important not only academic achievement but also making friendships. Success in forming and maintaining peer relationships during adolescence is positively implicated in social and psychological adjustment and achievement(Stanton, Revenson, 2011).

According to previous researches, adolescents having chronic diseases could have emotional-behavioral problems and troubles in learning, these problems may, in turn affect on social activities. However, there are many chronically ill adolescents still remain productive and happy despite the significant stressors of diseases. Then what are the protective variables making good peer relationships to adolescents with chronic diseases? One protective variable we can imagine is perception about their health states. If they understand their illness and think about their health states positively, they could control the disease better (Lee, Hamiwka, Sherman, & Wirrell, 2008). Other protective variable is self-esteem. High self-esteem helps them adjust to changing lifestyles and cope with the difficult course of treatment(Benyamini, Leventhal, & Leventhal, 2004). So we made hypothesis model that predicts the relationships between adolescents' physical health and peer relationships considering mediation effect of self-rated health states and self-esteem. Also using longitudinal panel data, we would like to check the phenomenon could be lasted over time.

We used the samples of first-year middle school students' first and third wave data from 'the Korean Children-Youth Panel Survey'. And using maximum likelihood estimation with Amos18, structural equation model was tested. The sample includes 2,351 adolescents (boy 50%, girl 50%). Among them 48.1% have chronic diseases; rhinitis 62.89%, atopic dermatitis 29.80%, obesity 25.64%, asthma 5.57%, heart disease, 1.24%, diabetes, 0.27%, and others 8.13%. Specifically, 32.53% of adolescents with a chronic disease have more than one disease. We classified into three groups according to presence and extent of chronic diseases, 'no diseases' 51.9%, 'having diseases, but never disturbed' 12.1%, 'having diseases and having difficulties' 36.0%.

The hypothesized model had a good fit to the data: (21, N=2251) chi-square=89.75, p=.00, CFI=.99, TLI=.99, RMSEA=.037 (90% CI .030-.045). The results of structural equation models confirm that adolescents' physical health states have effect on peer relationships. If adolescent have chronic diseases and they have more difficulties in daily life, their peer relationship would be seriously affected. However, we found that self-rated health states and self-esteem have mediating effect. Moreover, we found this phenomenon could be lasted over time using 2-year interval of longitudinal data. In short, even if the adolescents have a chronic disease, they could maintain positive peer relationships when they perceived their physical health state better and their self-esteem higher.

IP_0970	Adolescents' Experience of Daily Mother's and Father's Support and Daily Happiness: The Mediating Role of Daily Self-Evaluation in the Context of High and Low Parental Warmth	
First Author (Main Author)	Yuen Mi Cheon (Seoul National University)	Republic of Korea
Co-Author(s)	Grace H. Chung (Seoul National University)	
Presenting Author	Yuen Mi Cheon (Seoul National University)	Republic of Korea

A warm and supportive parenting has consistently been found to be associated with adolescents' happiness. Such positive environment is not a default setting, but the result of conscious and continuous daily effort. However, to date, this daily processes have not been explored extensively. By using data from Seoul Panel Study of Education, Health and Welfare (a questionnaire and a daily diary study conducted across seven consecutive days) collected in 2015, the reports of 287 adolescents in 4th and 7th grade were included in the analyses. The daily data nested within each individual was analyzed through hierarchical linear modeling. First, the influence of daily mother's and father's support on daily happiness, controlling for daily academic stress, was tested, followed by examining the mediating role of daily self-evaluation. Then, the interaction effect of parental warmth and mother's and father's daily support on daily self-evaluation was analyzed. The analyses revealed a positive influence of mother's ($b=0.06$, $SE=0.01$, $p<.001$) and father's ($b=0.16$, $SE=0.03$, $p<.001$) daily support on adolescents' daily happiness. This association was mediated by daily self-evaluation, which was initially higher for adolescents with high parental warmth. However, daily mother's support had a stronger influence on the same day's self-evaluation for adolescents with generally low parental warmth ($b=-0.03$, $SE=0.02$, $p<.05$). While the level of daily self-evaluation was generally higher for adolescents with high parental warmth, on days when high levels of daily mother's support was experienced, adolescents with generally low parental warmth caught up with adolescents with generally high parental warmth on the level of daily self-evaluation. The results highlight the importance of both contextual and daily role of parents in adolescents' experience of daily happiness.

IP_1308	Girl's Clothing: An Eye into Early Eroticization	
First Author (Main Author)	Natalia de Figueiredo Barbosa (Universidade Federal do Ceara)	Brazil
Co-Author(s)	Natalia de Figueiredo Barbosa (Curso de Graduação em Economia Doméstica da Universidade Federal do Ceará) Aniely Ferreira de Sousa (Curso de Graduação em Economia Doméstica da Universidade Federal do Ceará) Sande Maria Gurgel D'ávila (Departamento de Economia domestica da Universidade Federal do Ceara) Maria Nilka de Oliveira (Curso de Graduação em Economia Doméstica da Universidade Federal do Ceará) Margarida Maria Demarchi (Brazilian Association of Home Economics) Maria do Socorro Araujo (Curso de Graduação em Economia Doméstica da Universidade Federal do Ceará)	
Presenting Author	Margarida Demarchi (Brazilian Association of Home Economics)	Brazil

Children's clothing has changed over time; even before the construction of childhood, clothing was already used as an element of control and discipline for children. With the evolution and adaptation of human needs, clothing has changed its presentation and expanded its functions, to more than just covering the body. The market has added value to clothing products, incorporating features to attract the attention of children and parents, and those responsible for purchasing within the family. This study was conducted with parents of girls in the age group of 3 to 10 years old, to investigate their decisions when purchasing clothes for their daughters, taking into consideration the protection of the childhood experience. Studies have revealed that the evolution of clothing has brought with it the eroticization of clothes for girls. The comfort associated with sensory elements in children's clothing, through prints, colors and fabrics that do not stain or not knead, has allowed greater freedom to children's games, but has forgotten to think about the exposure of child's body. The eroticization appears through products such as lingerie for children directed to girls from four years old and up, containing fill bra, short blouses, as well as cosmetics (children's makeup) and accessories like jewelry and sunglasses. The erotic appeals are often used to stimulate sales, to induce opinions, and to enforce ideas, generally targeting female children. It is important to raise awareness of the influence this appealing marketing approach to parents/consumers, as it may neglect the true function of children clothing and fail to protect the children.

Room 102	Evolution of Home Economics Education	
Chair	Tae Myung Yoo (Ewha Womans University)	Republic of Korea
IF_0178	Home Is What You Make It	
First Author (Main Author)	Catherine Amoroso Leslie (Kent State University)	USA
Co-Author(s)		
Presenting Author	Catherine Amoroso Leslie (Kent State University)	USA

AIM

This research explored a radio series, "Home is What You Make It (HIWYMI)" that ran on the National Broadcasting Company (NBC) during and after World War II. Beginning in 1944, HIWYMI was a collaboration among the American Home Economics Association, the General Federation of Women's Clubs, and the National Congress of Parents and Teachers. The series was produced by Jane Tiffany Wagner, a pioneer female broadcaster, director of Women's War Activities and Director of Home Economics for NBC, and AHEA member.

METHODS

This research examined primary documents including the handbooks, recordings, advertisements, and articles about the series, its message, and its impact.

RESULTS

A second series of weekly programs on housing, child care, food, family relations, clothing, and fashion ran from 1945 through 1948, with a total of 171 broadcasts "dedicated to the American family." Its significance was reinforced when the Journal of Home Economics called on members to honor forty years of the Association's success by reinforcing the theme "Home is What You Make It" as a fundraising appeal in 1949.

Jane Tiffany Wagner edited a series of handbooks to accompany the HIWYMI "course" including Housing, Food, Clothing, Children, and the Family. In the first booklet, Dora S. Lewis, President of the AHEA, wrote, "Home is What You Make It aims to help homemakers vision the kind of home life they may hope for after the war. It will show families where they can get help with their problems. It will suggest how, through careful management of their own resources, families can make life richer physically, emotionally, socially, and spiritually..."

CONCLUSION

Exploring this successful collaborative initiative from the past can inform and inspire today's Home Economists. Home is What You Make It was a "series of entertaining and enlightening broadcasts" which provided hope in wartime and fostered happiness for the future.

IF_0063	Generation 50+ – Doing Aging – Active Aging. Life Quality and Life Designs of Generation 50+ in the Federal Republic of Germany (FRG)	
First Author (Main Author)	Hiltraud Just (German Association of Sociology Section Gender Research/Home Economics)	Germany
Co-Author(s)	Juergen Just (Kreisseniorenrat Bodensee)	
Presenting Author	Hiltraud Just (German Association of Sociology Section Gender Research/Home Economics)	Germany

AIM

Reform studies/education in home economics

METHODS

Between 2005 and 2015 the birth cohorts from 1929 – 1964 were questioned about their life context, age images and wishes. Eight studies and

reports produced between 2008 and 2014 were taken into account in the qualitative, subject-oriented secondary evaluation.

The secondary evaluation of representative and qualitative studies on Generation 50+ focuses on their self-reports and evaluation of their life quality, i.e. social situation, life goals and lifestyles, but also on their being able to realise their life goals/age concepts in our welfare state and liberal democracy.

Secondary analyses were performed based on subject-oriented action and resource theories

- of Home Economics by Rosemarie von Schweitzer (Giessen School)
- the sociology and philosophy of Jürgen Habermas "Communicative Acting" (Frankfurt School)
- French sociology and social psychology of Pierre Bourdieu "Social Field and Precariat Analysis" (College de France, Paris)

RESULTS

According to the Federal Statistics Office (2014) the percentage of people above 50 is 40.9 % of the FRG's population (Results of the May 9th, 2011 census).

Demographic Facts: In all studies about 50+ a life-long self-determined, high-quality life in their private households were aspired to by the elderly. Demands must be made to home economists wishing to act with ethical responsibility in home economics to further self-determination, the own sense and self-efficacy of Generation 50+, actively assisting in private households and advocating them in society and social politics.

CONCLUSION

This requires well-founded knowledge about the life context of the Generation 50+ and communicative and social competence to avoid "power problems" inherent in the providing power, the "Help-Authority logic".

Socio-psychological and communicative competences are indispensable in research and teaching within universities and in further professional Home Economics qualifications.

IP_1087	Home Economics Science Students Envisioning the Future	
First Author (Main Author)	Hannah Benyaba Edjah (University of Cape Coast)	Ghana
Co-Author(s)	Hille Janhonen-Abuquah (University of Helsinki)	
Presenting Author	Hannah Benyaba Edjah (University of Cape Coast)	Ghana

This paper seeks to throw light on Ghanaian and Finnish Home Economics Science students' thinking on the lives and homes of individuals and families in the future beyond 2020 in order to guide students as they navigate through their professional lives as home economists. The data was collected through a modification of empathy-based story method. Both researchers first gave introductory lectures to first year home economics students about home economics as a field of study and then a short You-tube video clip on 'House of the Future, 1957' was shown to students. A short introductory script was then written by the researchers based on the future studies mega trends (Scenario 2013) and UN sustainable development goals (SDGs) to inspire students envisioning. Twenty stories were then after written by 140 Ghanaian and 40 Finnish participants. Ghanaian students worked in groups of 7 and Finnish students worked in pairs. Students were asked to make projections of five probable trends in 2030 bearing in mind their own role as home economics professionals.

Interestingly, we found out that students are able to envisage the future scenarios but they need to be encouraged to do so. This study is probably an exercise that has the capability of enhancing students' critical thinking skills. Students should thus be encouraged from the beginning of their studies so that they don't take educational knowledge as a given but understand their role as future developers of the field. In other words, students need to take an active role in thinking, criticising and creating useful knowledge for themselves and the future generation of home economics. We also released that even though the cultural context is different, the students shared similar hopes, wishes and threats regarding family life and their role as home economist in ensuring sustainable lives in future.

IP_1917	An Exploration on the Possibility of Home Economics Parenthood Education Applying to Practical Action Teaching Model	
First Author (Main Author)	Heui-Yeon Noh (Korea National University of Education)	Republic of Korea
Co-Author(s)	Jung-Hyun Chae (Korea National University of Education) Jae-Soon Cho (Korea National University of Education)	
Presenting Author	Heui-Yeon Noh (Korea National University of Education)	Republic of Korea

The purpose of this study was to explore the possibility of Home Economics(HE) parenthood education applying to Practical Action Teaching Model for Korean secondary school students. To achieve this purpose, first of all, after analyzing the previous studies and programs related to parenthood education, the content elements for general parenthood education were extracted. Secondly, for selecting the practical problems related to parenthood education, the contents and the achievement standards of Korean HE curriculum documents were analyzed, using the criteria of the previously-drawn general parenthood education content elements. The analysis results were verified by three experts of Home Economics education through group discussion.

The results of this study were as follows. First, the selected general parenthood education content elements were 8 different topics: 'self-understanding of pre-parents', 'sex education', 'understanding about marriage', 'pregnancy and childbirth', 'being a parent', 'the development of kids and parents' role', 'various families and parents', and 'parents' role in society'. Second, Korean HE curriculum has already contained the above 8 topics in all the areas of HE(food and nutrition, clothing and textile, housing, human development and family) with a point of view of family life. Furthermore, because Korean HE curriculum has contained the achievement standards and contents related to solving the practical problems that adolescents have faced in their daily lives, Home Economics is expected to be an adequate subject matter for parenthood education applying to Practical Action Teaching Model.

IP_1874	Korean Home Economics Curriculum in Relation to the 'Four Social Hazards'	
First Author (Main Author)	Jung-Hyun Chae (Korea National University of Education)	Republic of Korea
Co-Author(s)	Young Sun Heo (Korea National University of Education) Minji Choi (Korea National University of Education) Eun Young Lee (Korea National University of Education) Joo Young Son (Korea National University of Education) Yea Seul Kim (Korea National University of Education) Soosun Kyung (Korea National University of Education)	
Presenting Author	Yea Seul Kim (Korea National University of Education)	

The purpose of this study was to examine Home Economics (HE) curriculum in relation to the 'Four Social Hazards'(sexual violence, school violence, family violence and unsanitary food). To achieve this purpose, the contents of HE curriculum documents were analyzed in relation to the 'Four Social Hazards'. The results of analysis were verified by six experts in HE education.

The results of relation between HE contents and the 'Four Social Hazard' were as follows. The contents of Korean HE curriculum have strongly been related to preventing the 'Four Social Hazards'. Regarding 'Sexual Violence', HE curriculum documents have contained the contents to develop amicable relationships with opposite sex, to develop self-control and learn how to solve the problems that face an adolescent, and to make decisions regarding pregnancy and delivery. Regarding 'School Violence', they have contained the contents to develop amicable relationships with friends and classmates and learn how to treat others with dignity and consideration. Regarding 'Family Violence', they have contained the contents to form an equal-gender value of family and accept role-shifting among its members by means of understanding the value of family, to understand the significance of effective communication, to form a desirable family relationship, and to learn appropriate values for family, spouse, and marriage. Regarding 'Unsanitary Food', they have contained the contents to lead a healthy dietary life by means of preparing menus concerned with family health, and being cautious of nutrition and hygiene standards, and to select and prepare a meal for the sake of family health. To conclude, HE is one of the most adequate subject matters to prevent the 'Four Social Hazards'. The result indicates

that HE education is to be effective and useful to the 'Four Social Hazard' prevention.

Room 103	Evaluation and the Development of New Food Products	
Chair	Kathryn McSweeney (St. Angela's College)	Ireland
IF_0155	Development of a Sensory Acceptable Nutritious Vegetable Chip for Pre-Schoolers, Aged 4-6 Years, in South Africa	
First Author (Main Author)	Petro Swart (University of the Free State)	South Africa
Co-Author(s)	Carina Bothma (University of the Free State) Ismari Van Der Merwe (University of the Free State) Arno Hugo (University of the Free State)	
Presenting Author	Petro Swart (University of the Free State)	South Africa

AIM

Children's liking of non-nutritious foods and vegetables were 64% and 7%, respectively. These unhealthy food choices put them at increased risk of malnutrition and obesity, as their choices are based on taste preference, rather than nutritional content. The aim was to develop a potato-based vegetable chip that would be acceptable to pre-schoolers (4-6years) in South-Africa.

METHODS

A basic choux paste was prepared, in which flour was replaced with dried potatoes and water with vegetable juice, extracted from carrots, green beans, beetroot, butternut, sweet potato, cauliflower, sweet corn or cabbage. Vegetable fiber was returned to the mix, where after it was shaped, cut and either air-fried, deep fried or oven baked. A paired preference test was done and all vegetable chips were ranked for preference by one hundred 4-6 year olds.

RESULTS

According to the paired preference test, children preferred the picture of potato chips to pictures of green beans and beetroot, but not carrots. No preference was found for cooking procedure and oven baking was chosen, as it was the healthiest and cheapest method. The sweet potato chip was the most preferred vegetable chip. There was no preference between olive or sunflower oil, or between powder and crumb enrobing, before baking. There was no preference between the 50% and 100% chickpea flour chips. The 100% chickpea flour replacement sweet potato chip had the highest score of 4.56, indicating 'like a lot' on the hedonic scale.

CONCLUSION

These findings proved that children's food could be improved in a healthier way and still be acceptable and preferred.

IP_0852	Identifying Discourses of Food in Relation to Health in Home Economic Syllabi	
First Author (Main Author)	Emma Oljans (Uppsala University)	Sweden
Co-Author(s)		
Presenting Author	Emma Oljans (Uppsala University)	Sweden

Food and health have long had dominant position within the subject of Home Economics (HE) in Sweden. However, what constitutes a proper diet, and how it is associated with a healthy lifestyle changes over time. In this article, a discourse analytic approach combined with a didactic perspective are used as the theoretical frame. The aim is to explore how food in relation to health has been constructed within the syllabus of

HE. Six HE syllabi from 1962 to 2011 were analyzed. From the results three different discourses were identified and named after their main areas of focus: i) the medical discourse, ii) the consumer discourse and iii) the human ecological discourse. Each discourse represents a different way of constructing food in relation to health, and different representations have dominated over the past fifty years. The construction of food in relation to health is thereby seen in its historical and cultural context according to what this knowledge content includes or excludes.

IP_1004	Acceptability and Proximate Analysis of Three Indigenous Dishes from Northwest, Nigeria	
First Author (Main Author)	Aisha Mohammed (Ahmadu Bello University Zaria)	Nigeria
Co-Author(s)	Mariam Ahmad Abubakar (Ahmadu Bello University Zaria) Hadiza Dikko (Ahmadu Bello University Zaria)	
Presenting Author	Mariam Ahmad Abubakar (Ahmadu Bello University Zaria)	Nigeria

The study was conducted as an attempt to produce empirical evidence on the nutritive value of three traditional dishes from Northern Nigeria (steamed wheat grits/dashishi (SWGD), Hungry Rice Porridge/fatenacha (HRPF) and Steamed Wheat Dough/alkubus (SWDA)). It has two objectives, to prepare and assess the organoleptic qualities and general acceptability of three traditional dishes from Northern Nigeria and to determine the nutritive values of the dishes. Multiple research designs were adopted first, the experimental research design which involves the practical preparation of the dishes and laboratory analysis of samples, secondly the survey research design to determine organoleptic qualities and general acceptability of the dishes. The dishes were prepared and a panel of 60 untrained students was randomly selected to carry out the sensory evaluation to assess the organoleptic attributes of the dishes. Proximate composition was determined using standard assay method of AOAC (2000) while mineral and vitamins estimated was done using wet digestion and the values were read in air atomic absorption spectrophotometer. Data collected were statistically analyzed using means and Standard deviation, one way analysis of variance (ANOVA) was used to test for treatment effect. The result showed that all the three dishes have high lipid (9.90 – 24.20%) and protein (3.50 – 7.00%) contents. The dishes are excellent sources of vitamins A, B1, B2, B3, B6, and E. Results of sensory evaluation also reveal high mean ratings for all three dishes. By implication it reveals general acceptability of all three dishes. It is recommended that Home Economics Professionals and Nutritionist should carry out more empirical researches to reveal the nutrition value of African tradition dishes

Key Words: Nutritive values, Traditional dishes

IP_1819	Success Story of Developing a New Food Product: Multicultural Concept for Local Market	
First Author (Main Author)	Sara Mohamed (Food Technologist, Product Designer)	Egypt
Co-Author(s)	Francisco Arévalo (MSc Food Innovation & Product Design Erasmus Mundus Master) Sarabjit Kaur (Entrepreneur- Food Designer, Ireland) Yao Lu (Danone Group, China) Bezaye Taye (MSc Food Innovation & Product Design Erasmus Mundus Master) Daniela Freitas (AgroParisTech) Yi Zhang (FuJian Spring Forest Food Co.,Ltd)	
Presenting Author	Sara Mohamed (Food Technologist, Product Designer)	Egypt

When developing a new food product, a product designer pass through various steps of product development, concept validation, formulation, sensory analysis, focus groups, financial analysis, and marketing analysis, design of packaging concept and industrialization of the entire production process. Have you ever wondered; How far the developer's own taste can affect your product formula? Can you separate your own preference from your target client's taste? What happens when you put in a team of different cultures to develop a food product to a market

none of them belong to? This is a story of 7 multinational emerging food product designers developing an inspired Chinese, English-like food product for the French market! This experience shows how cultural and social identity of the team members can impact the final product, from the author's perspective.

Room 104	Strategies to Balance Work and Family Lives	
Chair	Etsuko Saito (Ochanomizu University)	Japan
IP_0914	The Relationship between Socialization of Housework and Time Spent on House Keeping -Full Time Female Workers in Fukui, Japan-	
First Author (Main Author)	Etsuko Saito (Ochanomizu University)	Japan
Co-Author(s)		
Presenting Author	Etsuko Saito (Ochanomizu University)	Japan

AIM

Fukui prefecture is known as the happiest region in Japan. Fukui prefecture is located in the middle of the Sea of Japan side. The population is 785,000. In Fukui prefecture, the rates of three generation families living together, dual income families and women's full-time employment are much higher than the national average. We have focused on dual income and full-time working wife's time allocation. The purpose of this research is to clarify their styles of housework from a socialization viewpoint.

METHOD

We conducted time-use surveys and questionnaires from June to July 2015. The subjects of the surveys were 37 full time wives and their families. Time-use surveys were conducted for two days (a working day and a day off). The questionnaires were about the outsourcing of housework and usage of home electronic appliances.

CONCLUSION

Concerning the outsourcing of housework, 30% of subjects have experienced outsourcing. This was higher than the national average. The most used home appliances were dishwashers, 60% of subjects have it, the half of the owners used every day. Washer dryers were used by 50% of subjects, 40% used them every day. Cleaning robots were used by 20% of them. They used it once or twice per week. In the case of cleaning robots, 10% of the users asked their child to turn on it. As for the evaluations of usage, we found tendencies that dishwasher owners requested dishwashers that were as efficient as hand washed dishes. Washer dryers and cleaning robots were not expected the same level of efficiency. These results indicated outsourcing of housework and usage of home electronic appliances had big impacts on subjects. It may have a direct relation with the high level of happiness and quality of life for the families in Fukui prefecture.

IF_0015	The Portrait of the Value and Management of Family Time	
First Author (Main Author)	Euis Sunarti (Bogor Agricultural University)	Indonesia
Co-Author(s)		
Presenting Author	Euis Sunarti (Bogor Agricultural University)	Indonesia

As the socio-economic changes and developments in information technology, Indonesian families demanded more dynamic and more able to manage their resources of time to achieve the family goals. This study aims to elaborate on family time and routines, as well as family time management on some of the family groups. This study is a desk study using secondary data from several studies related to family time according to the diversity of family economic aspects (poor and non-poor), the type of wife's employment (formal-informal; stable-unstable;

less-more than 8 work hours per day) and geographic (rural-urban; marginal region), which was carried out between the years 2000-2014 in the Department of Family and Consumer Sciences, Faculty of Human Ecology, Bogor Agricultural University. The results showed that the ability of the family to manage time was still low, especially in families with a working wife informally and with unstable work. The ability of the family was still low in evaluating the use of time, and the limited use of a household appliance that can accelerate domestic job. Other findings indicated that family time and routines families was still relatively low, especially in poor families, rural families, and families with unstable work. Still a little family that sees the importance of self-care routines and family recreation. Only about a third of families who see the importance of self-care routines and family recreation. Based on the fact finding, the Indonesian family development stakeholders need to make efforts to increase the family's ability to manage his time, providing social support for families who need help, and developing family friendly jobs.

Keywords: time management, valuing family time and routine, family diversity

IP_0559	Occupational and Career Development In Family and Consumer Sciences Education	
First Author (Main Author)	Cynthia Miller (Texas Tech University)	USA
Co-Author(s)	Karen Alexander (Texas Tech University)	
Presenting Author	Cynthia Miller (Texas Tech University)	USA

This study will present the need for additional research on occupational and career development in Family and Consumer Sciences (FCS) education, especially since new legislative changes have promoted career development and occupational instruction in career and technical education (CTE) across the U.S. One of those legislative changes occurring in approximately 40 states is the development and implementation of personal graduation plans (PGPs), with the incorporation of programs of study and other career components (e.g. career assessments, career exploration, work-based learning, etc.) as a career-driven mapping tool for increasing high school students' ownership in college and career planning. PGPs are relatively a new education reform initiative across our country, and very little scholarly research has been conducted with FCS teachers to support students in this process.

In addition, this study provides a complete review of literature on FCS research in work and family life, career decisions, and FCS-related career clusters and career pathways. Participants will consider how future research in these areas are needed in relation to the new PGP education reform. Implications for FCS and FCS Teacher Preparation Programs will also be presented.

Room 105	Human Resource Development and Happiness	
Chair	Karin Hjalmskog (Uppsala University)	Sweden
IP_0387	Inspiring Stories of Sustainable Human Development Projects in Cambodia	
First Author (Main Author)	Louise Ruzic (Luther College)	Australia
Co-Author(s)		
Presenting Author	Louise Ruzic (Luther College)	Australia

Global health and sustainable human development is about expanding people's choices and enhancing capabilities, having access to knowledge, a decent standard of living and participating in the life of the community and decisions affecting their lives. In this session I will share inspiring stories of community projects promoting global health and wellbeing in Cambodia through the work of the Australian Lutheran World Service (ALWS: NGO). These stories were gathered from a student learning and service tour of Cambodia that I participated in during 2015.

ALWS partner with Life with Dignity in Cambodia and their work is based on the Integrated Rural Development through Empowerment Program. Here, people in the villages are given the necessary training and support to make their own decisions about the development which happens in their village. Having ownership of and responsibility for everything that happens, the community develops the confidence to work their way out of poverty and can feel excited about creating their own future.

Some examples of projects which are taking place in Cambodia are:

- Building of spillways or dams to help irrigate crops
- Setting up and managing Village Banks, including rice, pigs and chickens
- Training for Village Development Committees to equip them with the skills to manage their own future development
- Training in Human Rights
- Providing education scholarships
- Building and equipping of school classrooms and health posts
- Construction of wells and household latrines for families
- Training in disaster preparedness

The session will incorporate a photographic journey of the country which extends well beyond the usual tourist trail. Sustainable human development practices will be shared; the aim of which is to preserve human dignity.

IP_0788	Education for Ethical and Responsible Consumption - A Relational Perspective	
First Author (Main Author)	Karin Hjalmskog (Uppsala University)	Sweden
Co-Author(s)	Lolita Eriksson (Uppsala University)	
Presenting Author	Karin Hjalmskog (Uppsala University)	Sweden

This paper presents a philosophical study that contribute to Home Economics knowledge and practice by showing how practice in education, in this case consumer education within Home Economics, is influenced by ideas of the individual, of education, of the society, and of sustainability. Further, we discuss criticism of instrumental and normative education and present a possible alternative based on a relational perspective, ie. education that is non essentialist, non-dualistic etcetera.

The society of today has been described as a consumer society, and as characterized by differentiation, fragmentation, in constant and rapid change, and as forcing people to make an increasing number of decisions and choose among several possible options. In such society the individual is above all a consumer with never-ending desires and needs, caught in what has been called the 'iron cage of consumerism'. In such a situation there is a risk that the individual feels insecure, confused, unhappy, rootless, fragmented and without hope. At the same time issues of climate change, human environmental impact, and sustainability are on the agenda, locally and globally. So are issues concerning education for sustainability. In this study we focus on the following questions: How can Home Economics contribute to the education of the consumers, in relation to the ongoing debate on sustainability? What can Home Economics do for the individual to not feel lost, without context and hope?

To discuss these questions we first reason about education for ethical and responsible consumption, and the criticism made against it for being rationalistic, instrumental, and normative, and that it is missing what people, according to research, actually think is important when handling the issues of sustainability, such as questions about loss of community, loss of respect for each other and for the environment. Secondly, we discuss these issues that people highlight as important, in other words, community, respect, equity, justice, responsibility etcetera, and how it is possible to think about and act to meet these specific interests within an educational context. To do this we draw on pragmatist and feminist research and thus we regard individuals as marked by time and context, and present a relational perspective as a basis for our discussions. Finally, we focus on Home Economics teaching and learning, and whether and if so how, instrumentalism and normativity should be avoided, and how issues such as community, respect and responsibility can turn out/be expressed in Home Economics education.

IP_0428	Promoting Women's Rights and Family Well-Being through Training and Income Generating in the Field of Home Economics: The Case of a Finish – Cameroonian Joint Project	
First Author (Main Author)	Terhi Lindqvist (The Martha Association in Finland)	Finland
Co-Author(s)		
Presenting Author	Terhi Lindqvist (The Martha Association in Finland)	Finland

AIM

The article illustrates how home economics can be a means for development in low and middle income countries. The Finnish Martha Association and the Cameroonian Home Economists' Association developed a joint project to empower Cameroonian underprivileged women to generate own income and apply good nutrition practices. The project "Poor women's right to own income and food security", active since year 2012, raises the quality of life of poor Cameroonian women and their families, providing them with increased knowledge and skills in good nutrition and home economics entrepreneurship.

METHODS

The project increases the target group's information level on nutritional values and availability of local foodstuffs for daily menu, and their capacities to self-employ by small-scale businesses. Women's and girls' empowerment is a cross-cutting theme in the project. Nutrition trainings aim at increasing both theoretical knowledge and practical skills in nutrition and making use of local foodstuffs. Well-being of the beneficiaries' families increases and they get a good basis for home economics entrepreneurship. The entrepreneurship trainings aim at making a viable business plan leading to better income. Individual business plans, mentoring program and microcredit scheme is created for these women. Some of the participants participate in local cooking contests, where recipes and performance is judged according to taste, nutritional value, use of local foodstuffs and cleanliness.

RESULTS

By the end of 2014, 368 participants have completed the nutrition workshop. 116 participants completed the entrepreneurship training, and 104 of them wrote own business plans and received microcredits. 88 are still in business, followed by their mentors on a regular basis.

CONCLUSION

This project proves that North – South cooperation in the field of home economics is an efficient way to help women to take their lives in their own hands and develop a better future for their families.

IP_0966	Family Demands of Selected Micro and Small Business Entrepreneurs in Metro Manila	
First Author (Main Author)	Martha Angelica Laxa (University of the Philippines Diliman)	Philippines
Co-Author(s)	Consuelo Chua (University of the Philippines Diliman)	
Presenting Author	Consuelo Chua (University of the Philippines Diliman)	

The study aimed to identify family demands that have perceived negative and positive influence on different aspects of managing a business, and to describe the strategies used by the owners of these businesses to cope with these demands. Married female entrepreneurs from Metro Manila who owned micro or small enterprises were selected to participate in the study. Qualitative data was gathered through in-depth interviews using open-ended questionnaires. The resulting data from the interviews were analyzed using content analysis.

Results show that the common family demands that positively influenced business management include purchasing food supplies, maintaining the house, preparing meals for the family, paying household bills, budgeting expenses, spending quality time with the family, and attending family gatherings. On the other hand, family demands that influenced businesses in negative ways include managing household utilities,

dealing with children's school-related tasks, and caring for children. Finally, the strategies that entrepreneurs used to cope with these family demands comprise business-related strategies, family and household-related strategies, and the use of technology.

Room 106	Socio-Psychology, Marketing & Production	
Chair	Mi Young Son (Korea National Open University)	Republic of Korea
IF_0094	Extraction of Adult Men's 3D-Body Image Factors Derived from Men's and Women's Groups in Japan for Wear Selection Support Information	
First Author (Main Author)	Tomoe Masuda (Mie University)	Japan
Co-Author(s)	Kaori Murakami (Hiroshima University)	
Presenting Author	Tomoe Masuda (Mie University)	Japan

AIM

Men's 3D-body shape images to facilitate the selection of well-fitting and well-suited garments were captured in terms of both Men's and Women's groups in Japan.

METHODS

The Japanese sixty-three adult men's 3D-body models (mean age = 40.61) were evaluated using 6 full-length (A's) and 19 partial (B's) 3D-body image key words by Japanese Men's and Women's groups.

RESULTS

Five principal components in Men's group (cumulative contribution: 80.15 %) and six principal components (cumulative contribution: 85.68 %) in Women's group were extracted. The common images of Men's 3D-body shape in both groups were represented by four principal components (cumulative contribution: 70 % and 77 %), A6. Overweight - A1. Underweight figure with A3. Ideal figure and A4. Standard figure images, A2. Feminine - A5. Masculine figure images, Balance images of vertical length between B4. Leg and B5. Trunk, and B12. Posture with B11. Spinal curvature images. The features of A2 - A5 Men's 3D-body image, synthesized more strongly from B's principal components, were recognized more clearly, in contrast with the corresponding Young and Elder Women's 3D-body image in previous researches. The mainly common images in both groups by means of Cluster Analysis were as follows: A6 with Large Sizes, slightly Short Leg length, Poor Proportion, and Round Body shape images (40% of models), A1 with Small sizes, Sloping Shoulder inclination, and Stooped back Spinal curvature images (16% of the models), A5 with slightly Ideal and Standard figure images (25% and 10% of models), Backward leaning posture with slightly Straight back and all Small size of Underweight figure with Poor Proportion of Protruding Abdominal appearance images (22% and 13% of models).

CONCLUSION

Some mean values of A5. Masculine figure image were recognized as significant differences, in three cluster combinations, between the two groups. Differing masculine figure image evaluations are possibly explained by the respondents' gender differences.

IP_1020	LGBT Young Adults' Appearance Management in Response to Family Members' Acceptance	
First Author (Main Author)	Jongeun Rhee (University of Wisconsin-Stout)	USA
Co-Author(s)		
Presenting Author	Jongeun Rhee (University of Wisconsin-Stout)	USA

AIM

The research objective was to understand how lesbian, gay, bisexual, and transgender (LGBT) young adults manage their appearance in response to family members' acceptance.

METHODS

Potential participants were recruited using a snowball sampling technique. Participants who self-identified as LGBT and their LGBT identity was known to their family members during adolescence were invited to the study. A phenomenological interviewing method was used to understand how LGBT young adults manage their appearance when they were with their family. Interviews were semi-constructed, tape-recorded, and last for up to two hours.

RESULTS

The sample included six young adults who self-identified as gay, lesbian, or transgender. Their age ranged from 20 to 28. Almost all participants were challenged when they disclosed their sexual identity. Participants had experiences of family concerns or their appearance and outfits edited by family members when family outings. Most participants shared that they dressed differently when going out with family from they did with their friends. For example, a gay participant wore a button-down shirt and straight jeans, instead of tight t-shirt and skinny jeans. Participants did not want wear any clothing that would directly reflect their LGBT identity when they were with family to avoid confrontation or discomfort of other family members.

CONCLUSIONS

Family members who are highly religious tended not to accept LGBT identities. Family who live in a small community tend to edit the young adults' appearance. Regardless of the family support of the young adults' LGBT identity, participants indicated a degree of struggles between expressing who they are and meeting family expectations. Family acceptance of LGBT young adults' identity and appearance are critical to reduce conflicts and LGBT young adults' well-being.

IP_0077	Development and Testing of Pant Blocks for Female Youths in Nigeria for Large Scale Production of Garments	
First Author (Main Author)	Ijeoma Iloeje (University of Nigeria Nsukka)	Nigeria
Co-Author(s)	Elizabeth Anyakoha (University of Nigeria Nsukka)	
Presenting Author	Ijeoma Iloeje (University of Nigeria Nsukka)	Nigeria

AIM

The main purpose of the study was to develop block patterns for pants in three size categories (small, medium, and large) and to test the fit of the garments constructed from the blocks.

METHODS

The area of the study was Enugu state of Nigeria. The study was carried out in two phases. The first phase was the development of blocks for the subjects in three size categories - small, medium, and large. The second phase involved the testing of the fit of the garments constructed from the blocks. Three models were used for the evaluation of the fit of these garments (pants). Purposive sampling was used to select 30 judges. The evaluation instrument, a five point rating scale was used for scoring the fit of the garment constructed from the developed blocks. Data generated were analysed using Mean, ANOVA, and the Duncan's New Multiple Range Test (DNMRT).

RESULTS

Three sets of block patterns comprising front pant block and back pant block in each set were developed for the three size categories. There were no significant difference in the mean ratings of the judges on the fit of the garments for most of the variables used for the assessment. The fit of the garment, were rated very satisfactory by the three set of judges on nearly all the variables tested.

CONCLUSION

The findings of this study will adequately empower garment makers with a technology for large scale apparel production for the target group.

Clothing industries as well as professional tailors and seamstresses trained in the use of commercial patterns should be able to use pattern developed from the blocks for mass production of garments for both uniformed and non-uniformed professionals. This will create jobs for Nigerians, ensure successful competition in the international market and at the same time make the citizens self-reliant in apparel productions. The implementation of the results of the study will also help in the realization of some of the objectives of the medium term economic development package of the Federal Government of Nigeria in the pursuit of hope and happiness for individuals and communities now and in the future which includes reducing poverty, creating wealth and generating employment.

IP_0202	Development and Validation of Patterns for Fashionable Apparels towards Promoting Hope and Happiness of Pregnant Career Women in Universities South East Zone, Nigeria	
First Author (Main Author)	Stella Ozougwu (University of Nigeria Nsukka)	Nigeria
Co-Author(s)	Ugochi Moronu (University of Nigeria Nsukka)	
Presenting Author	Stella Ozougwu (University of Nigeria Nsukka)	Nigeria

AIM

The study focused on development and validation of patterns for construction of fashionable formal pregnancy apparels towards promoting hope and happiness of pregnant career women in universities in South East zone, Nigeria. Specifically the study: determined the mean body measurements required to draft block patterns for pregnancy apparel, drafted basic block patterns for the selected clothing designs using large size category; fitted the garments (first modeling) for corrections; modified the basic block patterns; adapted patterns for the fashionable formal pregnancy apparel; constructed and fitted the fashionable pregnancy garments on models (prototypes); evaluated the fit, fashionability, appropriateness of the prototype garments on the models (final modelling); produced the final patterns in line with validates' corrections.

METHODS

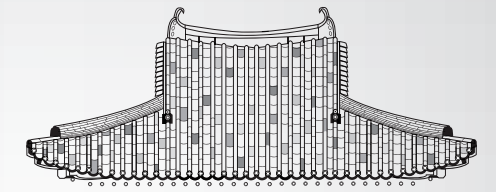
The study was done in three phases involving research and development (R&D) design. Two sets of population comprised of all academic and non academic pregnant staff of ten universities in the South Eastzone of Nigeria and judges comprised of twenty lecturers and professionals drawn from Vocational Teacher Education (Home Economics Unit) and Home Science Nutrition and Dietetics departments of University of Nigeria, Nsukka. Body Measurement Guide (BMG) and a 5-point rating scale were used for data collection in phases one and three of the study. Data generated in phases one and three were analyzed using descriptive statistics. Analysis of variance (ANOVA) tested one hypothesis and means were compared with Duncan's New Multiple Range Test (DNMRT) will be used at 0.05 probability levels.

RESULTS

A set of average measurement of subjects required for drafting bodices front, back, sleeve, skirt front and back were determined for large size category. The fit, fashionability and stability of pregnancy apparel bdesigned constructed were rated satisfactory by the evaluators.

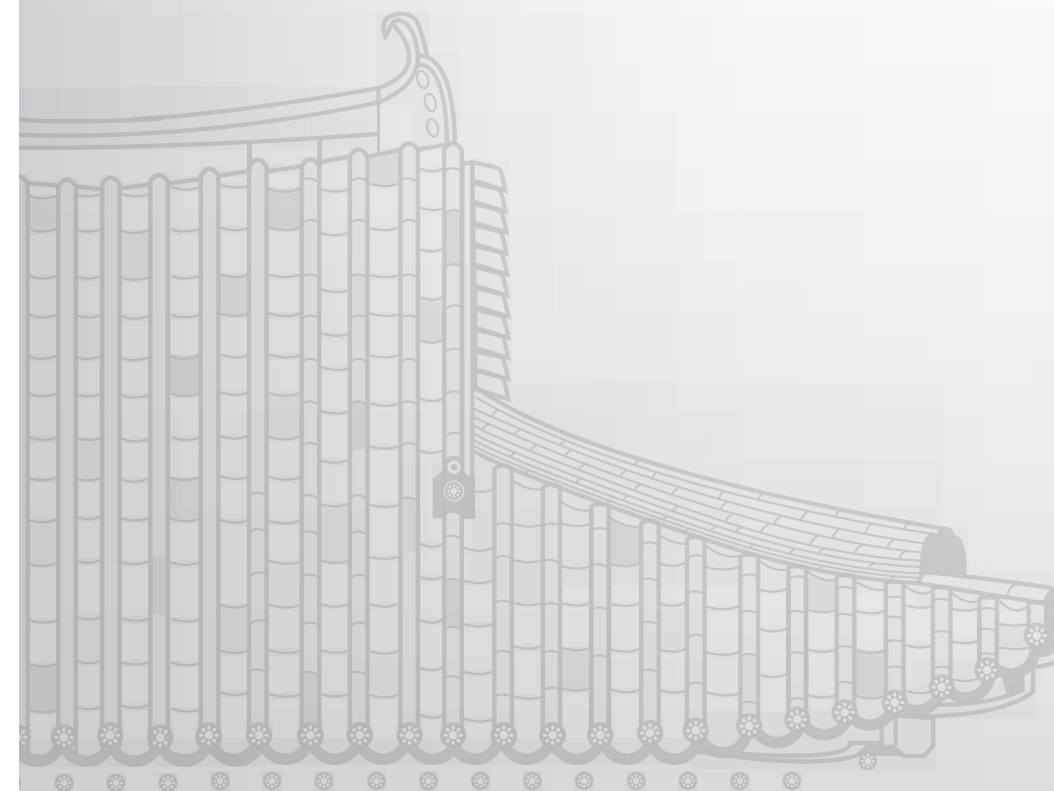
CONCLUSION

The patterns developed and validated for fashionable pregnancy formal apparel will contribute in no small measure to improving positive self image, personality and life style of pregnant career women. It will enhance their productivity and interpersonal relationships, thereby promoting hope and happiness.



**XXIII IFHE
WORLD CONGRESS 2016**

POSTER
Tuesday August 2
09:00 ~ 17:00



Exhibition Hall (1F)

CODE	TITLE	PRESENTER	COUNTRY
0802-CDS&HMT-01	Decisions to Buy Green Products among Saudi Families	Sakinah Basabrain (King Abdulaziz University)	Saudi Arabia
0802-CDS&HMT-02	Consumer Awareness and the Right to Information in Terms of Product Labels - Focused on Medicine -	Jeonghee Kim (Andong National University)	Republic of Korea
0802-CDS&HMT-03	Aids and Care of Aids Patients	Vivian Tackie-Ofosu (University of Ghana)	Ghana
0802-CDS&HMT-04	Home Economics Education for Confronting Poverty: Lesson Development for Senior High School Students in Japan	Kumi Kamiyama (University of Yamanashi)	Japan
0802-CDS&HMT-05	Consumer Citizenship Education for Fostering Consumer Legal Literacy	Kumiko Ohmoto (Osaka Kyoiku University)	Japan
0802-CDS&HMT-06	The Effect of Elderly Householders' Type of Participation in Economic Activity on Economic Preparation for Old Age and Overall Satisfaction	Yunhee Oh (Chungnam National University)	Republic of Korea
0802-CDS&HMT-07	The Influence of Food Risk Communication on Consumers' Attitude to Food Safety and Satisfaction with Dietary Life	Seung Sin Lee (Konkuk University)	Republic of Korea
0802-CDS&HMT-08	A Comparative Study on Consumption Behavior for Managing Appearance between Perceived Economic Status and Perceived Self-Confidence Status	Kihyun Lee (Inha University Graduate School)	Republic of Korea
0802-CDS&HMT-09	An Analysis on Consumption Trend Features According to Female Adult Consumers' Trade Capability	Suheang Sung (Chonnam National University)	Republic of Korea
0802-CDS&HMT-12	The Influence of Self-Related Factors on Consumption Behavior for Preparing Employment	Kihyun Lee (Inha University Graduate School)	Republic of Korea
0802-CDS&HMT-13	Comparison of Consumption Propensity between Post '80S and Post '90S Generation in China	Mi Young Jeon (Seoul National University)	Republic of Korea
0802-CDS&HMT-14	Factors That Hinders Effective Domestic Energy Management Practices within Households of Urban and Rural Areas of Abia State	Adaku Umeh_Idika (Michael Okpara University of Agriculture Umudike Abia State)	Nigeria
0802-CDS&HMT-15	Trend of Time Distribution of Married Workers in Korea, 1999-2014	Heekeum Cho (Daegu University)	Republic of Korea
0802-CDS&HMT-16	Fandom as Consumer Activism: Profiling the Consumption Behaviors of the Gen-Y Females Fascinated with Younger Male Idols	Suhyoung Ahn (Yonsei University)	Republic of Korea
0802-CDS&HMT-17	Consumer's Perception on Korean Traditional Fermented Soybean Products, 'Jang' and Service in Small Soybean Production Company	Eun Mi Ahn (National Institute of Agricultural Sciences)	Republic of Korea
0802-CDS&HMT-18	Exploratory Study on User Acceptance of New Technology: The Case of Wide Field of View (WFOV) Video	Jong-Youn Rha (Seoul National University)	Republic of Korea
0802-CDS&HMT-19	The Usage of Mass Media on Increasing Total Fertility Rate in Korea -Focused on TV Child Care Programs-	Jeonghee Kim (Andong National University)	Republic of Korea
0802-CDS&HMT-20	Intergenerational Transmission of Parental Support Behavior for Young Adult Children	Heejin Choi (Seoul National University)	Republic of Korea
0802-CDS&HMT-21	The Effects of School Adjustment on Depression of Male and Female Adolescents from Low Income Families	So Chung Oh (Yonsei University)	Republic of Korea
0802-CDS&HMT-24	The Reality and Awareness of Economic Preparation for Old Age - Targeting Senior Citizens over 65	Hye Ji Min (Sookmyung Women's University Graduate School)	Republic of Korea
0802-CDS&HMT-25	Needs Assessment of Father Education Programs	Seohee Son (Sookmyung Women's University)	Republic of Korea
0802-CDS&HMT-26	An Exploratory Study on Consumer Delight through Product Element Experiences of a Smartphone	Kee-Ok Kim (Sungkyunkwan University)	Republic of Korea
0802-CDS&HMT-27	Do Contemporary Consumers Have Intentions of Participating in Collaborative Consumption?	Kee-Ok Kim (Sungkyunkwan University)	Republic of Korea
0802-CDS&HMT-28	Do Consumers Have Two Minds? -A Literature Review on Dual-Process Theory-	Jae-Hye Suk (Sungkyunkwan University)	Republic of Korea
0802-CHD-04	Increasing Possibilities for Home Economists as Entrepreneurs in the Community : Learning from NPO Management	Atsuko Yamaguchi (Sugiyama Jogakuen University)	Japan

Exhibition Hall (1F)

CODE	TITLE	PRESENTER	COUNTRY
0802-CHD-05	Effects of Japanese Husbands' Participation of Household Work/Child Care on Their Wives' Intension to Bear Children	Keiko Takahashi (Jissen Women's University)	Japan
0802-CHD-06	Time Management Strategies of Selected Mother Entrepreneurs	Consuelo Chua (University of the Philippines)	Philippines
0802-CHD-07	Practice and Evaluation of the Father-Child Camping Program for the Reduction of Childcare Anxiety among Mothers	Masae Shouho (Fukuyama City University)	Japan
0802-CHD-09	High-School Students' Learning Experience about Infants' Characteristics and Child Abuse	Masako Kawashima (Kanagawa Institute of Technology)	Japan
0802-CHD-10	What Home Economics Can Do for a New Society with Diversity	Yuri Nakajima (Nagasaki University)	Japan
0802-CHD-11	Difference in Grandmotherhood and Grandmother's Capacity between Japan and China	Kyoko Kubo (Kanagawa Institute of Technology)	Japan
0802-CHD-12	"Certified Child Care Center" National Survey	Yasuyo Minami (Nara Women's University)	Japan
0802-CHD-13	Childcare Career Enhancement -In-Service Training at Kindergartens and Nursery Schools-	Noriko Kanie (Utsunomiya Kyowa University)	Japan
0802-CHD-14	How Do Japanese Children View Their Relationship with Their Family?	Masako Okano (IFHE)	Japan
0802-CHD-15	Study on the Effect of School Commuting Traffic to Children and Families - The Case of Hohhot in Inner Mongolia of China -	Da Man (Nara Women's University)	Japan
0802-CHD-16	The Effect of Parental Attachment and Parents of Marital Relationship on the College Life Adjustment by Chinese Students in Korea: Focused on Mediating Effect of Dispositional Optimism	Yuan Zhu (Chung-Ang University)	Republic of Korea
0802-CHD-17	Associations between Adolescents' Perceived Negative Parenting and Mobile Phone Dependency: Testing Moderating Effects of Self-Regulated Learning and Self-Esteem	Yea-Ji Hong (Seoul National University)	Republic of Korea
0802-CHD-18	Testing Moderating Roles of Self-Efficacy and Co-parenting Alliance on Marital Satisfaction among Korean Fathers and Mothers	Yea-Ji Hong (Seoul National University)	Republic of Korea
0802-CHD-19	The Effect of Perceived Parental Intrusiveness on Korean Adolescent's School Adjustment : The Mediator Effect of Attention Concentration	Hye-Seon Kim (Yeungnam University)	Republic of Korea
0802-CHD-20	Stability in Friendship Patterns among Kindergarteners Affected by Emotion Regulation and Maternal Friendship Management	Mihyun Park (Child Development Research Institute of Yonsei University)	Republic of Korea
0802-CHD-21	Experiences of the Students	Ju Han (Chuncheon Hansaem High School)	Republic of Korea
0802-CHD-22	Protection of Abused Children - Focused on Follow-Up Service for Abused Children and Abuser	Sujung Lee (Sookmyung Women's University Graduate School)	Republic of Korea
0802-CHD-23	Reality of Teenager's Sexual Practices and Experiences on Acquiring Sexual Knowledge and on Discussion of Sexual Concerns with Parents	Su Im Lee (Sookmyung Women's University Graduate School)	Republic of Korea
0802-CHD-24	The Relation between Parental Behavior and Adolescent Happiness : Testing the Mediating Effects of Self-Esteem and Academic Stress	Jieun Kim (Sookmyung Women's University)	Republic of Korea
0802-EDU-01	A Class for Students in the Home Economics Teacher-Training Course Using Everyday Items (2): Dyeing with Tomatoes	Chinatsu Yoshizawa (Joetsu University of Education)	Japan
0802-EDU-02	Attempting to Deal with Relationships with Consumer Culture as Life Problems -Based on the Evaluation of Teaching Materials by University Students in Japan and Korea-	Megumi Okutani (Fukuoka University of Education)	Japan
0802-EDU-03	Influence of Experience in Early Childhood Education and Care at School on Professional Careers	Katsuko Makino (Utsunomiya Kyowa University)	Japan
0802-EDU-04	Home Economic Education Extension Course in Junior High School: The "Love Bank"	Kung Yu Ho (National Taiwan Normal University)	Taiwan
0802-EDU-05	Issues Concerning Teaching Students to Fix a Meal in a Home Economics Class	Noriko Watase (Iwate University)	Japan
0802-EDU-06	Student Stages of Concern Using Mobile Phones in Home Economics/Family and Consumer Education	Roxie Godfrey (Texas Tech University)	USA

Exhibition Hall (1F)

CODE	TITLE	PRESENTER	COUNTRY
0802-EDU-07	Close Neighbours but Different Interests? A Comparison of Home Economics Curricula from Three Nordic Countries	Erik Fooladi (Volda University College)	Norway
0802-EDU-08	The Importance of Local Traditional Food Culture, and How It Is Passed Down from Generation to Generation	Katsura Omori (Yamagata University)	Japan
0802-EDU-09	Globalization and the Curriculum for Home Economics Education-Classroom Plans on Family Study -	Kazue Mochizuki (Japan Women's University)	Japan
0802-EDU-11	Elementary School Children's Emotional Changes Raising Pigs to Slaughter	Sadako Tokumaru (Joetsu University of Education)	Japan
0802-EDU-12	Community-Oriented Consumer Education (Consumerism 4.0): Focusing on Consumer Education in Schools	Myoung Sook Park (Dongguk University)	Republic of Korea
0802-EDU-13	The Learning Model of Hand Sewing Education: Focus on Educational Objectives and Learning Theories in Denmark and Finland	Reiko Isshiki (Yasuda Women's University)	Japan
0802-EDU-14	A Class for Students in the Home Economics Teacher Training Course Using Everyday Items (1): Food and Tomatoes	Yukari Sato (Joetsu University of Education)	Japan
0802-EDU-15	The Effect of Network to Teaching Improvement of Home Economics Teachers	Akiko Kaneyasu (Kyushu University)	Japan
0802-EDU-16	Effect of Cooking Frequency on Culinary Ability	Hitomi Takahashi (Wayo Women's University)	Japan
0802-EDU-17	High School Home Economics Classes about Traditional Indigo Dyeing beyond the Distance by Using ITC	Arisa Yoshiuchi (Ochanomizu University)	Japan
0802-EDU-18	Development and Application of the Teaching-Learning Process Plan of Senior Cohousing for Independent Later Life	Ji Myeong Na (Korean Home Economics Education Association)	Republic of Korea
0802-EDU-19	Risk Management as Part of Home Economics Education	Sachiko Aoki (Tokyo Kasei University)	Japan
0802-EDU-20	Life Management Education Program Using Home Works Subject for Female Marriage Immigrants: An Analysis on In-House Life Competency Reinforcement	Ji-Wook Kim (Dongguk University)	Republic of Korea
0802-EDU-21	Presentation of Tradition in Technology-Home Economics Textbooks	Minjee Kim (Dongguk University)	Republic of Korea
0802-EDU-22	The Necessity of Career Education about Child Care Specialists by Home Economics in Japan	Masako Muro (Sugiyama Jogakuen University)	Japan
0802-EDU-23	An Analytical Study on the Use of the Term 'Divorced Family' in Technology-Home Economics Textbooks	Yu Son Lee/ Mi-Kyung Jun (Dongguk University)	Republic of Korea
0802-FAM-02	Development of Family Well-Being Indicators in Thailand	Chittinun Tejagupta (Sukhothai Thammathirat Open University)	Thailand
0802-FAM-03	Intergenerational Solidarity and Psychological Well-Being among Korean College Students	Sieun Kang (Seoul National University)	Republic of Korea
0802-FAM-04	The Recognition of Discipline and Abuse in University Students of the Faculty of Education in Korea and Japan	Kyoungwon Lee (Okayama University)	Japan
0802-FAM-06	The Comparison of Perceived Health, Life Satisfaction and Happiness of Married and Single People in Taiwan	Yu-Ting Huang (Chinese Culture University)	Taiwan
0802-FAM-07	The Relationships between Body Image and Marital Satisfaction of Married Adults in Taiwan	Yu-Ting Huang (Chinese Culture University)	Taiwan
0802-FAM-08	The Relationships among Orientations to Happiness, Happiness Enhancing Activities and Quality of Life in Korean Husbands and Wives	Jungha Lim (Korea University)	Republic of Korea
0802-FAM-09	How the Japanese Use Their Time for Family and Housework: Analyzing Data from 1972, 1991, and 2013 in the City of Matsuyama	Noriko Kishi (University of Teacher Education Fukuoka)	Japan
0802-FAM-10	The Meanings of Doing Housework for Japanese Husbands	Junko Takayama (Ochanomizu University)	Japan
0802-FAM-11	The Influence of Couple Relationship Standard Cognition upon Perception and Satisfaction with Positive Partner Behaviors in Korea	Jeongyun Park (Chung-Ang University)	Republic of Korea
0802-FAM-12	A Study of Household Work Arising from Using Nursery Schools: Focusing on the Application Procedure to Nursery Schools in Japan	Mika Omagari (Ochanomizu University)	Japan

Exhibition Hall (1F)

CODE	TITLE	PRESENTER	COUNTRY
0802-FAM-13	The Mediating Effects of Psychological Independence and Self-Efficacy on the Relationship of between Parent Attachment and Career Maturity of College Students	Hyerim Han (Yeungnam University)	Republic of Korea
0802-FAM-14	The Research on Rural Male Youth Marital Payment Vicissitude	Ying Wu (Jilin Agricultural University)	China
0802-FAM-15	An Impact of Dietary Life and Health Related Factors on Life Satisfaction in Elderly Households	Yun Hee Oh (Chungnam National University)	Republic of Korea
0802-INT-01	Career Mapping: Charting a Course towards Increasing Student Ownership in College & Career Planning	Cynthia Miller (Texas Tech University)	USA
0802-INT-02	Instruction for Table Manners in School Lunch-Research from Teacher Training Course Student's Actual Condition-	Yoko Suzuki (Nara University of Education)	Japan
0802-INT-03	Hope and Happiness: Accredited Programs Prepare Students for Professional Careers	Carol Anderson (IFHE-US)	USA
0802-INT-04	The Influence of Local Community on the Social Skills of Elementary School Children	Yoko Kobayashi (Gunma University)	Japan
0802-INT-05	Sustainable Water Behavior: A Focus on Hispanic Households	Jiyun Kang (Texas State University)	USA
0802-INT-06	Family, Community, School Education and Concern for Japanese Traditional Cuisine among Junior High School Students in Japan	Kinuyo Kurokawa (Naruto University of Education)	Japan
0802-INT-07	The Impact of Quality of Dating Relationship and Image of Marriage That Unmarried Couples Perceive on Marriage Values in Korea	Jeongyun Park (Chung-Ang University)	Republic of Korea
0802-INT-08	Understanding Employee Perceptions of Wellness	Mia Russell (University of Maryland Extension)	USA
0802-INT-09	Using Strengths to Build a Stronger Future	Deborah Tippet (Meredith College)	USA
0802-INT-10	Psychological Effects of Meal Tray Color on Visual Palatability of Meals for Low Vision	Keiko Tomita (Kindai University)	Japan
0802-INT-11	Influences of Past Dietary Experiences on Zest for Living of Female Undergraduate Students ~ A Comparison between Japan and Korea~	Keiko Tomita (Kindai University)	Japan
0802-INT-12	Factors Related to Dietary Experiences That Affect the Cultivation of Zest for Life among University Students	Misato Yasuoka (Kindai University)	Japan

PT_0013

Decisions to Buy Green Products among Saudi Families

First Author (Main Author)	Sakinah Basabrain (King Abdulaziz University)	Saudi Arabia
Co-Author(s)		
Presenting Author	Sakinah Basbrin (King Abdulaziz University)	Saudi Arabia

This research aims to identify the culture of buying green products and investigate the factors that affect the decision to buy green products, to work towards preserving the environment, or to make it a safe place to live, with the aim of protecting consumers and educating them in the field of green product consumption. In modern society, happiness is an important factor in determining the value of one's life. Happiness becomes the ultimate goal of one's life as a member of society, and therefore in-depth studies that enable one to understand hope and happiness are more important than ever, because happiness will provide a new form of intangible assets for our future.

A descriptive and analytical approach has been used in conducting this study. Questionnaires have been utilised to collect data; the questionnaires were distributed electronically to a sample of 52 Saudi families.

The results found that the sample did not lack the culture of purchasing green products, but families' behavior in buying green products was weak, due to their high prices, the difficulty in obtaining these products, the small number of stores selling them, and poor presentation. There were statistically significant differences in the responses of different members of the sample regarding their decisions to buy green products. These differences related to the variables of age (from 40 to less than 50 years), the income category (3,000 to less than 6,000 riyals), and the level of education (university or higher). This recommended that the researcher focus on officials from families with a high level of education as being the primary source of motivation and drive to change the culture of consumption towards more environmental awareness. The Ministry of Commerce is working to stimulate the companies that sell green products to provide these products with attention to their style and display, so that they are clearly visible and easily accessible to consumers. Consumer protection associations must work with a more specialized understanding of consumer behavior, to determine the most effective promotional methods to encourage them to adopt the values and culture of consuming environmentally friendly products.

Key Terms: sustainable development, green products, consumption and purchasing decisions.

PT_0165

Consumer Awareness and the Right to Information in Terms of Product Labels - Focused on Medicine -

First Author (Main Author)	Jeonghee Kim (Andong National University)	Republic of Korea
Co-Author(s)	Seonghyeok Cho (Andong National University)	
Presenting Author	Jeonghee Kim (Andong National University)	Republic of Korea

AIM

As information industry has developed rapidly, consumers became well informed through all sorts of mass media, yet the quality of the information leaves much to desire. Especially in case of medicine consumers must exercise great caution, as the managing needs professional training and the misuse may critically harm consumer's health and even their lives. With this in mind, this study is intended to identify consumers' perception of and demand for general consumer awareness, right to information, and complaint behaviors about medicine labels. It also aims to present problems and ways to address them. This study will thus provide basic information in concern with current situation on medicine label and consumers' perception on it, and act as preliminary one for further studies.

METHODS

This study distributed 540 questionnaires to male and female subjects in the 20s to the 60s, and recollected them. Excluding 34 questionnaires that responded improperly, this study utilized 506 questionnaires to analyze the data. This study analyzed the data using various statistical methods such as frequency analysis, t-test, one-way ANOVA, cross tabulation analysis and regression analysis.

RESULTS

1. Referring to the confirmation level of medicine labels, the subjects showed the score of 3.18 out of 5 on the average. However, regarding the matters such as confirmation of ingredients of medicines and confirmation of tablet imprint code system, the subjects scored 2.82 out of 5 on the average.
2. In relation to the perception of the right to information and regulations about medicine labels, the subjects respectively scored 2.75 and 2.43, which means that they do not know much about the right to information and regulations about medicine labels.
3. Gender made a statistically significant difference in confirmation of medicine labels at the level of $p < .05$. Also, marital status was found to make a statistically significant difference in the items of 'right to information' and 'perception of regulations of medicine labels' at the level of $p < .05$ and $p < .001$ respectively.
4. Experiences of harm and inconvenience caused by incorrect medicine labels were found to make a statistically significant

difference in complaint behavior at the level of $p < .001$. The group of those who experienced such harm or inconvenience blamed themselves or filed complaints to the consumer right center as part of complaint behavior.

5. The perception level of the right to information was found to make a statistically significant difference in the awareness level of regulations of medicine labels at the level of $p < .001$.
6. The perception level of the right to information was found to make a statistically significant difference in the level of confirmation of medicine labels at the level of $p < .001$. The consumers who strongly perceived the right to information were found to confirm medicine labels better than those who didn't.

CONCLUSION

These results suggest the following. Current medicine labels should be changed so that they are more readable, noticeable, and comprehensible. Also, improvements on general system should be made so that there are more channels for information acquirement and communications. Proactive promotion and consumer education are also necessary. Thus, the manufacturers and the government should provide sufficient information on medicine label and provide enough consumer education to keep them well informed.

PT_0487

Aids and Care of Aids Patients

First Author (Main Author)	Vivian Tackie-Ofosu (University of Ghana)	Ghana
Co-Author(s)	Ann Vail (Kentucky University)	
Presenting Author	Vivian Tackie-Ofosu (University of Ghana)	Ghana

AIM

The aim of the study was to explore how caregivers of aids persons and managed resources in poor communities in Ghana; and the role that Home Economics play in supporting families with critical health conditions at home.

METHODS

A qualitative research approach was adopted, because very little is known about this subject. In-depth interviews, direct observation and photography were used to collect data from twenty five informative and their care recipients and from a matched sample of twenty five to compare the socio-demographic characteristics of the study population. Using grounded theory method of analysis, the data generated into themes.

RESULTS

The results were presented in two different but complementary styles: case study reports that were unique and key themes that were representative across the entire study. Key results showed that

participant's perception of care for persons with AIDS was dependent on the use of household resource. Caregivers perceived caring as activities that depended mainly on the availability of resources and how resources were expanded when supporting a sick person. Caregiver took decisions daily on family resources; women combined care with commercialization activities.

CONCLUSION

The results has implications for Home Economics outreach programs in the communities on resource management and daily decision-making

PT_0525

Home Economics Education for Confronting Poverty: Lesson Development for Senior High School Students in Japan

First Author (Main Author)	Kumi Kamiyama (University of Yamanashi)	Japan
Co-Author(s)	Sachiko Aoki (Tokyo Kasei University) Mitsuko Osada (Tokyo Metropolitan Ohyama Senior High School) Midori Otake (Tokyo Gakugei University) Mihoko Saito (Kagoshima University) Yumiko Tanaka (Yasuda Women's University) Kyoko Tsubouchi (Former Tokyo Metropolitan Oedo Senior High School)	
Presenting Author	Kumi Kamiyama (University of Yamanashi)	Japan

AIM

In light of the increasing child poverty rate the aim of this study was to develop lessons for fostering the ability to confront poverty and solve challenges in daily life.

METHOD

Action research was the method used in this study. The study was carried out in the Tokyo area in low achieving schools with high rates of students in poverty. On the basis of the results of a preliminary survey which showed a large number of food-related issues, lessons for menu planning within a budget of ¥150 were carried out. The initial lesson plan was revised according to an evaluation of student learning results, with changes reflected in the subsequent lesson. Evaluation of student learning was conducted according to an analysis of surveys and worksheets before and after the lesson. Simultaneously, the effectiveness of the lesson development was investigated.

RESULTS

1. Many students found it difficult to balance budget and nutrition aspects when planning menus.

- In the lesson with improved worksheets and teacher delivery there was a deepening in student understanding and an increase in the number of students that could complete the menu planning task.
- There was an increase in the number of students who realized the possibility of creating low-cost meals.

CONCLUSION

Students understood the possibility of creating low-cost and nutritionally balanced meals. However, a large number of students found it difficult to put this understanding into practice in everyday life. Repeated instruction in home economics lessons is required.

PT_0716

Consumer Citizenship Education for Fostering Consumer Legal Literacy

First Author (Main Author)	Kumiko Ohmoto (Osaka Kyoiku University)	Japan
Co-Author(s)	Mayuko Suzuki (Osaka Kyoiku University)	
Presenting Author	Kumiko Ohmoto (Osaka Kyoiku University)	Japan

AIM AND BACKGROUND

In 2012, Japan enacted the Act on Promotion of Consumer Education. This law promotes education in order to create a just and sustainable consumer citizen society. This law states that Consumer Education must be implemented, but lacks concrete guidelines about what to teach students or how to nurture that learning. To become consumer citizens, consumer literacy is necessary. Consumer literacy includes various forms of knowledge and several abilities, one of which is consumer legal literacy. This report proposes educational content, pedagogy, and other areas so that consumer legal literacy can be increased.

METHODS

- International Baccalaureate programs and Australian national curricula were examined for content, teaching methods, and assessment methods.
- Japanese national moral education curricula and law-related educational curricula were examined. From these sources, general concepts about consumer legal literacy and justice were chosen.
- Educational and developmental psychology views of justice and moral education were investigated and educational objectives divided by school level were decided.

RESULTS

- Legal literacy is not only problem resolution, it is also the ability to foresee and avoid risks. Therefore, to create a just and sustainable society and market, it is necessary to have knowledge, practical skills, general understanding of law, and general understanding of information sharing.

- Five general concepts of justice were chosen: moral awareness, justice, rights and responsibilities, social solidarity, and ethical considerations.
- It is also necessary to instruct students how to consider various aspects, negotiate, and make informed purchases so that mutual agreement and understanding can be reached.
- We selected these educational themes for elementary, junior high, and high school curricula.

CONCLUSION

This report has proposed educational content and pedagogical methods to foster consumer legal literacy. To achieve this, suitable and age-appropriate materials are necessary. We plan to develop these materials in the future based on these findings.

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PT_0806

The Effect of Elderly Householders' Type of Participation in Economic Activity on Economic Preparation for Old Age and Overall Satisfaction

First Author (Main Author)	Yunhee Oh (Chungnam National University)	Republic of Korea
Co-Author(s)	Soon-mi Kim (Chungnam National University)	
Presenting Author	Yunhee Oh (Chungnam National University)	Republic of Korea

Social issues regarding the employment of the elderly are coming to the fore with the elderly accounting for a growing proportion of Korea's population and the life expectancy of the elderly rising. As a result, there is a need to know the effect of economic activity of the elderly on economic preparation for old age and overall satisfaction. Therefore, this study divided householders into three types according to their participation in economic activities: participants in economic activity, voluntary retirees, and involuntary retirees, and researched how the three groups prepared economically for old age. In addition, this studied how householders are preparing economically for old age according to their economic activity, and if they are not preparing for old age, we tried to know why. Finally, this study analyzed the effect of demographic factors, financial factors, and the householder's type of participation in economic activity on their economic preparation for old age and overall satisfaction. For this study, the data from the 5th analysis of the 2013 Korean Retirement and Income Study conducted by National Pension Research Institute were used. The sample consisted of 2407 householders over the age of 50. For statistical analysis SPSS (Ver. 21.0) was used. The statistical methods used included frequency and percentile, mean and standard deviation, Pearson's correlation, and regression analysis. The

results are as follows. First, we analyzed the differences in economic preparation for old age according to the type of participation in economic activity. The proportion of subjects who were not preparing for old age was 70.2% for involuntary retirees, 66.3% for voluntary retirees, and 57.8% for the economically active. Therefore, those not preparing for old age accounted for the biggest share of each of these types. Second, this study tried to identify the method of preparing economically for old age according to the householder's economic activity, and if they were not preparing economically for old age, this study tried to know why. The study found that all types of subjects chose the National Pension Service as the top means of preparing for old age, and this illustrated the importance of the National Pension Service in preparing for old age in Korea. Those who stated that they couldn't prepare for old age because they didn't have the ability accounted 82.1% of voluntary retirees, 65.0% of involuntary retirees, and 47.8% of those participating in the economy. Third, an analysis of the effect of demographic factors, financial factors, and the type of economic activity done by the householder on a household's economic preparation for old age found that less economic preparation for old age was done when people were participating in the economy than when they were retirees. Fourth, we found the following effects of demographic factors, financial factors, and the type of economic activity done by the householder on a household's economic preparation for old age on a household's economic and overall satisfaction. Overall satisfaction was higher for people when they were participating in the economy than when they were retirees, and this suggests that economic activity has an effect on overall satisfaction. In conclusion, to increase the satisfaction of the elderly with their life, elderly individuals need to increase their participation in the economy and the government needs to increase employment programs.

PT_0834

The Influence of Food Risk Communication on Consumers' Attitude to Food Safety and Satisfaction with Dietary Life

First Author (Main Author)	Seung Sin Lee (Konkuk University)	Republic of Korea
Co-Author(s)	Younghee Lee (Konkuk University)	
Presenting Author	Seung Sin Lee (Konkuk University)	Republic of Korea

AIM

This study examined food risk communication-related information by using 3M(Message, Messenger, Media), the components of FDA's risk communication (2006). Thereby, this study aims to identify the useful information for consumers in the information age, form their attitude to food safety in a positive way, and ultimately, prepare ways to improve their satisfaction with dietary life.

METHOD

This study was conducted with 342 Korean adult consumers. The scale used for the questionnaire is questions based on consumers' general, food risk communication(3M), attitude to food safety and satisfaction with dietary life. For data analysis, SPSS 22.0 program was used to conduct analyses for frequency, multiple regression and pathway.

RESULTS

The causal relationship of relevant variables in terms of satisfaction with dietary life was confirmed using an independent variable of food risk communication and a parameter of attitude to food safety. It was confirmed that the variables that have a direct effect on satisfaction with dietary life were attitude to food safety and Media (One-way, Two-way communication) among the components of food risk communication. Message (general, specialized information) and Messenger (Public specialized institution) among these components had an indirect effect on it by a medium of the attitude to food safety. Media had both direct and indirect effects on it.

CONCLUSION

This study confirmed the effect of the 3Ms of food risk communication on consumers' attitude to food safety and satisfaction with dietary life. Therefore, it is believed that providing food risk-related information by public specialized institutions to consumers will be an effective approach to form consumers' attitude to food safety and improve their satisfaction with dietary life.

Key words : Food safety information, Public specialized institution, Food risk communication, Attitude to food safety, Satisfaction with dietary life

PT_0968

A Comparative Study on Consumption Behavior for Managing Appearance between Perceived Economic Status and Perceived Self-Confidence Status

First Author (Main Author)	Kihyun Lee (Inha University Graduate School)	Republic of Korea
Co-Author(s)	Eunhee Lee (Inha University Graduate School)	
Presenting Author	Kihyun Lee (Inha University Graduate School)	Republic of Korea

As a student, College students who are eager to consume have limited economic resource on consumption. Besides economic status to figure out how makes them to consume things we add the self-confidence status and compare them to identify the influence on consumption behavior. In Republic of Korea for managing appearance college students purchase things like apparel, cosmetic, hair style related product but also information searching and

using behavior of them are conducted. Therefore on this study consumption behavior is defined as combination of purchasing, information searching and using behavior and from now on CBMA is abbreviation of consumption behavior for managing appearance. Perceived economic status and perceived self-confidence status are measured by specifying on CBMA. As a decision making process of CBMA, the past consumption behavior, the attitude, the intention are included. The survey is distributed by online research institute and 5-point[very positive] Likert scale is used. 337 respondents are analyzed. The findings are described below. First, the average of perceived economic status on CBMA is 3.35 and perceived self-confidence status on CBMA is 3.57 and the difference is significant($t=5.353$). Second, the attitude toward CBMA($F=89.702$) is affected by both perceived economic status($\beta=-.154$) and perceived self-confidence status($\beta=.661$). The significant factor that affects the past CBMA($F=83.710$) and the intention toward CBMA($F=111.875$) is just perceived self-confidence status($\beta=.601/\beta=.670$). The findings of this study reveal that, the more college students have perceived self-confidence on CBMA, the more favorable their past CBMA and attitude toward CBMA and intention toward CBMA. Unlike perceived self-confidence status, perceived economic status has negative effect on attitude toward CBMA. In short, this study shows that perceived self-confidence status on CBMA is more affecting on CBMA than perceived economic status on CBMA among college students in Republic of Korea.

PT_0988

An Analysis on Consumption Trend Features According to Female Adult Consumers' Trade Capability

First Author (Main Author)	Suheang Sung (Chonnam National University)	Republic of Korea
Co-Author(s)	Eun Sil Hong	
Presenting Author	Suheang Sung (Chonnam National University)	Republic of Korea

The purpose of this study targeting female adults is to look into the co-relational structure among consumers' trade knowledge, attitude and practice, which are sub-factors of consumers' trade capability, categorize targeted female adults with these factors as characterizing factors and analyze their by-type consumption trend. In March, 2015, an online survey was done nationwide, a total of 500 questionnaire copies were used and the collected data went through Pearson's product-moment correlation analysis, multiple regression analysis, Ward's hierarchical clustering analysis, One Way ANOVA, Duncan Test and so forth, using the statistical tool of SPSS 18.0. Major results of this study are as follow; First, in consumers' trade capability, their trade knowledge, attitude and practice all showed positively significant correlation and especially their trade attitude and practice showed very high correlation.

Second, they were sorted into four groups based on their trade capability. 'Type 1,' which was named 'aggressive practicers,' was low in trade knowledge but a bit high in trade attitude and practice. 'Type 2,' which was named 'group with low capability,' was low in all of trade knowledge, attitude and practice. 'Type 3,' which was named 'group with high capability,' was high in all of trade knowledge, attitude and practice. 'Type 4,' which was named 'passive practicers,' was a bit high in trade knowledge and attitude but very low in trade practice. Third, According to the result of analyzing the difference in consumption among the five consumers' trade capability types, their environmental protection trait($F=13.79$, $p<.001$), impulse consumption trait($F=5.20$, $p<.01$) and resources-planned consumption trait($F=3.26$, $p<.05$) showed significant difference. Their environmental protection trait and resources-planned consumption trait were high in 'group with high capability,' while they were low in 'group with low capability and passive practicers. Impulse consumption trait, however, was the highest in group with low capability while it was relatively low in 'group with high capability, passive practicers and aggressive practicers.' The results of this study shows the need to diagnose consumption features according to consumers' trade capability levels, improve consumers' trade capability according to group features and form programs training consumers' capability so that consumers may have positive values of consumption in an intention to cultivate female adult consumers' trade capability.

PT_1060

The Influence of Self-Related Factors on Consumption Behavior for Preparing Employment

First Author (Main Author)	Kihyun Lee (Inha University Graduate School)	Republic of Korea
Co-Author(s)	Eunhee Lee(Inha University Graduate School)	
Presenting Author	Kihyun Lee (Inha University Graduate School)	Republic of Korea

In South Korea under the goal of getting job college students consume things related to preparing employment. Although there has been research on preparing employment, there is no study on consumption behavior for preparing employment. On this study we defined behavior for preparing employment as consumption behavior which combined by purchasing behavior, information searching behavior and using behavior during preparing employment. Consumption behavior for preparing employment is described below as CBPE and we investigate the past CBPE, the attitude toward CBPE and intention toward CBPE. From advanced research self-related factors are critical on behavior for preparing employment. Therefore we specify self-related factors on consumption and were analyzed; self-management on consumption, self-assurance on consumption. The data collection was achieved by quota sampling on 350 four-year

university student nationwide through online research firm, 337 of which were used in the analysis. Here are our findings. The higher self-management on consumption was, the more past CBPE($F=17.679$) and the more positive attitude toward CBPE($F=20.778$) and intention toward CBPE($F=18.665$) were. The level of self-management on consumption showed significant difference. Also the higher self-assurance on consumption was, the more past CBPE($F=24.896$) and the more positive attitude toward CBPE($F=4.284$) and intention toward CBPE($F=7.130$) were. The higher delay of gratification on consumption was, the more past CBPE($F=22.403$) and the more positive attitude toward CBPE($F=4.932$) and intention toward CBPE($F=5.146$) were. The delay of gratification on consumption showed the difference of level which is only significant on the past CBPE. The significant factors that affect intention toward CBPE are the past CBPE($\beta=.195$) and the attitude toward CBPE($\beta=.617$). In conclusion there is no self-related factors affecting on intention toward CBPE and college students who has positive attitude toward CBPE intend to do CBPE. The findings of this study show that, unlike behavior for preparing employment the intention toward CBPE is affected by the past CBPE and the attitude toward CBPE.

PT_1070

Comparison of Consumption Propensity between Post '80S and Post '90S Generation in China

First Author (Main Author)	Mi Young Jeon (Seoul National University)	Republic of Korea
Co-Author(s)	Rando Kim (Seoul national university)	
Presenting Author	Mi Young Jeon (Seoul National University)	Republic of Korea

Although the issue of generation gaps isn't unique to China, the gap between the generations of young people in China is strikingly wide. For instance, the post-'80s generation refers to people born in the 1980s, while the post-'90s to those born after 1989. These two generations have been raised in a modern society after China's economic reform and thus are thought to share similar background as consumers. However, due to the fast changing speed of its economic and cultural development of China, a lot of scholars and companies started to believe that the two groups have significant differences in their values, consumer psychology and consume behavior characteristics. Based on this background, this study aims to analyze the difference of consumption propensity between post '80s and post '90s generation in China and discover the impact of diverse variables on consumption propensity. Questionnaires were distributed to a randomly chosen Internet panel of five cities in China during March of 2012, which yielded a total of 722 valid responses that were used in the study. The results provide specific implications for academic and business sectors in understanding the Chinese consumers.

PT_1199

Factors That Hinders Effective Domestic Energy Management Practices within Households of Urban and Rural Areas of Abia State

First Author (Main Author)	Adaku Umeh_Idika (Michael Okpara University of Agriculture Umudike Abia State)	Nigeria
Co-Author(s)	Elizabeth Anyakoha (University of Nigeria)	
Presenting Author	Adaku Umeh_Idika (Michael Okpara University of Agriculture Umudike Abia State)	Nigeria

The study investigated the factors that hinder effective domestic energy management practices (EDEMP) for the happiness of the individual within households of urban and rural areas of Abia State Nigeria. Specifically, the study identified the different types of domestic energy utilized within the households. It also determined the factors that hinder Effective Domestic Energy Management Practices. (EDEMP) for the happiness of the individuals in the family. Two research questions and one hypothesis tested at 0.05 level of significance guided the study. The study adopted the descriptive survey research design. The study was carried out in Abia State of Nigeria. The population of the study comprised of 442, 693 households in the study area. The sample size was 400 households which were purposively drawn from the population. 30 other homemakers were drawn for the Focus Group Discussion (FGD). Questionnaires and FGD were used for data collection. The instrument was face validated. Cronbach alpha reliability coefficient index was used to determine the internal consistency of the instrument. The internal consistency yielded an overall coefficient of 0.89. Data were analyzed using mean for the research questions, while T-test and Anova were used to test the hypothesis at 0.05 level of significance. The Scheffes post Hoc test was used for comparison of means of items that were significantly different. The findings includes elasticity, kerosene, coal, charcoal among others and 22 factors that hindered effective domestic energy management practices for the happiness of the individual family members. Recommendations were made based on the findings of the study that when these factors are successfully handled domestic energy management will be easy and this will lead to the happiness of the individuals in the households and the larger society.

KEYWORDS: Factors, Domestic, Energy, Management, Practices and Households

PT_1223

Trend of Time Distribution of Married Workers in Korea, 1999-2014

First Author (Main Author)	Heekeum Cho (Daegu University)	Republic of Korea
Co-Author(s)		
Presenting Author	Heekeum Cho (Daegu University)	Republic of Korea

The purpose of this study was to analyze the trend of work-life time distribution of married workers during fifteen years(1999-2014) by day of week and gender. Data were used KTUS(Korean Time Use Survey) of each year. Samples were married workers who were from the ages of 20s to 60s.

First, overall, paid work time of married workers was decreased, essentials for living time increased, and leisure time and household work time decreased slightly during fifteen years.

Second, there were not big changes during the weekdays in 15 years, however paid work time, household work time, and leisure time were decreased slightly and essentials for living time increased slightly. On Saturday, paid work time of married workers was greatly decreased and leisure time and essentials for living time increased. On Sunday, paid work time was also greatly decreased and household work time and leisure time increased slightly, but essentials for living time greatly increased. As a results, decreasing of paid work time led to increasing of essentials for living time during last fifteen years.

Third, there were big differences between work-life time distributions of married male workers and those of married female workers. Married male works had more paid work time and less household work time than those of married female workers, however married female workers had more total work time than that of married male workers. Paid work time of married male workers was decreased, household work time increased slightly, and essentials for living time increased greatly. Total work time of married female workers was decreased and leisure time and essentials for living time increased during last 15 years, so the work-life balance of married female workers in 2014 was better than that of in 1999.

PT_1258

Fandom as Consumer Activism: Profiling the Consumption Behaviors of the Gen-Y Females Fascinated with Younger Male Idols

First Author (Main Author)	Suhyoung Ahn (Yonsei University)	Republic of Korea
Co-Author(s)	Suyeon Kim (Yonsei University) Ae-Ran Koh (Yonsei University)	
Presenting Author	Suhyoung Ahn (Yonsei University)	Republic of Korea

Fandom is a significant cross section of contemporary Korean consumer culture, as a social phenomenon and cultural practices. Numbers of negative aspects of female fandom had been widely discussed in previous studies, but this study addresses the research gap by exploring the fan behavior among the millennial female fandom associated with their consumption culture.

Subjects of this study are 25 to 35-year-old Gen-Y women born in 80s and 90s, having fandom experiences previously for a decade ahead and are grown to take more influential roles in fandom society. Most of them have achieved financial independence and they are also characterized as children of affluent baby boomer parents and raised in a highly commercialized culture mostly exposed to the mass media and the material consumerism. The researchers have involved in EXO fandom community and observed to conduct in-depth interviews with 10 selectively chosen participants identified as Gen-Y women who enthusiastically attend the fan conventions and activities. Interviews were conducted from Sep. 2015 to Dec. 2015.

Female Gen-Y's consumption behaviors in EXO fandom were majorly categorized into the following four characteristics. First, attraction toward the idols were connected to their consumption on the products and services that they wore or even mentioned. Financial ability of these young adult fans enabled them to nurture and activate their interests in active cultural consumption and activities. Second, participants considered themselves as a fosterer rather than consumer of mass culture. Participants tended to think that they contribute to their group's success with their consumption on idol-related products.

Third, the hyper-real experiences were found as an escape from reality sometimes. Participants tended to recreate the image of their beloved idols as a representation of their desire in the fantasy world. Active consumers of fandom reassembled and elaborated the image of their idols with their own desire represented, and then consumed their own mirror image.

Fourth, participants tended to conceal their fan identity to the ordinary others who are not involved in fandom, called "muggles". Not free from the social pressure of age-appropriateness, they completely covered the fact that they were a fan of a male idol who are younger than them.

The findings confirmed that the millennial female fandom took an

active roles rather than passive consumer behavior facing the social pressure. Active consumerism brought the fandom into the forefront of the astute, tech-savvy, fashion-forward consumer culture.

PT_1501

Consumer's Perception on Korean Traditional Fermented Soybean Products, 'Jang' and Service in Small Soybean Production Company

First Author (Main Author)	Eun Mi Ahn (National Institute of Agricultural Sciences)	Republic of Korea
Co-Author(s)	Yangsuk Kim (National Institute of Agricultural Sciences) Jin-young Lee (National Institute of Agricultural Sciences) Young-hee Park (National Institute of Agricultural Sciences) Young Kim (National Institute of Agricultural Sciences)	
Presenting Author	Eun Mi Ahn (National Institute of Agricultural Sciences)	Republic of Korea

Domestic markets for traditional foods are increasing, but the growth rate is gradually downward trend because of low preference of younger generation for traditional foods and higher price. Further, value creation of a farm-scale producer is low due to lack of customer management and service mind. In this study, we conducted online survey targeted 150 consumer who have experienced purchasing traditional fermented soybean product, "Jang", from farm-scale producers. The contents of the questionnaire was structured as follows: demographic characteristics, purchasing route, their critical factors on purchasing, merits and demerits in purchasing of products, and the usefulness of web sites. Most of the subjects were middle-aged housewives and were middle class living in the metropolitan area. They've purchased at least once, 'Doenjang', 'Gochujang', 'Cheongukjang', and 'Ganjang' in order. Important certificates on purchasing 'Jang' were 'HACCP', 'excellent agricultural product management certificate', 'organic food certification', 'traditional food certification', 'master/traditional food quality certification', and 'processed food KS certification' in order. Major purchasing route were 'acquaintance' 'internet', 'leaflet', and 'publicity in the media' in order. In terms of producers' service, they gave highest score to the awareness of 'safety and quality', but gave lowest score to 'individual attention to customer'. The critical factor of purchasing traditional 'Jang' was 'raw ingredients and quality of product' and The merits were 'safety intake of food'. They seldom visit the web-sites, but they responded that it was helpful in making purchase decisions. As a results, consumers were satisfied with quality and safety of the products, but were not satisfied with price or services. Consumer services are considered as critical factor in current marketing practices. Therefore, producers should be focused customer management to success their business.

PT_1516

Exploratory Study on User Acceptance of New Technology: The Case of Wide Field of View (WFOV) Video

First Author (Main Author)	Su Youn Kim (Seoul National University)	Republic of Korea
Co-Author(s)	Jihyun Yoon (Seoul National University) Jong-Youn Rha (Seoul National University) Yongju Cho (Realistic Broadcasting Media Research Department, ETRI) Jeongil Seo (Realistic Broadcasting Media Research Department, ETRI) Hye-gyoung Koo (Chungnam National University) Hua-Yu Li (Seoul National University) Chaein Han (Seoul National University)	
Presenting Author	Jong-Youn Rha (Seoul National University)	Republic of Korea

AIM
Home environment is going through tremendous changes with the introduction of new technology including screens that provide more immersive view such as 3D, UHD or panoramic screens. For a technology to be successful in providing value to consumers, it is imperative that the technology is comfortable from consumers' perspective. This study was conducted to investigate user acceptance of Wide Field of View (WFOV) video by the change of screen.

METHODS
We recruited 32 college students in their early 20s with visual acuity of 0.7 or more and no video expertise. First, we investigated participants' acceptance by analyzing their immersion experiences for four screen(S) sizes S1 (4k x 2k); S2 (5k x 2k); S3 (6k x 2k) and S4 (8k x 2k). Second, we evaluated user preferences for WFOV video (8k x 2k) to UHD video (4k x 2k) by absolute and relative preferences. We analyzed the effect of video contents on acceptance by screen with four different contents.

RESULTS
First, the average immersion scores by screen size were 3.18(S1), 3.62(S2), 3.86(S3) and 4.08(S4) respectively, which differed significantly (p=0.001). The S4 showed a significantly higher immersion than other screens. Second, the average preferences for WFOV were higher than UHD, in terms of 'excitement' (4.00 vs. 3.76; p = 0.071), 'overall satisfaction' (4.03 vs. 3.60; p = 0.006), 'intention to see more' (3.90 vs. 3.37; p = 0.001), 'intention to recommend' (3.86 vs. 3.29; p = 0.002), 'intention to use' (3.83 vs. 3.27; p = 0.002), which differed significantly except in 'excitement'. In addition, 51.6% of the respondents appeared to prefer the WFOV to UHD video. The video contents appeared to significantly affect both user immersion and preference.

CONCLUSION

WFOV video screen size had a significant impact on user acceptance in terms of immersion. In particular, user acceptability for S4 with the widest field of view was the largest. Overall user preferences for WFOV video were higher than for UHD video. We suggest that appropriate video contents as well as diversification of participants should be considered to enhance reliability and validity in future research.

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PT_0981

The Usage of Mass Media on Increasing Total Fertility Rate in Korea -Focused on TV Child Care Programs-

First Author (Main Author)	Jeonghee Kim (Andong National University)	Republic of Korea
Co-Author(s)	Hyeonwoo Do (Korea University, Business School)	
Presenting Author	Jeonghee Kim (Andong National University)	Republic of Korea

AIM

The significant decline in total fertility rate is becoming a growing problem in Korea recently; it dropped from 1.52 in 1997 to 1.19 in 2013. It is imperative that necessary steps should be taken to remedy this situation, yet numbers show that there's a critical failure in current government policies to do so, and the ways of promoting them are less than effective. Interestingly, while it is clear that more people are losing interest in giving birth to and raising their own child, their interest in TV child care programs - entertainment shows in which celebrities show how they raise their children - seems to be enjoying booming upturn in Korea these days. Such contradicting yet closely related phenomenon can be utilized together to solve the issue.

METHODS

1. Three separate focus group interviews (FGI) were conducted on unmarried female undergraduate students and staff, both in their 20s, from A university in Korea. Each session was held with 6 participants.
2. The participants were first shown materials on Korean government's current policy to boost total fertility rate and how the government promote such policy. Then they were shown video clips from TV child care programs in Korea that illustrate both positive and negative side of giving birth to children and raising them.
3. The participants were asked questions on how they felt about each material; they were told to discuss about how persuasive each material was and if the materials changed their perspective on giving birth to and raising children.
4. The participants were shown a video clip that utilized scenes

from TV child care programs to promote government policy in Korea. They were asked if such method would help to increase effectiveness on promoting the policy.

RESULTS

FGI results were as follows;

- 1) The participants agreed that the current government policy to boost total fertility rate was not enough. They especially thought that financial incentive such as government subsidy was a nice try, yet too small and too hard to get.
- 2) The participants said that the government's current ways to promote its policy lacked effectiveness and persuasiveness; mainly because they were too unilateral and unrealistic.
- 3) Most participants had negative perspective on giving birth to and raising children in the beginning, yet after watching TV child care programs they showed temporary change in their perspective. Similar change in perspective followed after watching the video clip that utilized scenes from TV child care programs to promote government policy.
- 4) The participants pointed out that while TV child care programs had positive effective on them, such programs needed improvement; they couldn't appreciate them as such programs were focused on the 'high lives' of the celebrities and lacked actualness.

CONCLUSION

While the participants negatively reacted to giving birth and raising their own children in the face of real-life issues, the effectiveness of TV shows to change their perspective - even temporarily - and encourage them to act was clearly present. It is possible that utilizing TV shows with highly positive reputation in public campaign for boosting total fertility rate can be a start to accumulate quick and effective results. As the research lacks implications on long term basis, follow-up studies are necessary to see the effectiveness of utilizing celebrity children on changing people's perception on childbirth in the long run.

PT_1512

Intergenerational Transmission of Parental Support Behavior for Young Adult Children

First Author (Main Author)	Heejin Choi (Seoul National University)	Republic of Korea
Co-Author(s)	Gyounghae Han (Seoul National University) Eileen Malone Beach (Central Michigan University)	
Presenting Author	Heejin Choi (Seoul National University)	Republic of Korea

In this study, we ask whether intergenerational transmission of parental support providing behavior exists for children. Specifically, we examined whether the level of financial support G2 received from

G1 in their young adulthood affects the current financial support G2 provided to their adult children (G3). The level of financial support for college education, for wedding and housing expenses, and for child-birth related expenses were used respectively to measure the parental financial support behavior during a transition to adulthood.

Data were collected from middle-aged parents with at least one married child (N=639). Dependent variables were the level of financial support G2s provide to G3s while the main independent variables were the financial support G2s received from their parents (G1s) in each type of support. Frequencies, percent proportions, means, and OLS regression were used for the analysis. Sociodemographic characteristics of G2s and G3s were included as control variables.

Results show that G2s who had received higher levels of financial support for wedding and housing expenses from their parents (G1s) provided more support to their adult children (G3s) for wedding and housing expenses (b=0.196, p<0.001), even after controlling for resources that G2s currently have. Also, G2s who had received more financial support for child-birth related expenses from parents tended to give more financial support for their children's (G3) transition to parenthood (b=0.387, p<0.001). However, the intergenerational transmission linkage was not found for providing support for educational expenses; almost all the G2s provided support to G3s for the college education even if they had not been supported for college education from G1s.

In sum, results of this study show that the parental support behavior not only springs from current resources but also derives from past experiences with the family of origin. In conclusion, this study supports the intergenerational transmission hypothesis of parental support behavior.

PT_1634

The Effects of School Adjustment on Depression of Male and Female Adolescents from Low Income Families

First Author (Main Author)	So Chung Oh (Yonsei University)	Republic of Korea
Co-Author(s)	Hye In Jang (Yonsei University) Ju Hee Park (Yonsei University)	
Presenting Author	So Chung Oh (Yonsei University)	Republic of Korea

INTRODUCTION

Adolescence is a developmental period characterized by an increase in the prevalence of emotional problems including depression (Rohde, Lewinsohn, Klein, Seeley, & Gau, 2013). Researchers have noted that adolescents with economic adversity were more likely to have depressive symptoms than those without it (Jackson & Goodman,

2011; Park et al., 2015). This might be because parents under family economic pressures tend not to show high quality of parenting practices, parental involvement, and warmth toward their children (Lee, Jwa, & Lim, 2014). Given that adolescents spend greater time in school than at home, a high level of school adjustment can serve as buffer factors against depression of adolescents, particularly those who might have limited supports from their family. The current study aimed to investigate whether five important dimensions of school adjustment (participation in learning, compliance with school rules, peer attachment, teacher attachment, and academic achievement) influenced depression of adolescents from low income families. In addition, previous research suggested that there have been significant gender differences in the prevalence of depression (Conley & Rudolph, 2009) as well as expectations of school performance. Thus, we also examined if the effects of school adjustments on depression in adolescents from economic disadvantages differed in male and female adolescents.

METHOD

The participants of this study consisted of 115 Korean adolescents who were at high schools from the 2012 panel seventh data of the Korea Welfare Panel Study (Korea Institute for Health and Social Affairs & Seoul National University, 2012). The scales used for this study were 7 questions of the CBCL (Child Behavior Checklist; Achenbach & Edelbrock, 1983) for adolescents' depression and 20 questions for five dimensions of school adjustment (participation in learning, compliance with school rules, peer attachment, teacher attachment, and academic achievement). The data were analyzed by means of descriptive statistics and hierarchical multiple regressions including the grade as a control variable.

RESULTS

The result indicated that different dimensions of school adjustment explained depression in male and female adolescents from low income families. That is, peer attachment ($\beta = -.62, p < .001$) and compliance with school rules ($\beta = -.54, p < .001$) had negative impacts on male adolescents' depression whereas the level of participation in learning ($\beta = -.38, p < .05$) negatively influenced female adolescents' depression. In contrast, both peer attachment and teacher attachment had no significant effect on their depression.

CONCLUSIONS

The results of this study revealed that the influences of school adjustment on depression for adolescents from economic adversity differed by gender. It would be possible that important indicators for school adjustments are different for boys and for girls: having few behavior problems regarding rule-breaking and positive relationships with peers for boys and adjustment active participation in learning for girls. These findings suggested that promoting school adjustment of adolescents from low income families would prevent or decrease their depression and that it is necessary to address the depression of adolescents with economic disadvantages in a different way by gender.

PT_1864

The Reality and Awareness of Economic Preparation for Old Age - Targeting Senior Citizens over 65

First Author (Main Author)	Hye Ji Min (Sookmyung Women's University Graduate School)	Republic of Korea
Co-Author(s)	Su Jung Lee (Sookmyung Women's University Graduate School)	
Presenting Author	Hye Ji Min (Sookmyung Women's University Graduate School)	Republic of Korea

As Korea rapidly enters into the super-aged society, problems of the elderly poverty grow severer. Particularly, as familism weakens due to the phenomenon of nuclear family, the awareness of supporting parents as well as the intimacy between family members has reduced and the recognition that the social supporting, not by family, is necessary is getting higher. Thus, this study will discuss measures of resolution for the elderly economic poverty, through the reality of economic preparation of those over 65 and their economic activities.

To investigate the reality and awareness of the elderly economic preparation of Korea, this study researched the reality with statistics of DB constructed by the Ministry of Health and Welfare for 3 years, from 2011 to 2014. As for the research method, the frequency analysis was conducted to investigate the reality of the elderly economic activities and satisfaction of their economic state, and AHP (Analytic Hierarchy Process) to investigate the order of priority of the reasons they worked.

The major results of the study are as follows: First, as a result of analyzing the reality of economic activities of those over 65, the answers were: I am hired now (28.9%); I was hired in the past, but not now (60.4%); I have never been hired (10.7%). The answers show only less than 30% of respondents are hired now. Second, as a result of investigating kinds of jobs in which the elderly were employed, the rates of simple laborers (36.6%), the experienced workers in agriculture, forestry and fishery (36.4%) were highest, followed by service workers (5.5%) and sales persons (3.6%). Third, as a result of investigating the order of priority of the reasons they worked, economic reasons were overwhelming, in the order of 'to make a living' (79.3%) and 'to make their pocket money' (8.6%). Fourth, the analysis of the ideal methods for preparing living expenses of their old age showed 'by themselves and the social security system (34.3%)', 'by themselves (31.9%)', 'by the social security system (18.6%)', 'by children (7.9%)', and 'by themselves and children (6.9%)'. Fifth, as for the satisfaction of their economic state, 'not satisfied (43.6%)', 'so-so (30.8%)', 'satisfied (14.5%)', 'not satisfied at all (10.3%)' and 'very satisfied (0.7%)', in the order.

This study can be used as the basic data needed for establishing various policies through investigation into the reality of senior citizens' preparation for their old age. It is demanded to expand jobs for senior citizens in quantity and quality and to promote continuation of their

employment as the top priority in the aged society, such as providing opportunities of employment in various kinds of jobs and creating new jobs considering characteristics of professional occupations as well as giving them benefits of the realistic social security system. Senior citizens' positive participation in society is also expected to make them escape from their economic poverty and meet their healthy old age.

PT_1904

Needs Assessment of Father Education Programs

First Author (Main Author)	Seohee Son (Sookmyung Women's University)	Republic of Korea
Co-Author(s)	Jihye Cha (Sookmyung Women's University) Yeo Kyung Park (Sookmyung Women's University)	
Presenting Author	Seohee Son (Sookmyung Women's University)	Republic of Korea

In order for fathers to benefit from father education programs in Healthy Family Support Centers, the programs must be structured based on the fathers' program needs. The purpose of this study was to examine the program needs of fathers including the content and structure of programs. All 866 fathers who had participated in the father's education program in Healthy Family Support Centers in Seoul were recruited for the survey between May and November, 2015. Questions about the fathers' preferences were included. The results are as follows. Fathers were interested in participating in the father's education program, although fathers not already involved in the programs were not part of this study. Regarding the content of the program, the fathers were interested in "ways to be a good parent" and "leisure activities with my child." In terms of the structure of the program, they preferred a small class size with only 11-15 people and they preferred to attend the programs on Saturday mornings. In addition, the fathers preferred two sessions with one and half hour per session. Effective strategies that encourage fathers to participate in the father education programs are discussed.

Key words: father's role, father program, needs assessment, Healthy Family Support Center

PT_1928

An Exploratory Study on Consumer Delight through Product Element Experiences of a Smartphone

First Author (Main Author)	Kee-Ok Kim (Sungkyunkwan University)	Republic of Korea
Co-Author(s)	Jun Young Park (Sungkyunkwan University) Jae-Hye Suk (Sungkyunkwan University)	
Presenting Author	Kee-Ok Kim (Sungkyunkwan University)	Republic of Korea

The purpose of this study was to investigate product element experiences of smartphones, overall affects caused by them, and the effects of product element experiences and affects on consumer delight in order to further understand contemporary consumers who yearned for emotional, sensible, and creative experiences.

An on-line survey was conducted with 345 male and female smartphone users in twenties through forties in Korea. Smartphones not only offer technology-intense functions, but also promise a variety of affects in daily lives. The SPSS Win 21.0 was used for reliability, validity, and statistical analyses. The AMOS 18.0 was used to analyze the confirmative validity, the causal relations, and the size of influences among variables. The summary research findings are as follows:

First, of the 33 product element experiences of smartphones, camera functions, camera resolution, display size, and display sharpness turn out to provide unexpected and surprisingly wonderful experiences. The exploratory factor analysis with the 33 items reveals that the product element experiences are categorized into five: contents/service, functionality/practicality, video/image quality, sense/aesthetics, and battery/voice.

Second, an exploratory factor analysis with nine affects produced by product element experiences divides those affects into two: calm affect and activated affect.

Finally, the effects of product element experiences and affects produced by the experiences on consumer delight were tested with a structural equation model. As a result, all the paths of product element experiences, calm affect and activated affect, and consumer delight are significant. There are direct, indirect, and total effects among the latent variables of the structural equation model.

Based on these findings, this study reached the following conclusions: First, technical products such as smartphones provide various product element experiences arousing many types of affects and, consequently, consumer delight which is above the level of consumer satisfaction. This implies that not only services but also products can raise the level of consumer delight and, ultimately, consumers' well-being, so that product developers need to put more efforts in designing products with not just functional oriented perspective but with mind touchable perspective.

Secondly, highly activated level of affects from product element

experiences can provide more consumer delight, which means that various product elements can arouse activated affects and eventually consumer delights. This implies that product elements directly influencing consumer delight should be carefully considered in product design for contemporary consumers' happy lives.

PT_1930

Do Contemporary Consumers Have Intentions of Participating in Collaborative Consumption?

First Author (Main Author)	Kee-Ok Kim (Sungkyunkwan University)	Republic of Korea
Co-Author(s)	Jee Hye Kim (Sungkyunkwan University) Jae-Hye Suk (Sungkyunkwan University)	
Presenting Author	Kee-Ok Kim (Sungkyunkwan University)	Republic of Korea

The purpose of this study was to investigate determinants of collaborative consumption among Korean consumers, to encourage them to have interests and intention of participating through both roles of providing and using collaborative consumption, and, finally, to provide information for consumer education and consumer policies.

The data for this study were collected from 265 consumers in 20s through 34 from June, 8th to June 9th, 2015. SPSS Win 18.0 was used to analyze reliability, validity, descriptive statistics, and regression analysis.

The summary of the findings are as follows:

First, 42.6% of consumers had participated in collaborative consumption either as providers or as users in the past. The most frequent items of collaborative consumption were books, clothes, knowledge, and travel information.

Second, majority of consumer revealed intention of participating in collaborative consumption; 89.8% were revealed their intention as providers and 92% as users. Those with high education, previous experiences in collaborative consumption, and long hours of SNS usage tend to reveal more intention of participating in collaborative consumption. The most frequently expressed reasons of avoiding collaborative consumption as providers were possibilities of disorder of their belongings and inconvenience of trading with unknown consumers, while those as users were preference of possessiveness rather than sharing with others and inconvenience of trading with unknowns.

Third, determinants of collaborative consumption intention were perceived benefits, subjective norm, abilities of IT, and abilities of pro-social behavior. Among them, perceived benefits and abilities of pro-social behavior highly influenced consumers' intention of participating in collaborative consumption.

PT_1931

Do Consumers Have Two Minds? -A Literature Review on Dual-Process Theory-

First Author (Main Author)	Jae-Hye Suk (Sungkyunkwan University)	Republic of Korea
Co-Author(s)	Kee-Ok Kim (Sungkyunkwan University)	
Presenting Author	Jae-Hye Suk (Sungkyunkwan University)	Republic of Korea

Traditionally, the ultimate goal of consumer education tends to focus on enhancing consumers' rational decision making capabilities. In the academic field of consumer science, utility maximizing rational decision making is treated as good and promising concept to be adopted in almost every consumer's daily decision making. However, contemporary consumers tend to involve in much emotional and instinctive decision making. From the traditional academic perspective, these are treated as irrational and to be fixed with consumer education.

Dual-process theory insists that there are two distinct systems in human thinking. Consumers are not simply utility-maximizing individuals (Russell 2008), but instinctive and emotional individuals. Cognitive scientists have proposed strong claim that there are two quite separate cognitive systems (Evans 2003). The dual-process of reasoning is evidenced by the wider application to decision making (Gilovich & Griffin 2002).

This study reviews wide literature on this dual-process theory. Stanovich and West (2000) distinguished the two systems, sometimes expressed as System 1 and System 2, or as intuition versus reasoning. System 1 processing is described as rapid, parallel, automatic, effortless, associative, slow learning, and emotional in nature. On the other hand, reasoning process in System 2 is described as slow, serial, controlled, effortful, rule governed, fast leaning, and make use of the central working memory system (Baddeley 2000; Gathercole 2003). Information processing in the two systems is assumed to differ from basic perceptual processes (Evans 2003). The outputs of System 1 may be described as intuitive impression; the outputs of System 2 are judgments that can be based on deliberate reasoning. Despite consumer has limited capacity of recognition and slower speed of operation, System 2 permits hypothetical thinking that cannot be achieved by System 1 (Bertram & Laura 2013). Thus there is no intuitive response is generated by System 1, judgments and behavior are entirely computed by System 2.

This study provides theoretical background for consumer education and, further, the field of consumer science, to help consumers not just in their rational reasoning, but in their effective intuition process. This study also gives clues for shifting conservative rational perspective of scientists in this conference of IFHE, from rational reasoning to emotional intuition processing.

PT_0539

Increasing Possibilities for Home Economists as Entrepreneurs in the Community : Learning from NPO Management

First Author (Main Author)	Atsuko Yamaguchi (Sugiyama Jogakuen University)	Japan
Co-Author(s)		
Presenting Author	Atsuko Yamaguchi (Sugiyama Jogakuen University)	Japan

How can we help the community using home economics? One freelance home economist and some mothers tried to set up NPO and did volunteer work to predict people's needs in everyday living, create projects to help our community, and improve the well-being of individuals and families. Some cases of our activities were already reported in IFHE Council 2014. This time, we will focus on the discussion of benefits and difficulties faced in the management process and the possibilities of home economists as entrepreneurs in the community.

We made a volunteer group in February, 2013 in Toyohashi, Japan. Talking with some mothers on their thoughts and needs in everyday life triggered our action. We arranged many programs from 2013 through 2014 from funds we received from the local government. We used a vacant store in the shopping district to operate out of. For example, we arranged some programs there such as seminars on child development and bullying for families and teachers, an integrated learning activity in the shopping district on "How we can contribute to our community" for Junior High School students, and an international exchange program through ICT for after school students and teachers.

Through managing these activities, I noticed there are various problems and needs of the people and schools (e.g., the stress of isolated nuclear family, better program for students to experience active learning in real community) which don't get filled by the government and corporations. This may show the importance of NPO. There were many difficulties to keep NPO running (e.g. how to build the better system to manage lack of fund and people, limitation of volunteer work). Also I felt that home economists as entrepreneurs in the community who are trained have many possibilities to improve quality of life for individuals, families, and communities.

PT_0589

Effects of Japanese Husbands' Participation of Household Work/Child Care on Their Wives' Intension to Bear Children

First Author (Main Author)	Keiko Takahashi (Jissen Women's University)	Japan
Co-Author(s)	Sayaka Nakashima (Toyama Daiichi Bank)	
Presenting Author	Keiko Takahashi (Jissen Women's University)	Japan

BACKGROUND & OBJECTIVE

Previous literatures which focus on the determinants of husbands' participation of household work /child care and of wives' intension to bear children have been accumulated, but little has done on this study by building a process model. The purpose of this paper was to examine the effects of Japanese husbands' participation of housework / child care on their wives' intension to bear children by employing path model.

METHODS

The data was collected through questionnaire survey, targeting parents with a child/children under 6 years old in August, 2014, Niigata Prefecture. The majority of this participants were as follows: average age was 38.2 years for husbands, and 36.1 years for wives, and the ratio of full-time employees was 69% and 36% respectively.

RESULTS

Path analyses have revealed that husbands' participation of both household work and child care have statistically significant negative effects on wives feelings of burden, and only the feeling of burden on household work has a statistically significant negative effect on wives' intension to bear children. This results suggest that the significant of promoting to participate fathers' household work without giving a feeling to their wives as nuisance but as useful help. In the future, we have a plan to test this path model by nationwide survey.

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PT_0591

Time Management Strategies of Selected Mother Entrepreneurs

First Author (Main Author)	Janielyn Taguba (University of the Philippines)	Philippines
Co-Author(s)	Consuelo Chua (University of the Philippines)	
Presenting Author	Consuelo Chua (University of the Philippines)	Philippines

The study examined the time management practices of selected mompreneurs (mother entrepreneurs) in relation to childcare and business-related activities. Specifically, the study determined - the problems encountered by mompreneurs in balancing time between childcare and business-related activities; the strategies they utilized in order to balance the two activities; and the relationship between their satisfaction with the amount of time they spent for child-related activities and business-related tasks.

Sixteen mothers from Metro Manila, Philippines who owned a home-based business were chosen purposively to participate in the study. Data were obtained through in-depth interviews and survey questionnaires; and was analyzed using descriptive statistics, Spearman's rho correlation, and content analysis.

The findings revealed that the mompreneurs spent an average of 40 hours per week for childcare-related activities. On the other hand, they spent less than 30 hours per week for business-related activities. The most common problems faced by the mompreneurs involved dividing time between child-care and business-related tasks; and dealing with unexpected events. On the other hand, the most common time management strategies that they employed included scheduling, multi-tasking, planning, and work simplification. The mompreneurs were generally more satisfied with the amount of time spent for childcare-related activities than for business-related activities. Finally, the study showed that there is a positive direct relationship between the mompreneurs' satisfaction with the amount of time spent for childcare activities and their satisfaction with the amount of time they allocated for business-related activities.

PT_0635

Practice and Evaluation of the Father-Child Camping Program for the Reduction of Childcare Anxiety among Mothers

First Author (Main Author)	Masae Shouho (Fukuyama City University)	Japan
Co-Author(s)	Shinji Imakawa (Hiroshima University) Michinori Hirata (Hiroshima University) Naomi Tamaru (Hiroshima Cosmopolitan University) Makiko Yaegashi (Fukuyama City University)	
Presenting Author	Masae Shouho (Fukuyama City University)	Japan

Features of the modern family, which has become more common around the 1960s in Japan, are the following.

1. The nuclear family due to the increase of working families.
2. The collapse of the life community that subsumes life functions remained undifferentiated.
3. Externalization and individualization of the family function.
4. The gender role division of labor (man to work outside, woman to the housework at home).

In order to consider the mothers' stress and the assistance related to childcare, we carried out a questionnaire survey. It has revealed that what and how mothers have parenting stress, and the mothers were trying the various kinds of refreshment. Mothers were trying to talk to mothers with children in the same age for their refreshment and they go shopping to get refreshed.

We have designed a program to reduce the childcare anxiety among mothers since 2008, and have attempted to analysis by questionnaire survey and semi-structured interview for its effect. From the results of the talks of the mothers, it would be said that the perception and actual ability to childcare and housework of their husband have had a great influence on the anxiety score of the mothers.

In consideration of this result, we designed and practiced a program that the fathers stay out with their child (away with the mother) and play with, make meals with the child in 2013, including lectures for the father. We carried out pre- and post-questionnaires to participated fathers to the program and follow-up questionnaire to the mothers waited at home, and are analyzing those data. It is considered to have been effective, but it is difficult to continue the program.

PT_0706

High-School Students' Learning Experience about Infants' Characteristics and Child Abuse

First Author (Main Author)	Masako Kawashima (Kanagawa Institute of Technology)	Japan
Co-Author(s)	Mika Shishido (Kanagawa Institute of Technology) Kyoko Kubo (Kanagawa Institute of Technology)	
Presenting Author	Masako Kawashima (Kanagawa Institute of Technology)	Japan

AIM

This study aimed to clarify to what extent high-school students had learned infants' characteristics and child abuse.

METHODS

A workshop titled "Safe way of taking care of babies - to prevent shaken baby syndrome (SBS) -" was held for 23 high-school students who were interested in nursing. After the workshop, an anonymous, self-administered questionnaire survey was conducted.

RESULTS /FINDINGS

Twenty-two questionnaires were collected. As for the understanding degree of the lecture, 19 answered, "comprehensible"; and three, "slightly comprehensible." As for the degree of interest, 19 answered, "felt an interest"; two, "felt a little interest"; and one, "felt not much interest." Concerning the learning experience about babies' characteristics, 12 answered "had learned in junior high school"; one, "had learned in high school"; and four, "had learned, but not remember when." Concerning the learning experience of a method of giving a baby a cuddle, seven answered, "had learned in junior high school"; one, "had learned in high school"; five, "had learned, but not remember when"; and three, "had not yet learned." As for the learning experience about child abuse, one answered, "had learned in junior high school"; five, "had learned, but not remember when"; and five, "had not yet learned." As for recognition of the SBS, one answered, "had already recognized"; seven, "had heard of the term"; and 14, "have just known about SBS this time."

CONCLUSIONS

The results showed that the degrees of understanding and interest in the lecture were generally satisfactory. Most of the high-school students had already learned infants' characteristics and how to give a baby a cuddle in classes of junior high school. Most of the students had learned the child abuse, but only one student recognized the SBS. The SBS is a typical child abuse observed in infancy. To learn these themes early is considered contributory to child abuse prevention.

PT_0719

What Home Economics Can Do for a New Society with Diversity

First Author (Main Author)	Yuri Nakajima (Nagasaki University)	Japan
Co-Author(s)	Satomi Terasaki (Hosei University)	
Presenting Author	Yuri Nakajima (Nagasaki University)	Japan

This presentation aims to figure out what problems the way of disaster prevention and disaster education in Japan hold and to rethink what home economics can do for the education. Recently, disaster risk has been increasing; for example because of natural hazards frequently occurred such as earthquakes and volcanic eruptions, and human-induced environment destruction. In a time of such disasters, the vulnerable as women, foreigners, the elderly, and the disabled are more easily and strongly exposed to risk. In Japan, academic studies on the Great Hanshin-Awaji Earthquake in 1995 have pointed out the vulnerability of these people.

We conduct document analyses on the Courses of Study designed by the Ministry of Education (MEXT) and other national and local government documents regarding education and disaster prevention, especially established by twenty major cities in Japan. Since Japan has always confronted the possibility of earthquake, disaster prevention appears in the Courses of Study in a fashion. Although schools usually conduct emergency exercises as special activities, disaster education has not been associated with subject education. Moreover, the disaster education has not given consideration to the diversity of victims. Also, it has ignored the lives of victims. In conclusion, we, first, suggest the significance of new disaster prevention plans that embrace diversity in the level of local governments. In order to put the plans into practice, second, in school education, disaster reduction education from the perspectives of diversity should be included to cultivate citizens who recognize they themselves can be stakeholders in hazard. In these senses, the role of home economics becomes quite significant. Home economics could be the most appropriate subject for introducing the diversity and lives of victims.

PT_0768

Difference in Grandmotherhood and Grandmother's Capacity between Japan and China

First Author (Main Author)	Kyoko Kubo (Kanagawa Institute of Technology)	Japan
Co-Author(s)	Haihong Liu (Xizang Minzu University) Kiyomi Kuramochi (Tokyo Gakugei University) Mika Shishido (Kanagawa Institute of Technology) Masako Kawashima (Kanagawa Institute of Technology) Chieko Tazaki (Japan University of health Sciences) Yukiko Sakaguchi (Nihon Institute of Medical Sciences) Yuko Oikawa (Gunma University) Yoko Tone (Meguro University) Naoko Inoue (Meguro University)	
Presenting Author	Kyoko Kubo (Kanagawa Institute of Technology)	Japan

AIM

A survey was conducted to discuss the difference in grandmotherhood and grandmother's capacity between Japan and China as part of the study aiming to develop a grandchild-care support program by making efficient use of grandmother's capacity to support grandchild-care.

METHODS

A questionnaire survey.

RESULTS AND CONCLUSION

1 Factors of "Grandmotherhood"
Common to the Japanese and the Chinese grandmothers, two factors were extracted: "pleasure and relief brought after having a grandchild" and "restrictions on one's own life after having a grandchild." Both groups were found to recognize the state of being a grandmother in the same way.

2 Factors of "Grandmother's capacity"
Two factors extracted from the Japanese grandmothers were "to take general care of a grandchild and the grandchild's family" and "to dote on a grandchild like a pet," the latter meaning an emotional relation with a grandchild, including 'to play with a grandchild' and 'to buy clothes and toys for a grandchild.' On the other hand, two factors were extracted from the Chinese grandmothers: "to support for a grandchild" and "to help grandchild's family with general chores", specifically including 'to help grandchild's family with their

living expenses' and 'to take general care of a grandchild.' There is a difference in grandmother's capacity between the two countries. The Chinese grandmothers are found to be more specifically involved in grandchild-care. Although this study covered only the two countries, investigations into grandmothers' behaviors based on their life style and culture will be required when considering the relation with their grandchild, which leads to development of a better grandchild-care support program.

PT_0769

"Certified Child Care Center" National Survey

First Author (Main Author)	Yasuyo Minami (Nara Women's University)	Japan
Co-Author(s)		
Presenting Author	Yasuyo Minami (Nara Women's University)	Japan

The Government founded the "Certified child care center" as unified facilities of the kindergarten and day-care center in 2006. Enhancement of local child care support including the support to the full-time homemaker family having childcare burden can be expected. However, actually, in the non-depopulated with many waiting-list children of day care center, private kindergartens tend to promote transition to certified child care center because they want to improve the shortage of the children and management efficiency. I conducted nationwide questionnaire survey to the certified child care centers as of 2014, and shows differences between the urban area and the depopulated area, public and private institution considering 4 types. Looking at the results of "day-care center in Depopulated area public type", buses that runs less than 30-minute intervals is low. However, "unified facility with the kindergarten and day-care center" is 100%, "integration facility" 8.3%, "capacity of children is 200 children or less" 100%. In terms of fee, the both "kindergarten child care charges based on the public compliance" and "day-care child care fees based on the public compliance" is 91.7%. In addition, "bringing in children's lunch from trader and individuals" is 0%, and "all day joint-morning joint" is 100%. From the above results, "day-care center in Depopulated area public type" can be said appropriate environments to take care of children, and a model for establishment of certified child care center which is expected to increase in the future.

PT_0803

Childcare Career Enhancement -In-Service Training at Kindergartens and Nursery Schools-

First Author (Main Author)	Noriko Kanie (Utsunomiya Kyowa University)	Japan
Co-Author(s)	Masako Muro (Sugiyama Jogakuen University)	
Presenting Author	Noriko Kanie (Utsunomiya Kyowa University)	Japan

In Japan, the number of children who live in poverty or under abusive conditions at home, who are afflicted with allergies, or who are thought to suffer from developmental disorders is increasing. To nurture the growth of children bearing these difficulties, it is necessary to train highly motivated and skilled kindergarten teachers and childcare workers. Naturally a university education will lift the expertise of childcare specialists, but the potential for career enhancement also depends on their undergoing in-service training after they find work. So, for kindergarten and nursery school principals, kindergarten teachers, and childcare workers, the question is to what extent such training is necessary and how it can be practically implemented. Four findings became clear from our investigation: (1) Kindergarten and nursery school principals as well as active kindergarten teachers and childcare workers feel that in-service training is necessary. (2) Yet, securing the necessary hours for in-service training is not easy, and it is especially difficult at childcare facilities where aides work long hours due to a shortage of hands. (3) Since wages in this field tend not to rise, there is a poor incentive and flagging will to undergo in-service training even if doing so could enhance one's career prospects. (4) To stem the loss of new workers, many kindergartens and nursery schools enthusiastically strive to devise training programs for them. As many kindergartens and nursery schools struggle by trial and error with how to set up training programs, there is also the opinion that the cooperation and understanding of parents and guardians will be needed to secure training hours. To boost childcare-expertise levels and to prevent the outflow of talented people, it will be necessary to prepare effective in-service training programs while revising wage scales and labor hours.

PT_0804

How Do Japanese Children View Their Relationship with Their Family?

First Author (Main Author)	Masako Okano (IFHE)	Japan
Co-Author(s)		
Presenting Author	Masako Okano (IFHE)	Japan

AIM
Childhood development of children progresses through their interaction with family members through the human dynamics. This study examines how a child considers the interaction between the child and family members and what the child thinks about the family life.

METHOD
A one-on-one interview survey was conducted with 64 5-year-old children who attend a kindergarten in the Tokyo suburbs. The survey was conducted in November 2014.

RESULTS
We presented 5 illustrations concerning happy settings and unhappy settings in the relationship with the family then asked about how happy or unhappy they were in these settings. "The Happiest Setting" for more than half was "When my family bought me what I wanted", and "The Unhappiest Setting" for approximately 30% was "When I was left alone". We presented 4 illustrations, for example "When my family is tired" "When my family is sick" as a setting for them to perceive concerns for their family then asked about how they think and behave. We totaled the scores for the 4 concerns for the family, created "Scores for concerns for the family" and divided these into 3 groups (low, average and high scoring group). The low scoring group for concerns for the family had very low scores for happiness "When my family played with me" and "When my family listened to me". In addition, the scores for concerns for their family at times "When my family bought me what I wanted" had a higher percentage of responses with the low scoring group.

CONCLUSION
Children felt happy about getting something when the relationship with the family was weak, while children were perceived to be happy about settings where they shared their hearts such as when parents and children spent fun times together and the parents listened carefully to what their children were saying where there was a strong relationship with the family.

PT_0808

Study on the Effect of School Commuting Traffic to Children and Families -The Case of Hohhot in Inner Mongolia of China-

First Author (Main Author)	Da Man (Nara Women's University)	Japan
Co-Author(s)	Tooru Nakayama (Nara Women's University)	
Presenting Author	Da Man (Nara Women's University)	Japan

Since initiating market reforms in 1978, China has experienced rapid economic and social development. According to the National Bureau of Statistics of the People Republic of China that at the end of 2011 the number of private cars was 6240000 and it was 7.4 times of 2003. The rapid increase in car ownership especially ownership of private car become the main influencing factors of city traffic problems. At the same time the phenomenon of picking up children to and from school becomes more and more popular, resulting in an increasingly worsening of traffic situation in areas around schools, and making it taking long time for children to commute between home and school. This paper is to make clear that how the traffic congestion affect children and their families. The research method includes literature review, questionnaire, face-to-face interviews. Based on an analysis of the survey statistics. Firstly, it can be said that traffic congestion on child's commute to school takes big influence on their living time and lifestyle. Secondly, it becomes clear that picking up a child to and from school has influenced parents' work and their living time. Thirdly, because of the traffic congestion, a new kind of lifestyle of family which lives in rented house near school on weekdays and goes back to home at weekends is appeared. Furthermore, the economic pressures of these families are bigger than average families. Above all, the traffic congestion on child's commute to school affects almost of families and their daily life.

PT_0820

The Effect of Parental Attachment and Parents of Marital Relationship on the College Life Adjustment by Chinese Students in Korea: Focused on Mediating Effect of Dispositional Optimism

First Author (Main Author)	Yuan Zhu (Chung-Ang University)	Republic of Korea
Co-Author(s)	Jeongyun Park (Chung-Ang University)	
Presenting Author	Yuan Zhu (Chung-Ang University)	Republic of Korea

This study is about the college life adjustment problems of Chinese

international students, which is a hot issue currently in the context of increased number of Chinese international students. This paper examines how cognized parental attachment and parents of couple relationship influence college life adjustment and measures the mediating role of dispositional optimism.

253 Chinese international students participated this study. The data were collected through convenience sampling method. The data were analyzed by frequency analysis, factor analysis, t-test, ANOVA, multiple regressions analysis, Sobel Test via SPSS 18.0 program.

The results are as follows. Firstly, college life adjustment was assessed by 4 5-likert scales and the mean values of each item are as follows: academic adjustment: 3.14; social adjustment: 3.27; personal-emotional: 3.22; student adaptation to college: 3.71. The mean values of Parental attachment, parents of couple relationship and dispositional optimism were 3.34, 3.28 and 3.7 out of 5 points respectively.

Secondly, the results indicates that age have a positive effect on college life adjustment holistically; educational background have a positive effect on institutional attachment; and the purpose of studying abroad have a positive effect on academic adjustment and social adjustment.

Thirdly, the results of correlation analysis yielded a significant positive correlation between dispositional optimism and college life adjustment. Age, educational background, proficiency of Korean, along with cognized communication, faith, psychological harmony between couple and paternal role yielded positive correlation with college life adjustment. And alienation was negative correlation.

Fourthly, in order to investigate the relative influence of the variables that has an effect on student adaptation to college. student adaptation to college questionnaire 34.3%(F=8.262, p<.001). Age, alienation which is one of the lower factors of cognized parental attachment, paternal role and dispositional optimism have a positive effect on college life adjustment respectively, moreover, the alienation have the biggest impact among the aforementioned four related variable. Hence, Age, cognized alienation, paternal role and dispositional optimism could be the related latencies of college life adjustment.

Fifthly, the results indicate that the mediating effect of dispositional optimism (Z=3.607, p<.001) is statistically significant on the relationship of cognized parental attachment and college life adjustment. The results also indicate the mediating role of dispositional optimism (Z=3.525, p<.001) is statistically significant on the relationship between cognized parents of couple relationship and college life adjustment.

Based on the aforementioned results, In order to improve the college life adjusting ability of Chinese international student, not only stable parental attachment, but also the consciousness of cultivating autonomy and impendence as well as seeking method to improve filial personal optimistic cognition.

PT_0833

Associations between Adolescents' Perceived Negative Parenting and Mobile Phone Dependency: Testing Moderating Effects of Self-Regulated Learning and Self-Esteem

First Author (Main Author)	Yea-Ji Hong (Seoul National University)	Republic of Korea
Co-Author(s)	Hye-Ryung An (Seoul National University) Soon-Hyung Yi (Seoul National University)	
Presenting Author	Yea-Ji Hong (Seoul National University)	Republic of Korea

Ecological view of human development calls for an investigation of multiple contexts surrounding adolescents. In Republic of Korea, high academic achievement and recent technological advancements serve as influential social and cultural contexts that affect parent-adolescent relations and the development for adolescents. High levels of parental over-expectation, over-intrusiveness, or inconsistency, known as negative parenting, is exerted over strong emphasis on academic achievement and also affects to mobile phone usage. Although negative parenting plays a significant role in the developmental trajectories of Korean adolescents, the effect on their mobile phone dependency (MPD) has yet to be fully discovered. This study hypothesized that adolescents' self-regulated learning and self-esteem can act as moderators of the association between their perceived negative parenting and MPD. The study made use of the data from Korean Child Youth Panel Study (KCYPs) so the total number of 1,924 adolescents of 10th grade was included. Data were analyzed by hierarchical regression analyses. The study results revealed that there were no moderating effects of both their levels of self-regulated learning and self-esteem on relations between adolescents' perceived negative parenting and MPD. It confirmed that adolescents' mobile phone dependency may be affected by other variables than their own regulation in learning and personal psychological strength whereas high in self-regulated learning and in self-esteem itself, respectively exhibited poor outcomes in contexts of MPD. Although their parent-adolescent relationship can be interpreted in a negative way, their behavioral control using technological device can be prevented from with the help of peer group attachment or emotional support. Related to this issue, implications will be discussed further.

PT_0837

Testing Moderating Roles of Self-Efficacy and Co-parenting Alliance on Marital Satisfaction among Korean Fathers and Mothers

First Author (Main Author)	Yea-Ji Hong (Seoul National University)	Republic of Korea
Co-Author(s)	Hye-Ryung An (Seoul National University) Soon-Hyung Yi (Seoul National University)	
Presenting Author	Yea-Ji Hong (Seoul National University)	Republic of Korea

Regarding the family stress model, it has been proposed that the experience of psychologically stressful events would undermine individual well-being and family functioning through the strains or pressures they create in daily living. Parenting does not come all at once, and parenting requires time and energy. It demonstrated that parenting stress may led to problems in adult functioning that result in less involved and nurturant child rearing. I propose that parenting stress will be associated with negative marital satisfaction for both fathers and mothers, and it may impede effective child-rearing. Therefore, it is necessary to examine parenting correlates in depth, acting as buffer in association between parenting stress and marital satisfaction. The primary goal of the present study was to examine the moderating effects of self-efficacy and co-parenting alliance on the relation between parenting stress and marital satisfaction for both Korean mothers and fathers. Data was conducted using the Panel Study of Korean Children, with a sample of 1,560 mothers and fathers of children aged from 48 to 54 months, and it was analyzed by hierarchical regression analyses. Findings indicated that there were no moderating effects of both self-efficacy and co-parenting alliance on the relation between mothers' and fathers' parenting stress and their marital satisfaction. The absence of such effects for both fathers and mothers can be illustrated by their attainment of marital satisfaction from variables other than parenting. Further discussions will be delivered demonstrating characteristics of Korean parenting as well as the way of attainment of individual well-being and healthy family functioning.

PT_1268

The Effect of Perceived Parental Intrusiveness on Korean Adolescent's School Adjustment : The Mediator Effect of Attention Concentration

First Author (Main Author)	Hye-Seon Kim (Yeungnam University)	Republic of Korea
Co-Author(s)	Jimin Lee (Yeungnam University)	
Presenting Author	Hye-Seon Kim (Yeungnam University)	Republic of Korea

AIM

This study was conducted for finding out protective factor on Korean adolescent's school adjustment. The purpose of this study was to test the mediator effects of adolescent's attention concentration in the relation between perceived parental intrusiveness and school adjustment.

METHOD

The data for the 4th year Korean Children and Youth Panel Survey (KCYPs), including 2,108 high school students. The SPSS 21.0 and AMOS 21.0 Programs were used for the purposes of data analysis. The SEM and posteriori tests by using bootstrapping method were done to identify the relations between the variables.

RESULTS

The results are as follow: First, while the perceived parental intrusiveness not directly affect the adolescent's school adjustment, the attention concentration had a direct effect on the adolescent's school adjustment. Second, there was a significant mediator effect of attention concentration between the perceived parental intrusiveness and adolescent's school adjustment.

CONCLUSIONS

Based on the results of this study, it can be concluded that perceived parental intrusiveness has an indirect effect, and adolescent's attention concentration has a direct effect on adolescent's school adjustment. And this study suggests a useful and practical method for conducting interventions for the improvement of the levels of adolescent's school adjustment.

Keyword : Family, Perceived parental intrusiveness, Adolescent's school adjustment, Adolescent's attention concentration, Mediator effects

PT_1850

Stability in Friendship Patterns among Kindergarteners Affected by Emotion Regulation and Maternal Friendship Management

First Author (Main Author)	Mihyun Park (Child Development Research Institute of Yonsei University)	Republic of Korea
Co-Author(s)	Kyungja Park	
Presenting Author	Mihyun Park (Child Development Research Institute of Yonsei University)	Republic of Korea

This two-wave study examined stability in kindergarteners' friendship patterns and their associations with emotion regulation and parental

involvement in friendship management over 5 months. Participants were 275 five-year-old children (comprised of 146 girls and 129 boys), attending kindergartens in Seoul, Incheon, and Kyonggi provinces in Korea. Each child nominated three of their friends in July, and again in December of 2013. Their home-room teachers and mothers completed Emotion Regulation Rating Scale (Lee, 1997) and Parental Involvement Checklist (Park, 2000), respectively. This study focused on whether friendship stability was affected by children's emotion regulation and maternal management. The data were analyzed by descriptive statistics, Pearson correlations, MANOVA, and logistic regression.

Stability of friendship patters were classified into five groups; the stable, the fluid, the gain, the loss, and friendless group. In regard to emotion regulation accommodating others, at both 1 and 2 waves, stable and fluid groups demonstrated significantly higher regulation ability than chronically friendless group did. As for parental involvement, those with mothers who demonstrated the higher degree of mediation and supervision in friendship establishment had a higher probability of belonging to the gain group than belonging to the friendless one. Also, those with mothers who expressed and gave higher levels of concerns and advice for children's friendship had a higher probability of being in the fluid group than being in the gain one.

This study showed that kindergarteners were capable of maintaining and making new friends over five-month-period. Their dispositions to control emotions and the degree of mothers' involvement they receive in making friends facilitated establishment of friendships.

Key words : Kindergarteners, friendship stability, friendship fluidity, emotion regulation, maternal friendship management

PT_1860

Experiences of the Students

First Author (Main Author)	Ju Han (Chuncheon Hansaem High School)	Republic of Korea
Co-Author(s)		
Presenting Author	Ju Han (Chuncheon Hansaem High School)	Republic of Korea

The purpose of this study was to examine in depth what students experience in the practical problem based home economics class. To accomplish the study purpose, this study selected three teacher participants who had steadily performed the practical problem based home economics class, directly observed their classes, and conducted intensive interviews with the class performing teachers and the class taking students. The results are follows: First, the students who had participated into the practical problem based class thought that it was reasonable to have a lot of chances to ask questions in the class, and in the process that they talked about their thoughts and listened to what

others thought over a practical question, they came to increase their self-confidence and to understand what positions others might have. Also, owing to audio and visual materials that stimulated an assortment of different ideas and class participation, they would feel the pleasant of class, and through the class, they would get actual assistance for their lives in the present and the future. To the students, the practical problem based class was a time of release away from the pressure of college entrance examination, and as for the class methods, the students preferred the student activity paper for the sake of their test preparation. Lastly, it was not so much students learned from what teachers taught but they would rather experience the greater emotion and learning from the attitudes of lives that teachers actually practiced.

PT_1875

Protection of Abused Children - Focused on Follow-Up Service for Abused Children and Abuser

First Author (Main Author)	Sujung Lee (Sookmyung Women's University Graduate School)	Republic of Korea
Co-Author(s)	Hye ji Min (Sookmyung Women's University Graduate School)	
Presenting Author	Sujung Lee (Sookmyung Women's University Graduate School)	Republic of Korea

As child abuse became a serious social issue, the attention and awareness of the issue, and, therefore, the number of relevant reports are increasing every year. Considering abused children can grow to become an abuser to their children in the future, it is important to prevent and discover cases of child abuse in order to prevent future child abuse and build a healthy society. Particularly, to prevent the risk of recurrence, continuous follow-up management of the abused child and abuser is essential, and active policy and intervention on a governmental and social level is needed. Therefore, this study examined types of child abuse and follow-up measure related to abused children and abusers, and discussed preventive follow-up measures.

To investigate the current state of abused children protection, statistics from a database built by Ministry of Health & Welfare based on a survey conducted by a child protection organization in 2014 was used for this study. As a research method, AHP (analytic hierarchy process) and frequency analysis were performed to examine the priorities including abuse cases and services. The result of the study was as follows: first, the most common forms of repeated child were multiple abuse, neglect, emotional abuse, physical abuse, and sexual abuse in the order. Second, the number of reported child abuse cases is increasing every year, from 10,943 in 2012 to 13,076 in 2013 and 17,791 in 2014. Third, as for the relationship between the abuser and the abused child, the biological parents – biological father (45%) and biological mother (32%) -

accounted for the highest percentage, followed by childcare staff (2%), stepmother (2%), and relatives (2%). Fourth, most common forms of follow-up service for abused children were organization counseling (37%), individual counseling (26%), psychotherapy (20%), and others (5%). Fifth, most common forms of follow-up service for abusers were individual counseling (75%), organization counseling (11%), psychotherapy (6%), and home support service (2%). This study can be used as basic data for establishing various policies for abuse children protection. Most of all, in order to reduce damage to abused children, it is necessary to make report legally mandatory and reinforce education to prevent child abuse at different stages of life cycle. Also, efforts must be made to make parenting education mandatory to prevent domestic problems. Furthermore, this study suggests continuous, systematic, and mandatory follow-up management of both abused children and abusers is necessary.

PT_1912

Reality of Teenager's Sexual Practices and Experiences on Acquiring Sexual Knowledge and on Discussion of Sexual Concerns with Parents

First Author (Main Author)	Su Im Lee (Sookmyung Women's University Graduate School)	Republic of Korea
Co-Author(s)		
Presenting Author	Su Im Lee (Sookmyung Women's University Graduate School)	Republic of Korea

The following research will investigate teenagers' experiences of sex education by their parents and increasing tendency of the parents' as the advisors of sexual concerns base on the research DB data of sex culture, which has been conducted by Seoul city and Aha Sexuality Education & Counseling Center for Youth since 2004 for three years cycle.

The research targets are 1,078 middle school second graders in Seoul. For the research method, the frequency analysis and AHP (Analytic Hierarchy Process; a structured technique for organizing and analyzing complex decisions) were used in order to comprehend the priority among acquisition channel of sex knowledge and experience of sexual problem.

The major results are follows. First, the number of sexual problems that teenagers are suffering is increasing. Abortion experience in 2013 has increased 3 times for girls and 2.2 times for boys compares to that of the 2007. Sex contagious diseases have increased 4 times for girls and boys. Accordingly, people can assume that there is increasing tendency of the number of sexual problems that teenagers are suffering.

Second, There is inequity between the contents of sex education and the contents demanded. While the contents of sex education conducted in 2013 were puberty, secondary growth, sexual harassment prevention and gender equality, the actual demands of teenagers were adjusting sexual desire, love and date. In addition, appropriate education for gender is required due to the difference needs of boys and girls.

Last, there is increasing case of acquiring sexual knowledge and confessing sexual concerns through the parents. There is 5 times increase for boys between 2004(0.4%) and 2013(2.0%) and girls rate has also increased; it was 1.6% in 2004 and is 2.5% in 2013. Accordingly, parents need to attain appropriate sexual knowledge that fits to their children. Moreover, parents rank higher than school or sex educator as the advisors of sexual concerns for teenagers, which indicates there are increasing role for parents as sexual advisors.

This research can be utilized as a crucial foundation for grasping different demand of sex education contents for children by gender and development of domestic sex education program in the future. Add on to that, the research probed that there is increasing number of sexual problem for teenagers and increasing role for parents as sexual advisors and educator to prevent and solve the sexual concerns. To conclude, the research is deemed to be substantial in a point that it has raised the need of parents' sex education.

Key words: Teenager, Sex education, Sex knowledge, Sexual concern, Abortion, Sexual contagious disease.

PT_1933

The Relation between Parental Behavior and Adolescent Happiness : Testing the Mediating Effects of Self-Esteem and Academic Stress

First Author (Main Author)	Jieun Kim (Sookmyung Women's University)	Republic of Korea
Co-Author(s)	Mee Sok Park (Sookmyung Women's University)	
Presenting Author	Jieun Kim (Sookmyung Women's University)	Republic of Korea

This study aims to establish cause and effect relationship between the direct/indirect influence of adolescent academic stress and self-esteem based on theories and advanced research, and it reviews suitability and the effects of individual factors.

Data came from the 7th Korean Welfare Panel(2012) and the present study utilized a subset sample 496 of adolescent. SPSS 23.0 and Amos 23.0 were used for SEM

The major results of the study are as follows:

First, suitability of model with variables presented satisfying fit(chi-square=316.720, TLI=.913, CFI=.929, RMSEA=.069).

Second, all the paths from the parental behavior leading to adolescent self-esteem and happiness from academic stress are proved to be significant. In fact, the parental behavior positively affect adolescent self-esteem, academic stress and happiness; self-esteem affects academic stress negatively while it positively does happiness, and academic stress negatively happiness.

Third, adolescent self-esteem and the indirect effect of academic stress in the relationship between parental behavior and adolescent happiness appear to be meaningful, proving partial mediation. That is, parental behavior directly and indirectly affect the happiness of adolescent through the partial mediation between adolescent self-esteem and academic stress.

This study emphasizes the importance of parental behavior for the development of adolescent's happiness by examining the systematic relevance of surrounding factors: parental behavior is one of the most important factors to elevate the self-esteem of adolescent and directly affect academic stress to have effect on adolescent. This leads to imply the broader adoption of educational programs and derivative studies related with the parental behavior for the development of adolescent happiness.

PT_0759

A Class for Students in the Home Economics Teacher-Training Course Using Everyday Items (2): Dyeing with Tomatoes

First Author (Main Author)	Chinatsu Yoshizawa (Joetsu University of Education) Japan
Co-Author(s)	Etsuko Sato (Joetsu University of Education) Yukari Sato (Joetsu University of Education) Shin-ichiro Mitsunaga (Joetsu University of Education) Sadako Tokumaru (Joetsu University of Education)
Presenting Author	Chinatsu Yoshizawa (Joetsu University of Education) Japan

AIM
The purpose of this study using "tomatoes" is to help students, who are in the training course to be an elementary school home-economics teacher, realize that home economics is daily life science in a way.

METHOD(S)
The objects were 10 students, two males and eight females, in the freshman year in the teacher training course of Joetsu University of

Education. All of them chose "Tomatoes and Life" class out of the 12 hands-on learning classes offered in our college. Tomatoes were used in this class in order to make the most of tomato raising experience, which is mandatory for all students in our college in the first semester. The class was carried out from June to November 2015. The total number of hours is 10 and each class was 2-hour hands-on learning class, respectively "1. getting to know tomatoes", "2. cooking tomatoes", "3. preserving tomatoes", "4. dyeing with tomatoes" and "5. living with tomatoes." This presentation reports how they responded to "4. dyeing with tomatoes" class and the analysis of their feed-back.

RESULTS

1. Though it was the first dyeing experience for many of them, they actively took part in it in general.
2. Many of them mentioned their surprise when they found that the tomatoes, which they raised for themselves, could be used as dye.
3. Some of them mentioned their regret that the cloth was dyed only faintly while they knew practicality was emphasized in hands-on learning classes.

CONCLUSION

They seemed to enjoy working on the class, which involved an element of experiment. That is probably because they used the tomatoes they raised for themselves besides tomatoes are something they are familiar with in everyday life. This class shows teachers need to keep exploring capabilities of everyday-life items and take them up in their own classes.

PT_0784

Attempting to Deal with Relationships with Consumer Culture as Life Problems -Based on the Evaluation of Teaching Materials by University Students in Japan and Korea-

First Author (Main Author)	Megumi Okutani (Fukuoka University of Education) Japan
Co-Author(s)	Mayuko Suzuki (Osaka Kyoiku University) Kumiko Ohmoto (Osaka Kyoiku University)
Presenting Author	Megumi Okutani (Fukuoka University of Education) Japan

PURPOSE AND BACKGROUND

This study focuses on the effect of consumer culture surrounding children (e.g. fashion, music, comics, animation, and video games) on the management of various resources such as private time, household finances, and human relations. There is little research about market influences on the consumer from the perspective of consumer education. In 2013, we developed teaching materials for teenagers that concern relationships with consumer culture and the Internet. In this study we used university students' evaluations of these

materials to clarify both a course of action for the improvement of the materials and the viewpoints required to treat interaction with consumer culture as a life problem in the context of consumer education.

METHOD

University students in Japan and Korea evaluated the teaching material "Our Ever-Expanding Online Consumer Culture" to clarify the viewpoint of treating one's relationship with consumer culture as a life problem.

We distributed an open-ended questionnaire. Japanese students were requested to answer as if they were a teacher using the materials with students at the junior high school level or above. Korean students were asked to respond with what can be learned from the materials.

Research in Japan was conducted between June and November 2014 and targeted 110 students at three Japanese universities; research in Korea was conducted in April 2015 and targeted 72 students at one Korean university.

RESULTS & DISCUSSION

The Japanese students evaluated the materials by citing examples based on their own experience. Citing engaging design and appropriate expressions, they were able to consider the effectiveness of these teaching materials in their adaptability to student levels when teaching. They did not go so far as to evaluate how children would learn about their relationship with consumer culture through the materials.

The Korean students focused on comprehensibility and design. They evaluated with equal importance the relationship between consumer and consumer culture for example the processes by which problems have occurred based on reflections on past behavior, and addressing negative aspects.

These evaluations clarified the necessity of showing these processes and developing teaching support manuals expounding actual conditions and problems of consumer culture when making animated teaching materials. This work was supported by JSPS Kakenhi Grant No. 26381267.

PT_0800

Influence of Experience in Early Childhood Education and Care at School on Professional Careers

First Author (Main Author)	Katsuko Makino (Utsunomiya Kyowa University) Japan
Co-Author(s)	
Presenting Author	Katsuko Makino (Utsunomiya Kyowa University) Japan

The significance of experience in early childhood education and care

(ECEC) has been gathering an attention in recent years in Japan. Students are experiencing ECEC in home economics classes at junior and senior high school levels. Several researches have reported that experience in ECEC at school has an effect in improving students' image of children and parenting. Since 2009, it has been required for all junior high school students to learn child care in home economics education and to have practical experience at childcare facilities as in the "Course of Study."

An objective of this research is to examine the influence of the students' experience in ECEC at schools on their plans for future professional careers. The data were collected from 219 students who major in child studies in junior college and universities. They were planning to get the teacher license for kindergarten and qualifications for nursery school. Additionally, in order to make a comparison, the same questionnaires were asked to economics major students. The questionnaire in open-ended format included what and how their experiences were in ECEC at school, and what motivated them to go on to their current choice of college departments.

The results showed that the students' experiences in ECEC at schools strongly motivated them to choose the career in professional childcare. Ninety seven percent of the university students of child study had experience in ECEC at schools, and eighty percent of the college students had the same experience as well. In comparison, only 40% of economics students had such an experience in ECEC. Students' responses indicated that motivations for their future professions were initially triggered by such family background as having younger siblings or relatives. Then, their experiences in ECEC at schools further motivated their future career plan decisions. It is important to recognize the experience in ECEC at school can contribute to counter the declining number of children in Japan.

PT_0817

Home Economic Education Extension Course in Junior High School: The "Love Bank"

First Author (Main Author)	Kung Yu Ho (National Taiwan Normal University) Taiwan
Co-Author(s)	Hsiu-Chen Wei (National Taiwan Normal University)
Presenting Author	Kung Yu Ho (National Taiwan Normal University) Taiwan

The aim of this study is design "The Love Bank" course to help students improve their relationship within their families. "The Love Bank" course is a lesson about family relationships, which is one of the topics of home economics education in Taiwan. This course combines Gary Chapman's "The 5 Love Languages" with Lin's and Wei's ideas. First of all, a learning sheet will be given to students to help them see how much they love and care about their families. Also it can make students realize how family relationship is important. Then let them know that there are many ways to express their love within family members.

The course was executed in 3 junior high schools from 2013 to 2014. 1068 students had taken the course, 663 of them learned "The 5 Love Languages" in the class and the other 405 students learned on the sheet by themselves. Students had to practice the 5 love languages at home for three weeks or so. Each one wrote down their feelings and recorded the feedback that their parents gave them on their learning sheets. Finally we received 831 learning sheets. The results show that among the 5 languages, students use the "acts of service" most, and the "receiving gifts" least. In a family, students give the love language to their mothers most, and mothers are also the one who give children the love language most. After "The Love Bank" course most students realize that it is important to love and to care about their family. Also the course fuels the interests of students in learning the topic of family relationship. Overall, "The Love Bank" course do wake students to love and to care about their family. Therefore "The Love Bank" course is worth popularizing.

PT_0827

Issues Concerning Teaching Students to Fix a Meal in a Home Economics Class

First Author (Main Author)	Noriko Watase (Iwate University)	Japan
Co-Author(s)		
Presenting Author	Noriko Watase (Iwate University)	Japan

According to the National Health and Nutrition Survey in Japan (2012), the dietary habits of today's young generation are poor. The Ministry of Health, Labor and Welfare of Japan recommends a "healthy eating pattern" based on Japanese food culture and that people should "eat a combination of staple foods, main dishes, and side dishes." In Japan, home economics is a mandatory subject from Grade 5 onwards and this "healthy eating pattern" is expected to be taught in home economics classes. This study examines the relationship between elementary school teacher training course students' healthy eating habits/attitudes/notions and their self-assessment on teaching healthy food habits and cooking to children. The study also highlights an important challenge concerning the home economics teacher training course. In this study, questionnaire surveys were conducted among teacher training college students in 2011 and 2014. The first survey consists of four parts (1. Students' dietary records, 2. Self-assessment of their cooking skills, 3. Self-confidence in teaching cooking to elementary school children, 4. Planning and evaluating lunch menus, n = 47). In the second survey, the questionnaire items included "show/portray your idea of a healthy lunch menu." The survey revealed that about 90% of the respondents enjoy cooking, although only 20% of them are confident in seasoning dishes to their taste. This result suggests that they do not establish

the practice of tasting their dishes. Many of their ideal lunches consist of three or more dishes in a Japanese-style meal, but their ideas do not represent their actual dietary records. Many college students are anxious about giving children explicit guidance on cooking, particularly, using a knife and measuring ingredients. The study clarifies the existence of a wide gap in the self-awareness of their cooking proficiency and their ability to offer home economics lessons on cooking to children.

PT_0865

Student Stages of Concern Using Mobile Phones in Home Economics/Family and Consumer Education

First Author (Main Author)	Roxie Godfrey (Texas Tech University)	USA
Co-Author(s)		
Presenting Author	Roxie Godfrey (Texas Tech University)	USA

The purpose of this study is to identify students' stages of concern in using mobile phones in Home Economics/Family and Consumer Sciences Education. Relevancy: Of the world's seven billion people, six billion have mobile phones ("UN News Centre", 2013). When cell phones were first introduced, people thought they were only to be used for communication, but cell phones are much more than that. Today, cell phones are mobile phones and can be miniature computers. Mobile phones can provide instant knowledge and skills that can help students with their school assignments, daily jobs and learning 21st century thinking skills. Today's young people called "Digital Natives" are carrying these tiny computers in their pocketbooks, pockets, and backpacks (Prensky, p. 2, 2004). Mobile learning is no longer the next big thing—it IS the big thing and many educators are encouraging students to bring their mobile phones to class (Kovach, 2012). Mobile phones can provide auditory, visual or textual information. Today's phones can alert students to study; serve as a smart vehicle to take notes; provide instant, on-demand answers and research; record oral reports, take pictures and videos, and respond to polls and quizzes (Neilson & Webb, 2011, Introduction, par 1). Although the use of mobile phones in the classroom is becoming more common in different content areas, age groups and geographical locations; research is lacking in Home Economics/Family and Consumer Sciences student attitudes and perceptions of using the mobile phone in the classroom. Need for the Study How students feel about and perceive the use of mobile phones for educational use will determine whether learning takes place or not.

One important components in successful integration of innovative use of technology in the classroom by the educator.

Findings and Conclusions of study: The findings and conclusions of this study will be to

- Reveal data to Home Economics/ Family and Consumer Sciences educators in understanding the student's stages of concern while implementing mobile phones as an instructional tool.
- Identify instructional strategies for using mobile phones to develop critical thinking skills in Home Economics/ Family and Consumer Sciences content.

The understanding offered by Concerns-Based Adoption Model (Hall & Hord, 1987) can provide a tool for gauging progress and providing encouragement during the implementation of using mobile phones as an instructional tool in Home Economics/Family and Consumer Sciences education.

PT_0873

Close Neighbours but Different Interests? A Comparison of Home Economics Curricula from Three Nordic Countries

First Author (Main Author)	Erik Fooladi (Volda University College)	Norway
Co-Author(s)	Maiju Tuomisto (University of Helsinki) Janni Vanhanen (University of Helsinki) Maija Aksela (University of Helsinki)	
Presenting Author	Erik Fooladi (Volda University College)	Norway

AIM The Nordic countries are often referred to as a group of homogenous societies sharing very similar values. The education system reflects the values of the society, and school curricula both define the contents in the various school subjects and give guidelines for schools and teachers in their daily work. The objective of home economics education is to give students skills for mastering everyday life in order to be part of the society. This way, home economics curricula can in a direct manner be seen to reflect needs, values and emphases in the respective societies. Our main research question is thus: Which topics, contents and goals are emphasized in the home economics curricula in the three neighbouring countries Finland, Norway and Sweden?

METHODS Home economics curricula from Finland, Norway and Sweden were compared by means of a semi-quantitative document analysis. The curricular texts were analysed by qualitative identification of content and coded by means of distinctive keywords (food, cooking, health/nutrition, domestic work, consumption, sustainability and economics). Frequency counts of instances of these codes/keywords were thus used to portray and compare the three texts. In order

to minimize bias due to different formats and lengths of the three curricular texts, the results were normalised relative to the length of each text as well as number of learning goals in the respective curricula.

RESULTS AND CONCLUSION The analysis revealed significant differences in emphasis and content across the three countries, thus supporting the notion that Nordic countries cannot necessarily be seen as directly comparable and sharing the same values and needs. The most notable difference was seen in the field of food and cooking, as both Norwegian and Swedish curricula emphasized these issues substantially stronger than the Finnish. Furthermore, the Norwegian curriculum was distinct from the two other countries by emphasizing content referring to health/nutrition, the Swedish was distinct by emphasizing content referring to economics, and the Finnish by emphasizing content referring to consumption. Detailed descriptions and discussion of possible reasons for these findings will be given.

PT_0880

The Importance of Local Traditional Food Culture, and How It Is Passed Down from Generation to Generation

First Author (Main Author)	Katsura Omori (Yamagata University)	Japan
Co-Author(s)	Azumi Yamagishi (Yamagata University)	
Presenting Author	Katsura Omori (Yamagata University)	Japan

AIM The average diet has been gradually evolving for convenience around the world. On the other hand, the preserving and passing down of local traditional food culture, using local resources as appropriate, will promote regional revitalization, and contribute to the hope and happiness of citizens and communities. The aim of this study is to acquire basic information to develop effective strategies to pass down local traditional food in the community.

METHODS We distributed a questionnaire to more than 2,700 parents in Yamagata prefecture, Japan. We also researched a special cooking class at a local day-care center. Eighteen children, aged 5-6 years old, cooked miso soup (a traditional Japanese soup) by themselves. We observed all cooking procedures and asked the parents and teachers about the effects of this cooking class with a questionnaire and an interview.

RESULTS About 80% of the parents answered that local traditional food should be passed down to children, but only a small number of parents had

the actual experience of teaching it. About 50% of parents believed it should be taught at home, and 28% thought it should be taught at school. We observed each child listening carefully to the dietician during cooking, and they could complete the task by themselves. The dietician provided appropriate and minimum support, such as demonstrating special techniques, and cooking safety. Many parents reported that the family talked about miso soup, and that the children often helped cooking at home after this experience.

CONCLUSION

Our observations proved that even preschoolers could cook traditional food by themselves. The successful experience of cooking promoted children's self-confidence and motivation to cook at home. Also, cooking is a good activity, not only to stimulate family conversation, but it also allows parents to notice their children's development. Our results also suggest that despite parents being aware of the importance of teaching their children about local food culture, there is a lack of resources and/or time to devote to this. We suggest that it needs to be passed down not only at home but also outside of the home, such as at schools and day-care centers, to help promote an appreciation for local food culture, and the happiness of both family and community.

PT_0912

Globalization and the Curriculum for Home Economics Education - Classroom Plans on Family Study -

First Author (Main Author)	Kazue Mochizuki (Japan Women's University)	Japan
Co-Author(s)	Kumiko Ohmoto (Osaka Kyoiku University) Megumi Kawamura (Teikyo Gakuen Junior College) Mieko Saito (Kawamura Gakuen Woman's University) Eriko Matsuoka (Osaka Seikei College)	
Presenting Author	Kazue Mochizuki (Japan Women's University)	Japan

AIM

As globalization proceeds, the family in Japan is exhibiting a variety of forms. Emerging issues relating to the family include the declining birthrate and aging population, poverty of single mother households, and international marriages. The purpose of this research was to clarify classroom plans for the study of "family" by introducing a global perspective in home economics education.

METHOD

(1) Identify issues of globalization and the family from areas such as feminist politics, pedagogy, and educational methodology. (2) Analyze, based on surveys in Canada and Belgium, the features of

family support and curriculum incorporating a global perspective. (3) Conduct action research on the implementation of classes on family study in home economics in Japan.

RESULTS

In classes on family study in home economics, students learn about social support for changing family models, and the best approaches for families to take to live in a diverse society. Key points include: (1) Considering the family as a form of security for human beings, (2) Rethinking the systems of society from the standpoint of care.

CONCLUSION

In classes, there is a need for a plan which focuses on dialog, using the text as an intermediary. The results here suggest there is a need for an anxiety-free classroom, and a space where opinions can be made visible and shared.

PT_0927

Elementary School Children's Emotional Changes Raising Pigs to Slaughter

First Author (Main Author)	Sadako Tokumaru (Joetsu University of Education)	Japan
Co-Author(s)	Kazuki Okui (Kobe Shoin Women's University)	
Presenting Author	Sadako Tokumaru (Joetsu University of Education)	Japan

AIM

The Fundamental Act of Education and national curriculum guidelines mandate cultivation of zest for living and education of respect for life. In response, some schools teach children to raise animals, ship them to slaughter, and eat them; yet no one has studied its emotional impact. Therefore, our purpose was to identify issues arising in their pig raising activities.

METHODS

We analyzed children's essays (N=36, 5th grade of an elementary school in Joetsu City, Nigata) using text-mining approach and interviewed their teachers (N=2).

RESULTS & CONCLUSION

Children's essays gradually evolved from impersonal to more personal, and from mundane to global concerns. While they learned many things through raising pigs for butchering, the theme of anxiety pervaded their essays, indicating a need for emotional care. Their teachers not only enjoyed a sense of fulfillment but also felt serious psychological as well as scheduling pressures, suggesting a need for support involving the entire school, parents, and wider community.

PT_0965

Community-Oriented Consumer Education (Consumerism 4.0): Focusing on Consumer Education in Schools

First Author (Main Author)	Myoung Sook Park (Dongguk University)	Republic of Korea
Co-Author(s)	Sueun Ju (Dongguk University)	
Presenting Author	Myoung Sook Park (Dongguk University)	Republic of Korea

AIM

The purpose of this study was to analyze the content of consumer education in schools with the aim of proposing guidelines for community-oriented consumer education (Consumerism 4.0). Today, it is important to emphasize consumer education with a community orientation over consumer choice based on the efficiency and rationality of individual consumers. Why is consumer education important for the community? How should a happy consumer be defined? The current study examines the content and methods of community-oriented consumer education.

METHODS

An in-depth content analysis was conducted of twenty Home Economics textbooks that have been used in Korean middle schools, beginning with the first curriculum until the revised 2009 curriculum.

RESULTS

From waste to consumption. The early years of consumer education in Home Economics (1956~1981) focused primarily on frugality. Hence, the content of textbooks included instructions on how to grow plants for food and make clothing as a means of achieving self-sufficiency. The textbooks emphasized thrift-related concepts such as budgeting and saving money. The middle years of consumer education in Home Economics (1981~1997) focused on the rights and responsibilities of consumers. The content of textbooks emphasized learning how to find relevant information and making rational decisions as a consumer. The most recent years of consumer education in Home Economics (1997~now) have focused on rational decision-making by adolescents, while taking into account environmental considerations. The content of textbooks now introduces students to the notions of ethical consumerism and eco-friendly consumption across domains such as clothing, food, and housing.

CONCLUSION

From consumption to community-oriented consumerism. In Korea, consumer education in the Home Economics curriculum since the revised 2007 curriculum has emphasized an ethical perspective in relation to consumerism. However, future consumer education should further emphasize the common good. To develop a community-oriented consumer education (Consumerism 4.0), the content of

textbooks in Home Economics should emphasize the following concepts related to ethical consumption: recognizing the role of the mature consumer, bringing about an optimistic world view, fair-trade consumer purchasing, boycotts, donation and sharing, and local consumption.

The English in this document has been checked by at least two professional editors, both native speakers of English. For a certificate, please see:

<http://www.textcheck.com/certificate/hQpWEo>

PT_1016

The Learning Model of Hand Sewing Education: Focus on Educational Objectives and Learning Theories in Denmark and Finland

First Author (Main Author)	Reiko Isshiki (Yasuda Women's University)	Japan
Co-Author(s)		
Presenting Author	Reiko Isshiki (Yasuda Women's University)	Japan

AIM

In schools, hand sewing education, which involves designing and preparing useful crafts from a piece of cloth, is considered to be important. However, in the current scenario, there are fewer opportunities for hand sewing education in schools in developed countries. Under compulsory education, the Japanese students are taught hand sewing education in 'Comfortable Clothing and Housing' in home economics. However, in the Nordic countries, independent subjects include woodwork and metalwork. It is accepted that such studies develop certain abilities in students. Thus, the aim of this research was to analyze the current curriculums regarding hand sewing in schools in Denmark and Finland and to develop a learning model.

METHODS

1. Comparative analysis of the three curriculums the course of study 2008 for primary school and junior high school regarding 'Home economics' in Japan, the common goal 2013 about 'Craft and design' in Denmark, and the national core curriculum 2014 about 'Craft' in Finland. 2. Develop a learning model on hand sewing education based on educational objectives and learning theories in Denmark and Finland.

FINDINGS

1. The first finding is listed as follows: (1) In Japan, 'Home economics' is for grades 5-6 in primary schools and grades 1-3 in junior high schools. It includes hand sewing education, in which the students make useful items and are able to decide and apply the appropriate

sewing methods, such as sewing by hand or stitching straight with a sewing machine for small items. (2) In Denmark, 'Craft and design' is for grades 4-7 in national schools. It includes three competence areas: craft-processing, craft-materials, and design. Each competence has low objectives about knowledge and skills by two phases. (3) In Finland, 'Craft' is for grades 1-9 in basic schools. The educational objectives include a detailed description of the craft process. There are five educational objectives in grades 1-2 and eight educational objectives in grades 3-6 and 7-9. (4) The common points between Denmark and Finland are that they do not emphasize on basic skills and that the design-make-reflect process helps students develop problem-solving skills and evaluate critically. 2. The second finding is as follows: Learning model developed by these current curriculums and learning theories: 'process dialog (Illum,B.,2004)' in Denmark and 'craft design process model (Anttila,P.1993)' in Finland. There are two points of learning model: (1) Learning objectives on each stage, and (2) To prompt students' self-assessment as reflection. Conclusion: Hand sewing education in Denmark and Finland help students develop problem-solving skills. Moreover, the learning model that focuses on processes can help in the student's reflection between materials, artifacts, and others.

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PT_1037

A Class for Students in the Home Economics Teacher Training Course Using Everyday Items (1): Food and Tomatoes

First Author (Main Author)	Yukari Sato (Joetsu University of Education)	Japan
Co-Author(s)	Shin-Ichiro Mitsunaga (Joetsu University of Education) Chinatsu Yoshizawa (Joetsu University of Education) Sadako Tokumaru (Joetsu University of Education) Etsuko Sato (Joetsu University of Education)	
Presenting Author	Yukari Sato (Joetsu University of Education)	Japan

AIM
'Experiential learning' is learning that aims for a fundamental experience, to form the basis for the creation of educational activities such as those within the education curriculum and special activities in school education. 'Experiential learning' comprises shared experiential learning and elective experiential learning. The shared experiential learning is titled 'Mini-tomato cultivation', while the

elective experiential learning has twelve content topics, including 'Tomatoes and daily life'. The aim of this study was to establish classes targeting students undergoing teacher training with the aim of becoming elementary school teachers in the future. Using the perspective of the food domain of Home Economics, the students in these classes experienced and studied about 'tomatoes' which had been cultivated by them through a shared experience. Using Home Economics as the academic background, these classes attempted to foster an understanding about 'Home Economics Education' as a life science.

METHOD

The subjects comprised 10 students (2 males and 8 females) who had enrolled in the first year of the teacher training course. Each of these students had selected the topic 'Tomatoes and daily life' from the list of elective experiences. There were 10 class hours in total, divided into 2 hours for each of the following classes: 1. 'About tomatoes', 2. 'Cooking with tomatoes', 3. 'Storing tomatoes', 4. 'Dyeing using tomatoes', and 5. 'Living with tomatoes'. This presentation reports the analysis results of the outward appearance and sentiments of the students when the following three above-mentioned subjects were being explained in the class: 1. 'About tomatoes', 2. 'Cooking with tomatoes', and 3. 'Storing tomatoes'.

RESULTS

1. The class on the nutrition and content of tomatoes incorporated hands-on learning such as comparing tomatoes by observing and tasting them. Notes were maintained to record the students' surprise at the differences in taste among tomatoes, their understanding about the nutrition provided by tomatoes, and so forth. 2. Notes were also maintained for the class on hands-on learning, where the tomatoes were cooked and processed, to understand the differences in their taste depending on the cooking operation and other aspects of the tomatoes, such as cooking versatility.

OBSERVATIONS

The understanding, interest, and involvement of the students seem to have been higher among those who attended classes on the nutrition provided by tomatoes, their cooking science, comparisons in taste and observations, and methods such as hands-on learning. The results indicate that when experiencing lessons on 'Home Economics Education' as a life science, it is important to base the lessons on the topics and methods pertaining to Home Economics.

PT_1039

The Effect of Network to Teaching Improvement of Home Economics Teachers

First Author (Main Author)	Akiko Kaneyasu (Kyushu University)	Japan
Co-Author(s)		
Presenting Author	Akiko Kaneyasu (Kyushu University)	Japan

There are 2 purposes of this research. The 1st is to make the reality of the network of a home economics teacher clear. The 2nd is to make it clear what kind of influence the network is having on class improvement of a home economics teacher. The process of the teaching improvement is made clear by paying attention to the teaching materials a teacher chooses in particular. In Japan, most of junior high schools have only 1 home economics teacher. The preceding research work points out the importance of the formation of a network between the home economics teachers. There is a lot of discretionary power of a teacher about a class in Japan. Therefore it's possible to do the same school every year without improving the class, and there is danger. Methods chose a survey by questionnaire and an interview investigation to a junior high school home economics teacher. It was investigated targeted for 365 people of a public teacher junior high school and secondary education school in 344 school X prefectures in March, 2014 by a survey by questionnaire. The effective answering ratio was 29.5%. An interview investigation was performed targeted for 8 junior high school home economics teachers. More than one times, I continued and went from August, 2014. 2 points became clear big as a result. The 1st point is the case that a junior high school homemaking course teacher forms a network with between the homemaking course teachers in an area and a predecessor in a duties school. The 2nd point is the case that used teaching materials are changing by influence of an exchange by a network between the home economics teachers. It's also necessary to consider a negative aspect of a network as future's problem.

PT_1069

Effect of Cooking Frequency on Culinary Ability

First Author (Main Author)	Hitomi Takahashi (Wayo Women's University)	Japan
Co-Author(s)	Yukie Yanagisawa (Wayo Women's University)	
Presenting Author	Hitomi Takahashi (Wayo Women's University)	Japan

PURPOSE

Washoku (traditional Japanese cuisine) is the dietary culture of

Japan. Carrying on the legacy requires the culinary ability to produce appropriate meals. Today, possession of such culinary ability by young people at the time of entering college is on a declining trend. One possible cause is their lack of cooking experience. This study examined cooking frequency, in addition to understanding of acquired knife-handling skills, and culinary status. Accordingly, investigations were conducted to determine the effects of cooking frequency on culinary ability.

METHOD

A questionnaire survey was administered to female students at K University (Kanagawa Prefecture) who entered the college in April 2010 through April 2015. The total number of respondents was 452 (about 70 students from each grade), with a response rate of 98.2%. The questionnaire was designed to measure students' ability to cook 26 dishes in two categories -- namely, knife-handling skills and cooking, by getting them to select answers from a list of choices: "Can do", "Can do if there is a medium", "Cannot do" and "Don't know." The students were also asked to indicate their cooking frequency out of six choices, ranging from "Cook almost every day" through "Cook rarely." The results were grouped into three categories -- high frequency, medium frequency, low frequency -- and then the data were analyzed using a χ^2 test.

RESULTS

No difference in cooking frequency was found among those in six grade years from 2010 through 2015. Those who indicated that they cooked "10 times or more a week" were classified into the high frequency group (24.8%), "once to 10 times a week" into the medium frequency group (27.2%), and "less than once a week" into the low frequency group (48.0%). There were significant differences between cooking frequency and knife-handling skills in six items, except for cutting in round slices. There was a significant difference between cooking frequency and dishes that they can cook. In other words, the results show that the proportion of "Can cook" is high among those in the high frequency group. The dishes with a large difference in "Can cook" include boiled vegetables seasoned with soy sauce, pork cutlets, potato and meat stew, and boiled fish. Meanwhile, 60% or more of respondents answered that they "can cook" dishes such as cooked rice, soybean soup, fried eggs, omelets, and stir-fried vegetables. We then analyzed cooking characteristics from the perspective of differences in skills acquisition awareness. The results show that the proportion of "Can cook" tends to be high in respect of the cooking methods of baking and stir-frying but low in the methods of boiling and deep-frying. It was found that cooking frequency has a significant effect on culinary ability and, furthermore, that it is also associated with cooking characteristics.

PT_1274

High School Home Economics Classes about Traditional Indigo Dyeing beyond the Distance by Using ITC

First Author (Main Author)	Arisa Yoshiuchi (Ochanomizu University)	Japan
Co-Author(s)		
Presenting Author	Arisa Yoshiuchi (Ochanomizu University)	Japan

AIM

Because of mass production and mass consumption, the young high school students have only limited knowledge about traditional crafts. In addition, high school students regard the traditional crafts as "those for old people", "expensive" and "not attractive for young people", although they are not so much negative to keep traditional crafts for the next generation. Therefore, this research aimed to make the young students understand the Japanese traditional crafts through the experience of indigo dyeing.

METHODS

This research uses ITC as effective tool by connecting the urban high school students and the traditional craftsman in remote rural area by using tablet PC internet connection. The traditional craftsman showed his atelier, the surrounding area and gave some comments and answered questions of the students who were in Tokyo practicing indigo dying.

There are several previous researches about indigo dying itself. However, there is no research about educational indigo dying classes using ITC.

RESULTS

This project has strengthened student's awareness about the traditional crafts. Through direct communication and online practice with the traditional craftsman, students became familiar with the traditional crafts as precious and showed their interest into it.

CONCLUSION

By using ITC tools, first, traditional arts and crafts such as indigo dying can be revitalized, second, students can be made aware about the attractiveness of traditional arts and crafts. Future challenge will be to explore other innovative educational procedures.

PT_1548

Development and Application of the Teaching-Learning Process Plan of Senior Cohousing for Independent Later Life

First Author (Main Author)	Ji Myeong Na (Korean Home Economics Education Association)	Republic of Korea
Co-Author(s)	Jaesoon Cho (Korean Home Economics Education Association)	
Presenting Author	Ji Myeong Na (Korean Home Economics Education Association)	Republic of Korea

The purpose of this study was to develop and evaluate the teaching-learning process plan of senior cohousing to improve understanding of active and independent living in later life through Home Economics subject. The plan consisting of 5 lessons has been developed and implemented according to the ADDIE model. The overall objective was to improve the practical competency of independent later life by understanding senior life as well as senior cohousing based on 2011 and 2015 national home economics curricular and 9 textbooks. Each of the 5 lessons included various motivating methods such as mind map drawing, games, quiz, case study, etc. and group activities were encouraged for students to cooperate to accomplish the tasks. Various activity materials (28 individual activity sheets, 2 working sheets, and 26 teacher's reading texts) and visual materials (4 sets of pictures & photos and 10 moving pictures) as well as questionnaire were developed for the 5-session lessons. The plans were implemented to 6 classes 150 freshmen of P high school in Jeju-do during August 17th to 3rd of September, 2015. Students were highly satisfied regardless of gender with the whole 5-lessons in the aspects such as the level of participation in the lesson, understanding of the contents, adequacy of materials and activities, and usage in their future life. The mean of 6 items ranged from 4.05 to 4.20 with the total of 4.12 out of 5-point likert scale). Students reported that they highly accomplished the goal of each lesson to reinforce the understanding on necessity of preparing later life, senior cohousing, and senior friendly business. The mean of 11 items ranged from 4.08 to 4.22 with the total of 4.12 out of 5-point likert scale). Also students and the teacher commented that the group activity to making senior cohousing community and presenting the individual case study on students' own grandparent(s) stimulated the interests and active participation from both of male and female students. There were some interesting ideas related to Jeju regional trait such as oreum, beach, wind power generation etc. in the group cohousing community plan. It can be concluded that the teaching-learning process plan for senior cohousing would improve understanding and practical competency of active and independent living in later life with senior neighbors through the Home Economics subject.

PT_1843

Risk Management as Part of Home Economics Education

First Author (Main Author)	Sachiko Aoki (Tokyo Kasei University)	Japan
Co-Author(s)		
Presenting Author	Sachiko Aoki (Tokyo Kasei University)	Japan

AIM

The March 11, 2011, earthquake and tsunami caused unprecedented damage in Japan. As a result, many people's lives were changed in unexpected ways. My aim is to analyze how the content of high school home economics classes can help people recover.

METHOD

I distributed a questionnaire to high school students living in the disaster area in Eastern Japan, consisting of Tokyo and five prefectures along the Pacific coast. I analyzed the regional characteristics of each areas, the students' recognition of problems in their lives, and their means of overcoming these issues. I also examined the content of home economics classes in these areas.

RESULT

1. The severity of the multiple disasters—the earthquake, the tsunami, and the accident at the nuclear power plant—was unprecedented in Fukushima prefecture.
2. It is natural that high school students in Fukushima prefecture tried to recognize problems in their lives. Accordingly, the number of opinions concerning what measures should be taken in response to a disaster was greater in Fukushima than in other areas.
3. By analyzing problems that occurred in different areas, I have proposed a plan to include disaster preparation as part of the home economics curriculum.

CONCLUSIN

Experiencing the disaster in 2011 made high school students recognize the importance of preparing for such unexpected events. I have concluded that risk management is an indispensable part of home economics education.

PT_1897

Life Management Education Program Using Home Works Subject for Female Marriage Immigrants: An Analysis on In-House Life Competency Reinforcement

First Author (Main Author)	Ji-Wook Kim (Dongguk University)	Republic of Korea
Co-Author(s)	Mi-Kyung Jun (Dongguk University)	
Presenting Author	Ji-Wook Kim (Dongguk University)	Republic of Korea

This research aims for life management education program development for reinforcement of in-house life competency for female marriage immigrants, using Home Economics subject. Life management education, in this study, refers to self-management of the life of oneself, including rationality of household labor and enhancement of efficiency. In addition, life management education program targets ultimate reinforcement of quality of life and in-house life competency of female marriage immigrants, through efficient self-management.

Contents of life management education program were extracted from the 'self-management of adolescents' section of 7th grade Technology & Home Economics textbook. Key results are as shown below.

First, life management education program was organized as a course of 2 hours per time, once a week for six weeks, 8 sessions in total (12 hours). Second, the goals of life management education program were formed as follows: ① Enhancement of self-management capacity of female marriage immigrants. ② Enablement of designing one's life and household living. ③ Improvement in quality of life of multi-cultural families through in-house life competency reinforcement. Third, sub-contents and aims of life management education were programmed as below, centrally formed with contents related to arrangement and organization.

- I. ①Program summary introduction ②Program participation agreement ③Conduct pre-examination
 - II. ①Meaning of life management ②Understanding my current life environment and identifying problems
 - III. ①Significance of life management ②Establishing goals of life management
 - IV. ①Drawing a life cycle curve ②Time and stress management for healthy family relationship ③Future construction for my family
 - V. ①Acquisition of rational life management skills ②Planning and practices of efficient life management
 - VI. ①Learning in-home organizing methods and division of household labor among family members
 - VII. ①Respecting life management methods of other countries ② Sharing diverse practices
 - VIII. ①Program evaluation ②Conduct post-examination
- The contribution of this research lies in its construction of basic

contents of enabling rational self-management functions of female marriage immigrants, using Home Economics subject.

PT_1733

Presentation of Tradition in Technology-Home Economics Textbooks

First Author (Main Author)	Mikyung Jun (Dongguk University)	Republic of Korea
Co-Author(s)	Minjee Kim (Dongguk University)	
Presenting Author	Minjee Kim (Dongguk University)	Republic of Korea

This study aims to find out how "tradition" is represented in technology-home economics textbooks by analyzing how "tradition" and its meanings are represented in technology-home economics textbooks.

For this purpose, this study utilized discourse analysis. The analysis texts were the family-related sections of 31 textbooks (11 7th-grade texts, 11 8th-grade texts, and 9 high-school texts) and the 2009 revised curriculum manual. First, the researchers extracted all scenes which mentioned "tradition." Next, we grasped the aspects of "tradition" that were used and which words were used with "tradition." Finally, we could figure out how "tradition" and its meanings were represented in technology-home economics textbooks. The results of the analysis are as follows. First, "tradition" indicated our traditional country, traditional family, and traditional society by being frequently used with "our country," "society," or "family." There were many texts in which "tradition" could be deleted or replaced with "the past," and there would be no difficulty in understanding. That is, "tradition" was represented in such a way as to have no particular time and said universal past time, and was used for contrasting with present time.

Second, when "tradition" appeared for the explanation of some contents, it was described as if the traditional family is the same as a patriarchy or an extended family of the Confucianist family after the 17th century. In other words, "tradition" meant "the patriarchy of Confucianism after the mid-period of the Joseon dynasty", so "tradition" represented not inclusive past time but a specific past period when "Confucian family values" were strengthened. Besides, there was no operational definition for "tradition" meaning for like "after the mid-period of the Joseon dynasty". It is contradictory to the former intent that "tradition" cover all past time. Thus we should be careful not to misunderstand that "tradition" means all-inclusive past time, despite it just intended a specific time.

Third, the "modern" family was placed right after the "traditional" family. Textbooks contrasted the "traditional" family and the "modern" family without any consideration of the social, economic, and historical backgrounds of the "traditional" family. It is almost as if "tradition" was dismissed as a negative thing or a thing to be rebuked. Therefore, textbooks should give an opportunity to students

to understand and discuss the past-present-future family in depth. It can allow students to form their own perspectives and develop their critical thoughts about family, so they can manage their own healthy family life autonomously.

Based on these results, the next revised technology-home economics textbooks ought to clearly define what "tradition" is, help students to understand the traditional family, and help pass down some valuable family culture to posterity.

PT_1927

The Necessity of Career Education about Child Care Specialists by Home Economics in Japan

First Author (Main Author)	Masako Muro (Sugiyama Jogakuen University)	Japan
Co-Author(s)	Noriko Kanie (Utsunomiya Kyowa University)	
Presenting Author	Masako Muro (Sugiyama Jogakuen University)	Japan

AIM

Many university students studying early childhood education and care change their images on child care after they start studying and experiencing practice teaching in early childhood education and care. The study will reveal how their images change and how Home Economics education in middle school and high school affect their images.

METHOD

Paper survey targeted at 60 university students who studied child care and experienced practice teaching in early childhood education and care. Analyzing what is written in home economics textbook, especially child care section. The study period was in October 2015.

RESULT

1. Student survey : (1)About half of the students thought that working at day nursery involve just playing with children. Others thought the job was fun and involved taking care of children. They also thought the job is suitable for people who like children. (2) Almost the students changed their images after studying or practice teaching in early childhood education and care. They became more aware of the job responsibility and the existence of child care schedules. 2. Analyzing textbooks : Almost all the textbooks teach how to contact with children, but do not mention the job outline and the job responsibility.

CONCLUSION

In Home Economics education in Japan only makes students aware of how to play with and interact with children. Teaching the responsibility and the actual situation of childcare specialists will educate students better about early childhood care establishments and systems as a citizen. This will help them make more informed

decisions for selecting their future course.

PT_1934

An Analytical Study on the Use of the Term 'Divorced Family' in Technology-Home Economics Textbooks

First Author (Main Author)	Yu Son Lee (Dongguk University)	Republic of Korea
Co-Author(s)	Mi-Kyung Jun (Dongguk University)	
Presenting Author	Yu Son Lee (Dongguk University) Mi-Kyung Jun (Dongguk University)	Republic of Korea

This study aims to understand the way 'Divorced Family' is explained and what the terminology implies in Technology-Home Economics textbooks. Whether the descriptions carry appropriate universal validity in terms of the textbooks being the source of public education in Korea will be looked into.

The data used for the analysis are 11 kinds of Technology-Home Economics textbooks for Grade 8 students that were revised according to the 2009 education curriculum, and the 'Diverse Families' part of the 2009 education course manual. In order to analyze the discussions expressed in the two data source that cover information on diverse forms of families in modern society, we first extracted the term 'Divorced Family' and all related sentences, illustrations, and activities. Among the extracted data, we analyzed the common characteristics shared by the illustrations depicting 'Divorced Family'; the implications entailed by the texts explaining the illustrations, and the perspectives and intentions the writer must have had while writing those texts.

The major findings are as follows: First, the term 'Divorced Family' is being used as a concept contrary to 'Normal Family' or 'Ordinary Family'. Throughout the data, the term 'Divorced Family' was used to carry the meaning of 'a family in need of protection' and in such uniform way that does not reflect the diversity within the group of different divorced families; Second, there was no textbook that accurately described 'Divorced Family,' not to mention the lack of efforts in reflecting the change in social identity of divorced families in reality.

Moreover, there seemed to be an implicit danger lurking to reinstate the prejudice of regarding the absence of a parent in the family as a deficiency; Third, biased texts in which 'Divorced Family' is described as having social dysfunctions were found on many occasions. One should keep in mind that such texts bear the risk of causing psychological withering in children of divorced families; Fourth, there was no information on practical activities or definitive measures in support of 'Divorced Family' that are frequently referred to as 'a family in need of support.' What was found instead were texts or illustrations

loosely implying that 'Divorced Family' is a social group requiring help.

The young children growing up in divorced families deserve the chance to learn how to respect individual choices of each family member and to acquire open-minded perspectives and attitude towards the changes that occur to a family upon divorce. For this, there is an urgent need for complete revision of the textbooks so that they have more accurate and at the same time more educational explanations for 'Divorced Family' as well as 'Diverse Families.'

PT_0284

Development of Family Well-Being Indicators in Thailand

First Author (Main Author)	Chittinun Tejagupta (Sukhothai Thammathirat Open University)	Thailand
Co-Author(s)		
Presenting Author	Chittinun Tejagupta (Sukhothai Thammathirat Open University)	Thailand

AIM

Objectives of this study were to review past studies and documents related to the development of any kinds of indicators for family well-being in Thailand, and also to develop a set of indicators for family well-being in Thailand.

METHODS

There were several steps to the development for family well-being in Thailand, starting from documentary research to analyze the domains for family well-being. Then we arranged the interview, focus group discussion and data collection with families from different background and various parts of the country.

RESULTS

Results indicated three domains of family well-being indicators including family functioning, family relationship and family self-sufficiency. Each domain consisted of five key indicators. A self-assessment form for family use was developed and tried out. It was found that such form needed to be revised for easy understanding. There should be home visit by local people in order to get accurate data collection from family members.

CONCLUSION

Family is the smallest and yet the most important social unit of society with high impacts on children development and other social units. It is the first place where children are trained and are formed their behaviors to become their character and subsequently to be their personality. Thus, family well-being reflects the quality of lives in the family. The more we are able to assess family well-being, the more assistance we can get into that family. The findings in this study

will be subsequently a base to the further development of the Index of Family Well-being.

PT_0564

Intergenerational Solidarity and Psychological Well-Being among Korean College Students

First Author (Main Author)	Sieun Kang (Seoul National University)	Republic of Korea
Co-Author(s)	Jaerim Lee (Seoul National University)	
Presenting Author	Sieun Kang (Seoul National University)	Republic of Korea

AIM

Based on Bengtson's intergenerational solidarity model, the aim of this study was to examine the associations between six dimensions of intergenerational solidarity and two aspects of psychological well-being among Korean college students. This study is one of the few studies to investigate all dimensions of intergenerational solidarity in one model.

METHOD

The data came from 415 college students aged 18-25 years old (M = 20.9), had a least one parent, and were registered at one of nine universities in four regions of Republic of Korea. We conducted two sets of multiple regression analysis controlling for age, gender, and family income. Our independent variables were associational solidarity (i.e., frequency of contact with the mother and father), affectual solidarity (i.e., affection for parents, attachment anxiety toward parents, attachment avoidance from parents), consensual solidarity (i.e., conformity to parental expectations), functional solidarity (i.e., financial support from family), normative solidarity (i.e., familism), and structural solidarity (i.e., living arrangement). The dependent variables were life satisfaction and depressive symptoms.

RESULTS

In the model predicting life satisfaction, affection for parents was the only significant factor ($\beta = .264, p < .001$). Greater affection for parents was associated with a higher level of life satisfaction. As for depressive symptoms, three variables were significant. Affection for parents was negatively related to depressive symptoms ($\beta = -.202, p < .001$) while attachment anxiety toward parents ($\beta = .281, p < .001$) and conformity to parental expectations ($\beta = .108, p < .001$) were positively associated with depressive symptoms.

CONCLUSION

The findings suggest that certain dimensions of intergenerational solidarity, specifically the affectual dimension in this study, may be more important for Korean college student's psychological well-being than other dimensions. It is also interesting that conformity to parental expectations contributed to more depressive symptoms,

which implies that promoting autonomy rather intergenerational solidarity needs to be the focus of professional efforts when working with Korean emerging adults.

PT_0602

The Recognition of Discipline and Abuse in University Students of the Faculty of Education in Korea and Japan

First Author (Main Author)	Kyoungwon Lee (Okayama University)	Japan
Co-Author(s)	Misa Morita (Kochi University) Jeongok Oh	
Presenting Author	Kyoungwon Lee (Okayama University)	Japan

AIM

The purpose of this research is to examine the recognition of discipline and abuse in university students of the faculty of education in Korea and Japan.

METHOD

We have conducted a questionnaire survey on "consciousness of discipline and abuse" targeting university students belonging to teacher training courses. In Japan, we have collected 1,233 valid responses among 1,761 surveys between September 2013 and January 2014. In Korea, we have collected 1,394 among 1,510 between October and December 2013.

Following are the main questions.

1. What do you think about punishment for discipline?
2. Do you think, scolding, locking up in closets and rooms, not feeding, leaving the child home alone, included in the 23 actions are considered as abuse or discipline?
3. Have you received any of the 23 actions from your parents? Did you think they were discipline/abuse?

RESULT

1. More than 40 % of Japanese students and 80% of Korean students allowed punishment for discipline. However, more than 90% students of both countries believed that, though aimed for discipline, hurting the child's mind or body should be considered as abuse.
2. Out of the 23 actions, more than 70% of the students considered: only scolding (Japanese), and scolding and slapping on hands (Korean), as discipline. More than 90% of the students considered: 7 actions including giving burn marks (Japanese), and 5 actions including slapping faces (Korean), as abuse.
3. More than 30-40% students of both countries have experience of getting slapped by their parents during childhood. Korean students considered either abuse or discipline depending on the

body part they were slapped on, and Japanese students believed most of it was discipline.

4. Students of both countries who allowed punishment as discipline agreed that the 23 actions can be used as discipline compared to those who have opposite opinions.

PT_0628

The Comparison of Perceived Health, Life Satisfaction and Happiness of Married and Single People in Taiwan

First Author (Main Author)	Yu-Ting Huang (Chinese Culture University)	Taiwan
Co-Author(s)		
Presenting Author	Yu-Ting Huang (Chinese Culture University)	Taiwan

Because of delay of marriage and unwillingness to marriage, there are amount of single people in Taiwan; thus, their life and psychological and emotional status should be addressed, in order to enhance their subjective well-being. However, there are some prejudices or stereotype about single people. People think single people are unhappy or even not physically and mentally healthy. However, is it true that single people do feel unhappy and unsatisfied with their life? Therefore, the purpose of this study is to compare perceived health, life satisfaction and happiness of married and single people in Taiwan. Data analyzed in this paper were collected by the research project "Taiwan Social Change Survey Year 6 of Cycle 2" sponsored by the National Science Council. The Survey Research Data Archive, Research Center for Humanities and Social Sciences, Academia Sinica is responsible for the data distribution. There are 1,250 married people and 885 single people including never-married, divorced and widows. Results show that in terms of perceived health, life satisfaction and happiness, there is no difference between married and single people. In other words, single people are satisfied and happy with life as well as married people. Based on the findings of this study, recommendations are provided for the public, related counseling institutes, and further studies.

PT_0631

The Relationships between Body Image and Marital Satisfaction of Married Adults in Taiwan

First Author (Main Author)	Yu-Ting Huang (Chinese Culture University)	Taiwan
Co-Author(s)	Shu-Tzu Yu (Chinese Culture University)	
Presenting Author	Yu-Ting Huang (Chinese Culture University)	Taiwan

Marital satisfaction not only related to couple communication or conflict resolution, but also associated with body image. Previous research showed that body image has influences on married adults' social prestige and self-esteem. Moreover, satisfaction with each part of the body in wives' body image not only affects their physical sexual fulfillment but also the marital satisfaction. Therefore, the main purpose of this study is to explore the relationships between married adults' body images and marital satisfaction, and to explore the explanation of married adults' personal backgrounds and body image on marital satisfaction. Through quota sampling, 1,222 questionnaires including married men and women were obtained in Taiwan. Research instruments include "Personal Background Questionnaire", "Multidimensional Body-Self Relation Questionnaire (MBSRQ)", and "Marital Satisfaction Scale". Results showed that married adults tend to satisfy with their marriage, the level of marital satisfaction is above average. When we look at the subscales of body image, married men focus on physical and energy dimension; on the other hand, married women emphasize on appearance, health, and overweight. With regard to marital satisfaction, married men's are more satisfied than women, especially in physical and philosophical dimension. Married adults' body image and marital satisfaction are significantly correlated. The more positive attitude toward body image, the better the marital satisfaction. By hierarchal regression, level of education and body image can predict married adults' marital satisfaction for 15.6% variance. Married adults with higher level of education and positive body image are more satisfied with their marriage. Based on findings of this study, it is recommended that married adults should have positive attitude toward their own body image. Moreover, family education centers or related counseling institutes may emphasize on the topics of body image in marriage education programs or support groups, in order to enhance married adults' marital satisfaction.

PT_0648

The Relationships among Orientations to Happiness, Happiness Enhancing Activities and Quality of Life in Korean Husbands and Wives

First Author (Main Author)	Jungha Lim (Korea University)	Republic of Korea
Co-Author(s)	Kyungmin Kim (Korea University) Hyunjee Kang (Korea University) Eunyoung Jo (Korea University)	
Presenting Author	Jungha Lim (Korea University)	Republic of Korea

The purpose of this study was to examine the relationship among orientations to happiness, happiness enhancing activities and quality of life in Korean husbands and wives. The participants were 276 married couples (aged from 30 to 59) recruited in Seoul and Gyeonggi area. The endorsement of three different ways to be happy (through pleasure, engagement, meaning), activities

to be happy (including goal-focused activity, recreational activity, community activity, activity with family & friends) and quality of life were assessed using self-report questionnaires. The data were analyzed using descriptive statistics, paired t-tests and multiple regression analyses. First, husbands' and wives' levels of orientations to happiness, happiness enhancing activities and quality of life were different. Specifically, husbands showed relatively higher level in endorsement of seeking meaning. Husbands spent more time in goal-focused activities than wives did, while wives spent more time in activities with community, family and friends than husbands did. Also, husbands showed higher level in quality of life than wives did. Second, orientations to happiness and happiness enhancing activities of husbands and wives affected each other's quality of life, but in different ways. That is to say, when wives endorsed happiness through seeking engagement more, their husbands tend to have lower quality of life. When husbands spend more time in community activity, their wives tend to have higher quality of life. On the other hand, activity with family and friends was a common factor which positively affected spouse's quality of life. These findings suggest that not only there are differences in orientations to happiness, happiness enhancing activities and quality of life between the married couples, but also the couples who spend more time with family and friends tend to have better quality of life. Therefore, these differences and reciprocal effects should be considered when promoting quality of life for married couples.

PT_0877

How the Japanese Use Their Time for Family and Housework: Analyzing Data from 1972, 1991, and 2013 in the City of Matsuyama

First Author (Main Author)	Noriko Kishi (University of Teacher Education Fukuoka)	Japan
Co-Author(s)	Michinori Hirata (Hiroshima University)	
Presenting Author	Noriko Kishi (University of Teacher Education Fukuoka)	Japan

AIM
Spending time with family is one element of home economics education in Japan. The objective data of time use for family is useful for teaching the contents of home economics education. However, there is not a great deal of research and data on family time. This study explores how the Japanese spend their time with family and in housework, focusing on gender.

METHODS
In 1972, the Economic Planning Agency in Japan conducted a time use survey following the survey method of Szalai's multinational comparative time use research. Follow-up surveys were conducted in 1991 and 2013 in the same city, using the same method. The leaders of the follow-up surveys were members of the first survey. In

a random sample of Matsuyama City's population aged 18-64, a time use diary from each day, locations, and social contacts were collected. The number of respondents was 1502 in the 1972 survey, 1275 in the 1991 survey, and 847 in the 2013 survey. This study analyzed part of each of the three surveys.

RESULTS

1. The time use difference by gender tended to grow less significant over the 40 years, although women still spent more time in housework and men spent more time in paid work. Married people showed this time use difference more significantly than unmarried people. 2. The married women spent more time alone and with children than the married men did. The married men increased time with children on Sundays over the 40 years. 3. The number of married people who spent time with their family was high when they ate, watched TV, or did housework. 4. Gender role recognition slightly affected married women's housework time.

CONCLUSION

The time use of the Japanese in Matsuyama City gradually changed toward expressing gender equality, in terms of how time was spent. The social contacts of married people tended to be family-centered, although this change might not be positive for all members of the family.

PT_0983

The Meanings of Doing Housework for Japanese Husbands

First Author (Main Author)	Junko Takayama (Ochanomizu University)	Japan
Co-Author(s)		
Presenting Author	Junko Takayama (Ochanomizu University)	Japan

AIM
The purpose of this study is to explore the meaning of doing housework through the interviews of husbands who are involved in meal preparation. In recent years, nuclear families and double-income families have increased in Japan. This change requires husbands to be more involved in housework. The time husband spend on housework is increasing, but it sometimes become problem that male do housework in a different way from female. For example, the meal prepared by male is sometimes called the "manly" cooking. In this study, I consider the meanings of housework for Japanese male through the framework of a gender model.

METHODS
I conducted the semi-structured interviews from May. to Oct. 2012, with 11 husbands who prepared meal more than once a week. They

are in their thirties and forties. The survey items were focused on background, the way of housework, attitude toward housework, gender ideology and so on.

RESULTS & CONCLUSION

Based on the in-depth interviews, it was found that husbands did housework not only for their families but also for themselves. Sometimes husbands did extraordinary housework because they wanted to show their masculinity, but gradually they realized that their wives did not expect them to do so. Some husbands recognized that the level of expectation of housework was different from their wives. In this case, husbands changed their behaviors and attitudes toward housework.

PT_1002

The Influence of Couple Relationship Standard Cognition upon Perception and Satisfaction with Positive Partner Behaviors in Korea

First Author (Main Author)	Jeongyun Park (Chung-Ang University)	Republic of Korea
Co-Author(s)	Yujin Jeon (Chung-Ang University) Sunhang Cho (Chung-Ang University)	
Presenting Author	Jeongyun Park (Chung-Ang University)	Republic of Korea

This research would figure out how the degree of recognizing conjugal relations creed have effects to the recognition and the satisfaction of the positive behaviors of the spouse, aiming for Korean couples. The research was conducted by conveniently sampled 240 Korean couples who has more than one child. The research utilized descriptive statistic, t-test, ANOVA, and multiple regression analysis by using SPSS WIN 18.0
First of all, result of the research implies that the average of boundary standard between a husband and wife is 48.71 point, the average of power-control standard about spouse is 45.00 point, and the average of investment standard in couple relationship is 106.18 point, which shows that the lower factors of recognition of conjugal relations creed are all over median values. Moreover, when we look over the recognition of the positive behaviors of the spouse, majority recognized positive behaviors of the spouse by recognizing 11.42 questions over 22 questions from affection behavior recognition questionnaire.
When we have looked into the lower factors of spouse's positive behaviors, satisfaction with partner affection behavior is 37.98 point, satisfaction with partner instrumental behavior is 28.99 point, so they are similar to the median value and satisfaction with partner nurturing behavior is 41.68 so it is over the median value. Second, with the higher academic achievement of husband, having (β=.184, *p<.05), perception of couple relationship standard (β=.234, **p<.01), the wife recognizes the positive behaviors

of the spouse more. The wife recognizes the positive behaviors of the spouse more when the first child is in the adulthood (β=.313, *p<.05) but conjugal relations creed does not get affected. Third, as academic achievement is higher, the husband's religion is same with the wife's. In the case of love marriages (β=-.145, *p<.05), the more perception of couple relationship standard (β=.268, ***p<.001) he has, there are more satisfaction of affective, instrumental and nourishing behaviors of the spouse. In the case of the wife, the more perception of couple relationship standard (β=.255, **p<.01) she has, (there is) the more satisfaction of the positive behaviors of the spouse could be identified. This research can be used as the basic data for keeping the positive conjugal relationship in the education environment in Korea.

*This research was supported by a grant of the Korea Health Technology R&D Project through the Korea Health Industry Development Institute (KHIDI), funded by the Ministry of Health & Welfare, Republic of Korea (grant number : HI15C0401).

PT_1051

A Study of Household Work Arising from Using Nursery Schools: Focusing on the Application Procedure to Nursery Schools in Japan

First Author (Main Author)	Mika Omagari (Ochanomizu University)	Japan
Co-Author(s)		
Presenting Author	Mika Omagari (Ochanomizu University)	Japan

AIM
The aim of this study is to explore the change of household work resulting from using nursery schools. Child care work is socialized by using nursery schools, and a part of the household work is transferred to nursery schools. However, using nursery schools create extra work in the household, such as the application procedure to nursery schools, picking up and dropping off children, and preparing children's belongings. It is necessary to examine what kind of work emerges from the socialization of childcare, and who is engaged in it. This study focuses on the application procedure to nursery schools, and clarifies the actual situation of working parents whose children are attending them.

METHODS
The semi-structured interviews were conducted from June to August 2013, with 12 mothers, 1 father, and 2 married couples. These subjects were parents of children attending nursery schools, who lived in a certain ward in Tokyo. They were asked how they had prepared for their children's acceptance to nursery schools, and who mainly did the household work.

RESULTS AND CONCLUSIONS

The results were as follows:

1. Using nursery schools tends to increase the burden of household work, while it reduces child care by the parents.
2. Recently Japan has been confronted with the issue of wait-listed children for nursery schools. Because of this issue, the time required for the procedure has increased and become complex.
3. Going through the procedure may cause the parents various anxieties, such as worrying whether their children can enroll in the nursery schools or not.

In conclusion, while decreasing child care work by the parents, applying to nursery schools increases other household work, such as management tasks. Further consideration on the support system for the nursery school application procedure is needed.

PT_1267

The Mediating Effects of Psychological Independence and Self-Efficacy on the Relationship of between Parent Attachment and Career Maturity of College Students

First Author (Main Author)	Hyerim Han (Yeungnam University)	Republic of Korea
Co-Author(s)	Jimin Lee (Yeungnam University)	
Presenting Author	Hyerim Han (Yeungnam University)	Republic of Korea

AIM

This study was conducted for finding out effective factors on college student's career maturity. The purpose of this study was to test the mediator effects of college student's psychological independence and self-efficacy in the relation between parent attachment and career maturity.

METHOD

The data was collected from 577 students of college located in 'D'city, Korea. College student completed questionnaires on Parent attachment, Psychological independence, Self-efficacy, and Career maturity scales. The correlation and structural equation model were conducted to examine the relations between the variables by using the SPSS 21.0 and AMOS 21.0.

RESULTS

The results are as follow: First, while the parent attachment has direct affect the college student's career maturity, and also the psychological independence, self-efficacy has a direct effect on the college student's career maturity. Second, there was a significant mediator effect of the college student's psychological and self-efficacy between the parent attachment and career maturity.

CONCLUSIONS

Based on the results of this study, It can be concluded that parent attachment has direct effect, and college student's psychological independence and self-efficacy has direct effect on college student's career maturity.

Keywords : Parent attachment, College student's psychological independence, College student's self-efficacy, College student's career maturity

PT_1363

The Research on Rural Male Youth Marital Payment Vicissitude

First Author (Main Author)	Ying Wu (Jilin Agricultural University)	China
Co-Author(s)	Jing Zhang (Jilin Agricultural University)	
Presenting Author	Ying Wu (Jilin Agricultural University)	China

AIM

To analyze expending conditions of rural young men marriage in A village, X city, China since 2000, which bases on Bourdieu's theory of practical, using basic concepts such as Field, Habitus, Capital.

METHODS

Using structured interview and observation method.

RESULT

The expending of young men marriage in A village can be divided into three parts courtesy expending, wedding and marriage house expending. Courtesy expending includes blind dating and betrothal gifts; the expenditure of the wedding day is wedding expending; the marriage house expending include house construction and decoration fee. This paper also analyzed the impact of such expending on the society, family and individuals.

CONCLUSION

The high cost of marriage expending contributed to some bad social atmosphere on the social side; caused the high economic burden on family and a weaker family structure. Although it could contribute to the establishment of individuals' new status on personal level, it may hinder the development of individuals.

PT_0906

An Impact of Dietary Life and Health Related Factors on Life Satisfaction in Elderly Households

First Author (Main Author)	Soon Mi Kim (Chungnam National University)	Republic of Korea
Co-Author(s)	Soon Kyung Kim (Soonchunhyang University) Yun Hee Oh (Chungnam National University)	
Presenting Author	Yun Hee Oh (Chungnam National University)	Republic of Korea

PURPOSE

There is an increasing interest in Elderly with increasing life expectancy of elders and percentage of ageing population in Korea. Particularly in elderly households, single households and couple households separated from their children are increasing and making various efforts to maximize their satisfaction with Elderly's life. However, low-income elderly households were difficult to maintain basic living compared to high-income ones and their health status was not good as well. This study is to identify the impact of dietary life- and health- related factors on life satisfaction in low-income elderly households and seek to maintain their life satisfaction in the long term. Specifically, it compares dietary life related factors including well-balanced diet, food expenses, and support of living expenses, health related factors including health status, health care payment, and support of medical expenses, and life satisfaction in single vs. couple households and investigates the effects of dietary life- and health- related factors on life satisfaction.

METHOD

In this study, the data from 2014 Korea Welfare Panel Study conducted by Korea Institute for Health and Social Affairs were used. As a sample, 1,918 elderly households with household head aged 50 years old and higher in low-income households earning less than 60% of median equalized income were selected and classified into 1,130 single households and 788 couple households. SPSS program (Ver. 21.0) was used. As statistical methods, frequency and percentile, mean and standard deviation, Pearson's correlation, and multiple regression analysis were used.

RESULT

First, in dietary life related factors, monthly average expenditure of single vs. couple households was \$221.19 and \$347.29(1,070 Korea Won/1USD) and monthly average food expense per person was \$221.19 and 173.63. The percentage of balanced diet was 74.8% and 80.1%, respectively. The percentage of single vs. couple households supported living expenses was 89.1% and 85.2%. Second, in health related factors, monthly average medical expense of single vs. couple households was \$72.06 and \$143.27. In health status, the percentage of unhealthy vs. healthy group in single households was 54.6% and

15.8% and that in couple households was 47.8% and 20.0%. The health status of couple households was better than that of single households. In supported medical expenses, 86.4% of the single households did not receive and 87.5% of the couple households did. Third, in the impact on life satisfaction, the variables influencing the life satisfaction of single households were balanced diet, food expenses and health status, while those of couple households balanced diet, health status, and supported medical expenses.

CONCLUSION

The findings that single households showed a higher life satisfaction when they were supported living expenses, when they spent more food expenses, and when their health status was better and couple households showed a higher life satisfaction when they were supported living expenses, when their health status was better, and when they were supported medical expenses suggests that there is a need to establish other welfare support plans depending on the household type of low-income elderly.

PT_0027

Career Mapping: Charting a Course towards Increasing Student Ownership in College & Career Planning

First Author (Main Author)	Cynthia Miller (Texas Tech University)	USA
Co-Author(s)	Karen Alexander (Texas Tech University)	
Presenting Author	Cynthia Miller (Texas Tech University)	USA

Many U.S. students are not understanding the significance of what they are learning in today's public high schools, which has caused an alarming percentage of them to not be postsecondary and work ready. This research study will include a complete review of literature on Family and Consumer Sciences (FCS) in work and family life, career decisions, and FCS-related career clusters and career pathways in developing a career-driven personal graduation plan (PGP). This study also provides research on the value of career-driven PGPs in increasing students' academic achievement and career preparation, motivation for learning and performance, and self-determination skills to actively take ownership in becoming college and career ready. Implications for secondary FCS programs and FCS Teacher Preparation programs are presented.

PT_0441

Instruction for Table Manners in School Lunch-Research from Teacher Training Course Student's Actual Condition-

First Author (Main Author)	Yoko Suzuki (Nara University of Education)	Japan
Co-Author(s)		
Presenting Author	Yoko Suzuki (Nara University of Education)	Japan

AIM

There are table manners taught over many years in Japan. For example, it is how to have chopsticks and usage. Upbringing for the table manners in a home is important. However, since there is a home which has lost the educational function occasionally, the class teacher instructs table manners in school lunch. Although the home economics education is also guiding table manners, there is a little treatment compared with other contents of study. On the other hand, it is not certain whether the student of a teacher's training course has the right table manners. The opportunity for the student to study the table manners in the stage of training of teacher is not guaranteed.

METHODS

In this report, in order to identify the existence of the necessity for manners instruction for the students, the teacher training course student's consciousness and the actual condition over the table manners were investigated. Furthermore, based on these results, the check sheet for the table manners was created and investigated the effect.

The subjects of survey are 94 students of the teacher training course in 2 universities. And 203 students replied to the check sheet.

RESULTS

All student accepted the necessity of instructing for the table manners in elementary school. As the reason which needs the table manners, 64% had answered the consideration for the others. Although it had answered that 80% of students had the table manners, the student who can be sure of own behavior was 7%. 54% students had answered that they could instruct the table manners for children. 78% students had answered that they would improve their manners by having filled in the check sheet.

CONCLUSION

The check sheet created by this report was effective in the improvement of table manners.

PT_0645

Hope and Happiness: Accredited Programs Prepare Students for Professional Careers

First Author (Main Author)	Carol Anderson (IFHE-US)	USA
Co-Author(s)		
Presenting Author	Carol Anderson (IFHE-US)	USA

The American Association of Family & Consumer Sciences accredits baccalaureate degree programs. Benefits of accreditation include: advancing academic quality, demonstrating accountability, and continuous improvement. A case study highlights the benefits of accreditation including updated curricula and equipment as well as remodeled facilities.

PT_0816

The Influence of Local Community on the Social Skills of Elementary School Children

First Author (Main Author)	Yoko Kobayashi (Gunma University)	Japan
Co-Author(s)	Kanami Sakiya (Takasaki Technial high School) Miyoko Nagatsu (Gunma University)	
Presenting Author	Yoko Kobayashi (Gunma University)	Japan

AIM

The purpose of this study is to clarify to what extent community influences children's social skills.

METHODS

A questionnaire was composed in order to collect responses to dependent and independent variables. Social skills were considered a dependent variable, whereas the independent variables were community, friendship, educational status, and other. The questionnaire was distributed to 590 sixth grade elementary school students in Takasaki, Gunma, Japan. The students were surveyed and analyzed according to three groups: city(30.4%), suburbs(38.2%), and rural areas(31.4%). The survey period was from June 2014 to July 2014. The resulting data was analyzed using SPSS/windows 22.0 for the following statistical analysis techniques: mean, frequency analysis, factor analysis, one-way analysis of variance, and multiple regression analysis.

RESULTS AND CONCLUSIONS

Three factors were extracted from the 18 items gathered by factor analysis. We named them "problem-solving thinking abilities" (ten items), "relationship formation abilities" (five items), "relationship

adjustment abilities" (five items). Multiple regression analysis revealed that attachment to the community has affected the "relationship formation abilities" and "relationship adjustment abilities" of the respondents.

Most significantly, the results of the one-way analysis of variance indicate that city elementary school students have a significantly higher "problem-solving thinking abilities" score than those in suburban and rural areas. Therefore, we conclude that children in the city have greater chance of interaction with a variety of people than those in suburban and rural areas. Thus, city living is more conducive environment for "problem-solving thinking abilities".

PT_0875

Sustainable Water Behavior: A Focus on Hispanic Households

First Author (Main Author)	Jiyun Kang (Texas State University)	USA
Co-Author(s)	Kaitlin Grable (Former Master Student from Texas State University) Gwendolyn Hustvedt (Texas State University) Mira Ahn (Texas State University)	
Presenting Author	Jiyun Kang (Texas State University)	USA

Sustainable water behavior is complex and understanding the beliefs and attitudes that precede the behavior can be an efficient way to change to or reinforce the behavior. This study aims to explore the role of Hispanic households' beliefs related to drought and water resources in shaping their attitudes and behaviors related to sustainable water consumption. We focus on Hispanic households based on their significance to the national economy and many of them live in regions that are facing serious challenges from droughts and water shortages. We have developed a comprehensive model that depicts how water beliefs (water utilitarian belief, water ecological belief, perceived drought severity, and water resource concern) affect water attitudes (general attitude, social norm, perceived control, and moral obligation toward sustainable water consumption), which in turn affect water behaviors (current behaviors related to sustainable water consumption and future intention of adopting water-efficient technology). Data was collected using an online survey with a random sample of 825 Hispanics (410 from Texas and 415 from California). The results of path analysis indicated that water utilitarian belief negatively affected water conservation attitude but positively affected perceived control in water conservation. Water utilitarian belief negatively affected attitude but positively affected perceived control. Water ecological belief positively affected attitude, social norm, and moral obligation. Perceived drought severity negatively affected perceived control. Water resource concern positively affected all of water attitude variables. Water utilitarian belief, water ecological belief, and water resource concern directly affected sustainable

water current behavior. Indirect effect tests suggest the significant mediating roles of water attitudes in the paths from water belief constructs to current behaviors and the mediating roles of water attitudes along with current behaviors in the paths from water belief constructs to future intention of adopting water-efficient technology. This study provides critical implications to home economists and policymakers charged with managing water conservation efforts especially for Hispanics in regions significantly impacted by drought.

PT_0899

Family, Community, School Education and Concern for Japanese Traditional Cuisine among Junior High School Students in Japan

First Author (Main Author)	Kinuyo Kurokawa (Naruto University of Education)	Japan
Co-Author(s)	Miwa Fuchiuti (Shingai Elementary School)	
Presenting Author	Kinuyo Kurokawa (Naruto University of Education)	Japan

AIM

Industrial advances have affected human life in various ways. This includes dietary life. We have increasingly been depending on packaged foods and ready-to-eat dishes for day-to-day family meals. In accordance with this phenomenon, Japanese traditional dishes related to annual events increasingly are not prepared at home. Traditional event-related cuisine, however, expresses the uniqueness and richness of Japanese dietary culture and is too culturally valuable to lose. Thus, to inherit Japanese traditional cuisine, it is important to examine the younger generation's concern for it. This paper aims to investigate factors associated with concern for traditional cuisine in connection with family, community and school education.

METHODS

A questionnaire survey was conducted in July, 2014. Participants were 564 Japanese junior high school students. The questionnaire included questions about family dinner, dinner preparation, dinner table communication, relationships with neighbors, traditional cuisine education at school, and concern for traditional cuisine. Concern for traditional cuisine was measured by 2 aspects, interest and inheritance. The data were analyzed through correlation and multiple regression analyses.

RESULTS

Interest and inheritance were significantly correlated (r=.832). The results of multiple regression analyses showed that "studying about traditional cuisine at school" was most significantly associated with both interest and inheritance. Another significant factor commonly related to interest and inheritance was "Enjoying helping prepare dinner." Eating dinner alone was negatively associated with inheritance.

CONCLUSION

The results imply that "Concern for traditional cuisine" would be enhanced through school education. Thus, home economics is very important as a subject dealing with Japanese traditional cuisine. "Concern for traditional cuisine" is also raised at home. Preparing and having dinner with family members would be an effective way for junior high school students to increase their awareness of Japanese traditional cuisine.

PT_0937

The Impact of Quality of Dating Relationship and Image of Marriage That Unmarried Couples Perceive on Marriage Values in Korea

First Author (Main Author)	Jeongyun Park (Chung-Ang University)	Republic of Korea
Co-Author(s)	Ah-Reum Won (Chung-Ang graduate school) Heeyun Lee	
Presenting Author	Jeongyun Park (Chung-Ang University)	Republic of Korea

This study shows how the quality of dating relationship and image of marriage could have impacts on marriage values of Korean unmarried couples related to rising issues, such as the reduction of marriage and birth rate.

The subjects of this study are 411 in-a-relationship unmarried men or women. SPSS WIN 20.0 program is analyzed by descriptive statistics, t-test, ANOVA, and multiple regression analysis.

First, related to overall tendency of related variables, we discuss the marriage values with 5 point Likert scale for each sub-factor. The result shows stable-romantic marriage 4.17 points, conservative-instrumental 3.30 points, passive-exclusive marriage 2.74 points. The awareness of quality of dating relationship is 3.98 out of 5.0, the average point is 5.53 out of 7.0 which is above the middle point.

Second, from the result of examining whether there is a difference in marriage intention in accordance with demographic characteristics, there is no difference between stable-romantic marriage values and negative-exclusive marriage values.

Conservative-instrumental marriage values in women, the group of people over 33-years-old, non-religious people, and other types of family other than nuclear and extended family show high marriage values.

Third, from the result of examining the relative influence of factors related to marriage values, it was statistically significant from the fact that stable-romantic marriage 25.8%(F= 11.944, ***p<.001), conservative-instrumental marriage 8.9%(F= 3.328, ***p<.001), passive-exclusive marriage 21.4%(F= 9.324, ***p<.001). Marriage values and quality of dating relationship equally show high influence on three types of marriage values. Therefore, we need to find the way to enhance subjective satisfaction about current dating relationship and positive perception of marriage as alternatives to low birth rate

and fertility.

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PT_1169

Understanding Employee Perceptions of Wellness

First Author (Main Author)	Mia Russell (University of Maryland Extension)	USA
Co-Author(s)		
Presenting Author	Mia Russell (University of Maryland Extension)	USA

Wellness is a comprehensive and complex concept that helps individuals make informed choices that promote a more satisfying lifestyle. The role and responsibility organizations have in creating and generating wellness at work, among employees, has received increased awareness. Workplace wellness has been defined as an organized, employer-sponsored program that supports and increases the quality of life of employees, and often their family members, while increasing the organizations' bottom line. The literature shows positive relationships between wellness programs and organizational outcomes.

AIM

Using the dimensions of wellness framework, this study was designed to understand how employees derive the meaning of wellness; by understanding these relationships and employee perspectives, organizations can help employees achieve and maintain wellness.

METHODS

This poster shares research on perceptions of wellness among employees (n=22) from urban, suburban, and rural areas of Maryland. Participants were diverse in gender, race and age. Three focus groups, representing distinct industries as per the 2012 North American Industry Classification System (NAICS), were held onsite at the employers' primary business location, in a private or semi-private area.

RESULTS

Most participants suggested that wellness was a highly individualized concept although many similarities existed among and between the individuals. Participants predominantly discussed wellness in terms of emotional, occupational, social, and financial wellness. Common, yet interesting and varying, themes of financial wellness emerged based on the employee rank and gender. Financial wellness was discussed in terms of achieving financial goals and objectives among many of the participants. An expected finding of the study was the

association with financial wellness and retirement. Participants that were retirement eligible discussed financial wellness more frequently than younger participants.

CONCLUSION

Employee perceptions can be used to inform and advance employee wellness policies and programs that employers may seek to offer. Programs that promote employee wellness have been shown to encourage and promote positive organizational outcomes. Understanding these relationships and implementing policies and programs that create a more satisfied, engaged and productive workforce is an organizational competitive advantage.

PT_1247

Using Strengths to Build a Stronger Future

First Author (Main Author)	Deborah Tippett (Meredith College)	USA
Co-Author(s)	Deborah Tippett (Meredith College) Jo Allen (Meredith College)	
Presenting Author	Deborah Tippett (Meredith College)	USA

As one of the nation's largest and most respected women's colleges in the United States, Meredith College spent 2011-2012 focusing on testing and articulating what it is that we do best: educate women to build on their strengths to create lives of impact and distinction. Using the brand, "Going Strong," we sought ways to build a new strategic plan that would challenge us to use our institutional strengths to ensure our future. At the heart of this success is a new program for our undergraduate students, StrongPoints™. Knowing that women often fixate on what is wrong with themselves (intellect, skills, body), Meredith faculty and staff seek to flip that script from students' very first day at Meredith, when new students take the StrengthsFinder® assessment. From there, faculty/staff and peer advisors have a new way to talk with students. Rather than asking what they want to major in, these coaches now get to know the students by asking how their strengths have served them and how they might use their strengths to develop their passions. From those conversations, students begin to build their individual StrongPoints, a four-part planning/coaching model that recognizes the power of planning in women's lives in the areas of academics, experiential learning, financial literacy and careers. The college has invested in personnel with training, certifications from StrengthsFinder® and workshops for all faculty and staff, new staff, technological support, new facilities and changes to the curriculum. The results are an increased enrollment (second largest class in 125 years), improved retention at 80%, a strong graduation rate (60%) in four years, and increased endowment, with \$50 million in gifts in the last three years.

PT_1265

Psychological Effects of Meal Tray Color on Visual Palatability of Meals for Low Vision

First Author (Main Author)	Keiko Tomita (Kindai University)	Japan
Co-Author(s)	Misato Yasuoka (Kindai University) Maya Inamura (Kindai University)	
Presenting Author	Keiko Tomita (Kindai University)	Japan

AIM

Cooking and eating for dietary control under low vision is difficult. However, most color schemes which represent an important factor in appetite, for tableware made for individuals with low vision only come in combinations of black and white. This study examined the psychological effects of meal tray color on the visual palatability of meals for individuals with low vision.

METHODS

Meals on trays that created a good color scheme together (not including dishes on the tray) were selected using SD method from 218 meals served for approximately 2.5 months in a nursing home in Japan. The colors of the trays with the meals found to be most appealing by the SD method were converted to 18 colors on the PCCS on a LCD screen.

Participants comprised university students (n=30/color) who sat in front of an LCD screen onto which the 10 colors of trays were projected. After viewing, subjects answered a questionnaire. Results : were compared between two groups: a low-vision group in which subjects wore low-vision simulation glasses; and a healthy group without glasses. The questionnaire comprised the following 3 sections: attributes; physical and/or mental condition; and image of the dining space. Images for each tray color were defined by the SD method, using 36 antonymic adjective pairs. The visibility perceived by the color contrast between the tray and dishes were performed by using the color chart instead of the trays with the dishes on a LCD screen.

RESULTS

Tray colors b4, b6, b8, p8 and v8 were evaluated most favorably in terms of visual perception for low vision subjects. Tray colors Bk, Gy3.5, b18, dk8, b12, b24, b2, dp8 and b4 were shown to have high visibility.

CONCLUSION

Tray color b4 was shown as the most useful color for visual perception, universal color design, and comfort among 18 colors.

PT_1275

Influences of Past Dietary Experiences on Zest for Living of Female Undergraduate Students ~ A Comparison between Japan and Korea~

First Author (Main Author)	Keiko Tomita (Kindai University)	Japan
Co-Author(s)	Misato Yasuoka (Kindai University) Kang Jangmi (Hyogo NCC College) In-Sook Lee (Uiduk University) Maya Inamura (Kindai University)	
Presenting Author	Keiko Tomita (Kindai University)	Japan

AIM

The world has become an intensely competitive place due to declining economies and the spread of globalization. With the arrival of a knowledge-based society in Japan, there is a demand for the enhancement of personal qualities such as intelligence, creativity and decision making ability, prerequisites for success in such a society. In other words, acquiring a 'zest for living' is needed to thrive in a competitive society. However, there is a concerning decline in zest for living among young people around the world. Very few studies have focused on the relationship between diet and zest for living. Therefore, this study aimed to reveal the relationship between diet and zest for living targeting undergraduate students in Japan and Korea that share a common dietary culture within the same East Asian region.

METHOD

In Japan, 204 female undergraduate students (21.0 ± 3.0 years) from K University in Nara City completed the questionnaire survey between July and November 2012. In Korea, 64 female undergraduate students (22.5 ± 1.5 years) from U University in Gyeongju City completed the questionnaire survey in September 2013. The self-recording questionnaire survey consisted of the following 7 categories (total 114 items): personal attributes, past and current dietary experiences, parent-child relationship, relationship with friends, self-evaluation, and zest for living. IBM SPSS Statistics and Amos were used for statistical analysis.

RESULTS

Analysis of principal components of all 107 items was performed and 23 factors were extracted. Covariance structure analysis was subsequently performed and it revealed the relationship between each of the factors that influenced zest for living. The investigation of common occurrences in Japan and Korea revealed that those who spend quality time with their families during meals tend to have favorable parent-child relationships as well as favorable relationships with friends. Also, those with favorable parent-child relationships and relationships with friends, have high self-esteem and strong zest for life. On the other hand, the analysis

of negative factors of zest for living revealed a difference between Japan and Korea. In the case of Japanese female undergraduate students, low self-esteem lowered their motivation and consequently decreased their zest for living. On the other hand, when Korean female undergraduate students felt isolated due to unfavorable family time during meals, it had a negative effect on their self-esteem, which strengthened their fear towards failure and decreased their zest for living.

CONCLUSION

This study revealed that an important factor in nurturing zest for living is spending quality time with the family during meals.

PT_1277

Factors Related to Dietary Experiences That Affect the Cultivation of Zest for Life among University Students

First Author (Main Author)	Misato Yasuoka (Kindai University)	Japan
Co-Author(s)	Maya Inamura (Kindai University) Keiko Tomita (Kindai University)	
Presenting Author	Misato Yasuoka (Kindai University)	Japan

AIM

This year marks the 10-year anniversary of the establishment of the Basic Law of 'Shokuiku' (Food and Nutrition Education), and various food and nutrition education promotional activities have been taking place throughout Japan. Food and nutrition education is valuable in forming a well-rounded character. It is especially indispensable in nurturing children's zest for life. However, only limited research has been conducted on the specific dietary experiences which influence zest for life. This study aimed to investigate specific factors related to dietary experience that affect zest for life.

METHODS

A total of 290 undergraduate and graduate students were asked to complete the following three questionnaire surveys (total 157 items) between September and November 2015: 1) Investigation of presence or absence of specific dietary experiences from early childhood and the extent of these experiences (by life stage); 2) Investigation of individual degree of 'zest for life' (Ready-made Y-G Personality Test); and 3) Investigation of the degree of stress tolerance (Ready-made S-H Resilience Test). Each questionnaire item was grouped by factor analysis and using the grouped items, the relationships between the items were examined by covariance structure analysis.

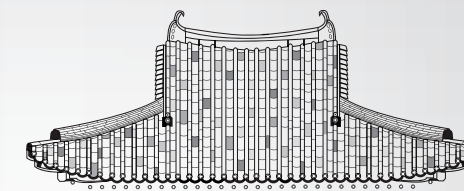
RESULTS

By the covariance structure analysis, the factor with the strongest

influence on zest for life among female Japanese undergraduate students, was self-esteem. Further investigation into the specific factors of dietary experience that affect zest for life revealed that dietary experiences related to dietary culture at home enhances the appreciation of food and people, suggesting that this leads to enhanced zest for life. In addition, nurtured zest for life improved willingness to integrate into society, which is a developmental issue in late adolescence. It was also suggested that the more people value table manners, the more likely developmental issues of late adolescence had been resolved. Conversely, the study indicated that isolation and depression negatively affect the willingness to integrate into society. Lack of mutual understanding within the family and a low stress tolerance were also shown to have an adverse effect on zest for life.

CONCLUSION

The zest for life was suggested to be influenced from pleasant dietary experience with variety persons.



**XXIII IFHE
WORLD CONGRESS 2016**

POSTER

Wednesday August 3

09:00 ~ 17:00



Exhibition Hall (1F)

CODE	TITLE	PRESENTER	COUNTRY
0803-CDS&HMT-01	Consciousness Changes in the Young's Interest for Fishes and Fisheries	Atsuko Yamamoto (Aichi Gakusen College)	Japan
0803-CDS&HMT-02	Life Cycle Inventory Analysis for Sustainable Wardrobe Management; Effect and Development of a Worksheet for Foreground Data Analysis	Yoko Shinohara (Okayama University)	Japan
0803-CDS&HMT-03	Commitments to MDGs by the Studies of Home Economics around the World	Mieko Saito (Kawamura Gakuen Woman's University)	Japan
0803-CDS&HMT-04	A Newly Developed Home Economics Course Incorporating an Experiment "Solar Oven" from a Viewpoint of Education for Sustainable Development: Based on the Results from Trials in Junior and Senior High Schools	Sono Sato (Okayama University)	Japan
0803-CDS&HMT-05	A Study on the Effect of Residential Occupancy of Elderly on Household Spending and Life Satisfaction	Sunny Park (Seoul National University)	Republic of Korea
0803-CDS&HMT-06	Research on the High-Risk Child Care Families in the Small Municipality of Japan - A Case Study of Tottori -	Yukiko Otani (Setsunan University)	Japan
0803-CDS&HMT-07	The Pursuit of Happiness : The Multicultural Activity of Immigrant Family in Taipei City as an Example	Hsiao-Hsuan Kuo (National Taiwan Normal University)	Taiwan
0803-CDS&HMT-08	About a Policy for Declining Birth Rate in a Local Government	Mihiro Tosano (Nara Women's University)	Japan
0803-CDS&HMT-09	Analysis of Unintended Effects by Policies of Residents Escaping from North Korea : From the Children's Rights and Family Policy Perspectives	Heuijeong Kim (Seoul National University)	Republic of Korea
0803-CDS&HMT-10	The Effect of Financial Planning Horizon on the Purchase of Life Insurance	Heejung Park (University of Georgia)	USA
0803-CDS&HMT-11	New Aspects for Subsistence in Modern Society	Toshifumi Sasai (Kyoto Prefectural University Graduate School)	Japan
0803-CDS&HMT-12	Research on Content Development for Environmental Education in Home Economics from the Perspective of ESD through an Analysis of American Guidelines (Pre K-12)	Yoko Shinohara (Okayama University)	Japan
0803-CDS&HMT-13	Youth Financial Education and Entrepreneurship	Mia Russell (University of Maryland Extension)	USA
0803-CDS&HMT-14	The Current Condition and Issues of Japan's Policy on Consumer Education	Shigemi Kakino (National Institute on Consumer Education)	Japan
0803-CDS&HMT-15	Employment Status of Mother's and Household Trends in Educational Expenses: Using the Korean Labor and Income Panel Study	Sujin Lee (Hiroshima University)	Republic of Korea
0803-CDS&HMT-16	Move Out or Stay? : Comparing Childcare Environment for Japanese Young Families in Local Municipalities	Kanako Aoki (Nara Women's University)	Japan
0803-CDS&HMT-17	A Study on the Active Stage of Community Reform and Sustainability: Role of Neighborhood Associations for the Maintenance of Extremely Low Populated Small Villages in Mountainous Area of Kawane-District in Hiroshima, Japan	Taeko Yanai (Gifu Think Association)	Japan
0803-CDS&HMT-18	A Study on Money Management System of Married Couples in Japan	Junko Shigekawa (Saitama University)	Japan
0803-CDS&HMT-19	Financial Beliefs and Dysfunctional Financial Behaviors of Korean Consumers	Sang Hee Sohn (Seoul National University)	Republic of Korea
0803-CDS&HMT-20	Hope for the Flowers: A Parachute Wedding Dress	Ja Young Hwang (Kent State University)	Republic of Korea
0803-CDS&HMT-21	Research on the Child Care Family Policy as an Alternative Low Birth Rate Phenomenon	Mi Yeon Kim (Sookmyung Women's University Graduate School)	Republic of Korea
0803-CDS&HMT-22	A Study of Multicultural Adolescents' Core Competencies for Building Official Development Assistance(ODA) Human Resources	Jee Won Chun (Sookmyung Women's University Graduate School)	Republic of Korea
0803-CDS&HMT-23	The Green Campus Plans of Freie Universität Berlin through Aboard Field Survey	Yoon Jung Choi (Chungbuk National University)	Republic of Korea
0803-CDS&HMT-24	Foundation Study on Multicultural Family Social Integration System Plan	Su Sun Park (Seowon University)	Republic of Korea

Exhibition Hall (1F)

CODE	TITLE	PRESENTER	COUNTRY
0803-CDS&HMT-25	Study on Characteristics of Children, Parents and Household Consumption Expenditure According to Economic and Physical Independence and Changes in Children	Eunsun Cho (Seoul National University)	Republic of Korea
0803-FAM-01	Issues in Child Care and Work-Life Balance of Hearing Impaired Women	Hitomi Yoshida (Iwate Prefectural University)	Japan
0803-FAM-02	Residents' Consciousness of Community Life in a Newly-Developed Residential Area : A Study on Life Support for the Elderly Living at Home by Community Work	Junko Murata (Wakayama University)	Japan
0803-FAM-03	Implementation and Effectiveness of Adolescent Coaching Education Program for Career Path Development and Character Building	Hyeyeon Kim (Jeju National University)	Republic of Korea
0803-FAM-05	The Work-Life Balance Gaps in Aged People	Yoko Hosoe (Jissen Women's University)	Japan
0803-FAM-06	Technology and Enhancement of Urban Dwelling Older People's Health	Lucia Yi-Chun Huang (Yu Da University)	Taiwan
0803-FAM-07	Development and Testing of a Program for Visualizing Women's Lives in Developing Countries	Haruko Amano (Japan Women's University)	Japan
0803-FAM-08	Support for Female Independence in the Affected Areas of the Great East Japan Earthquake: The Role Played by Handicraft Classes	Kei Sasai (Japan Women's University)	Japan
0803-FAM-10	Analysis of Work-Family Coexistence Relations-Accordance of Marriage Satisfaction and Work Satisfaction	Hyun Ji Yoo (Sookmyung Women's University)	Republic of Korea
0803-FAM-11	Need Survey for Lao Women's Economic Empowerment from Gender-Sensitive Perspective - Focused on the Trainers and Trainees of Women's Vocational Training Center in Lao PDR	Miyoung Kim (Sookmyung Women's University)	Republic of Korea
0803-FAM-12	Use of Family-Friendly Workplace Policies and Parenting Stress of Employed Korean Mothers: The Moderating Role of Job Involvement and the Husband's Participation in Childcare	Sewon Oum (Seoul National University)	Republic of Korea
0803-FAM-13	Information and Communications Technology and Families: Korea, China, and the United States	John Brady (Seoul National University)	Republic of Korea
0803-FAM-14	The Oldest Old in Urban Korea: Experiences of Space	Jane Park (Seoul National University)	Republic of Korea
0803-FAM-15	Gender Inequality in Leisure Time for Korean Elderly	Oi-Sook Kim (Korea National Open University)	Republic of Korea
0803-FAM-16	The Conditions and Characteristics of Leisure Activities for the Middle-Aged People	Eun Bee Ko (Sookmyung Women's University Graduate School)	Republic of Korea
0803-FDN-02	Physical, Chemical, and Sensory Properties of Glass Noodle Supplemented	Orawan Oupathumpanont (Rajamangala University of Technology Thanyaburi)	Thailand
0803-FDN-03	Creating a New Texture by Controlling the Bubble Content in Konjac	Madoka Hirashima (Mie University)	Japan
0803-FDN-04	Effects of the Substitution Level of Freeze-Dried Angelica Keiskei on Functional and Sensory Properties of Bread	Tomoko Yamauchi (Nagoya Women's University)	Japan
0803-FDN-05	Effect of Dietary Education on Eating Behavior and Self-Efficacy of Elementary School Students	Michie Moriyama (Aichi Gakusen University)	Japan
0803-FDN-06	Stress and Eating Behavior	Mamiko Kurotani (Aichi Gakusen University)	Japan
0803-FDN-07	Cooking Habits of College Students in Japan	Madoka Hirashima (Mie University)	Japan
0803-FDN-08	A Study on the Taste-Modifying Phenomenon of Miracle Fruit That Is Native to West Africa	Yoko Okamoto (Suzugamine Women's College)	Japan
0803-FDN-09	Sensory Acceptability of the Newly Introduced Cuisine of Boiled Incubated Fertilized Duck Egg ("Balut"), an Indigenous Food in the Philippines, with Additional Information on the Chemical and Nutritional Facts of the Egg Product	Norlita Sanceda (Ochanomizu University)	Philippines
0803-FDN-10	Health Literacy Needs of Vietnamese American Women with Limited English Proficiency	Jenny Yi (California State University Northridge)	USA

Exhibition Hall (1F)

CODE	TITLE	PRESENTER	COUNTRY
0803-FDN-11	Principals' Perceptions of Indian Secondary School Food and Nutrition Curriculum, Policies and Services	Neha Rathi (Deakin University)	Australia
0803-FDN-12	Effects of Air Bubbles on the Tofu Products with Japanese Yam and Their Applicability to a Dysphagia Diet	Tomoko Miyashita (The University of Aizu)	Japan
0803-FDN-13	Development of a Novel Fermented Food Made with Germinated Soybean Flour and Rheological Properties during Dough Fermentation	Michiko Tsuji (Nagoya Women's University)	Japan
0803-FDN-14	Effects of Water Amount and Cutting on Abura-Fu Production	Hideko Takahashi (Shuko Junior College)	Japan
0803-FDN-15	The Effectiveness of a Nutritional Improvement Program for Community-Living Elderly Individuals	Hiroko Moriwaki (Prefectural University of Hiroshima)	Japan
0803-FDN-16	Development of Teaching Materials Based on School Meals in Laos	Takamasu Masako (Japan Women's University)	Japan
0803-FDN-17	Actual Circumstances Basal Metabolism Standard of Female Students in Fukushima Prefecture	Satoko Okabe (Koriyama Women's University)	Japan
0803-FDN-18	Home Economics and Health - Natural Partners?	Emer Cullen (St. Angela's College)	Ireland
0803-FDN-19	Prediction of Optimum Size and Volume Ratio of Potatoes in Boiling Process for Ecological and Energy Saving Cooking	Tomoko Hara (Shiga Junior College)	Japan
0803-FDN-20	Physical Status and Dietary Habits among Schoolchildren in Miyazaki	Hisae Shinohara (University of Miyazaki)	Japan
0803-FDN-21	The Effect of Curcumin in Breast Cancer Chemotherapy	Hyuna Lee (Hannam University)	Republic of Korea
0803-FDN-22	Hope and Happiness for Sickle Cell Anaemic Children on Dietary Management in Federal Medical Centre, Abeokuta, Ogun State, Nigeria	Adebisi Tunrayo (University Of Ilorin)	Nigeria
0803-HOS-01	Preventing Heat Disorders in the Elderly by Improving Their Living Environment and Daily Living Habits - Analysis of a Questionnaire and Field Measurement Surveys in Japan -	Michiyo Azuma (Kio University)	Japan
0803-HOS-02	The Investigation on Tibetan Villages in Garzé Tibetan Autonomous Prefecture, Sichuan Province, China	Wang Xueju (Nara Women's University)	Japan
0803-HOS-03	The Study of the Space Form of the Ethnic Miao's Village in the Southwest of Hunan, China-With the Miao's Village in Huaihua as the Object -	Feixue Wang (Nara Women's University)	Japan
0803-HOS-04	A Study on Living Space and Lifestyle of Mongolian in the Region of Horqin	Yu Jiao (Nara Women's University)	Japan
0803-HOS-05	Comparative Study of Network Residence in Japan and South Korea: Focus on Urban Areas	Jeonggyun Kim (Naruto University of Education)	Japan
0803-HOS-06	The Different Residential Modalities and Consequent Lifestyles of Evenki People in Inner Mongolia	Suchin Toya (Nara Women's University)	Japan
0803-HOS-07	The Present Conditions and Problems of Crime Prevention in Elementary Schools Open to the Local Community	Yumi Nakasako (Kumamoto University)	Japan
0803-HOS-08	The Human Responses on Thermal Environment at the Bedroom during Nocturnal Sleep of the Elderly and the Young in Japanese Summer	Hiroko Kubo (Nara Women's University)	Japan
0803-HOS-09	Characteristics of Temporary Housing and Life of the Victim in the Great East Japan Earthquake -Case Study of Ishinomaki City-	Eisuke Ikuta (Osaka City University)	Japan
0803-HOS-10	Evaluation of Sensibility and Absorbent Performance for the Disposable Sanitary Napkins	Eun-Joo Han (Chungbuk National University)	Republic of Korea
0803-HOS-11	The Importance of Service Items for the Effective Facility Management (FM) on Campus Facilities	Min Soo Kim (Kyung Hee University)	Republic of Korea
0803-HOS-12	Suggestion of Guidelines for Improving Indoor Environmental Quality (IEQ) in University Dorm Facilities	Yujin Kim (Kyung Hee University)	Republic of Korea
0803-HOS-13	Alternative Solution for Homeless in Korea to Stabilize Housing	Jiwon Hyun (Yonsei University)	Republic of Korea
0803-HOS-14	Ways to Form Neighborhood to Promote Social Health of the Housing Community	Chohee Sung (Yonsei University)	Republic of Korea

Exhibition Hall (1F)

CODE	TITLE	PRESENTER	COUNTRY
0803-TEX-01	A Study on Thermal Comfort of Protective Clothing	Tomoko Koshiba (Bunka Gakuen University)	Japan
0803-TEX-02	The Effect of Differential Pressure of Compression Garment on Movement-Related Cortical Potentials(MRCPs)	Yejin Lee (Chungnam National University)	Republic of Korea
0803-TEX-03	Differences in the Impressions Associated with Yukata Worn at Events and Those Worn at Hot Spring Resorts, and the Differences in Yukata Preferences Based on Gender	Ju-hee Sohn (University of Toyama)	Japan
0803-TEX-04	How Participation in Mini Fashion Shows for the Elderly Affected Their Mood and Feelings	Ju-hee Sohn (University of Toyama)	Japan
0803-TEX-06	Dyeing of Silk and Cotton Fabrics Using Natural Dye Extracted from Blackcurrants	Akemi Yasukawa (Hirotsaki University)	Japan
0803-TEX-07	Effects of Kinetic Dynamics by Shoes on Posture, Gait and Joint Moments in Human Body	Satoko Aoki (Graduate School of Bunka Gakuen University)	Japan
0803-TEX-08	Color Characteristic of Japanese Cedar Ethanol Extract	Myoung Ok Kim (Chungnam National University)	Republic of Korea
0803-TEX-09	Color Characteristics of Distilled Water & Ethanol Extracts from Curcuma Longa	Sam Kang (Chungnam National University)	Republic of Korea
0803-TEX-10	Color Characteristics of Perilla Frutescens Extract with Different Solvents	Qianwen Wang (Chungnam National University)	China
0803-TEX-11	Development and Evaluation of Comfort Clothes Applying Korean Traditional Persimmon Juice Dyeing	Soonja Park (Chuncheon University of Education)	Republic of Korea
0803-TEX-12	A Study on the Features of Complementary Color Combinations in Marni Collection	Yong-ja Kwon (Chungnam National University)	Republic of Korea
0803-TEX-13	Contractual and Extensional Behavior of Knit Depending on the Axis of Extension for the Pattern Making of Sportswear	Gyeongmi Lee (Chungnam National University)	Republic of Korea
0803-TEX-14	3D Analysis of Commercial Winter Facemasks and Face for a Prototype of Optimal 3D Facemask	Ran-i Eom (Chungnam National University)	Republic of Korea
0803-TEX-15	An Exploratory Study on the Success Factors of Small Fashion Business: Focus on Internet Fashion Shopping Mall	Mi Young Son (Korea National Open University)	Republic of Korea
0803-TEX-16	Thermal Liner Effect for the Heat Stress of Firefighters' Turnout Gear	Eunjin Park (Yonsei University)	Republic of Korea

PT_0299

Consciousness Changes in the Young's Interest for Fishes and Fisheries

First Author (Main Author)	Atsuko Yamamoto (Aichi Gakusen College) Japan
Co-Author(s)	Michie Moriyama (Aichi Gakusen University) Mamiko Kurotani (Aichi Gakusen University) Atsumi Koide (Nagoya Women's University) Kishiko Matsumoto (College of Nagoya Women's University) Tomoko Yamauchi (Nagoya Women's University)
Presenting Author	Atsuko Yamamoto (Aichi Gakusen College) Japan

AIM
"The exchange meeting between fisheries and students" that I promotes local production for local consumption for university students to deepen understanding of the marine industry. I can hope that the understanding for the local fish deepens by the interchange with fisheries and the students. Therefore I performed questioner survey after enforcement to show the effectiveness of the meeting. I followed the consciousness of the students four months after the enforcement. It was intended to show the effectiveness in exchange meeting evaluating the effect of fish intake situation of university student's consciousness about fishes.

METHODS
"The exchange meeting between fisheries and students" was carried out by 32 college students in August, 2014. After an exchange meeting, I did a fish and nourishment recognition and questioner survey about the intake situation of the fish. Furthermore, four months later, I performed chase questioner survey in the same students. The contents are the consciousness for the fish and the intake situation of the fish.

RESULTS
Even if the consciousness for the fish of the student had a feeling of resistance that a fish smell and slime hated from a questionnaire result, they seemed to choose fish cooking among consciousness to be good for the health. Most of the fresh fish experienced that there was not a smell by having used the local fish. Interest in local fishes increased by learning an opportunity and a recipe of the interchange of a fishery person and the youth. In the questioner survey four months later, there were 53% of students who replied it when the consciousness for the fish changed. Many students increased frequency to eat a local fish after an exchange meeting.

CONCLUSION
Many students increased frequency to eat a local fish after an exchange meeting. It is suggested that I led to many fish intakes by

the enforcement of the exchange meeting of the student.

PT_0380

Life Cycle Inventory Analysis for Sustainable Wardrobe Management; Effect and Development of a Worksheet for Foreground Data Analysis

First Author (Main Author)	Yoko Shinohara (Okayama University) Japan
Co-Author(s)	
Presenting Author	Yoko Shinohara (Okayama University) Japan

AIM
Owning superfluous clothing wastes resources and energy, and is accompanied by environmental impacts. To solve this problem, planned management of clothing is required. Therefore, in this study, I developed an LCA for solving this consumer problem from a home economics perspective.

METHODS
I developed a worksheet for foreground data (FD) in life cycle inventory analysis, and 21 college students tested it with their clothing. I investigated the relationship between the result of LCA and decision-making using AHP. Using the worksheet, students computed consumption, energy resources, and the environmental impact of manufacture, disposal, and recycling of their clothing. For washing their clothes, students computed their consumption of energy, water, and detergent, as well as environmental impacts (BOD). Consequently, they discovered a new cause; hence, they improved their clothing management. I investigated the relative importance of factors in their clothing selection among "design," "comfort," "quality," and "resources and environmental consideration."

RESULTS
Students owned clothing averaging 110 (36.2 kg) clothes. They also averaged 17 (5.0 kg) clothes that they did not wear. They could divide their clothes into two groups, the first group included consciousness of superfluous possessions, and the other group did not include such consciousness. The group with consciousness was reflected in decision-making after the LCA trial. As a result of AHP, the weight of "resources and environmental consideration" was considered important, changing from 0.085 to 0.220. The group without consciousness of superfluous possessions showed little change in the weight of "resources and environmental consideration".

CONCLUSION
The FD worksheet was effective for discovering consumers' wardrobe problems; additionally, in this research, the worksheet might help students improve their clothing management.

PT_0489

Commitments to MDGs by the Studies of Home Economics around the World

First Author (Main Author)	Mieko Saito (Kawamura Gakuen Woman's University) Japan
Co-Author(s)	Haruko Amano (Japan Women's University) Shoko Ogura (Sugiyama Jyogakuen University) Hiroko Kamata (Hokkaidou University of Education) Tomoko Sota Saeko Kuronuma (Ueno Gakuen High School) Midori Otake (Tokyo Gakugei University)
Presenting Author	Mieko Saito (Kawamura Gakuen Woman's University) Japan

AIM
The United Nations' proposal of Millennium Development Goals (MDGs) in 2000 has prompted the International Federation for Home Economics (IFHE) to adopt and work according to the POSITION STATEMENTS UN MILLENNIUM DEVELOPMENT GOALS 2011. It is important for the IFHE to make policy proposals directly to the UN, but also the researchers in the IFHE should keep working on themes concerning MDGs.

In order to clarify what commitments home economists have made so far, this article aims to organize the previous research in the field of Home Economics related to MDGs which has been published in major journals in several countries.

METHODS
First the research papers dealing with MDGs from the journals of the IFHE and the Asian Regional Association for Home Economics (ARAHE), as well as nine other academic journals published in six countries from 2000 to 2014 were selected. Then, we classified them in three ways: according to Country, Area of Home Economics Studies, and MDG Goals. Finally, this study revealed their tendencies both quantitatively and qualitatively.

RESULTS
The ratio of research papers dealing with MDGs ranges from 3.4 to 29.0 percent, though there is some difference among journals or due to the area with which a particular paper deals.

CONCLUSION
When sorted in terms of which goal is addressed, the papers about Goal 7 (Environmental Sustainability), Goal 3 (Gender Equality) and Goal 1 (Poverty) are the majority. This may be because these topics are closely related to research areas of Home Economics, and therefore these are, it is inferred, the specific areas to which Home Economics can and should commit itself.

PT_0601

A Newly Developed Home Economics Course Incorporating an Experiment "Solar Oven" from a Viewpoint of Education for Sustainable Development: Based on the Results from Trials in Junior and Senior High Schools

First Author (Main Author)	Sono Sato (Okayama University) Japan
Co-Author(s)	
Presenting Author	Sono Sato (Okayama University) Japan

Education for Sustainable Development (ESD) is a globally important issue. To address this challenge, ESD was experimentally introduced into school education in Japan in the academic year 2008. This new curriculum added a subject matter pertaining to establishing life styles that consider the environment in home economics courses. This study focused on the essence of home economics—the relationship between one's own self and his/her surrounding environment—to develop a course that considers why we have to conserve energy by utilizing exploratory learning theories. Here, we report on the results of trials in junior and senior high schools.

As a learning tool, we developed a "solar oven" using waste resources. Based on exploratory learning theories, the trial was structured in four parts to allow students to engage in three explorations with different topics (i.e., intuitive, analytical, and comprehensive): 1) energy and our home life; 2) the "solar oven" experiment—cooking cupcakes with appliances employing three different resources (i.e., microwave, steamer, and solar oven); 3) the need for energy saving; and 4) future energy sources and our home life. The "solar oven" experiment excited students' interest, and they were able to personally explore the topic. Students analyzed the energy source for their lifestyle based on whether it was "on- or off-site" and "renewable or non-renewable". Students then found three scientific solutions to these topics ("increasing monetary resources in our home," "delaying resource depletion on Earth," and "restricting environmental destruction of the Earth") as well as an important ESD concept ("the future livelihood for everyone on Earth depends on the decisions we make today").

PT_0642

A Study on the Effect of Residential Occupancy of Elderly on Household Spending and Life Satisfaction

First Author (Main Author)	Sunny Park (Seoul National University)	Republic of Korea
Co-Author(s)		
Presenting Author	Sunny Park (Seoul National University)	Republic of Korea

"Residence" to seniors becomes everyday living space with great significance of their senescence, and moreover, it has great economical meaning as it takes a big portion among household assets of elderly households in Korea. This study classified elderly households into three as self owned, lease, and monthly rent by residential type and investigated demographic characteristics, family economic structure, and differences in life satisfaction using information of the 5th KRALS(Korean Retirement and Income Study) panel 2013, and analyzed the effect of residential occupancy on economic structure and satisfaction on all aspects of senior life.

As a result of investigating the family economy structure by residential type, gross household income, gross household expense, consumption, and asset had significant relationship with the residential type, but non-living expenditure and debt did not have relationship.

Specially, housing cost burden of elderly household by monthly rent was very high that the monthly rent in Seoul was an average of 38.9%, and monthly rent of 80's or older was 36.3% and single-elderly household for monthly rent was 34.5%.

Lastly, it was identified that residential type makes significant effect on the satisfaction level of life in general of seniors, and whereas resident owner senior household showed higher satisfaction on economy, family relationship, leisure, and health than average, seniors living in monthly rent household showed lower satisfaction than average in every category.

This study suggested political alternatives based on the results of investigating the effect of residential occupancy of elderly on economic stability and overall satisfaction in life.

The significance of this study is in suggesting a relationship between residential occupancy of elderly and overall satisfaction in life(living, family relationships, household economy, leisure, healthy).

PT_0782

Research on the High-Risk Child Care Families in the Small Municipality of Japan – A Case Study of Tottori -

First Author (Main Author)	Yukiko Otani (Setsunan University)	Japan
Co-Author(s)	Chizuno Hata (Tottori University) Minjung Cho (Osaka Prefecture University College of Technology) Nobuo Fujii (Kyoto Kacho University)	
Presenting Author	Yukiko Otani (Setsunan University)	Japan

AIM

The number of child abuse remains high and it's at high risk. The Regional Council for Children requiring protective care, has the responsibility to support in the early stages; however, the resources are very limited in the small municipality, therefor we suppose early support has not been enough. The aim of this study is to clarify the problem of requiring child measures in the small municipality which is lower than a population of 30,000 people.

METHODS

Frist, we have conducted a "Questionnaire concerning the management of the Regional Council for Children requiring protective care of all municipalities in Tottori Prefecture" (Child Protection Regional Network Tottori carried out, 2012). Second, we heard opinions in a workshop which is a study session of the staffs in charge of protection child required of all 19 municipalities in Tottori Prefecture (2015/3/13, 5/20, 9/16).

RESULTS

- 1) Only 5 municipalities do have the budget for requiring Child measures Regional Council. There is no financial base in a small municipality.
- 2) When we see the analysis of the abuses occurred and the number of consultations the high-risk child care family are overlooked in a small municipality.
- 3) The person in charge is not an expert; the charge is alone in a small municipality. Thus, He is struggling.
- 4) The persons in charge of the small municipality got professional development and advice in the workshop.

CONCLUSION

There is a tendency for the small municipality of personnel to be isolated; therefore, workshop and network construction are necessary. Once the workshops are attended, we will verify the effect of the network.

PT_0908

The Pursuit of Happiness : The Multicultural Activity of Immigrant Family in Taipei City as an Example

First Author (Main Author)	Hsiao-Hsuan Kuo (National Taiwan Normal University)	Taiwan
Co-Author(s)	Tsu-hsuan Yu (National Taiwan Normal University) Hsiu-Chen Wei (National Taiwan Normal University)	
Presenting Author	Hsiao-Hsuan Kuo (National Taiwan Normal University)	Taiwan

In recent years, more and more Taiwanese have been engaged with foreigners. Therefore, the issue of multi culture has become a hot topic in Taiwan. The Taipei City Government held a Multi-cultural Event on October 10th (the National Day of Taiwan) in the perspective of hoping to promote the interaction between new immigrants and local communities. They try to encourage the immigrants to learn Taiwanese culture as well as to show the culture of their mother country through different activities.

METHOD

The study aims to discuss the benefit of the Multi-cultural Event (four different activities) to promote immigrant family's well-being by distributing questionnaires that included three parts (multi-culture program, the event planning, and immigrants living issues) and 17 items questions related this Event. The object of study is immigrants and local people who participated in the Event. There were roughly 2000 participants in the event. After whole day's activities, we invited participants randomly filled out the questionnaire of this Event and 193 shares valid questionnaires.

FINDINGS

1. The interviewees show satisfaction of the event overall with the most rated multi-culture program as the "Parent-child Oral Reading Competition".
2. The most satisfied part of the event planning is the attitude of the staffs.
3. The interviewees mostly regard that Taiwanese are friendly towards immigrants.
4. The interviewees think that the next generation of immigrants family should learn the language of their parents' home country.

CONCLUSION

Based on research finding, this Event was a successful multi-culture interaction activities. Not just interviewees are positive about the event and they have proposed some specific suggestions about similar events in the future also. The result of the study will be given to the host for their reference.

PT_1030

About a Policy for Declining Birth Rate in a Local Government

First Author (Main Author)	Mihiro Tosano (Nara Women's University)	Japan
Co-Author(s)	Mihiro Tosano (Nara women's university)	
Presenting Author	Mihiro Tosano (Nara Women's University)	Japan

PURPOSE OF RESEARCH AND BACKGROUND

The population of Japan is being on the decrease. The declining birth rate, which is a big factor of a population decrease, is a serious problem. The cause of the declining birth rate various problems are intertwined in complex. In such situation, Local creation policy is put up as a national policy. The purpose of this policy is overcoming Population Decline and Vitalizing Local Economy in Japan. The purpose of this research is to grasps the current state of the solution for declining birth rate of a local government. And it's to obtain a knowledge what kind of policy is effective in a solution for declining birth rate.

APPROACH

The research target is a local government in the whole Japan. The questionnaire survey was performed target for 1741 local government. Questionnaire is recovered 547 of the 1741 review, the recovery rate was 31.4 %. The question was classified into 4. First, It's about an employment policy in the local area. Second, It's about a move policy to a local area. Third, It's about the child-rearing environment of the local area. And, It's about environmental development in a local area.

CONCLUSION

Most local governments are doing a child care support of early childhood. Next a lot of ones are support related to primary industry employment. Although The bigger the local government, the more policy, we think that this is dependent on the revenue. The local government with the high birth rate tends to be putting the emphasis on early measure such as getting a job support in the local area and support in time of the childbearing.

PT_1049

Analysis of Unintended Effects by Policies of Residents Escaping from North Korea : From the Children's Rights and Family Policy Perspectives

First Author (Main Author)	Heujeong Kim (Seoul National University)	Republic of Korea
Co-Author(s)	Soonhyung Yi (Seoul National University)	
Presenting Author	Heujeong Kim (Seoul National University)	Republic of Korea

With the increasing number of children of North Korean refugees, it is needed to concentrate on adaptation and development of children of North Korean refugees. Family environment for children's positive development and adaptation is important as children form foundation of their social and emotional development through the relationship with parents in the family that is the first environment children experience in their life. Children of North Korean refugees have experienced a process of family dissolution and reorganization during their journey from North Korean to Republic of Korea. However we can observe some evidences showing that family instability still exists in their life in Republic of Korea due to the unintended effect of Policies of Residents Escaping from North Korea. In this study, it is covered what effect Policies of Residents Escaping from North Korea show from the children's rights and family policy perspectives. We interviewed the persons in charge of government-related and private organization for North Korean refugees as well as the performing literature review. When North Korean refugees stay in 'Hanawon' where they are educated for the life in Republic of Korea, adult men staying in the 2nd Hanawon are kept separated with their family staying in the main Hanawon hundred miles distant from the 2nd Hanawon. The policy for North Korean refugees was established for early stage of their settlement so that it has shown its limit in supporting their everyday life and social adjustment, even resulting in some anti-family effects. Therefore, for the purpose of healthy development of children of North Korean refugees, an approach by family policies is investigated that pursues a balance between personal security and maintaining the whole family. With policy-wise implication from this investigation, some suggestions on policy improvement are proposed.

PT_1113

The Effect of Financial Planning Horizon on the Purchase of Life Insurance

First Author (Main Author)	Heejung Park (University of Georgia)	USA
Co-Author(s)	Narang Park (University of Georgia)	
Presenting Author	Heejung Park (University of Georgia)	USA

Managing mortality risk by purchasing a life insurance policy is important for the household in terms of preventing survivors from the financial hardship that eventually erodes family happiness. Previous research has explored the factors that influence the demand for life insurance; however, little effort has focused on the effect of the financial planning horizon which is crucial to develop an effective strategic plan. The purpose of the current study is to examine whether the financial planning horizon has an impact on the amount of life insurance purchased. Using data from the 2013 Survey of Consumer Finances (SCF), this study used a sub-sample of 3,003 respondents who have a term life insurance policy and reported the face value of their insurance contract. The amount of term life insurance purchased, the outcome variable, was measured by the dollar amount that the policy would pay in the event of death. The financial planning horizon, household income, total amount of savings, the total balance of checking accounts, and credit limit were selected for explanatory variables. The financial planning horizon refers to the time periods that the respondent regards most important in planning or budgeting their saving and spending. The long-term planning horizon was defined as the time period that is longer than a year (even longer than 10 years) while short-term planning horizon was defined as the time period that is less than a year. Age, gender, marital status, education, and household size were included for demographic features. The t-test was employed to examine how financial characteristics were different among respondents who have different length of planning horizon. In addition, the multiple regression was conducted to investigate the association between the amount of life insurance purchased and the financial planning horizon when controlling other variables. The amount of term life insurance and other financial variables were log-transformed for better prediction. The results of the t-test revealed that the respondents who have long-term planning horizon (n=2045) are in relatively better financial conditions exhibiting the greater amount of term life insurance, income, checking account, and credit limit than the respondents who have short term planning horizon (n=958). The results of multiple regression model show that the amount of term life insurance has a positive association with income, the total balance of checking accounts, and credit limit. Moreover, it increases when the age of respondents decreases, if the respondents are male, if they are married, if they have attended college or more, and when household size increases. Most importantly, long-term planning horizon has a

positive effect on the amount of term life insurance. It means people who plan their budget with long-term perspective are likely to have the greater amount of term life insurance so that they can be better prepared against mortality risk. The findings indicate that financial education or financial counseling focusing on longer planning horizon would be helpful for the adequacy of life insurance purchases. The adequacy of life insurance mitigates the financial shocks from the loss of the main income earner and gives the hope of living for future to remaining survivors.

PT_1125

New Aspects for Subsistence in Modern Society

First Author (Main Author)	Toshifumi Sasai (Kyoto Prefectural University Graduate School)	Japan
Co-Author(s)		
Presenting Author	Toshifumi Sasai (Kyoto Prefectural University Graduate School)	Japan

AIM
Japanese old lifestyle was sustainable, had a good relationship with natural environment. However, it can be described as a 'lifestyle in danger of extinction', because those old lifestyles are disappearing these days in Japan because of the rapid development in industry and economy. Living together with the nature is still observed in suburban areas even in industrialised and developed countries. This is a trial survey to find the factors to make a better life in developed society.

METHODS
Hearing survey; the actual situation of the area of Tangoyura, Miyazu-city located in northern part of Kyoto prefecture and the participant's life history. Field working; acting with the participant, taking photographs and shoot movie clip. Discover the factors to make better life and home management.

RESULTS
Many factors were derived, for example: techniques to make tools, cooking, agriculture, and the way of thinking. Examples of factors of the way of thinking are below; 'Mottainai' spirit, heart of thank, health management and so on. Those factors seemed to be a solution for problems in modern society, more than that, his way of living is a good example of managing his own life and family, as well as making daily life in the community.

CONCLUSION
Originally, the word 'subsistence' stands for living solely. Since the society is rapidly changing now, we need a new aspect of

subsistence. Also, the environment is important for his unique lifestyle, so that we have found a great value of his community and the town.

PT_1136

Research on Content Development for Environmental Education in Home Economics from the Perspective of ESD through an Analysis of American Guidelines (Pre K-12)

First Author (Main Author)	Yoko Shinohara (Okayama University)	Japan
Co-Author(s)	Sono Sato (Okayama University)	
Presenting Author	Yoko Shinohara (Okayama University)	Japan

PURPOSE
The purpose of this study is to develop content for environmental education in home economics courses from the perspective of education for sustainable development (ESD).

METHODS
The study compares "Excellence in Environmental Education: Guidelines for Learning (Pre K-12)," published by the North American Association for Environmental Education, with environmental education in Japan's home economics courses. It includes a comparative analysis of environmental education in technology and home economics courses of Japanese middle schools and in an eighth-grade program following North American guidelines.

RESULTS
The "Guidelines for Learning (Pre K-12)" are organized into four disciplines that systematically deal with problems in environmental education. Such a systematic understanding is necessary to help students grasp the concept of sustainability. In contrast, environmental education in Japanese home economics classes individually addresses environmental problems in a fragmentary manner. As a result, the relations and connections among humans, daily life, the environment, and the earth are unclear. The North American guidelines show what environmental education content can be covered in home economics courses. The sections that focus on themes related to life at home are sections 2-4, "Environment and Society," and 3-2, "Decision Making and Citizenship Skills." These sections are designed to help students understand the structure of domestic life and to guide them toward implementing a lifestyle that is considerate of resources and the environment.

CONCLUSION
Japan's home economics courses should develop content that investigates and analyzes environmental issues using the scientific method to clarify the relation among humans, daily life, the

environment, and the earth. The study proposes the content development for home economics analogous to sections 2-4 and 3-2 of the North American guidelines.

PT_1170

Youth Financial Education and Entrepreneurship

First Author (Main Author)	Mia Russell (University of Maryland Extension)	USA
Co-Author(s)		
Presenting Author	Mia Russell (University of Maryland Extension)	USA

Youth financial education is an increasingly important tool to ensure youth are prepared for college, careers and responsible living. Children themselves are aware of the difficulties their own families and their neighbors are facing and are sincerely interested in learning about money management. Young people report that they currently care more about financial fitness than physical fitness. As youth develop financial acumen, they learn to manage their resources and plan for their future.

AIM

This poster will share a program, Business Planning for Teens and Tweens, and a curriculum, Financial Nuggets, which was used to actively engage youth through opportunities for real-world financial management practice and entrepreneurship exploration. The program seeks to improve the (1) financial knowledge and understanding, (2) financial skills and competence, and (3) financial responsibility of middle school youth. Content and activities are organized around five principles: earning, saving/investing, protecting, spending, and borrowing.

METHODS

Youth participants were actively recruited through public schools, community college websites and direct contacts. Maryland is ranked within the top ten states for after school and summer program participation; therefore, reaching youth through these programs is an appropriate method. The program was delivered face-to-face, in 15 hours, over the course of one week. The program is comprised of a series of 5 lessons, usually taught during school breaks and in summer programs.

RESULTS

A pilot of this program was conducted in collaboration with a local community college and local school district. In 2014, fifteen sessions (n=69) were conducted. Through post-assessments, participants indicated: 88.2% (n=34) can definitely distinguish between a dream and a goal; 67.6% (n=34) can definitely write a SMART goal; 53.8% (n=26) can definitely apply financial literacy vocabulary; and, 92.3% (n=26) definitely better understand how education and career

choices affect income and spending decisions. Preliminary results from a 6-month follow-up indicate that 100% of participants (n=2) indicate they have set SMART goals. The students also offered qualitative data: "In order to be successful in life, you have to know how to spend your money", "Think before you spend", and "[It's] easy for your parents to buy you things but when you buy your own things it's very difficult".

CONCLUSION

This program is designed to actively engage youth and provide opportunities for real-world money management practice; however, financial education has even greater implications. As evidenced by ongoing research commissioned by the National Foundation for Teaching Entrepreneurship (NFTE) and the Department of Labor, the effectiveness and impact of youth entrepreneurship programs demonstrated and increased interest in attending college, occupational aspirations, and leadership behaviors.

PT_1211

The Current Condition and Issues of Japan's Policy on Consumer Education

First Author (Main Author)	Shigemi Kakino (National Institute on Consumer Education)	Japan
Co-Author(s)		
Presenting Author	Shigemi Kakino (National Institute on Consumer Education)	Japan

BACKGROUND AND PURPOSES OF RESEARCH

The purpose of research is to point out the current condition and issues of Japan's policy on consumer education. In 2012, the Act on Promotion of Consumer Education was enacted and came into force in Japan. It defines consumer education as the support of consumers' autonomy and clarifies the notion of consumer citizenship. Consumer Education organized by the local consumer affairs based on the ideas of consumer protection; however, it became necessary for such administration to consider a rather global issue to create and implement a fair and sustainable society through consumer actions. This is based on the concept of consumer citizenship, developed in and introduced by western society. In other words, the local consumer affairs administration were required to make a drastic change in their administrative direction.

METHODS

Questionnaires (Date: July 2015 Target Area: 47 prefectures)

RESULTS & CONCLUSION

It was revealed that the promotion system, especially human resource, of consumer education is weak. It's necessary for us to structure the co-ordinate system in the local area to enhance the consumer education.

PT_1240

Employment Status of Mother's and Household Trends in Educational Expenses: Using the Korean Labor and Income Panel Study

First Author (Main Author)	Sujin Lee (Hirotsuki University)	Republic of Korea
Co-Author(s)		
Presenting Author	Sujin Lee (Hirotsuki University)	Republic of Korea

Educational expenses in Korea are characterized by a high expense ratio among the Organization for Economic Co-Operation and Development (OECD) countries. Throughout all levels of education, private educational expenses account for 40% of all educational cost, which ranks first among the OECD countries. How do Korean families cope with such a high expenditure in the family budget?

This study focused especially on private education expenditure and its analysis using household income class. The study also focused on the employment status of mothers, and the relationship between the mother's employment status and private education expenditure. Reason to pay attention to private education expenses are the public educational spend does not remarkable difference. Thus focus on private education expenses in order to explore the correspondence way of individual households.

The 1998 KLIPS study (first survey) provides data for this study. Data were obtained by studying 5000 households over a time span of more than 15 years. In this study, the 2013(15th year) data were used. The study analyzed 2,114 households that had children below high school students.

I carried out the one-way analysis of variance (ANOVA) by using stata13. The household income level and mother's employment status are used as independent variables, and the private education expenditure is used as dependent variable. And, also I had tried multiple regression analysis to explore which factors affect private educational expenditure by household income level.

The main results are as follows. First, 73.7% of the households use private educational institutions. Second, the income level is divided by 5 classes, and the relationship between income class and private education expenditure is verified. As a result, income class and private education expenditure have a parallel relationship. Third, when the mother is employed, private education expenditure is ₩250,000, and when she is unemployed, it is ₩220,000.

The mother's income and private education expenditure show a parallel relationship like as household income class. Fourth, if the household total income is divided by 3 classes, the results show that the mother's employment status has no effect on private education expenditure in the lowest income class. The other way, the middle and upper classes have lower private education expenditure when the mother is employed rather than unemployed. Household income level is considered to become a major factor in determining

the relationship of private educational expenditure and mother's employment status.

In the case of low-income class, for the increase of private education expenditure was expected to encourage the mother's participation of the labor market in order to cover the pressure on the household budget. However, relation between the private education expenditure and mother's employment status are not prove in the cross sectional data. In the middle and high-income class, even if private education expenditure was increased, employment of mother suggests could be a matter of choice rather than compulsory. Moreover, mother in relation to the child's education is likely to be required role to collect information and to invest the time.

Future studies will focus on changes in the mother's employment status. On the basis of the panel data, the study will analyze the relationship between change in the mother's employment status and private education expenditure.

PT_1254

Move Out or Stay? : Comparing Childcare Environment for Japanese Young Families in Local Municipalities

First Author (Main Author)	Kanako Aoki (Nara Women's University)	Japan
Co-Author(s)	Mari Kikuchi (Osaka Sangyo University) Tatsuya Goto (Osaka Sangyo University) Keiko Kikuchi (Nara Women's University)	
Presenting Author	Kanako Aoki (Nara Women's University)	Japan

For the last few decades, Japan has experienced demographic issues of low birth rate and an aging society. The birth rate fell even below the death rate in 2007, and since then, Japan has faced a declining population. Some local municipalities are finding it difficult to maintain their political functions, because of the depopulation and rising number of the elderly. In order to avoid such demographic issues, such local municipalities need to implement policies that are more attractive to young families than those offered by other municipalities.

In this presentation, we explore whether young families would prefer to remain in or move out from their current city, based on their personal views on the public childcare services, child-rearing environment, and educational environment provided by each municipality. Data concerning two cities –Higashi-Osaka and Daito-located to the east Osaka Prefecture were collected through in-depth interviews with 30 mothers having at least one child under 13 years old. The interviewees were either taking care of their children or had taken care of their children in either of the two cities. Higashi-Osaka and Daito are neighboring cities with markedly declining populations, especially, in the age brackets of 30-39, 40-49, and <5. This implies

that the families with small children are moving out to nearby cities, such as Osaka.

Our main results present the following three points. First, the interviewees in this study had much information on other municipalities, either from the Internet or their personal networks. Second, they discussed their opinions of the environment or available services by comparing their own city with other cities. Finally, some interviewees spoke of intention to move to other city in search of better for their children, for example, a higher quality of education in public schools.

PT_1256

A Study on the Active Stage of Community Reform and Sustainability: Role of Neighborhood Associations for the Maintenance of Extremely Low Populated Small Villages in Mountainous Area of Kawane-District in Hiroshima, Japan

First Author (Main Author)	Taeko Yanai (Gifu Think Association)	Japan
Co-Author(s)		
Presenting Author	Taeko Yanai (Gifu Think Association)	Japan

In Japan, with the depopulation in the past 2 decades due to aging, the population in rural marginal mountainous area is getting rapid. With more 50% of population which are more than 65 years old, most of local communities are getting extinguished. There have been many trials to revive the local community by making use of original local networks of Neighborhood Association for the happy life of residents who had no choice except to continue living for the rest of their lives. Very few cases survived successfully by making use of local community, but most failed.

To clarify this, the active stage of community-design in extinguishing village to maintain the life in mountainous area, the activities and roles of Neighborhood Association in Kawane-district was studied. In Kawane-district, most of the villagers had moved to urban areas for jobs after graduation from high schools, and only elderly people continued to live in the rural areas resulting in lower population of labor age. Kawane had 2198 people in 1946, but it has been reduced to a third of its population in 2000 due to deterioration of the local community as well as lost pride or love to their own community. In case of Kawane-district there had been several trials by an able leader who had analyzed the situation and found original ways for survival which might provide some useful hints for implementation in rural areas all over Japan. The most characteristic trial was to accumulate small successful experiences to bring back confidence and pride to the community and area, and because of this most residents became mentally happier. It was revealed that the Neighborhood Association

was useful in providing a comfortable place, as well as sharing information and purpose for life improvement.

Keywords: neighborhood association; active stage; community design; sustainability

PT_1278

A Study on Money Management System of Married Couples in Japan

First Author (Main Author)	Junko Shigekawa (Saitama University)	Japan
Co-Author(s)		
Presenting Author	Junko Shigekawa (Saitama University)	Japan

INTRODUCTION

The money management systems of households have been discussed in the conjecture of their internal power balance. It is well known that wives are in charge of the money management in the most of households in Japan. It was pointed out that couples in UK were becoming individualised in their money management. In this study, we investigate the current style of money management in couples of Japan and the relation between the distribution of expenditures within the household and money management system.

METHOD

We collected samples from the 22th wave (2014 edition) of Japanese Panel Survey of Consumers (JPSC), which started in 1993. The study sample is 1,504 married people ranging in age from 25 to 55 years. JPSC offered the amount of expenditures and savings for wives and husbands respectively. Anova was done with SPSS package.

RESULTS AND CONCLUSIONS

Two-thirds and one third of samples are dual-earner couples and male-breadwinner couples, respectively. 10% of the dual-earner couples adopted independent management system. The whole wage system and pooling system were used by 40 and 10% of the dual-earner couples, respectively. Husbands managed their households in another 10%. In these 20 years we did not observe marked change of the portion of dual-earner couples who adopted the independent management system, which was in good contrast to the case in UK. Both expenditures and savings were more highly allocated to wives who adopted independent management system, which is likely to be attributable to their higher contribution to the income of households. The portion of wives who do not keep household account books was as large as 70% in couples with independent management system. The survey indicated that such wives found difficulties in saving money, which suggested the importance of discussions in terms of their future financial arrangement.

PT_1608

Financial Beliefs and Dysfunctional Financial Behaviors of Korean Consumers

First Author (Main Author)	Sang Hee Sohn (Seoul National University)	Republic of Korea
Co-Author(s)	Jong Ok Park (Doctoral Student) Jungyoon Yoon (Doctoral Student)	
Presenting Author	Sang Hee Sohn (Seoul National University)	Republic of Korea

This study examined the relationship between financial beliefs and dysfunctional financial behaviors of Korean consumers based on a cognitive-behavior theoretical framework. The specific research objectives were as follows: (1) To identify the tendency of Korean consumers' dysfunctional financial behaviors, (2) to investigate the influence of consumers' financial beliefs on their dysfunctional financial behaviors, and (3) to find out which financial beliefs have more explanatory power on the dysfunctional financial behaviors.

The dysfunctional financial behaviors were measured using 67 items derived from Klontz Money Behavior Inventory (Klontz et al., 2012) and Financial Aversion Phobes scale (Burchell, 2003). The financial belief variables were composed of a series of variables including Klontz Money Script Inventory (Klontz et al., 2011), Moneygrams scale (Furnham et al., 2014), materialism scale (Richins & Dawson, 1992), credit belief scale derived from Pattarins & Cosma (2012) and Lachance (2012), and financial attitude scale and consumption belief scale derived from Burchell (2012).

Data were collected using online survey, and the final sample consisted of 681 Korean adults aged between 20 and 59. Exploratory factor analyses and reliability analyses were employed to clarify the dysfunctional financial behavior and financial belief variable structures. After going through the verification process, the dysfunctional financial behaviors were categorized into seven components: Compulsive Buying, Pathological Gambling, Workaholism, Compulsive Hoarding, Financial Enabling, Financial Aversion, and Underspending. The financial belief variables were also classified: four Money Script variables, four Moneygrams variables, four Materialism variables, two Credit Belief variables, two Financial Attitude variables, and three Consumption Belief variables. Descriptive and Regression analyses were utilized for the analysis.

Major findings were as follows.

Mean values of dysfunctional financial behavior variables were distributed from 1.63 to 3.01 in a 6-point Likert scale, in the order of Compulsive Hoarding, Workaholism, Underspending, Financial Enabling, Compulsive Buying, Financial Aversion, and Pathological Gambling. This indicates that among Korean consumers Workaholism

is a more common phenomenon than Pathological Gambling, and so on. Male consumers showed significantly higher tendency to have dysfunctional financial behaviors other than Compulsive Buying and Underspending, in which there were no significant differences identified between gender.

According to the regression analyses, all the financial belief variable categories showed significant effects on all the dysfunctional financial behaviors. Financial belief variables explained the variability in dysfunctional financial behaviors from 2.0% to 40.1%. Regarding Compulsive Buying, Workaholism, Compulsive Hoarding, Financial Enabling, and Financial Aversion, Moneygram variables showed the greatest explanatory power among financial belief variables. Credit Belief variables explained Pathological Gambling, and Money Script variables explained Underspending at most. These results indicate that a cognitive-behavior theoretical framework can be applied to explain the relationship between financial beliefs and dysfunctional financial behaviors.

PT_1754

Hope for the Flowers: A Parachute Wedding Dress

First Author (Main Author)	Ja Young Hwang (Kent State University)	Republic of Korea
Co-Author(s)		
Presenting Author	Ja Young Hwang (Kent State University)	Republic of Korea

AIM

The U.S., 2.5 million weddings held annually in the US produce 62 tons of carbon-dioxide and 500 pounds of waste (Sustainability Council, p.1). Wedding dresses are special and personal, often one-of-a-kind garment. This avenue of investigation will encourage exploring sustainable fashion and encourage research into alternative materials for the production of traditional wedding dresses. The aim of this study was to create a sustainable one-of-a-kind wedding dress inspired by the designer's favorite aspects: sky, cloud and love. The concept of the dress was taken from the story of Hope for the Flowers, an up-cycled project from a series of parachute dress experimentations. These resulted in a marketable wedding dress using non-traditional materials.

METHODS

The original parachute was 30-feet in diameter. The circled-shaped parachute was divided into four sections,-the skirt pattern was cut in a vertical direction from the single section with an arc shape to achieve zero-waste cutting. The remaining top arc was used for the bodice of the dress, resulting in minimal material waste. In order to express the design theme, the bodice mimicked the original shape of the parachute, giving volume at the bust area.

RESULTS AND CONCLUSION

This resulted in an interesting shape, playfulness, and creativeness in the dress. The final dress construction communicates a modern, chic, and modesty, while revealing a delicate sense of butterfly femininity. The blue tulle underskirt to mirrors the color of the sky, and the overskirt, clouds. The overskirt can be removable, expressing the metamorphosis stages of caterpillar to butterfly, which achieves the concept of the dress: Hope for the Flowers.

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PT_1849

Research on the Child Care Family Policy as an Alternative Low Birth Rate Phenomenon

First Author (Main Author)	Mi Yeon Kim (Sookmyung Women's University Graduate School)	Republic of Korea
Co-Author(s)	Yeounhee Yoon (Sookmyung Women's University Graduate School)	
Presenting Author	Mi Yeon Kim (Sookmyung Women's University Graduate School)	Republic of Korea

In this research, we will review the main solution to the low birth rate and discuss subsequent policy direction by looking at actual situations of child care policy from perspective of rate between work and family and legislation, which are main factor of low fertility. To understand current condition of the child care policy, This study investigated statistical data, which was developed, and yearly changed tendency of Data Base change by the Ministry of Health and Welfare (Childcare statistics), The Ministry of Education (Education statistics), and the National Statistical Office(NSO) (Regional employment survey).

To summarize, the results of study are as follows.

First, This study shows the total number of child care centers increases annually. The place of public child care centers also increases but the rate fell from 11% in 1995 to 5.7% in 2014. Private child care centers and family child care centers increased from 77% in 1995 to 87.2% in 2014.

Second, the umber of children who are using the child care center increased The child care ratio of private and family child care center increased from 45.9 in 1995 to 76.2% in 2014, However, the number of public child care center decreased from 26.8% in 1995 to 10.4% in 2014.

Third, The rate of using a child care center for infants has been steadily increased. In the child care center using rate of Infant, Korea is 34.1% higher than standard that is OECE 30 countries's average 32.9%.

Fourth, The reasons of career discontinuity of job discontinued

women followed by 'Marriage(36.9%)', 'Parenting(29.9%)', 'Pregnancy-birth(24.4%)', 'Family care(4.9%)', 'Children's education(3.9%)'.

Fifthly, The result of looking at the job retention rate for workers, the job retention rate for workers using a child care leave is growing. Sixth, The total number of a child care person who is laid off are increasing, and though the number of paternity leaves show an upward trend recently, The total of man in a ratio account for just 4.5% in 2014.

Seventh, the number of child rearing in the family are 1,012,000. and this study show mainly baby(66.5%) up to 23months rear in th family. The result of this study, Though using universalistic approach in child care, In Special circumstance that can be limited to the family which need compatibility between work and family and also have children. that's why should enhance government support.

Also, There will be need to improve care service in quality through diverse policies such as support for the great private child center, continuous expansion for public child care center in the next child care policy.

Understanding the current situation in this study is significant to be able to establish and analyze the various family policies for currently under consideration.

PT_1825

A Study of Multicultural Adolescents' Core Competencies for Building Official Development Assistance(ODA) Human Resources

First Author (Main Author)	Mee Sok Park (Sookmyung Women's University Graduate School)	Republic of Korea
Co-Author(s)	Kyong A Kim (Sookmyung Women's University Graduate School) Jee Won Chun (Sookmyung Women's University Graduate School)	
Presenting Author	Jee Won Chun (Sookmyung Women's University Graduate School)	Republic of Korea

The purpose of this study is to propose specific policies to expand and promote the role of multicultural adolescents¹ in Korea's international development cooperation and in Official Development Assistance(ODA) programs. Current surveyed data shows that, population of multicultural adolescents are on the rising trend in Korea. However, significant portion of them experience self-identity confusion, school maladjustment, and deviant behavior despite their global competencies, such as bilingual ability and bicultural backgrounds. Thus, it is absolutely necessary to build a roadmap that can guide them to build their potential strength to become the next generation of global leaders.

For this purpose, we surveyed to find the required core competencies

and also at which degree of them is needed to be the future ODA human resources. 10 participants were chosen from the ODA-related institutions and multicultural adolescents-related organizations who are the experts and managers of these organizations.

The study results indicated that the most required skills for multicultural adolescents to grow as ODA human resources were the local language and English. Other required skills were the cultural literacy of the local culture, understanding of international development and cooperation, knowledge about the region where they will perform projects, project implementation experience, and expertise about related projects, in descending order of importance. Therefore, the first priority should be to strengthen their linguistic competence, in order to nurture multicultural adolescents into competent ODA human resources, in the future. In particular, according to the FGI interviewees, multicultural adolescents have more tendency of having bilingual and multicultural sensitive characteristics than non-multicultural adolescents. Thus, we strongly recommend that education system and appropriate policy be implemented, in order to develop multicultural adolescents into global citizens, who has global competency.

<Key Words> Multicultural adolescents, Official Development Assistance(ODA), International Development Cooperation, Competency, Global citizens, Bilingual

* This study report results from the research and service report on, "A study on the promotion plan of the multicultural families participation in International Development Cooperation", supported by Ministry of Gender Equality & Family(Korea).

1) Multicultural adolescents can be defined as person whose age is over 12 and below 24 years old and one of their parents is foreigner.

PT_1845

The Green Campus Plans of Freie Universität Berlin through Aboard Field Survey

First Author (Main Author)	Yoon Jung Choi (Chungbuk National University)	Republic of Korea
Co-Author(s)	Chaneui Hong (Chungbuk National University) Jinyoung Kim (Chungbuk National University) Minjung Oh (Chungbuk National University)	
Presenting Author	Yoon Jung Choi (Chungbuk National University)	Republic of Korea

As a heavy energy-consuming organization, it is necessary for university to adopt Green Campus Policy as a solution for global warming. Advanced cases from other countries need to be studied for deriving key factors to adopt it domestically. Germany is very well-known for its environment-friendly policies. In addition, in Freie Universität Berlin(FU), energy consumption reduction strategies are systematically proceeded by sustainability and energy management

unit, administrative organization, exclusively for green campus policy. So, we conducted an aboard field investigation including research meeting, observation, and taking photographs in FU during January 20 to 26, 2016. The research meeting, which includes listening to the green campus acceleration goals and plans, and asking questions, was held on January 21, 2016 with the sustainability and energy management unit. The guided tour to main facilities including restricted areas was done after the meeting. Upon investigation, the green campus plans of FU were operated in 10 multilateral categories: administration, networking, energy & climate protection, building profiles, green corners, waste, teaching & activities, water, health and safety, transportation. Especially, by focusing on the category of energy & climate protection, energy consumption regulation, energy monitoring, development and implementation of energy efficiency program, saver incentive scheme, photovoltaic installation and usage, implementation of the green IT action program, and installation and operation of combined heat and power plants have been promoted. In the category of building profiles, existing 15 university buildings have been performed with modernization of heating, ventilation, lighting, and air conditioning systems, installation of the online energy monitoring system, renovation of building envelope (windows & doors, insulation, facade, etc.), and replacement of asbestos and materials that are hazardous to in buildings to conditions of each buildings and promoted with new green building construction. By these promotions, more than 24% (42 million kWh) reduction in energy consumption and 21% (12,500t) reduction in CO2 emission were accomplished between 2000/01~2012. As a result, it is obvious that benchmarking these strategies to reduce actual energy consumption is necessary.

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PT_1925

Foundation Study on Multicultural Family Social Integration System Plan

First Author (Main Author)	Ki-Jung Kang (Baeseok University)	Republic of Korea
Co-Author(s)	Su Sun Park (Seowon University) Moo-Young Lee (Daeduk College)	
Presenting Author	Su Sun Park (Seowon University)	Republic of Korea

As the number of foreigners living in Korea increases with internationalization, the need to support their Korean society adaptation and social integration is increasing. The study is a part of the foundation study on multicultural family social integration system plan that the government is promoting and it has the purpose of being utilized as foundational data for policy alternatives

through conducting focus group interviews (FGI) about things like organization environment awareness and improvements on Danuri Call Center which is a representative institution for multicultural families and multicultural family support center staff. From 2015 August 11 to 2015 August 27, and interview session of about 2 hours was conducted on 8 Danuri Call Center staff and 7 multicultural family support Center staff.

As a result of the FGI, the staff requested introduction of evaluation systems that reflect experiences, adjustment of foreign and Korean consultant tasks, various provision of education training opportunities, and establishment of plan for rest. Based on this it could be seen that field contact service strengthening such as relevant agencies network building, and policy alternatives about treatment improvement promotion for staff consultation quality improvement and job satisfaction improvement.

PT_1786

Study on Characteristics of Children, Parents and Household Consumption Expenditure According to Economic and Physical Independence and Changes in Children

First Author (Main Author)	Sunny Park (Seoul National University)	Republic of Korea
Co-Author(s)	Eunsun Cho (Seoul National University) Jong-Youn Rha (Seoul National University)	
Presenting Author	Eunsun Cho (Seoul National University)	Republic of Korea

Due to the increase of unemployment problem, late marriage and singles in the rising generation, the proportion of the children who rely on their parents is being increased rapidly. The purpose of this study is to provide the implications of the reasonable household resources distribution structure by examining the status of adult children who cannot stand on their own feet from the parents and by comparing the general characteristics and the difference in the household consumption expenditures and further, to suggest the measures to increase the utility of the family member by understanding the rapidly changing household structure widely. In this study, the research subjects were determined as 1261 first children whose age is between 25 years old and 40 years old and whose parents age is between 50 years old and 70 years old as of the 5th year using 3rd year (2010) and 5th year (2014) data of Korean Longitudinal Study of Ageing (KLoSA). For the statistical analysis, the frequency, percentage, mean and standard deviation, one-way ANOVA, Duncan's MRT, chi-square, and logistic regression analysis were performed using SPSS (Ver. 22.0). The major results of this study are as follows. First, in the results of examining the economic and physical

independence of 1261 first children of household subject to 2014 survey, the separated self-reliance represented the highest proportion (40.6%, 512 persons) followed by self-reliance living together (37.2%, 269 persons), reliance living together (14.5%, 183 persons) and the separated reliance (7.7%, 97 persons) in order. Second, it represented that there was statistically significant difference by each group according to the gender and education level of the children, the age and the status of economic activities of the parents, the residence type, residential area, and the number of children of the household. there was statistically significant difference in the items of expenditure such as household's annual total income, monthly average cost of living, food expenses, education expenditure, housing expense, clothing expenses, communication expenses by group. Third, in the result of performing cross analysis on the economic and physical independence of the children in the 3rd year (2010) and 5th year (2014) to examine the changes in the children's economic and physical independence through the longitudinal analysis, it represented that 41.3% of the children who were reliant living together in 2010, kept representing as reliant living together in 2014, 39.6% were changed to self-reliance living together by standing alone economically, 5.6% were changed into reliant separated type by separate physically without economic independence and only 13.5% were changed into independence separated type by separating economically and physically from the parents. Finally, in the results of examining the factors having influence on the economic and physical independence of the children with the logistic regression analysis, for the factor having influence on the economic independence of the children, the older, the age of the children, the more the possibility that the children shall become independent economically was increased if the parent has spouse and the characteristics of the household were represented as not statistically significant.

PT_0533

Issues in Child Care and Work-Life Balance of Hearing Impaired Women

First Author (Main Author)	Hitomi Yoshida (Iwate Prefectural University)	Japan
Co-Author(s)		
Presenting Author	Hitomi Yoshida (Iwate Prefectural University)	Japan

In the field of home economics in Japan, interest is increasing in livelihood support and improving the quality of life of citizens. Livelihood support includes that of disabled people, the elderly, mother-and-child families, and survivors of the Great East Japan Earthquake, where each of them has diverse life problems. In particular, disabled women (the subject of this report) require special measures of livelihood support because they are simultaneously women and disabled people. The author will limit this paper to

hearing impairment and, based on the actual status of their child-rearing activities, the author will focus on their work-life balance and support required for their overall livelihood because the child-rearing activities of disabled women and support for good work-life balance have received little attention in the field of home economics. The purposes of this report are, first, to clarify the issues in child rearing and work-life balance of hearing impaired women and, second, to present an ideal way of providing the required support. The author will do this by analyzing the results of interviews implemented through the cooperation of five hearing impaired women and discuss them from the viewpoint of family resource management. These results suggested that the issues that hearing impaired women are facing, particularly issues involving complex, difficult situations, are serious. It is therefore necessary to further clarify the issues faced by hearing impaired women from the gender and family resource management viewpoint in order to lead to a problem solution.

PT_0757

Residents' Consciousness of Community Life in a Newly-Developed Residential Area : A Study on Life Support for the Elderly Living at Home by Community Work

First Author (Main Author)	Junko Murata (Wakayama University)	Japan
Co-Author(s)	Tomoko Tanaka (University of Hyogo) Makiko Fujihira (Nara Women's University)	
Presenting Author	Junko Murata (Wakayama University)	Japan

Japan is becoming a full-blown aged society that faces the challenge of building communities which support the lives of the elderly. As a result of our continuous research about the community work undertaken by the elderly, it has been found that community work contributes to promoting mutual relations among the residents, and providing opportunities to raise awareness in their community. However, it may become difficult to continue this community work, because few of the younger generation are involved in it. To examine the possibility that comparatively young residents in a newly-developed residential area take part in community work around the community, and to identify what helps them to take part in it, we conducted a questionnaire survey of all the residents. The questionnaire was constructed using basic attributes of the residents, relations with the neighbors, opinions about community work, and so on. The study subjects were 249 households and the number of valid responses was 80(32.1%). The time period for this questionnaire survey was November–December 2013. The results were as follows: 1)The respondents consisted of 47% of the younger generation(in

their 20's and 30's), 29% of the middle generation(in their 40's and 50's) and 24% of the older generation(in their 60's and older). 2)The older generation tended to have weaker relationships with their neighbors compared to other generations, and they did not want to have closer relationships. 3)Community work had a high degree of recognition among the respondents and their evaluation of it was good. Although few respondents took part in community work, 30% of both the younger and the older generations, and 20% of the middle generation wanted to become involved in it. 4)The older generation had a high level of interest in community work and the middle generation also had a high motivation to participate. The older and the middle generations may participate in community work but the way to promote their participation requires further consideration.

PT_0778

Implementation and Effectiveness of Adolescent Coaching Education Program for Career Path Development and Character Building

First Author (Main Author)	Hyeyeon Kim (Jeju National University)	Republic of Korea
Co-Author(s)		
Presenting Author	Hyeyeon Kim (Jeju National University)	Republic of Korea

Adolescents face difficulties in finding the right career paths for themselves due to their lack of knowledge and experience. In addition, some adolescents show socially unacceptable behavior since they have not established a sense of self-identity and are not emotionally stable. A highly competitive education environment makes the situation worse among the Republic of Korean adolescents. The Jeju Coaching Leadership Center at Jeju National University has conducted coaching education program for adolescent's career path development and character building since March 2011 as a part of Community Service Projects under the Ministry of Health and Welfare. The program targets 7-15 years old adolescents from households with a monthly income below of the nationwide average. Two ninety minutes sessions are held weekly that include personal coaching, company tours, and team activities for character building. A twenty questions survey was conducted before and after the program on the categories such as career plans, self-identity, self-confidence, self-control, planning and executing, and social relationships. The sample of the survey was 42 participants who had participated in the program for more than 6 months in 2013(26 participants from the 1st cycle and 16 participants from the 2nd cycle). The number of participants in each cycle differs due to withdrawal from the program

and changes to the Community Service Project policies. The responses from the questions before and after the coaching education program were compared and analyzed. The analysis of the responses for the 1st cycle were 64.9 before and 70.53 after participation in the program. The results for the 1st cycle show 8.67% increase, The average survey results for the 2nd cycle were 69.9 before and 80.1 after participation in the program. The results for the 2nd cycle show 14.6% increase. The categories of the responses that showed the highest increase was social relationships, followed by self-identity and career plans. The results show the effectiveness of the coaching education program conducted by the Jeju Coaching Leadership Center at Jeju National University. Coaching is a way of learning and educating by mutual communication techniques with students. This nature of coaching itself leads to effectiveness of the program, and furthermore, the effectiveness could be increased as the facilities and professionals at the university give advantages to coaching education program. Since career path development and character building for adolescents require long-term and systematic support, the scope of target participants and the length of the program should be expanded for greater result.

PT_0933

The Work-Life Balance Gaps in Aged People

First Author (Main Author)	Yoko Hosoe (Jissen Women's University)	Japan
Co-Author(s)	Izumi Mizuno (Jissen Women's University) Keiko Takahasi (Jissen Women's University) Ikuko Sugawara (Tokyo University)	
Presenting Author	Yoko Hosoe (Jissen Women's University)	Japan

BACKGROUND AND PURPOSE

In Japan, as society ages, productive population is now decreasing. Accordingly, it's becoming hard to secure labor force population, and now, effective policy and measures are needed to cope it from the view point of "work-life balance" which enables both men and women to be easier to continue their work. In this study, we investigated about the work-life balance gaps in the every each life 4 domains of "work", "home", "community", and "time". And these gaps were examined from the perspective of gender and generation. Additionally, the satisfaction for life and the social relations were determined.

METHODS

Mail survey was conducted for 1,500 residents in metropolitan area city in Japan. Survey respondents were allotted based on Basic Resident Register data. Scores of the work-life balance gaps were calculated every each life domains by finding the reminder between hope ("how much you want to take first priority") and the size of the actual situation ("how much you give priority to it actually").

KEY RESULTS

The work-life balance gaps in every each life domains were varied according to gender and the generation (60s, 70s and 80s). "Community" could be taken first priority with men in their 60s and 70s, and women in 80s. In addition, "Work" could be taken first priority with both men in their 80s and women in their 60s and 70s.

CONCLUSION

Differences of the work-life balance gaps in every each life domains suggested that both men and women face various problem through their development. Policy and measures about work-life balance are needed to be considered from the aspects of the life span development and gender.

PT_0979

Technology and Enhancement of Urban Dwelling Older People's Health

First Author (Main Author)	Lucia Yi-Chun Huang (Yu Da University)	Taiwan
Co-Author(s)	Chao-Hua Wang (Taichung University) Grace Wu (University of Auckland)	
Presenting Author	Lucia Yi-Chun Huang (Yu Da University)	Taiwan

Adherence to exercise regiments and attending social functions not only enables elderly population, in particular those residing in apartment based housing situated in urban setting, to improve their quality of home life, to allow these people to maintain fitness and health even in an environment where resources for mild exercise, such as parks are limited. Also, to provide equivalent beneficial effects to society with cost effectiveness of providing sustainable older people care but also enable this population to contribute their knowledge, wisdom and arsenal of experience to the younger generation. However, with regards to the maintenance of fitness, this is often affected by level of exercise intensity and frequency, both of which are often altered as a result of perseverance, peer motivation, weather, and environmental conditions. Therefore, an Internet based multi-user virtual system is pertinent in providing this population with interactive healthy activity and social network functionality, whilst being easily manipulable by the elderly at home. This study aimed to verify usability of the fitness platform with multi-user virtual situations on smart TV service devices. The main modules of the platform included motion sensing interaction, graphics user interface, alternative 3D avatars and situations, synchronous interaction of distributed multi-users, and interface of unified computing health data.

A questionnaire was designed to evaluate the feasibility and usability associated with use of the virtual fitness platform. A total of 40 elderly users participated in the assessment of the content service. The results have showed 88% of them reported that the virtual fitness

platform was enjoyment and satisfied with it for activation of life. The conclusion emphasize the platform not only active the health promotion of elderly but also allowed synchronizing and display of data with wearable devices, which further enhanced effectiveness elderly being able to maintain their healthy and fitness.

PT_0985

Development and Testing of a Program for Visualizing Women's Lives in Developing Countries

First Author (Main Author)	Haruko Amano (Japan Women's University)	Japan
Co-Author(s)	Masako Takamasu (Japan Women's University) Kei Sasai (Japan Women's University) Fumiko Iida (Japan Women's University) Kazue Mochizuki (Japan Women's University) Toshiko Tanaka (Japan Women's University)	
Presenting Author	Haruko Amano (Japan Women's University)	Japan

AIM

The purpose of the research was to study and test a program for grasping the living conditions of women in developing countries and to help support the lives of women with the risk of falling into poverty.

METHODS

A survey was conducted in Laos to investigate the living conditions of women in mountainous agricultural regions where risk of poverty is particularly high. The results of the survey were analyzed with an eye to developing and implementing a program for improving women's lives. The program was tested in farming villages in mountainous areas of Laos.

RESULTS

A key issue among women living in mountainous and agricultural regions of Laos was found to be the risk of poverty attributable to lifestyle and economic factors. These risk factors were noted widely among pregnant women, mothers, working women and others. Visualization of women's lives through a time use study was adopted as one program for supporting women impacted by such factors. Use of active learning in a workshop format proved to be an effective way to implement this program.

CONCLUSION

When tested, the program helped participating women to obtain a more objective grasp and stronger awareness of their daily lives. Inclusion of not only women but also men in the workshop group increased the interest of all members (both men and women) in their own lives and made them more aware of the importance of

cooperation between the sexes.

PT_1017

Support for Female Independence in the Affected Areas of the Great East Japan Earthquake: The Role Played by Handicraft Classes

First Author (Main Author)	Kei Sasai (Japan Women's University)	Japan
Co-Author(s)	Takashi Sakata (Isinomaki Sensyu University) Midori Otake (Tokyo Gakugei University) Noriko Ogawa (Chubu University) Akiko Nakajima (Wayo Women's University) Michio Miyano (Osaka City University) Rumiko Kuji (Shokei Gakuin University) Eisuke Ikuta (Osaka City University) Minako Yoshii (Mukogawa Women's University) Ikuko Bamba (Tokyo Gakugei University) Naoko Kikuchi (Iwate Prefectural University) Mirioka Junior College)	
Presenting Author	Kei Sasai (Japan Women's University)	Japan

AIM

Although it has been five years since the Great East Japan Earthquake, some people still live in temporary houses and prospects for the future is dim. The aim of our activity is to support them to find their hope of living and to propose some activities which will help them rebuild their lives. This time we gave lessons of handicraft to pursue female independence.

METHODS

We interacted with the residents in the affected area at one of the temporary houses in Ishinomaki city, Miyagi prefecture.

1. Holding handicraft classes which we believe are one of the ways to encourage women to be independent
2. Contents of classes: braids, fashion accessories, interior accessories
3. Conducting a fact-finding survey on their current lives
4. Investigating changes caused by the earthquake in the family structure and life styles
5. Investigating the demand for their future

RESULTS

1. Handicraft classes gave the residents the opportunity to interact each other.
2. The victims concentrated their attention on handicraft, which helped them forget the disaster and find their hope for future.
3. Younger mothers who acquired the skill of making braids received orders from Japan National Tourist Organization and could derive their income from making name tags.

- Many residents have lived in the different situation from how they lived before the earthquake. For example, their family structure changed.
- In the areas where people, who are not from the same neighbourhood, live in temporary houses, many of them would like to maintain the connection in the local community formed after living in the area.

CONCLUSION

Although the victims have settled down to their new lives, it is not easy for them to rebuild their lives as they were before the earthquake. It is clear that the victims cannot find hope and happiness which they experienced before the earthquake in their current lives. Material comforts do not necessarily bring happiness. Happiness can be obtained by living a meaningful life. Thus, support for the victims from the viewpoint of home economics can give them energy to live and bring them spiritual well-being and spiritual richness.

PT_1405
Analysis of Work-Family Coexistence Relations-Accordance of Marriage Satisfaction and Work Satisfaction

First Author (Main Author)	Hyun Ji Yoo (Sookmyung Women's University)	Republic of Korea
Co-Author(s)	Mee Sok Park (Sookmyung Women's University)	
Presenting Author	Hyun Ji Yoo (Sookmyung Women's University)	Republic of Korea

This theory model illustrates relationship between married couples' satisfaction (cultural, physical, social, family activities), work satisfaction (wages, working hours), mutual positivity of work and family (how it affects each other positively) and marriage satisfaction (satisfaction of marriage life, positive cognition of the husband, satisfaction towards fair distribution of housework chores and parental care with the husband). The subject of analysis are 5962 number of case studies of married women's survey results 「4th National Women and Family's Panel investigation」 (2012), held by the Korean Women's Development Institute. Frequency analysis, statistical analysis, and structural equating model were performed by using program SPSS 23.0 and AMOS 23.0.

Outcomes of model structures between hypothetical predictor are below. (After checking the model structure, the chi square (χ^2) is 2204.95, (df) is 50, p-value=0.00, RMSEA showed 0.075, therefore confirms that the structure of the model is satisfactory.)

It is shown that satisfactory level of marriage affects the statistics of work-family mutual positivity. (S.E=.035, C.R=10.271, Standardized

coefficient=.441, p=.000) The result of work satisfaction effect towards work-family mutual positivity statistics are as following. (S.E=.018, C.R=8.167, Standardized coefficient =.349, p=.000) Moreover, it is illustrated that satisfactory level of marriage and work affects each other. (Covariance between couples level of satisfaction and work satisfaction =.075, S.E=.006, C.R= 12.335, coefficient of correlation= .427, p=.000). It is evident that work-family mutual positivity affects marriage satisfaction statistics (S.E=.197, C.R=15.033, Standardized coefficient =.663, p=.000) therefore it is confirmed that work-family mutual positivity plays a big role in a happy marriage.

Measures to enhance the satisfaction of marriages are: First, married couples must share leisure activities and take various activities to enhance their close relationships and intimacy. Second, working environment of married women, including wages and work hours must be enhanced. Corporation support such as flexible work hours, child care facilities within work are required to promote work-family mutual coexistence for women. Third, governments must provide educational programs for working parents to help understand that household chores and child care should be shared equally, leading to improvement of the couples' satisfaction. Lastly, governmental support policies such as parental leaves, especially paternity leaves must be increased to enhance couple's satisfaction. In order to do so, co-operation between families, works and societies is necessary with gender equality perspective.

PT_1430
Need Survey for Lao Women's Economic Empowerment from Gender-Sensitive Perspective – Focused on the Trainers and Trainees of Women's Vocational Training Center in Lao PDR

First Author (Main Author)	Mee Sok Park (Sookmyung Women's University)	Republic of Korea
Co-Author(s)	Miyoung Kim (Sookmyung Women's University)	
Presenting Author	Miyoung Kim (Sookmyung Women's University)	Republic of Korea

Women's economic empowerment has become vital development subject globally because it can work as a precondition for sustainable development, the achievement of gender equality, the reduction of poverty, and integral economic growth, etc. However, women in developing countries are still experiencing exclusion from economic fields compared to those in other countries due to various sociocultural factors. Accordingly, having related skills for decent jobs through either official or unofficial vocational training is regarded as the core of women's economic empowerment in the international society. However, even with the gender mainstreaming in the international society, the vocational training for women is still limited

to traditional areas such as clothing, food and service, and women are commonly excluded in the major industry fields. In this study, we attempt to understand major demands of women's vocational training to expand international cooperation in the field of women's vocational training, on the basis of gender equality. We target for Lao PDR, one of the first support area of Korea, which has a demand for vocational training. 10 trainers and 29 trainees of central women's vocational training center under Lao Women's Union participate in this study. To analyze the priority of vocational training program, AHP (Analytic Hierarchy Process) and general descriptive statistics are conducted. The main results of this study are as follows. First, as a result of analyzing the priority of capacity building program for trainers, professionalism of curriculum, positive thinking and passion on trainees, and effective teaching competence and promotion of interaction are identified in order. Second, in terms of vocational training program for trainers, a demand for sewing training is the highest (34%), beauty (23%), cooking and baking (20%), handicraft (17%) are identified in that order. Lastly, in terms of the priority of vocational training program for trainees, cooking and baking (31%) training is evaluated as the top priority, and sewing (22%), accounting (20%) are understood in sequence, unlike trainers' demand. This study can be used as an important basic data when Korea expands the international development cooperation for women's vocational training in Lao PDR. Above all, this study has a significance in the sense that we confirm the effectiveness of gender perspective approaches by which we can understand the sociocultural status of Lao PDR as well as technical approaches, in order to sustain the effectiveness of women's vocational training.

PT_1453
Use of Family-Friendly Workplace Policies and Parenting Stress of Employed Korean Mothers: The Moderating Role of Job Involvement and the Husband's Participation in Childcare

First Author (Main Author)	Sewon Oum (Seoul National University)	Republic of Korea
Co-Author(s)	Jaerim Lee (Seoul National University)	
Presenting Author	Sewon Oum (Seoul National University)	Republic of Korea

AIM
 Family-friendly workplace policies are known to alleviate the parenting stress of employed mothers. However, earlier studies have shown mixed results for the effect of actual utilization of these policies, and little is known about moderators between the use of family-friendly workplace policies and parenting stress. In this study, we aim to investigate whether employed Korean mothers' utilization of family-friendly workplace policies are associated with a lower level

of parenting stress and whether the association differs depending on their job involvement and the husband's participation in childcare.

METHOD
 The data came from 332 full-time employed mothers residing in Seoul who had at least one child younger than school age. Multiple regression with interaction terms was used after controlling for socio-demographic factors (age, education, household income), family factors (number of children, age of the youngest child, marital satisfaction, use of childcare by relatives) and work-related factors (working hours, employment status, occupational category). The utilization of family-friendly workplace policies was measured by having used at least one of the three workplace policies: Maternal leave, parental leave, or a flexible work arrangement.

RESULTS
 The utilization of family-friendly workplace policies was associated with a lower level of parenting stress for employed mothers. However, the relationship differed by two moderators. First, job involvement moderated the relation between family-friendly workplace policies and parenting stress ($\beta = .187, p < .01$). The relation between family-friendly workplace policies and parenting stress was opposite depending upon the level of job involvement. Among those with low job involvement, use of family-friendly workplace policies was associated with lower parenting stress. Among those with high job involvement, however, use of family-friendly workplace policies was related to higher parenting stress. Second, the husband's participation in childcare moderated the relation between the utilization of family-friendly workplace policies and parenting stress ($\beta = -.140, p < .05$). The negative relation between the use of family-friendly workplace policies and parenting stress was stronger when the husband had a greater level of childcare participation.

CONCLUSION
 The findings indicate that the effect of utilizing family-friendly workplace policies on alleviating parenting stress of employed mothers differs by how much an employed mother is involved in her job and how much her husband participates in childcare. The positive effect of family-friendly workplace policies on employed mothers could be facilitated when the husband participated in parenting. However, among employed Korean mothers whose job involvement is high, their use of family-friendly workplace policies may worsen their parenting stress due to their desire to concentrate on their careers.

PT_1471

Information and Communications Technology and Families: Korea, China, and the United States

First Author (Main Author)	John Brady (Seoul National University)	Republic of Korea
Co-Author(s)	Bohan Lee (Seoul National University) Jong-Youn Rha (Seoul National University) Huayu Li (Seoul National University)	
Presenting Author	John Brady (Seoul National University)	Republic of Korea

Recent advances in information and communication technology (ICT) have proven to be remarkably popular. According to The MIT Technology Review (DeGusta, 2012), smart phones went from a 10 percent market penetration in the United States to a 40 percent market penetration in under 5 years. Yet for all the phenomenal growth of the ICT devices, there is still a great deal we do not know about their impact on society, business, and families. This study proposes to fill some of the gaps in existing knowledge by examining issues related to ICT and families. In particular, the study will examine the uses that families have for ICT technology, the perceived benefits of the technology, and examine a number of problems that come with the spread of the technology. Culturally, Korea, United States, China differ dramatically. According to The Hofstede Centre's website (<http://geert-hofstede.com/>), the United States and Korea are on opposite ends of the scale with regard to individualism, masculinity, uncertainty avoidance, long-term orientation, and indulgence. China and the United States differ in terms of power distance, individualism, long-term orientation, and indulgence. China and Korea differ only with respect to uncertainty avoidance and masculinity however each country has had a different historic experience in recent years. Based on the above issues, we have identified main research questions regarding ICT use by families and the role ICT plays in family process. In early 2015, a survey firm in the United States was contracted to collect data from 500 participants in a panel. A firm in Korea was contracted to collect data from 584 Korean panel participants. Also, a firm in China was also contracted to collect data from 1,000 Chinese panel participants. Respondents were limited to those 18 years of age or over living in a household with at least one other person to whom they were related by blood, marriage, adoption, or in a long-term committed relationship.

PT_1500

The Oldest Old in Urban Korea: Experiences of Space

First Author (Main Author)	Jane Park (Seoul National University)	Republic of Korea
Co-Author(s)	Jane Park (Seoul National University) Hyejun Lee (Seoul National University) Gyounghae Han (Seoul National University)	
Presenting Author	Jane Park (Seoul National University)	Republic of Korea

Gerontologists seek to explore the older person's experience of space, which is important for their maintenance of a sense of personal identity, self-control, and, ultimately, well-being. With urbanization and the age-grading of city spaces, however, the elderly become socially isolated from the community. As they become older, they experience their space as increasingly limited and come to attribute different meanings to it. Thus, we focus on the oldest old aged 85 and above, examining the way they use, perceive, and attribute meaning to the spaces that they experience in their daily lives. In-depth interviews and observations were conducted with 15 (mentally and physically functional) urban residents. Results show the spaces the oldest old experienced to comprise two main locales: home and senior citizen center ("Kyung-Ro-Dang"). For home, changes in filial obligation norms and family structure led the elderly to perceive home as a meaninglessness space where they felt trapped and uncomfortable, with simple daily routines, such as sleeping and eating interspersed with occasional (marital or family) conflict. Senior citizen centers were their most important sites for social interaction, where they spent most of their time and also where a distinct Korean culture could be found, with features such as gender-role separation. They described senior citizen centers as the most comfortable space but also as becoming feminized over time. Besides two main locales, some oldest old described religious institution or workplace as a place in which intergeneration integration was constructed and attributed more significant meaning to this than to senior centers. Overall, this research shows that the attribution of meaning to space for the elderly differs by age. This is important, since knowledge of the perception of space of the oldest old is vital to the provision of associated support and strategies suited to their needs and desires.

PT_1826

Gender Inequality in Leisure Time for Korean Elderly

First Author (Main Author)	Oi-Sook Kim (Korea National Open University)	Republic of Korea
Co-Author(s)		
Presenting Author	Oi-Sook Kim (Korea National Open University)	Republic of Korea

Gender inequality in leisure time is a common problem over all age groups. This research examines gender difference in leisure time and draws attention to how the determinants of leisure time influence differently for Korean male and female elderly.

The data used for this study were from the '2014 Time Use Survey' conducted by the Korea National Statistical Office. The data from 3,016 male and 4,518 female aged 65 and over were analyzed using t-test and multiple regression analysis. Variables included for independent variables on regression analysis were socio-demographic variables and time variables. Gender, age, educational level, employment status, income, family type, health level, and attitude on sex-role were analyzed as socio-economic variables. Work time and household work time were included for time variables.

The results show how leisure time differs by gender. Female elderly had 63 minutes less in leisure time per day than their male counterparts. Male had more time for mass media, sports, ritual activities, and other leisure activities than female and female had more time for helping/doing favors for acquaintances, socializing, and religious activities than male. Variables analyzed as determinants of leisure time included employment status, gender, age, family type, and health level. Employment status was the most important variable among socio-demographic variables for both male and female, however several variables impact leisure time differently for male as compared to female. Work time was the most important variable affecting leisure time for both male and female. Work time was more influential for male than female, whereas household work time was more important for female than male.

Findings are discussed with respect to constraints on leisure for the elderly. Implications for reducing gender inequality on leisure time and improving the quality of leisure life, especially for female elderly, are provided.

PT_1909

The Conditions and Characteristics of Leisure Activities for the Middle-Aged People

First Author (Main Author)	Eun Bee Ko (Sookmyung Women's University Graduate School)	Republic of Korea
Co-Author(s)		
Presenting Author	Eun Bee Ko (Sookmyung Women's University Graduate School)	Republic of Korea

Quality of life in old age is significantly depend on how to spend it and what to do in the rest of their life. But according to the survey results on the elderly life conditions in 2014, just taking a rest forms at close to 90.2% of their total leisure activities rate. This statistics means that the elderly spend their leisure time described as passive and dysfunctional leisure activities.

Therefore, in this study, we aim to understand the conditions and characteristics of leisure activities for the middle-aged people and discuss leisure activities policy direction.

To investigate the current condition of leisure activities of the middle-aged people, this study examined the statistics derived from a database built by Korea Institute for Health and Social Affairs on a survey conducted by Leisure and work in the transition to retirement in 2015.

The main results of this study are as follows. First, for the importance of leisure activities the middle-aged people answered they recognized it as 'Generally important (47.0%)', 'Very important (37.7%)'. Second, leisure activities reasons of the middle-aged people are 'Vitality of daily life (50.5%)', 'Health Maintenance (28.3%)', 'Stability of mind and relaxation (12.6%)' in order of priority. Third, the response results on the leisure activity participation of the middle-aged people are 'NO (55.2%)', 'YES (44.8%)'. Forth, the reasons of leisure activity absent of the middle-aged people are 'lack of time (76.5%)', 'lack of money (45.1%)', 'tiredness (38.7%)', 'lack of willpower (13.6%)' in order of priority. Fifth, the current condition of leisure activities of middle-aged people by TYPE is categorized as 'Physical exercise (67.9%)', 'entertainment activity (34.4%)', 'culture and art activities(22.2%)' in that order. The details include 'walking (13.8%)', 'hiking (10.9%)', 'eating out (9.7%)', 'watching movies (9.7%)', 'watching sports (8.5%)', 'shopping (7.0%)' in order of priority.

As I mentioned above, from the result of this study we can assume that the middle-aged people are aware of the importance of leisure activities very well but do not participate in. And it seems that they are more participating passive and dysfunctional leisure activities than positive and functional leisure activities.

So it is highly necessary to draw up related work and leisure balance policy and expand the low cost of infrastructure for the middle-aged people. Furthermore it is necessary to be awakened people to the significance and to expand support scales for positive and functional leisure activities.

This study can be used as basic data for establishing various policies of leisure for the middle-aged people understanding their current condition.

PF_0071

Physical, Chemical, and Sensory Properties of Glass Noodle Supplemented

First Author (Main Author)	Orawan Oupathumpanont (Rajamangala University of Technology Thanyaburi)	Thailand
Co-Author(s)	Ujitchaya Chitravimol (Rajamangala University of Technology Thanyaburi)	
Presenting Author	Orawan Oupathumpanont (Rajamangala University of Technology Thanyaburi)	Thailand

AIM

The objective of this study was to develop glass noodle with Jerusalem artichoke flour added to make products of high nutritional quality with low carbohydrate digestibility.

METHODS

The effect of mung bean flour substitution with Jerusalem artichoke flour was investigated in terms of the physicochemical, textural and sensory qualities of glass noodle. Five additional glass noodle were prepared by substituting mung bean flour with 10, 20, 30, 40, and 50% Jerusalem artichoke flour. The optimal ratio of glass noodle from Jerusalem artichoke flour was investigated using sensory qualities in comparison with the control (100% mung bean flour).

RESULTS

The results of glass noodle formula development indicated that as the amount of Jerusalem artichoke flour increased, the sickness of glass noodles decreased and the appearance became darker. The optimum formula consisted of 40% Jerusalem artichoke flour was used to replace mung bean flour. Glass noodle were composed of 0.48% protein, 0.36% fat, 7.00 % dietary fiber, 51.18 % carbohydrate and 5.20 % inulin. The elasticity was 2.15 g/cm. The results of consumer evaluation showed that the overall liking of glass noodle were at the moderate level.

CONCLUSION

The incorporation of 40% Jerusalem artichoke in the glass noodle significantly increased their total dietary fiber and inulin content.

PF_0102

Creating a New Texture by Controlling the Bubble Content in Konjac

First Author (Main Author)	Madoka Hirashima (Mie University)	Japan
Co-Author(s)	Shizuka Kato (Mie University) Emika Takahashi (Mie University) Rheo Takahashi (Gunma University) Katsuyoshi Nishinari (Hubei University of Technology)	
Presenting Author	Madoka Hirashima (Mie University)	Japan

AIM

There are many traditional gel-like foods in Japan such as tofu, kamaboko, agar jelly, rice cake and konjac. Among them konjac has a characteristic texture, which is chewy and elastic. Many Japanese have enjoyed konjac and its variety of textures. In this study, controlling the amount of bubbles was considered effective in developing a new texture of konjac products. Therefore, the bubble content in konjac aqueous dispersions was investigated by changing preparation methods and adding foam stabilizers, and changing concentrations of konjac and foam stabilizers.

METHODS

The concentration of konjac flour was varied from 0.5 to 5.0 wt%. Gum arabic, methylcellulose, pullulan and soluble soybean polysaccharide, were used as foam stabilizers, and the concentration of these foam stabilizers was varied from 0 to 3.0 wt%. Konjac aqueous dispersions with or without foam stabilizers were prepared by changing stirring time. The specific gravity of konjac aqueous dispersions were measured, and the bubble content was calculated.

RESULTS

It was found that there were no differences in the specific gravity of 1.0 wt% konjac aqueous dispersions prepared by changing stirring time. It means the amount of bubbles for the samples was not influenced. However, increasing the concentrations of konjac flour and adding form stabilizers to konjac aqueous dispersions led to increase the bubble content of samples. Among four kinds of foam stabilizers, methylcellulose was the most effective in increasing the bubble content. Therefore, bubble contents of the konjac aqueous dispersions with various concentrations of methylcellulose was examined. It was found that adding 0.2–0.5 wt% methylcellulose increased the bubble content of 1.0–3.0 wt% konjac samples most effectively.

CONCLUSION

The specific gravity for the konjac aqueous dispersions containing methylcellulose was the lowest. Therefore, it was considered that methylcellulose was the most effective to make a new texture of konjac products.

PT_0106

Effects of the Substitution Level of Freeze-Dried Angelica Keiskei on Functional and Sensory Properties of Bread

First Author (Main Author)	Tomoko Yamauchi (Nagoya Women's University)	Japan
Co-Author(s)	Atsumi Koide (Nagoya Women's University) Kiyoko Mamiya (Nagoya Women's University) Kishiko Matsumoto (Nagoya Women's University) Tomoko Banno (Nagoya Women's University) Michie Moriyama (Aichi Gakusen University)	
Presenting Author	Tomoko Yamauchi (Nagoya Women's University)	Japan

AIM

Aiming to aid in the prevention of lifestyle-related diseases, we attempted to develop functional bread using Angelica Keiskei (Ashitaba), an umbelliferous plant native to Japan. In the present study, we investigated components of Angelica Keiskei and examined the effects of the substitution level of powdered Angelica Keiskei on the functional and sensory properties of the bread.

METHODS

Angelica Keiskei was freeze-dried (-80°C, 24 hr) and milled into powder (250 µm). The structural properties of Angelica Keiskei components were analyzed using LC-MS and LC-NMR. Bread samples were prepared by substituting 1, 3, and 5 wt% of 400 g (i.e., 4, 12, and 20 g, respectively) of bread flour with Angelica-Keiskei- powder and compared with control bread without substitution. The total polyphenol content was determined using the Folin-Denis assay. Antioxidant activity was determined using DPPH (1,1-Diphenyl-2-picrylhydrazyl) radical-scavenging assay. Sensory evaluation (color, flavor, hardness, adhesiveness, taste, total evaluation) was performed by 32 food specialists (29.9 ± 14.8 years old) based on scoring and ranking methods. Data were analyzed using Tukey-Kramer's multiple comparison test or Newell & MacFarlane test (p < 0.05).

RESULTS

The analysis demonstrated that chlorogenic acid was one of the major compounds present in Angelica Keiskei, and that this plant may contain quercetin and kaempferol glycosides. Both the polyphenol content and DPPH radical-scavenging activity of Angelica Keiskei bread increased significantly (p < 0.05) with increasing substitution. On sensory evaluation, bread with 5 wt% substitution received significantly (p < 0.05) lower scores and was significantly (p < 0.05) less preferred in the ranking test than that with 0 (control), 1, and 3 wt% substitution.

CONCLUSION

These results suggest that bread with 3 wt% or lower Angelica-

Keiskei-powder substitutions can serve as a source of functional components that possesses favorable sensory properties.

PT_0149

Effect of Dietary Education on Eating Behavior and Self-Efficacy of Elementary School Students

First Author (Main Author)	Michie Moriyama (Aichi Gakusen University)	Japan
Co-Author(s)	Atsuko Yamamoto (Aichi Gakusen College) Atsumi Koide (Nagoya Women's University) Tomoko Yamauchi (Nagoya Women's University) Kiyoko Mamiya (Nagoya Women's University)	
Presenting Author	Michie Moriyama (Aichi Gakusen University)	Japan

AIM

It seems very important to start dietary education from earlier age because the cognitive processes of children from age of 10y onward are believed to become similar to those of adults. In Japanese elementary schools, there are unignorable amounts of students who don't have regular family meal nor breakfast at all, which may cause them a lack of concentration, resulting in school life problems such as uncooperativeness and lower academic performance. To improve such situation, a variety of dietary education programs were developed for elementary school students. In this study, we investigated the influence of a dietary education to elementary school students on their eating behaviors, dietary habit and self-efficacy.

METHODS

Results from 97 sixth-grade students who had been receiving dietary education for six years were compared with those from 118 control students in the same grade of neighboring school were subjected to the questionnaire on eating behavior and diet history. Self-efficacy was analyzed using the questionnaire based on the competence scale for children developed by Sakurai (1992), and meal frequency and estimates of dietary intakes of foods, calories and nutrients were analyzed using brief-type self-administered diet history questionnaire (BDHQ10y).

RESULTS

Intake of beverages and ice cream by students of control school were significantly higher than those of dietary educated students. Control school students who eat snacks every day were took much more amounts of energy, fat, carbohydrate, saturated fatty acid and cholesterol. Furthermore significant correlations between eating behavior and self-efficacy such as "I have confidence in myself" or "I have much of which it can be proud" were existed in educated school students.

CONCLUSION

These results suggest that dietary education can be useful for Japanese elementary school students to promote self-efficacy and prevent lifestyle disease.

PT_0297

Stress and Eating Behavior

First Author (Main Author)	Mamiko Kurotani (Aichi Gakusen University)	Japan
Co-Author(s)	Michie Moriyama (Aichi Gakusen University) Atsuko Yamamoto (Aichi Gakusen University)	
Presenting Author	Mamiko Kurotani (Aichi Gakusen University)	Japan

AIM

In recent years, there has been an increasing trend in stress amongst workers, and the effects that related mental health issues have on them, their family as well as society, are a growing problem. Furthermore, the number of periodic health examinations is increasing every year, and there is an urgent need for promoting better physical and mental health. This study intends to understand the current status of worker's lifestyles, eating behavior and stress levels and to discuss the relationship between stress, lifestyle and eating habits.

METHODS

In April 2011, a self-administrated questionnaire was distributed to employees <836 people> of retail company A. Of 653 subjects <78.1% response rate>, surveys with missing information were disregarded and 643 subjects <76.9 %valid response rate> were chosen for analysis. The main content of this study is; 1.Physical attributes < Sex, age> 2.Stress < Mental fatigue, physical fatigue, sense of guilt and regressive fatigue> 3.Eating habits <Eating behavior, eating efficacy e.t.c.>

RESULTS

Results for eating or skipping dinner and eating efficacy for subjects working after 9PM showed that those who work after 9PM had a higher level of distortion and a low value for eating efficacy. Similarly, results for eating behavior and eating efficacy in relation to sleep and stress, subjects with high sleeping difficulty had a high distortion for eating behavior and a low value for eating efficacy. Findings showed that subjects with high levels of stress had a higher distortion for eating behavior and a low value for eating efficacy.

CONCLUSION

The current study indicates an interaction between stress level, eating behavior and eating efficacy of subjects that work after 9 P.M. In order to reduce the distortion in eating behavior and increase eating efficacy, there is a need for improvements in sleep quality to control

stress and dietary support for employers working late hours.

PT_0320

Cooking Habits of College Students in Japan

First Author (Main Author)	Madoka Hirashima (Mie University)	Japan
Co-Author(s)	Yuka Isobe (Mie University) Mitsuyo Hori (Gifu City Women's College)	
Presenting Author	Madoka Hirashima (Mie University)	Japan

AIM

There are many kinds of prepared foods in Japan, then opportunities for cooking at home have decreased. Younger people are particularly less conscious of what they are eating and how dishes are cooked. Therefore, it is important for increasing their consciousness of cooking to purchase food ingredients and to cook at home. In this study, the factors influenced to the cooking habits of college students were investigated.

METHODS

Surveys were taken every April (beginning of the school year) from 2007 to 2014 to investigate the cooking habits of 2,149 freshmen (age 18–20) in college. The respondents were categorized into several groups, e.g., gender, residence, major in high school, frequency of cooking, cooking attitude and having specialty or not. The results were statistically compared by chi-square test.

RESULTS

It was found that the percentages of students who cooked every day, 3–5 times a week, 1–2 times a week were 15.9%, 14.9%, 27.3%, respectively, and 41.9% students rarely cooked. The dishes made by many student at home were curry and rice, fried rice, omelet with fried rice, stir-fried vegetables and Japanese rolled omelet. The average number of dishes which students wrote in questionnaires increased with increasing the frequency of cooking. The frequency of cooking was influenced by gender (p < 0.001), residence (p < 0.001), major in high school (p < 0.05) and cooking attitude (p < 0.001). Moreover, the higher student's frequency was, the more students had specialties (p < 0.001). Their specialties were omelet with fried rice, fried rice, curry and rice, hamburger steak and Japanese rolled omelet, indicating the dishes students made and specialties mostly coincided.

CONCLUSION

From these results, it can be considered that increasing the cooking opportunity are necessary for developing good cooking habits.

PT_0406

A Study on the Taste-Modifying Phenomenon of Miracle Fruit That Is Native to West Africa

First Author (Main Author)	Yoko Okamoto (Suzugamine Women's College)	Japan
Co-Author(s)	Keiko Yoshida (Tsukuba International University)	
Presenting Author	Yoko Okamoto (Suzugamine Women's College)	Japan

AIM

Miracle fruit is a taste modifier. When sour foods like lemons are eaten after miracle fruit, they are tasted as sweet foods. In the present study, we selected foods that represent each of sweetness, sourness, saltiness, bitterness, and umami. Our aims were to examine the taste-modifying phenomena of miracle fruit by evaluating how the sense of taste changes after eating miracle fruit and to make sure that there is no change in taste of foods except for sour foods.

METHODS

Sensory evaluation was conducted using 12 different foods that represent sweetness, sourness, saltiness, bitterness, and umami (such as granulated sugar, lemons, grain vinegar, salt, coffee, and dried bonito flakes) and miracle fruit produced in Miyazaki Prefecture, Japan, in 23 to 27 healthy young college women. The subjects were asked to rate each food on a seven-point scale. Paired Sample t-test in SPSS was used for analysis. Sugar content and pH of the foods were also measured.

RESULTS

Sensory evaluation for sweetness, sourness, saltiness, bitterness, and umami was conducted before and after eating miracle fruit. With regard to sweetness, saltiness, bitterness, and umami, there was no change in taste before and after eating miracle fruit; however, regarding all 8 sour foods eaten after miracle fruit, sourness intensity significantly decreased while sweetness intensity significantly increased (p<0.01 each). The ranges of sugar content and pH of the 8 sour foods were 4.0 to 12.0% and 2.4 to 4.8, respectively.

CONCLUSION

Comparing the foods eaten before and after eating miracle fruit, the sugar content and pH of the foods remained the same, but there were significant changes in sweetness and sourness intensities when sour foods were eaten after miracle fruit. The taste-modifying phenomenon after eating miracle fruit was statistically confirmed by sensory evaluation when sour foods were eaten immediately after miracle fruit.

PT_0443

Sensory Acceptability of the Newly Introduced Cuisine of Boiled Incubated Fertilized Duck Egg ("Balut"), an Indigenous Food in the Philippines, with Additional Information on the Chemical and Nutritional Facts of the Egg Product

First Author (Main Author)	Norlita Sanceda (Ochanomizu University)	Philippines
Co-Author(s)	Harumi Tsuchiya (Ochanomizu University) Takehisa Matsukawa (Juntendo University) Kazuhito Yokoyama (Juntendo University) Emiko Suzuki (Ochanomizu University) Kikue Kubota (Ochanomizu University) Midori Kasai (Ochanomizu University)	
Presenting Author	Norlita Sanceda (Ochanomizu University)	Philippines

AIM

An indigenous food in the Philippines, "Balut" is a 17-19 day boiled incubated fertilized duck egg with a developed embryo inside and eaten in the shell, but never known in other countries. Previous sensory evaluation on "balut" revealed that the unfamiliar panelists (Japanese) accepted the taste and smell but rejected the appearance. The main objective of this study was to share more information on the chemical and nutritional aspects of "balut" and to find out how the new cuisines could improve acceptance of its sensory quality. Three "balut" recipes were introduced in this study.

METHODS

Three groups of panelists were employed, A) 30 Chinese unfamiliar of "balut" (never heard, seen or eaten it), B) 40 Filipinos living in Hong Kong and C) 43 Filipinos in the Philippines (the latter two are familiar of the samples), carried out the evaluation. Before the evaluation, the unfamiliar panelists had a negative reaction by just looking at the samples.

RESULTS

After the sensory evaluation, the reaction of the unfamiliar panelists changed. The total percentage of unfamiliar panelists with positive reaction increased during the first try and generally increased during the second try, while that of the panelists with negative reaction decreased. We believed that exposure to "balut", and the pleasant savory taste (umami) imparted by glutamate, a type of amino acid, which increased in "balut" during incubation, could have improved the acceptability. There was a consistent attitude of the same panelists on both the reactions for all the three recipes.

CONCLUSION

These findings could be helpful in disseminating information that

would lead to a better understanding of the quality of "balut" and hopefully bolster a massive consumption and increase its potential as a new food resource. It could also help the lower income family by making their own "balut" for their own consumption and at the same time sell them to improve their income.

PT_0455

Health Literacy Needs of Vietnamese American Women with Limited English Proficiency

First Author (Main Author)	Jenny Yi (California State University Northridge)	USA
Co-Author(s)		
Presenting Author	Jenny Yi (California State University Northridge)	USA

AIM

This project is to develop culturally appropriate intervention to improve cervical cancer knowledge among Vietnamese women. Vietnamese women experience proportionally more cancers of infectious origin, such as HPV which leads to cervical cancer. The purpose of this presentation is to discuss the unique health care needs of the Vietnamese American women with limited English proficiency.

METHODS

In order to identify the unmet needs of Vietnamese women, key informant interviews (n=35) were conducted with knowledgeable, community health professionals and advocates working with Vietnamese American populations. The majority (74.5%) of the participants reported that screening patients for health literacy skills is not being conducted. Results indicate that current practices in healthcare organizations tend to allow those with limited language/communication skills, and those with limited health literacy skills to go through the system unidentified. In evaluating the existing cervical cancer educational materials available for Vietnamese women, seventy cervical cancer educational materials were collected from a variety of health organizations. They were evaluated for formatting (e.g., readability and basic design), and, cultural sensitivity was assessed.

RESULTS

The results show that more than 90% of English cervical cancer educational materials were written at or above the recommended 6th grade reading level. Of 70 materials, 12 (17%) were available in Vietnamese. Study findings indicate that there is a superfluous need for culturally and linguistically appropriate cancer education materials for Vietnamese women with limited English proficiency.

CONCLUSION

Cancer education materials can be effective communication tools for

the Vietnamese with limited English proficiency and lower literacy skills but only if they are written at appropriate reading levels and is culturally sensitive. Implications for cancer prevention programs for people with limited healthy skills will be presented.

PT_0478

Principals' Perceptions of Indian Secondary School Food and Nutrition Curriculum, Policies and Services

First Author (Main Author)	Neha Rathi (Deakin University)	Australia
Co-Author(s)	Anthony Worsley (Deakin University)	
Presenting Author	Neha Rathi (Deakin University)	Australia

AIM

Schools are a fundamental part of the social environment that help to cultivate healthy eating habits among young people. School principals play crucial roles in the implementation of food curricula, policies and services. This qualitative study was undertaken to elicit principals' views about the current food and nutrition curriculum, school food policies and services and healthier alternatives.

METHODS

A snowball sampling strategy was used to recruit ten principals from English-speaking secondary schools in Kolkata, India. Face-to-face, semi-structured interviews were conducted between February and August, 2015. Participants were asked a series of open-ended questions based on a review of literature. Digital recordings were transcribed verbatim and thematically analysed (via NVivo 10) based on the principles of template analysis. Ethics permission for the study was granted by Deakin University (HEAG-H 171_2014).

RESULTS

Five themes summarized the principals' views of the current food and nutrition curriculum. They were mainly restricted to Biology and Home Science which are not taught to all pupils, and there is little attention paid to life and food skills or the initiation of lateral thinking. Six themes encapsulated the principals' views of the ongoing food policies and services in schools. Despite the lack of written food policies, several schools had tried to restrict the intake of certain energy-dense, nutrient poor foods and carbonated beverages within the school premises. But due to increased demand for certain unhealthy foods from adolescents and canteen personnel, several schools continued to sell those foods in their canteens. This indicates the discrepancy between the school's food provision and its food curriculum.

CONCLUSION

The research findings emphasize the need for the creation of a skills-

focused food curriculum and supportive school food policies and services designed to encourage healthy eating among adolescents.

PT_0493

Effects of Air Bubbles on the Tofu Products with Japanese Yam and Their Applicability to a Dysphagia Diet

First Author (Main Author)	Tomoko Miyashita (The University of Aizu)	Japan
Co-Author(s)	Kazumasa Mizuo (The University of Aizu) Kazuki Harada (National Fisheries University) Keiko Nagao (Graduate School of Tokyo Kasei University)	
Presenting Author	Tomoko Miyashita (The University of Aizu)	Japan

AIM

For the health maintenance and promotion of the elderly people, we tried to produce the tofu including air bubbles with Japanese yam, which has the excellent nutritional value and functionality. Then, we researched applicability as the dysphagia diet.

METHODS

Japanese yam was harvested in Fukushima Prefecture. Powder of freeze-dried Japanese yam added to water was stirred from 4 to 18 min to insert air bubbles. Further, mashed tofu and seasonings were added and the their mixed materials were steamed at inner temperature 88 to 90°C for 10 min. The rheology of trial product was examined using by creep meter, and the inner observation was laser microscopy, and the antioxidant activity was H-ORAC (Oxygen Radical Absorbance Capacity) method.

RESULTS

The apparent densities of pre-heated samples and the trial product were decreased by stirring up to 16 min, and oppositely they increased for 18 min stirring. This result was supported by the internal microscope observation. The textures of the trial products were permitted as 'Licensing Standards III' from Consumer Affairs Agency of Japan as the dysphagia diet by involving enough air bubbles by from 10 to 16 min stirring. As for the sensory evaluation, the longer the string time and the higher the amount of air bubbles, introduced the good estimation. In addition, the H-ORAC value of the trial products by stirring for 4 min and 16 min indicated 674 μmol TE (Trolox Equivalent) / 100 g and 601 μmol TE / 100 g, each other, and these values showed a high antioxidant activity.

CONCLUSION

From these above results, it was suggested that tofu trial product with Japanese yam stirred between 10 to 16 mi was suitable as dysphagia diets from the viewpoints of rheological properties, palatability, and

antioxidant activity.

PT_0529

Development of a Novel Fermented Food Made with Germinated Soybean Flour and Rheological Properties during Dough Fermentation

First Author (Main Author)	Michiko Tsuji (Nagoya Women's University)	Japan
Co-Author(s)	Keiko Fujii (Japan Women's University)	
Presenting Author	Michiko Tsuji (Nagoya Women's University)	Japan

The rheological properties of bread made with germinated soybean flour were investigated for the development of gluten-free bread without food allergens. Specific volumes of the control bread dough (dry yeast) and mixed bread (dry yeast and Bacillus subtilis natto) decreased as fermentation time increased. The storage modulus (G'), loss modulus (G''), and loss tangent (tanδ) of the mixed bread dough were lower than those of the control bread dough. Both breads had the highest value of specific volume with 1 h of fermentation time. The texture hardness of each bread decreased gradually when fermented for 3 h and showed no changes after 3 h. The adhesiveness of the control bread dough decreased when fermented for 3 h; however, that of the mixed bread decreased rapidly when fermented for 1 h and showed no changes after 1 h. A sensory evaluation showed that the mixed bread with a fermentation time of 1 h had significantly higher texture acceptability than did the non-fermented control bread in terms of stickiness. With 2 h fermentation time, both breads had significantly lower acceptability of sweetness than did the non-fermented control bread. These results indicate that a softer germinated soybean flour bread could be developed by adding Bacillus subtilis natto.

PT_0614

Effects of Water Amount and Cutting on Abura-Fu Production

First Author (Main Author)	Hideko Takahashi (Shuko Junior College)	Japan
Co-Author(s)	Yuji Aoyama (Shuko Junior College)	
Presenting Author	Hideko Takahashi (Shuko Junior College)	Japan

OBJECT

Abura-fu is food circulating in south Iwate and north Miyagi of Japan, and is made by workmen at small factories. We know that Abura-

fu is made from starch and gluten powder, the powder mixture is kneaded with water and fried in oil. There are many air bubbles in the inside of Abura-fu which are crunchy and soft. On the other hand, the Abura-fu crust is hard and brown. However, we do not have the detailed information about processing method. It is too difficult to make Abura-fu crunchy and soft. Therefore, we tested about water amount to the Abura-fu ingredients. Next, we tried to determine the most effective repeats between cutting and kneading of Abura-fu ingredients. We aimed the clarification and popularization of expert skill on Abura-fu production.

METHOD

The first experiment tested the effect of the amount of water into Abura-fu ingredients. We added three kinds of water amounts which is 40 g, 50 g and 60 g each to Abura-fu ingredients which was 25 g of gluten and 25 g of starch. The ingredients were kneaded, and cut with knife into small pieces, and fried. Secondly, we tested whether Abura-fu depended on cut times which were 0, 100, 200 or 300 each. We observed the difference of the swelling state of the Abura-fu, and measured the stress from compressive load.

RESULT

Abura-fu which was added 40 g of water swelled more than others. There are some big air bubbles in matrix with small air bubbles. Abura-fu which was added 60 g of water did not swelled, and the inside air bubbles were small. Abura-fu which was added 50 g of water swelled moderately. The stress from compressive load of sections of the Abura-fu did not have the significant difference. No cut Abura-fu swelled a little, and there were moderate air bubbles inside. Abura-fu which was cut more than 100 times swelled, and had big air bubbles inside. The best cutting times would be 100 times.

CONCLUSION

The best condition to make Abura-fu is 50 g water to 25 g gluten and 25 g starch, and is the kneading with 100 times cutting. We think the knowledge contribute to realization of homemade Abura-fu.

PT_0661

The Effectiveness of a Nutritional Improvement Program for Community-Living Elderly Individuals

First Author (Main Author)	Hiroko Moriwaki (Prefectural University of Hiroshima)	Japan
Co-Author(s)	Noriko Maeomichi (Hijiyama University)	
Presenting Author	Hiroko Moriwaki (Prefectural University of Hiroshima)	Japan

In recent years, the Japanese population has been rapidly aging. We examined the effectiveness of a nutritional improvement program designed to enable elderly individuals live independently in the

community.

We conducted pre- and post-assessments on 203 community-living elderly individuals who participated in a nutritional improvement program from April to December, 2012. The assessments covered participants' attributes, dietary status (e.g. consumption of three meals a day, daily consumption of staple foods, daily consumption of a main dish, and daily consumption of a dish cooked in oil), and dietary habits (enjoyment of meals, and favorability of current dietary habits). We divided participants into the low-scoring group and the other group based on their "dietary status score" on the pre-assessment.

No significant differences in attributes (age, height, weight) were found between the two groups. However, men and women in the low-scoring group had a better "dietary status score" after the nutritional improvement program. Moreover, "daily consumption of a dish cooked in oil" became more prevalent among men while both "daily consumption of staple foods" and "daily consumption of a dish cooked in oil" became more prevalent among women. The "dietary habits score" of men in the low-scoring group also improved. The nutritional improvement program was shown to be effective for participants who had a low "dietary status score", and may therefore contribute to preventive care.

PT_0850

Development of Teaching Materials Based on School Meals in Laos

First Author (Main Author)	Takamasu Masako (Japan Women's University)	Japan
Co-Author(s)	Amano Haroko (Japan Women's University) Sasai Kei (Japan Women's University) Iida Fumiko (Japan Women's University) Kazue Motizuki (Japan Women's University) Tanaka Tosiko (Japan Women's University)	
Presenting Author	Takamasu Masako (Japan Women's University)	Japan

AIM

The experiences of the WFP in providing school meals in Laos have shown that school meals are a highly effective means of nurturing children, who represent the most important resource in the country. We aimed to investigate the ways in which the knowledge and experience regarding school meals and school health in Japan can be applied to the dissemination of school meals in Laos, and to develop effective teaching materials that meet the needs of Laos.

METHODS

A survey was conducted in 2014 at schools and other locations in Oudomxay Province, in northern Laos. Based on the results of this survey, a workshop on teaching materials and methods for school meals was held in 2015 by inviting 30 personnel involved in school

meals in three provinces adjacent to Oudomxay Province. After conducting group work, a questionnaire survey and an interview survey were conducted on workshop participants.

RESULTS AND DISCUSSION

Cards showing Laotian ingredients and nutritional balance were used as teaching materials for school meals. They checked nutritional role of the food which was generally used in Laos by the cards. Subsequently, participants were asked to create a nutritionally balanced school meal menu using a balance sheet. Each group created a well-balanced menu using locally produced ingredients. In terms of safety and hygiene, we focused on handwashing among school meal workers, and attempted to improve their awareness regarding safety and hygiene. Handwashing checker was used to check the workers' daily handwashing methods, and experienced the correct method of the handwashing. The teaching materials used in the workshop were confirmed based on the results of the interview and questionnaire surveys to be teaching materials for school meals that met the needs of personnel involved in school meals.

PT_0859

Actual Circumstances Basal Metabolism Standard of Female Students in Fukushima Prefecture

First Author (Main Author)	Satoko Okabe (Koriyama Women's University)	Japan
Co-Author(s)	Anna Honma (Koriyama Women's University) Kaneko Erika (Koriyama Women's University)	
Presenting Author	Satoko Okabe (Koriyama Women's University)	Japan

AIM

These days, young female people want be more skinny, even if they are in normal frame. They prefer to skip meal and avoiding eating to lose weight. It is known that way of this dieting makes the basal metabolic rate decrease and also would reduce their biceps' strength. This time we are researching on the basal metabolic rate among young female people. Basal metabolic rate is mainly due to frame biceps, so we research grasping power for biceps.

METHODS

In this study, we analyzed third year senior college students who live in Fukushima Prefecture. Female students (n=55, 20 years, 158.4±4.8 cm, 54.9±7.8 kg, 21.9±2.8 kg/m²) participated in the study. MedGem conducted a hand-held indirect calorimeter test which was valid for resting metabolic rate. In this test, subjects are usually on a sitting position; it should also be done more than 4 hours after meals to avoid the influence of food. We divided physical activity level and weight avoiding their frame. In the basal metabolism rate the

subjects should be awake and lying down. The basal metabolism standard was reckoned by resting metabolic rate/1.1/ weight (kg). Testing the grasping power is marked by the biceps connected to the whole body's strength.

RESULTS

Result of the basal metabolic standard was 22.5±2.7 kcal/kg which is same as Japanese average. In this study, 'diet' is the subjects' experience as to skipping meals or avoiding eating. People who did diet in the past (24.5±3.1 kcal/kg) was higher in basal metabolic standard than doing diet now (21.4±2.5 kcal/kg) but weren't significant (p=0.06). What people generally believe, skipping meal or avoid eating meant losing weight makes reduce the basal metabolism standard. In this case, the result wasn't significant. People who did diet in the past, their average rate was higher than the Japanese average. For us to give more sufficient information about this study, we will do our research more next year. The grasping power (24.8±4.0 kg) was significantly (p < 0.01) under Japanese average (28.24±4.6).

CONCLUSION

It was suggested that there weren't decline of basal metabolism standard, but there were reduced biceps among younger people in Fukushima.

PT_0913

Home Economics and Health - Natural Partners?

First Author (Main Author)	Emer Cullen (St. Angela's College)	Ireland
Co-Author(s)	Amanda McCloat (St. Angela's College)	
Presenting Author	Emer Cullen (St. Angela's College)	Ireland

The importance of wellness and well-being is currently highlighted in varied documents such as the Sustainable Development Goals, the IFHE's 2008 position statement and the 2001 Primary Care Strategy for Ireland. In the midst of a surging obesity epidemic and an ageing population, the importance of Primary Care in achieving wellness is being emphasised. Primary Care aims to keep people in their homes and promotes preventative and rehabilitative care within the community. Providing information and resources are a priority in healthcare and often the key area of practical skills is overlooked. This research argues that Home Economics is ideally suited to add to the multidisciplinary team approach already employed in Primary Care, especially in the area of practical life skills.

The IFHE defines Home Economics as being "concerned with the well-being and empowerment of individuals, families and communities" (2008, p1). The role of Home Economics in promoting healthy nutrition is well established worldwide but this is just part of the discipline and can sometimes overshadow the other essential life-skills

prized by the profession. The potential role that Home Economics could play in Primary Care has not garnered much attention. A review of the literature has revealed an absence of relevant data. This poster examines the common aims of Primary Care and Home Economics, and explains what and how Home Economics can contribute to Primary Care. Home Economics' multidisciplinary and transdisciplinary approach is an advantage in this arena, as it could be the link between members of a primary care network. This research also examines why Home Economics should become involved with community-led health care and highlights the opportunities and challenges this merger presents to both disciplines. Home Economists can make a valuable contribution to community health by becoming an active member of a primary care team.

PT_0940

Prediction of Optimum Size and Volume Ratio of Potatoes in Boiling Process for Ecological and Energy Saving Cooking

First Author (Main Author)	Tomoko Hara (Shiga Junior College)	Japan
Co-Author(s)	Takao Yoshinaga (Osaka University)	
Presenting Author	Tomoko Hara (Shiga Junior College)	Japan

It is important to know suitable heating conditions in cooking processes when foods are boiled, where heat and mass transfer play an important role between food stuffs and surrounding fluids. In the present study, by using a mathematical model for cooking process based on the porous media theory, thermal fluid convection and heat and mass transfer are numerically examined in the food and surrounding fluid.

Using potatoes as food stuff, when the potatoes are boiled in a container filled with salt water by heating from the bellow, we numerically predict variations of the liquid temperature and the potatoes' temperature, hardness and salt concentration, which are partially compared with the experimental results.

In our model, the configurations and placements of potatoes in the container are considered to be like a porous medium with a larger matrix, while individual potatoes are porous media with a finer matrix. The following results are obtained:

- 1) The three-dimensional model shows that a critical flow parameter (Darcy number) exists, above which the thermal convection becomes dominant and the temperature distribution becomes homogeneous over the container. In this region, the one-dimensional lumped model is found to be effective.
- 2) The one-dimensional model for suitable parameter values enables us to predict not only the temperature development of the surrounding fluid, but also variations of the temperature, salt concentration and hardness inside the potatoes.
- 3) There is a particular parameter (Darcy number) region in which

the heat transfer is most promoted. Since this region determines the relation between the average size of the potatoes and the volume ratio of the potatoes to the liquid in the container, the optimum size and the amount of the potatoes in the boiling process become important in the ecological or energy saving cooking.

PT_1034

Physical Status and Dietary Habits among Schoolchildren in Miyazaki

First Author (Main Author)	Hisae Shinohara (University of Miyazaki) Japan	
Co-Author(s)	Toyoko Okuda (Tezukayama Gakuin University) Noriko Tanaka (Kobe Women's University) Ikue Hamaguchi (Konan Women's University) Etsuo Chosa (University of Miyazaki) Kurumi Tsuruta (University of Miyazaki)	
Presenting Author	Hisae Shinohara (University of Miyazaki)	Japan

AIM

Many common health problems such as a decline in physical strength, underweight, or obesity in Japanese children and adolescents are caused by their polarized amount of exercise. The results of an in-school medical examination of locomotive organs have confirmed that in Miyazaki, Japan, 10% of children show signs of musculoskeletal disorders or dysfunction.

The purpose of this study was to elucidate the physical status and dietary habits of schoolchildren.

METHODS

From March to May 2015, the survey was conducted in 941 schoolchildren (459 boys and 482 girls aged 9–13 years) from nine schools in Miyazaki. Dietary habits and lifestyle were anonymously assessed through a self-administered questionnaire and brief self-administered diet history questionnaires. This study has been approved by the research ethics committee of the University of Miyazaki.

RESULTS

The rate of "musculoskeletal disorder or dysfunction" was significantly higher in middle schoolchildren than in primary schoolchildren. No significant differences were found in the prevalence of obesity and underweight between the "musculoskeletal disorder or dysfunction group" (MD) and the "non-musculoskeletal disorder or dysfunction group" (non-MD). The scores of "interest in cooking" and "enjoying sports" were significantly higher and the scores of "sleep early" and "physical well-being" were significantly lower in MD than in non-MD. According to each category score, the children were divided into high- and low-score groups.

Compared with the low-score groups, the intake of "green, yellow

vegetables," "other vegetables," "fruits," and "fish and seafood" was significantly higher in the high-score groups for "interest in cooking" and "sleep early."

CONCLUSIONS

These results suggest that teachers and parents should work together to develop an "interest in cooking" and a healthy lifestyle in schoolchildren so as to promote their healthy growth and development.

PT_1746

The Effect of Curcumin in Breast Cancer Chemotherapy

First Author (Main Author)	Hyuna Lee (Hannam University)	Republic of Korea
Co-Author(s)	Eunmi Park (Hannam University)	
Presenting Author	Hyuna Lee (Hannam University)	Republic of Korea

Homologous-recombination (HR)-dependent repair defective cells are hypersensitive to poly (ADP-ribose) polymerase (PARP) inhibitors. Combinations of defective HR pathway and PARP inhibitors have been an effective chemotherapy strategy. We previously showed that knockdown of the WD40-repeat containing protein, Uaf1, is HR repair defect in mouse embryo fibroblast cells and is sensitive to ABT-888, a chemotherapy drug commonly used for inhibiting PARP. Consistent with the HR defective mouse genetic study, here, we show that curcumin inhibits Rad 51 foci formation and accumulates γ -H2AX in breast cancer cells. Curcumin treatment reduces HR repair and causes breast cancer cells to become hypersensitive to ABT-888 treatment. Moreover, curcumin, when combined with ABT-888, has the effect of delayed breast tumor formation in a xenograft model. Our study indicates that curcumin with PARP inhibitor treatment may be useful for the combination chemotherapy as a natural bioactive compound.

PT_1822

Hope and Happiness for Sickle Cell Anaemic Children on Dietary Management in Federal Medical Centre, Abeokuta, Ogun State, Nigeria

First Author (Main Author)	Opaleke Deborah (University of Ilorin)	Nigeria
Co-Author(s)		
Presenting Author	Adebisi Tunrayo (University Of Ilorin)	Nigeria

AIM

The study assessed Hope and Happiness for sickle cell Anaemic

Children in Federal Medical Centre, Abeokuta, Ogun State, Nigeria.

METHODS

Descriptive design was used for this study. The population was made up of all 90 cell sickle Children between the ages of 5-12 years that are attending the hospital from January 2014 to March 2015. Structured questionnaire was used to collect information from the parents, guardians and medical reports. The data was analyzed with frequency distribution and percentage. Chi-square was used to test research hypothesis 0.05 level of significance.

RESULTS

It was observed that majority: 62 (68.9%) of the respondents had normal weights, 90 (86.7%) agreed that fruits such as carrots, oranges and watermelon are good for maintaining healthy life. Furthermore, 78(86.7%) of the respondents had access to vegetables like Pumpkin, amaratus, and craincrain drawing leaves that contains fibers which aid digestion and stimulate production of hemoglobin that supply red blood cells very frequently. 60 (66.7%) of the respondents had access very frequently to beef, 86(62.2%) of the respondents had access very frequently to snail meat while 48 (53.3%) had very frequent access to liver. Also, 74(82.2%) of the respondents agreed that they took breakfast, dinner and home-made foods regularly and 78(86.7%) also agreed that their foods are usually prepared in good condition. Furthermore, all 100(100%) of the respondents agreed that diets consumed lessen pains and

PT_0905

Preventing Heat Disorders in the Elderly by Improving Their Living Environment and Daily Living Habits - Analysis of a Questionnaire and Field Measurement Surveys in Japan -

First Author (Main Author)	Michiyo Azuma (Kio University) Japan	
Co-Author(s)	Keiko Okamoto (Kio University) Naomi Sassa (Mukogawa Women's University) Kazuyo Tsuzuki (National Institute of Advanced Industrial Science and Technology) Ikuko Bamba (Tokyo Gakugei University) Hiroko Kubo (Nara Women's University) Norio Isoda (Nara Women's University)	
Presenting Author	Michiyo Azuma (Kio University)	Japan

AIM

With an increase in global warming in the past few decades, there has been growing concern regarding heat disorders in the elderly in Japan. This study aims to investigate strategies for preventing heat disorders in the elderly.

METHODS

Data on the thermal environment were collected automatically using thermal recording devices, and data on thermal sensation, thermal comfort, and acceptability were collected from young and elderly individuals during their daily life in summer (n=90). Skin temperature data (from the chest, forearm, thigh, and shin) were collected from 55 participants. Furthermore, we conducted a questionnaire on the knowledge and measurement of heat disorders, as well as on daily living habits, in order to determine generational differences. The result of the environmental data was given as feedback to each elderly individual after the investigations. The period of these investigations were the summers of 2012–2015.

RESULTS/FINDINGS

The mean ambient temperature during the daytime of the elderly participants was 30°C, which was approximately 2°C higher than that of young individuals. Moreover, indoor wet bulb globe temperature values of more than 28°C accounted for approximately 20%; in addition, elderly individuals tended to allow a high-temperature environment. Under conditions of low ambient temperature, shin skin temperature tended to remain high in some elderly individuals; thus, a decline in the regulation of body temperature ability was confirmed. Knowledge and measurement of heat disorders was amended in some elderly participants after receiving their own data as feedback; however, this was not sufficient to prevent heat disorders. The difference between recognition and actual conditions was also observed with regard to voluntary drinking water. Conclusion: Appropriate behaviors of environmental control, including using air conditioning and adjusting clothing insulation, are needed for elderly individuals. Therefore, it is necessary to create a system to suggest behavior improvement and inspect its effects using intervention studies.

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PT_0926

The Investigation on Tibetan Villages in Garzê Tibetan Autonomous Prefecture, Sichuan Province, China

First Author (Main Author)	Wang Xueju (Nara Women's University)	Japan
Co-Author(s)	Tooru Nakayama (Nara Women's University)	
Presenting Author	Wang Xueju (Nara Women's University)	Japan

The Tibetan nationality in China is distributed in the Tibet Autonomous Region and provinces of Qinghai, Gansu, Sichuan and

Yunnan .Due to living in different regions, The Tibetan nationality are mainly divided into: Amdo, Ü-Tsang, kham. Garzê Prefecture as the distribution center of Tibetan Kham, Tibetan Autonomous Prefecture has been influenced by other nationalities, called ethnic corridor since ancient times. Tibetan people in Garzê are divided into KANGBA and JIARONG, and Tibetan Kham includes MU YA, PACUO, ZABA, YALONG and there are corresponding cultural districts. Each cultural district has different features, and they are arranged in a crisscross pattern, and also interlinked.

In the Article, we choose a MU YA village, a traditional Kham village, a JIARONG village as examples. The investigation is as the followings:

- ① Compare the village's Historical backgrounds and present situations, and explore the differences.
- ② Find the distributions of roads and discuss the similarities and differences of road patterns.
- ③ Figure out every village's farmlands, pastures and religious facilities's locations.
- ④ Analyse the whole village's geographical environment and form (plane or slope)

Through the investigation, I analysed the differences and reasons of the planning and layout of Tibetan villages because of the different terrains, different climates and altitudes.

The primary conclusions are as follows:

1. KANGBA Tibetan Villages (MEIBA and SITONGDA) has a long history, and been rebuilt. They are located in highland plains or mountains at the altitude of 3000 m~4000 m. The distribution of the main road and by-pass is a tree form in the village. The villager believe in the Gelug-pa.
2. JIARONG Tibetan village (JINGBEI) has a long history, and is well-preserved. It has been built on the inclined plane at the altitude of 2000 m~3000 m. Its main road and by-pass are arranged in a mesh form. The villager believe in the Bon.

PT_0963

The Study of the Space Form of the Ethnic Miao's Village in the Southwest of Hunan, China-With the Miao's Village in Huaihua as the Object -

First Author (Main Author)	Feixue Wang (Nara Women's University)	Japan
Co-Author(s)	Toru Nakayama (Nara women's University)	
Presenting Author	Feixue Wang (Nara Women's University)	Japan

AIM

The ethnic Miao village located in the southwest of China's Hunan province, with its primitive simplicity, naturality and unique landscape, has been getting more and more attention in recent years. But at present most of the studies on the ethnic Miao village are about the style of the architecture, the history and folklore and mainly

focusing on the single building and architectural cultural heritage. On the other hand, studies from the perspective of the whole village space form are very few.

This study based on the-spot- investigation of three Miao villages in the southwest ethnic minority areas of the Hunan province, interprets the basic types and characteristics of the ethnic Miao village's space form.

METHODS

A measurement survey and hearing investigation are conducted in this study.

RESULT/FINDINGS

Geographical environment and Miao traditional culture have far-reaching influence on the local traditional architecture and layout. Meanwhile, the modern lifestyle changes also has some influence on the Miao traditional buildings and villages.

CONCLUSIONS

This study analyzes the historical development background of the three ethnic Miao villages, and its space form features. And then this study obtains that based on the distribution of the housing and farmland, it can be divided into villages scattered, concentrated, surrounded by three types; While according to the changes of public space and the villagers lifestyle, it can also be divided into tradition-maintenance type and tradition-development type. Finally, the study proposes with the full understanding of Miao villages' history and culture and lifestyle, to protect the village space form and the environment.

Key words: the Miao's Village, the People's Life, Space Form

PT_0971

A Study on Living Space and Lifestyle of Mongolian in the Region of Horqin

First Author (Main Author)	Yu Jiao (Nara Women's University)	Japan
Co-Author(s)	Toru Nkayama (Nara Women's University)	
Presenting Author	Yu Jiao (Nara Women's University)	Japan

Before 17c, Mongolian led a nomadic life. From the end of the Qing Dynasty, HOXUU system was in effect by Qing Dynasty in order to prevent independence of Mongolian, since then the land was open, and Han Nationality who worked on a farm immigrated. Although even before they are nomadic race, under the influence of all of that, the cultivation began to appear in the Mongolian life, and the lifestyle was changed into settlement. The region of Horqin is ncluding Tongliao City, Ulanhad City and Hingan Aeimeg, about 210,000km2 in area, and has a Mongolian population of about 2,940,000. This region of Horqin was firstly changed at the beginning of the effect. This

region has two-thirds of Mongolian, so become an important region.

The research purpose of this paper is to clarify ① the effects on the recent occupation and lifestyle of the people who live by the agriculture and the stock. ② the recent residential style and the construction and the utilization of the residence as subject of farmer and herdsman's residence in semi-agricultural and semi-stockbreeding of the Inner Mongolia Autonomous Region.

METHOD

From 11th to 18th June, 2012, we conducted interviews with regard to the 20th houses of Tongliao City zuun garen hoeit hoxuu about occupation and lifestyle, and measurement of site and house

CONCLUSION

①In this region agriculture and stockbreeding are important products, the fixed residence is gachaa which is semi-agriculture and semi-stockbreeding. Engaged in agriculture and stockbreeding for one year, it is an important income.②In addition to raising horses, dogs, chickens, the people also raise sheep, goats and cows in stockbreeding. Corn growing is not only people's mainly food, but also become proceeds when the left corns were sold. Then, the people feed the livestock on stem and leaves of corn.③All the residence are the one-storied house. All type of room's entrance are facing southeast, no relationship with kind of room and location. The houses can be classified into two-chamber, three-chamber, and several-chamber, and then the type of residence is also different by the utilization.

Through the participants' opinions and surveys, it seems that we should consider that the Han Nationality had a impact on the residential condition and living environment of shepherds and peasants and that the results will be able to contribute to the Mongolian modern society culture and the development of residential cultural.

PT_0995

Comparative Study of Network Residence in Japan and South Korea: Focus on Urban Areas

First Author (Main Author)	Jeonggyun Kim (Naruto University of Education)	Japan
Co-Author(s)		
Presenting Author	Jeonggyun Kim (Naruto University of Education)	Japan

It is difficult to understand current residential problems without considering changes in families and residences in contemporary society. Contemporary families satisfy their familial and residential needs through interrelationships with each other while living in a number of dispersed residences. The concept of a network residence is used to describe the situation in which families are reorganized into dispersed residences. The purpose of this study was to investigate

similarities and differences in the East Asian region through a comparison of network residences in Japan and Republic of Korea. To achieve this purpose, a comparative study was conducted using network residence survey results from urban areas in Japan (289 responses, 1995) and Republic of Korea (198 responses, 2005). The results of the study were as follows.

1. Sense of family in dispersed residences: Dispersed residences have become increasingly common in urban areas in both Japan and Republic of Korea, and the sense of family is generally wider in scope than just the nuclear family, even if the residence is dispersed. For example, families in urban areas of Japan widely regarded relatives (parents, children, siblings, etc.) residing elsewhere and friends as family, which can be viewed as a reorganization of flexible relationships. In contrast, families in Republic of Korea showed a more traditional sense of family, based mainly on blood relationships.
2. Dispersion distance: While 80% of dispersed families in urban areas of Japan were separated by long distances, 50% of dispersed families in Republic of Korea lived within a 30-minute drive of their family members. The extent of the area of dispersion for Japanese families was larger.
3. Types of network residence: Various types of network residences were apparent among dispersed families, in addition to financial assistance and housework help. However, all forms of aid were more prevalent in Republic of Korea in terms of frequency. In Japan, interaction among dispersed families through visits seemed to be preferred, whereas Korean families actively used indirect means such as phone calls in addition to routine visits.

In conclusion, it was clear that in both Japan and Republic of Korea, the various risks of dispersed residences are mitigated by residence networks. However, in terms of relationships in dispersed families, there was an inclination toward 'self-sufficient relationships' in Japan, whereas the inclination in Republic of Korea was toward 'relationships of mutual assistance'. This is an indication of the maturity of Japan's network residence system.

PT_1001

The Different Residential Modalities and Consequent Lifestyles of Evenki People in Inner Mongolia

First Author (Main Author)	Suchin Toya (Nara Women's University)	Japan
Co-Author(s)		
Presenting Author	Suchin Toya (Nara Women's University)	Japan

RESEARCH BACKGROUND AND RESEARCH PURPOSE

Hulunbuir city of Inner Mongolia is located in the borders of Russia, Mongolia and China. It is a place where nomads have lived for generations in their traditional nomadic lifestyle. Besides Mongolian, there are 12 ethnic nationalities like Evenki, Daur living in this vast land. This research focus on the environment changes and lifestyle changes of Evenki people who has kept a herding life like Mongolians.

RESEARCH METHODS

We interviewed 20 Evenki families in Hui Sum of Evenki Banner and did the field investigation for their lifestyle and residence in September 2014.

RESULTS

Comparing with nomadic lifestyle of four seasons movements of Mongolians in New Barag Right Banner, Evenki people's living region is limited in only summer camp and winter camp. Evinki people use Gachaa's common property freely instead of living in allocated region with fence.

The spatial patterns and functions of Evenki's Baishing house is different form it of Mongolians. For example, entrance is designed in the south part and sitting room is designed in the south part as well.

CONCLUSION

Influenced by various reasons like urbanization, settlement, Chinesization, nomadic lifestyle has been changing in recent years. This paper focuses on lifestyle changes and settlements of various ethnic nationalities in Hulunbuir of Inner Mongolia and tries to contribute to the related research area through precision analysis of the data.

Keyword: Lifestyle Evenki Residential Inner Mongolia

PT_1257

The Present Conditions and Problems of Crime Prevention in Elementary Schools Open to the Local Community

First Author (Main Author)	Yumi Nakasako (Kumamoto University)	Japan
Co-Author(s)	Akiko Seto (Nara Women's University)	
Presenting Author	Yumi Nakasako (Kumamoto University)	Japan

The purpose of this paper is to investigate and clarify the present conditions and security problems of elementary schools as open spaces in local areas. To know advanced cases of the school security, we researched community schools visited by local residents in all Japan.

We sent the questionnaires to 1,234 elementary schools in all Japan in November, 2014, and we received completed responses by mail

from 28.4% of these targeted schools.

Findings and the consideration are as follows.

Many of the elementary schools implemented measures against intrusion by strangers.

More than 80% of the responding elementary schools created emergency response plan and conducted emergency excises. Fewer schools implemented measures against intrusion by strangers to school premises compared to improvement in communication and awareness among the staff, children, families, and relevant external bodies. About 30% of the responding elementary schools answered that their measures against intrusion by strangers were good. Concerning measures for visits by local inhabitants, few schools separated open parts from closed parts or maintained security apparatus. It was difficult for the respondents to implement measures for securing school premises because of the cost and the structure of the schools.

We hope the residential in the area and the staffs of the schools structure systems to protect the schools effectively through simple communication and awareness.

PT_1261

The Human Responses on Thermal Environment at the Bedroom during Nocturnal Sleep of the Elderly and the Young in Japanese Summer

First Author (Main Author)	Hiroko Kubo (Nara Women's University)	Japan
Co-Author(s)	Michiyo Azuma (Kio University) Naomi Sassa (Mukogawa Women's University) Kayo Akiyama (Nara Women's University) Kasumi Kamegai (Nara Women's University) Mai Miyazato (Nara Women's University) Yuri Tanaka (Nara Women's University) Norio Isoda (Nara Women's University)	
Presenting Author	Hiroko Kubo (Nara Women's University)	Japan

AIM

Japanese summer is very hot and humid even night, so large number of insomnia are reported in summer. In addition, it has been reported that the case of the elderly died from heat-related illness during sleep. To clarify safe and comfortable thermal environments for satisfied sleeping, we investigated the actual thermal environment in bedroom and physiological and psychological responses during night sleep in summer.

METHODS

Data on the bedroom temperature and the relative humidity were collected automatically using thermal recording devices, and data on thermal sensation, thermal comfort, and acceptability were collected from the young persons (9 males and 14 females) and the elderly

persons (26 males, 24 females) during their daily life in summer. The data were measured during sleep at their own bedroom for 2 nights. The period of these investigations were the summers of 2012–2014.

RESULTS AND DISCUSSION

Almost subject was sleeping at higher bedroom temperature than recommended standard air temperature zone for healthy life in summer.

In the case of higher room temperature than 29 °C, the bedroom temperature decreased gradually from the wake-up time to the bedtime. As a result, the elderly became cooler and more comfortable condition in the wake-up time than in the bedtime. The other hand, the young reported to become warmer bedroom condition in wake-up time. The young who were sleeping in high bedroom temperature beyond 29°C had tendency to increase body movement during sleep. We thought this reason was the bedroom temperature risen during sleep by the timer use of air conditioning. The elderly were always poor sleep efficiency, and the body movement during sleep were many.

CONCLUSION

Summer bedroom thermal environment had affected the sleep. If more are not properly adjusted to room temperature and humidity sleeping less elderly in sleep efficiency, there is a concern that has worsened more sleep.

Keywords: elderly, thermal environment, nocturnal sleep, daily living habits, bedroom

PT_1271

Characteristics of Temporary Housing and Life of the Victim in the Great East Japan Earthquake -Case Study of Ishinomaki City-

First Author (Main Author)	Eisuke Ikuta (Osaka City University)	Japan
Co-Author(s)	Ikuko Bamba (Tokyo Gakugei University)	
Presenting Author	Eisuke Ikuta (Osaka City University)	Japan

The Great East Japan Earthquake struck Ishinomaki city on march 11th, 2011 and brought the largest damage to Ishinomaki city in the affected area. As a result over 20,000 houses were completely damaged and destroyed by the tsunami, and 7,122 (133 sites) temporary housing were supplied in accordance with the law of disaster relief act. The disaster victims moved to temporary housing from evacuation site in order and refuge life is continuing. In this study, temporary housing in Ishinomaki city is focused and the purpose of this study is to analyze influence that a characteristic of temporary housing gives to life of the victim. Characteristics of temporary housing in Ishinomaki city is as below; 1) Almost housing

is prefabricated houses constructor by Japan prefabricated suppliers and manufactures association. The association consists of task force of standard and house. These groups supplied different temporary housing. Specifically, the placement of the shape of the window and the room is different. These differences influence the life of the resident. 2)Wooden temporary housing was not constructed by local construction company. The reason is complexity of the supply process. Therefore, only a major manufacturer was able to supply a house. 3)Plot of building is one way for all house faces south direction. Therefore, the entrances do not meet it, and communication is hard to be born. 4) At the time of entering, although community continuation was concerned, a lottery method was adopted for big demand except for Ojika peninsula. As a result, the community before the earthquake disaster was divided.

PT_1409

Evaluation of Sensibility and Absorbent Performance for the Disposable Sanitary Napkins

First Author (Main Author)	Eun-Joo Han (Chungbuk National University)	Republic of Korea
Co-Author(s)	Soo-Ae Kweon (Chungbuk National University)	
Presenting Author	Eun-Joo Han (Chungbuk National University)	Republic of Korea

The purpose of this study it to provide preliminary data for the development of sanitary napkin with excellent sensibility performance and absorbent performance. This study clarified differences in preference, importance of performance, and satisfaction level of sanitary napkin according to the general and menstrual characteristics of the 540 healthy women by conducting 'questionnaire survey' on the usage of disposable sanitary napkin. 'Sensibility performance evaluation' was conducted on 100 women, and analyzed user characteristics and factors of sanitary napkin that made effect on the evaluation result. This study conducted lab test for absorbent performance of 14 products of sanitary napkin and wearing test during menstrual period, and investigated objective and subjective influencing factors on the 'absorbent performance'. The results of this study are as follows.

First, it was verified that patterns of sanitary napkin usage as preference and importance of performance showed significant difference by general variables and characteristics of menstruation of the research targets. Performance of sanitary napkin on the market did not meet customers' expectation as satisfaction score was lower than the importance score. It is necessary to develop sanitary napkins with improved sensibility performance and absorbent performance that considered user's ages and physiological characteristics.

Secondly, improving wearing sensation is most effective in improving sensibility performance of sanitary napkin, and it was identified that sanitary napkins with excellent tactile sense and stable adhesion have good wearing sensation. Development of sanitary napkin that considered characteristics by age was required as satisfaction level for sensibility performance was significantly different by age. Specially, development of customized sanitary napkin that improved sensibility performance by focusing on 30s women's demand.

Thirdly, long and thick sanitary napkin made out of film top sheet showed excellent absorbent performance. Sanitary napkin made out of film top sheet was appropriate for women in their 40s who placed emphasis on absorbent performance and preferred film top sheet. Also, it is important to find an optimum value of length and thickness to satisfy both size fitness of users and absorbent performance. Among objective absorbent performances, it was necessary to decrease wet back to raise subjective absorbent performance, and it turned out that quick absorbency makes greatest effect on subjective absorbent performance through sanitary napkin wearing test.

PT_1894

The Importance of Service Items for the Effective Facility Management (FM) on Campus Facilities

First Author (Main Author)	Min Soo Kim (Kyung Hee University)	Republic of Korea
Co-Author(s)	Yujin Kim (Kyung Hee University) Jun Ha Kim (Kyung Hee University)	
Presenting Author	Min Soo Kim (Kyung Hee University)	Republic of Korea

University campus is composed of various facilities with teaching, research and support functions. It takes a role as a basic hardware to consolidate competitiveness and enable development in the global education market. Additionally, it is especially important that campus facilities include large-scale spaces, diverse people, tangible and even intangible assets and thus this makes difference from the ones general building complex has. Consequently, the university has to take securing competitiveness and financial stability into account through enhancement of research and education by establishing systematic facility management (FM) plan and providing high quality FM services. However, there is no standard in detailed procedures and scopes of FM services for campus FM in Korea. Therefore, the main purpose of this research is to find out the importance of FM service items in order to effectively improve campus FM service quality. FM service items are collected through intensive analysis of precedent studies regarding the performance evaluation of campus FM services. Secondly, items are modified and integrated by similarity analysis. Finally, Delphi survey has been conducted among campus facility managers to measure the

importance of FM service items. This research will be useful for campus facility managers in making decisions for improving campus FM service quality. This work was supported by the National Research Foundation of Korea Grant funded by the Korean Government(NRF-2013S1A5A8023067)

PT_1906

Suggestion of Guidelines for Improving Indoor Environmental Quality (IEQ) in University Dorm Facilities

First Author (Main Author)	Yujin Kim (Kyung Hee University)	Republic of Korea
Co-Author(s)	Min Soo Kim (Kyung Hee University) Jun Ha Kim (Kyung Hee University)	
Presenting Author	Yujin Kim (Kyung Hee University)	Republic of Korea

In these days, university dormitories not only provide shelter for students, but also play a role as an educational and learning platform where the information and cultural exchange occur. Accordingly, the quality of the university dormitory in various ways significantly affects students living in dorm while at school and it still has more effects on future careers as well.

However, there is a lack of systematic facility information in university dorm whereas more demands are being made with low satisfaction level on indoor environmental quality (IEQ) and increasing complaints from students.

Therefore, the main objective of this research is to suggest the facility management (FM) service standards to improve the IEQ of university dormitory facilities. First, the minimally required levels of indoor environment are checked by reviewing the four laws and regulations related to domestic dormitory facilities. Secondly, in order for proving a better IEQ, through the extensive review of Korean Industrial Standards_Facility Management(KS_FM) and operation and maintenance(O&M) manuals, nine-service level guidelines are suggested to related FM service items derived from the laws and regulations review. The results provide facility managers at university dorms with more specific FM service information which will contribute to improve the satisfaction level on IEQ.

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PT_1911

Alternative Solution for Homeless in Korea to Stabilize Housing

First Author (Main Author)	Jiwon Hyun (Yonsei University)	Republic of Korea
Co-Author(s)	Yeunsook Lee (Yonsei University) Yunsoo Kim (Yonsei University) Jiyeong Ko (Yonsei University)	
Presenting Author	Jiwon Hyun (Yonsei University)	Republic of Korea

The after-effects of competitive society in industrialization era and the recent global economic crisis have expanded the disadvantaged class very rapidly and, particularly, the number of homeless has increased drastically, up to one million people. This caused worries of social welfare crisis, even more in the period of low birth • super-ageing • low economic growth.

Thereby, the needs to turn the life of those people who consume the much portion of national budgets to more autonomous and independent lifestyle. In an attempt to cope with this trend, Korean government has initiated R&D projects for housing welfare of the socially disadvantaged class.

The purpose of this study is to introduce two examples of attempts to promote housing stability, such as homelessness • Housing the homeless poor in Korea, non- housing residents and seeks to share the implications of that building process.

This study deals with two cases, one with supportive housing for mentally ill homeless and the other for residents living in densely built Gosiwon. For the first case, empty rooftop was used as the community garden through which interaction and healing programs were implemented.

For the second case, idle spaces were utilized after renovations to help them resettle down securely by forming a community among them. By systematically analyzing supportive programs necessary for them, the final supportive system to enhance their quality of life was developed.

This study is meaningful as it has shown the means that can convert the social perception and prejudice otherwise, there is no suitable way to solve the poverty problems. Still more, this study can be an example that indicates the government can find out wisdom to continuously supply the rental houses under the budget constraint.

Keywords: Homelessness, Housing Welfare, Supportive housing, Social Exclusion, Stabilization

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PT_1919

Ways to Form Neighborhood to Promote Social Health of the Housing Community

First Author (Main Author)	Chohee Sung (Yonsei University)	Republic of Korea
Co-Author(s)	Hyunjeong Kim (Yonsei University) Yeunsook Lee (Yonsei University)	
Presenting Author	Chohee Sung (Yonsei University)	Republic of Korea

Congregate housing is not just a method to gather number of housing units on a limited area but also is expected to be the place for community promoting interaction among neighbors. On the contrary to these expectations, in fact there is almost no exchange in contemporary society. Social mix is necessary for healthy communities and individuals. Accordingly, a series of attempts have been made in Korea in order to establish socially integrated housing community. All these attempts, however, turned out to be failures in promoting social integration. Among various elements for social integration, economic class and age group have been prominent. To successfully actualize social integration, ways to combine such groups is critical. The purpose of this study is to present a way to establish an appropriate neighborhood relationship for social integration. This study introduces two research studies challenged toward the subject. For the first attempt, the favorable distance among various households different in economic level and age are measured. For the second attempt, individual resident traits are measured in relation to special preference on privacy. As research method, the first study utilizes a questionnaire survey while second one uses both questionnaire and pen and pencil technique for personality measures. The result indicates that there are mutually beneficial households regardless of economic and age constraints which are quite different from conventional thinking and dilemmatic experiences. This study is significant in showing housing design and arrangement can be an important means that can contribute to social integration.

PT_1064

A Study on Thermal Comfort of Protective Clothing

First Author (Main Author)	Tomoko Koshiba (Bunka Gakuen University)	Japan
Co-Author(s)	Yukiko Uchida (Takasaki University) Ayano Denpoya (Bunka Gakuen Uinersity) Michiko Morimoto (University of Hyogo)	
Presenting Author	Tomoko Koshiba (Bunka Gakuen University)	Japan

Recently protective clothing has been provided for infectious diseases such as Ebola hemorrhagic fever and SARS at Japanese medical facilities. Also, following the nuclear power plant accident in Fukushima prefecture, wearing disposable protective clothing became required in all decontamination operations. As a result, the demand for protective clothing is growing in Japan. Thermal stress from wearing protective clothing can be expected very serious because the clothing made by nonwoven fabric. However, little research relating to protective clothing has been conducted. In order to evaluate thermal comfort and mobility of protective clothing, rectal temperature, skin temperature of 8 regions (forehead, chest, back, upper arm, hand, thigh, leg and foot), heart rate, clothing climate of 4 regions (chest, upper arm, back and thigh), sweat rate and subjective sensation were measured. The subjects were three healthy young men. The subjects wore 5 types of protective clothing, which are disposable and commercially available (called TY, MO, TM, AZ, and MG, respectively) in a climate chamber controlled at 23°C and 50%rh. Measurements were taken after 20 minutes in a resting position, before a 20-minute stepping exercise, and again after 20 minutes in a resting position. The following results were obtained. Although no goggles or masks were worn, and work load was not so high in mild environmental temperature, the humidity in the clothing was extraordinarily high (nearly 100%), and the sweat rate increased. The 5 types of protective clothing had different characteristics in air permeability, moisture permeability and thermal insulation. Protective clothing that inside material had high water absorptivity (TM) absorbed the largest amount of sweat. Moreover, high humidity in the TM was maintained during the rest period following the stepping exercise, and the subjects felt the most discomfort when wearing the TM.

PT_1067

The Effect of Differential Pressure of Compression Garment on Movement-Related Cortical Potentials(MRCPs)

First Author (Main Author)	Hyojeong Lee (Chungnam National University)	Republic of Korea
Co-Author(s)	Kiseong Kim (KAIST) Yejin Lee (Chungnam National University)	
Presenting Author	Yejin Lee (Chungnam National University)	Republic of Korea

It has been studied that a compression garment improves sports performance and muscle recovery from fatigue during sports activities. Recently there is an increasing number of researches advancing further from previous kinematic • physiologic evaluation into verification of effects of compression garments by measuring EEG in static or dynamic state taking a compression level as a variable (Bang & Kim, 2012; Shin & Chun, 2013; Kim et al., 2014). Therefore this paper explores a combined of brain science and apparel technology

to search different compression levels of compression garments bolstering sports performance. It analyzed how design of a differential compression level affects brain information processing observing from where a movement response is stimulated until EMG is generated by using moter related cortical potentials; MRCPs. Subjects were given 4 types of compression garments which have different pressure levels and differential pressure designs (CG, SCG, WSCG and WFCG) and wear them in accordance to Latin square order. Agility tests and EEG with movement measure were conducted. For agility test, side step test was adopted. For EEG with movement measures by BIOS16 (Biobrain Inc, Korea), subjects were asked to touch a switch pad of an object by tiptoe when hearing random beeps sound while sitting on a chair. The data was analyzed and standardized using Telescan(Ver. 2.0) by setting sampling frequency to 250 Hz and band pass frequency to 0.3~50Hz. In addition, clothing pressure of the compression garments was measured by using clothing pressure sensor AMI303-2(AMI Techno, co, Ltd, Japan). Clothing pressure measured regions were mid thigh (exterior and interior), mid knee joint, mid hamstring, and mid shin (exterior and interior) making them total 6 points. In statistical processing, SPSS 20.0 statistical program was used to produce means and standard deviations of all test variables. ANOVA was conducted from MRCPs composition data using garments as a variable. The results of clothing pressure measure were as follows: CG 0.44~1.65kPa, SCG0.53~1.50kPa, WSCG0.80~2.12kPa, and WFCG1.22~2.66kPa. In side step test, wearing WSCG showed the best increased result of an average increase of 21.59 steps. In pilot study, MRCPs results were not significant statistically, but mean differences according to the compression garments showed .

acknowledgement
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PT_1137

Differences in the Impressions Associated with Yukata Worn at Events and Those Worn at Hot Spring Resorts, and the Differences in Yukata Preferences Based on Gender

First Author (Main Author)	Ju-hee Sohn (University of Toyama)	Japan
Co-Author(s)	Natsuka Kanayama (University of Toyama) Kazuyo Kamachi (Tokyo Kasei Gakuin University)	
Presenting Author	Ju-hee Sohn (University of Toyama)	Japan

PURPOSE
It is expected that the 2020 Tokyo Olympics will lead to an increase in the number of foreign tourists visiting Japan. With this in mind,

this study focuses on the yukata (casual cotton kimono) worn at hot spring resorts as a type of in-house clothing. Wearing them at resorts is a casual and easy way of experiencing traditional Japanese culture. Although there have been numerous studies on yukata worn at events, very few attempts have been made to study the effect of yukata worn at hot spring resorts. This study examines the differences in the impressions associated with two different types of yukata (those worn at events and those worn at hot spring resorts) and the differences in yukata preferences based on gender. This study also aims to clarify what color yukata people prefer and the effect of yukata-wearing as a type of fashion therapy.

METHODS
This study was conducted through field work at Tokyo's Ooedoonsen (a day-trip hot-springs facility) and hot-springs facilities in Toyama Prefecture. We also used questionnaires to survey 583 university students, asking them to choose their preferred yukata (casual cotton kimono) from among 25 types. The survey was conducted from February through July 2015.

RESULTS
1) When choosing their yukata from among the 25 types, females preferred those with floral patterns and cold colors, while males preferred those with modern, geometrically patterned graphics.
2) Both genders preferred the following tones for yukata to wear at hot springs, in the order listed: 1) bright, 2) dark, 3) subdued.
3) Males preferred the following hues for yukata to wear at hot springs, in the order listed: 1) navy, 2) blue, 3) pink. Females preferred 1) navy, 2) pink, 3) white.
4) The image the subjects (students) have of yukata worn at hot spring hotels and inns:
Males: soothing (57.1%), cool (as opposed to "warm") (57.1%), easy to wear (51%)
Females: loose (52.6%), easy to wear (51.7%), comfortable, soothing, and cool (48.3% each).
5) The image the subjects have of yukata worn at events:
Both males and females feel this type of yukata makes the wearer look mature (45%). With regard to the feeling of excitement, females feel the image of yukata as exciting more than males do (63.8%of the females versus 36.7% of the males). It is considered that females feel psychological enjoyment as comfortableness. On the other hand, it is suggested that males focus on physiological comfortableness, such as "cool (as opposed to "warm")" (49%) and "refreshing" (46.9%).

CONCLUSION
Providing young people and foreign tourists with easy opportunities to try wearing yukata can deliver feelings of freedom and relaxation that offer a change from the everyday. This study showed that the choices of yukata available (the ability of guests to choose freely their preferred yukata) can stimulate hot-springs areas, make guests feel better, and help them to relax.

PT_1138

How Participation in Mini Fashion Shows for the Elderly Affected Their Mood and Feelings

First Author (Main Author)	Ju-hee Sohn (University of Toyama)	Japan
Co-Author(s)		
Presenting Author	Ju-hee Sohn (University of Toyama)	Japan

PURPOSE

In an effort to energize the elderly and also provide them with preventive care, this research aims to create a system to help the elderly enjoy their everyday lives by making proposals on their clothing. From the fused perspectives of clothing psychology and care studies (health/medical treatment), this basic study extracted sensitivity factors of the elderly's mood/feelings and fashion behavior that affect their evaluation of the clothes they wore.

METHODS

Measured items in the questionnaire: Twenty adjectives showing the participants' mood/feelings, such as "depressed," "relaxing," "lovely," and "uneasy"; 11 items about the elderly's self-evaluation of the clothes they wore; 27 items about the elderly's fashion awareness and behavior, and four items about individual traits. These items were evaluated using a four-point scale (agree, slightly agree, slightly disagree, and disagree).

RESULTS

- The results show that a sense of tension was strong before the show, but that curiosity (expectations of fashion therapy) and interest in clothing increased after the show. It was also found that participating in the fashion show made the elderly positive about the pleasure of dressing up.
- About the mood/feelings before the fashion show, four factors ("smile/positive," "graceful/enjoyable," "embarrassed" and "tense") were extracted from among 17 adjectival expressions, with a cumulative contribution rate of 63%.
- As for "wearing evaluation," five factors, including "curiosity," regardless of age (challenging)" and "low knowledge in brands," were extracted from among 10 items, with a cumulative contribution rate of 78.4%.
- Forty-two subjects were divided into two clusters, based on the evaluation of the clothes they wore. These two clusters were then compared for the mean values of each of their eight factors characterized as "fashion behavior." The results showed that fashion therapy was more effective for those in Cluster 2 (13 subjects), whose factor scores are positive for emphasis on youthfulness (0.37), emphasis on functionality (0.37), and emphasis on appearance (0.34), and negative for negative attitude (-0.35) [this can be interpreted as positive attitude (0.35)] than it was for those

in Cluster 1.

CONCLUSION

Thus, through the analysis of mini fashion-shows, whose participants were elderly people going to day-care facilities, this study identified a cluster suited for fashion therapy, which will help prevent the need for nursing care.

PT_1178

Dyeing of Silk and Cotton Fabrics Using Natural Dye Extracted from Blackcurrants

First Author (Main Author)	Akemi Yasukawa (Hirosaki University)	Japan
Co-Author(s)	Ayumi Chida (Hirosaki University) Yoji Kato (Hirosaki University) Miki Kasai (Tohoku Women's College)	
Presenting Author	Akemi Yasukawa (Hirosaki University)	Japan

AIM

Natural dye was extracted from blackcurrants and silk and cotton fabrics were dyed with the extracted solution using five types of mordant. The color and the properties of the dyed fabrics were investigated by various means.

METHODS

500 g of frozen blackcurrants and 250 cm³ of water were mixed in a liquidizer and filtered. A piece of silk fabric "habutae (smooth silk)" or cotton fabric "Kanakin (unbleached muslin) #3" (5 × 5 cm²) was immersed into a dyeing solution (10 cm³), in which the liquor ratio of the fabric to dyeing solution was 1:40, at room temperature for 24 h. Thereafter the fabric was immersed into the mordant solution at room temperature for 1 h. Five types of metal ions (Mg²⁺, Ca²⁺, Al³⁺, Fe³⁺ and Cu²⁺) were used as a mordant. The color difference and transmission ultraviolet and visible (UV-vis) spectra of the fabrics were measured using a color difference meter and UV-vis spectrophotometer, respectively. The bacteriostatic potency and color fastness of the fabrics were also investigated.

RESULTS AND CONCLUSIONS

The solution extracted from blackcurrants was acidic and was able to dye silk and cotton fabrics without a mordant at room temperature. Silk fabric dyed a deeper color than cotton fabric, and the tone of both fabrics became deeper as the concentration of the dye solution increased in mordant-free dyeing. Various colored fabrics were obtained by using five types of mordant. UV-vis measurements showed that the fabrics dyed with blackcurrants had strong UV absorption under 400 nm, that is, UV shielding ability. Moreover, it was revealed that the fabrics dyed with blackcurrants had antibacterial properties. The storage conditions of the dyed fabrics and the use of a mordant in the dyeing process changed the color

PT_1375

Effects of Kinetic Dynamics by Shoes on Posture, Gait and Joint Moments in Human Body

First Author (Main Author)	Nobuo Nagai (Graduate School of Bunka Gakuen University)	Japan
Co-Author(s)	Teruko Tamura (Graduate School of Bunka Gakuen University)	
Presenting Author	Satoko Aoki (Graduate School of Bunka Gakuen University)	Japan

In recent years, the number of women who wear high-heeled shoes even while commuting to work is increasing. Because they tend to wear shoes that are fashionable rather than practical, many complain of ailments affecting their feet, knees and back. In this study, we analyzed the effects of four common types of shoe – specifically, sneakers, pumps (heel height: 3cm), shoes for elderly and toning shoes – to determine how their shape and the presence of a heel affect joint moment and the angle of joints of the lower limbs in the gait cycle, and to investigate the kinetic dynamics effects that shoes have on the human body. We examined eight healthy young females by using three-dimensional motion analysis and floor reaction force, and calculated joint moment by interactive musculoskeletal modeling software. An examination of joint moment in one gait cycle showed that a hip joint moment increased at the time of heel contact, especially when the subject wore pumps. In addition, the peak values of hip and talocrural joint moment increased in the propulsive period, with the highest peak value seen in shoes for elderly. It was therefore thought that shoes for the elderly soften impact in the contact period and aid propulsion even when worn by young people. We expect that result of this study will contribute to the design of highly safe and functional shoes and safer methods for wearing shoes.

PT_1452

Color Characteristic of Japanese Cedar Ethanol Extract

First Author (Main Author)	Myoung Ok Kim (Chungnam National University)	Republic of Korea
Co-Author(s)	Jung Soon Lee (Chungnam National University)	
Presenting Author	Myoung Ok Kim (Chungnam National University)	Republic of Korea

Recently, the number of environmental diseases, such as atopic skin problem and allergy, are increasing due to environmental

factors like increasing indoor air pollution and exposure to house dust mites and due to psychological factors like stress. In addition to this, as environmental pollution and problems in emission of harmful substances caused by synthetic dyes came to take attention, interests toward natural dyes and developing natural dyes are highly increasing. The Japanese cedar used in this study is used for various purposes in timber industry, and is known for its extracts' function of antifungal and anti-bacterial vitality. In this regard, to identify Japanese cedar extracts' possibility of its use in natural dyeing material, Ultraviolet-visible spectrum of extracts of leaves and each parts of Japanese cedar is examined, and it was used to identify coloring characteristics of dyes made of each parts' ethanol extracts. For the extraction of color resources of each parts of the wood, dried timber and leaves were soaked in ethanol in ratio of 1 to 10 for 48 hours under the room temperature, and were extracted 3 times. The extracts were filtered using filter paper until the sediments were not found and were concentrated under reduced pressure using rotary evaporator. Then, they were dried before the use. In order to examine color characteristic of each wood parts' extracts, absorption wavelength of each extracts in wavelength's range of 200~700nm was measured using UV-VIS spectrophotometer(S-3100, SCINCO, Korea). As a result, Japanese cedar's wood extract revealed surface color of reddish purple, while its leave extract revealed surface color of green. For the result in identifying the UV/VIS absorption spectrum of the wood, the maximum absorption wavelength was around 270nm, but it did not display clear absorption peak point at the visible region, which indicated that main substance of extracts is Tannin, and in visible region, chlorophyll peak was weakly identified at 450nm. The leave extract also showed a strong peak point at 280nm in ultraviolet region, and weak chlorophyll a, b absorption peak at 420nm and 670nm in visible region.

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PT_1455

Color Characteristics of Distilled Water & Ethanol Extracts from Curcuma Longa

First Author (Main Author)	Sam Kang (Chungnam National University)	Republic of Korea
Co-Author(s)	Jung Soon Lee (Chungnam National University)	
Presenting Author	Sam Kang (Chungnam National University)	Republic of Korea

The powder of Curcuma longa is used to dye fabric yellow or brown. However, although it is known that the fabric and paper dyed from this powder have an excellent insect resistance, there are very few

studies to cover this subject. Therefore this study has looked into the color features of the distilled water and ethanol extracts, to provide the basic data as a basic research by proving availability of Curcuma longa coloring in natural dyeing. Pigment of Curcuma longa was extracted by using distilled water and ethanol. The extracts were used after filtering, decompressing and concentrating, and drying processes. Absorbance of the extracts was measured by UV/Vis Spectrum, and color features of the dyed fabrics were examined by a color reader. As a result, the distilled water extract showed the maximum absorption wavelength at 199nm, and it looked dark yellow. As the peak was found at around 424nm, it was possible to recognize it's the yellow coloring, curcumin. Meanwhile, the maximum absorption wavelength of the ethanol extract was shown at 199nm, just like the distilled water, and it looked light yellow. As the peak was found at around 424nm, just like the distilled water case, it was possible to recognize that it was curcumin. The dyed fabric showed the reflectivity form, like that of the yellow objects. All the fabric dyed from the distilled water and ethanol extracts were classified as the Group Y and showed yellow color, and particularly, the fabric dyed from the ethanol extract showed more vivid and bright yellow color.

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PT_1456

Color Characteristics of Perilla Frutescens Extract with Different Solvents

First Author (Main Author)	Qianwen Wang (Chungnam National University)	China
Co-Author(s)	Jung Soon Lee (Chungnam National University)	
Presenting Author	Qianwen Wang (Chungnam National University)	China

Perilla frutescens is the leaves of an annual plant that belongs to the Lamiaceae (Labiatae) family, which is also called beefsteak plant. It looks similar to perilla leaves, and the scientific name is Perilla frutescens L. It is known that it has antifebrile, perspiratory, stomachic, and detoxification effects, and especially the recent researches has verified its antiallergic, anticancer, and antimicrobial effects as well. Although perilla frutescens has been often used to color foods due to its unique color, there have been very few researches to verify its dyeing property in fabric. Therefore this study has looked into the color features of perilla frutescens extract according to extract conditions, so that this could be used as a basic research to prove availability of perilla frutescens in natural dyeing. Pigment of perilla frutescens was extracted by using distilled water, ethanol, and 3% NaOH solution. The extracted solution was analyzed

after decompressing and concentrating with a rotary evaporator, and drying it. In conclusion, ethanol extract was light green with the naked eye. The peak was found at around 200nm, 410nm, and 660nm, and it was possible to recognize that tannin and chlorophyll were extracted. Meanwhile, the distilled water extract was brown with the naked eyes. The peak was found at around 200nm, 280nm, and 320nm, and it was confirmed that tannin and anthocyanin were extracted. However, the NaOH solution extract looks green with the naked eyes, but only the tannin peak was confirmed at around 200nm. The fabric dyed from the ethanol and 3% NaOH solution extracts were classified as the Group G and showed green color, while the one dyed from the distilled water extract was classified as the Group Y and showed brown color.

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PT_1464

Development and Evaluation of Comfort Clothes Applying Korean Traditional Persimmon Juice Dyeing

First Author (Main Author)	Soonja Park (Chuncheon University of Education)	Republic of Korea
Co-Author(s)		
Presenting Author	Soonja Park (Chuncheon University of Education)	Republic of Korea

AIM

Wearing comfortable and satisfying clothes can give happiness to the wearer. Wearing clothes that are appropriate to one's natural and social environment not only enhances comfort and satisfaction but self-confidence as well. In this respect wearing comfortable and appropriate clothes can lead to happiness. Therefore, this research aims to develop comfortable clothing with a Korean traditional touch and prove its comfort through wearing test.

METHOD

Cotton plain-fabric was dyed by Korean native persimmon and was imprinted with patterns to make a clothing material. Its physical characteristics were then compared with the original undyed fabric. And persimmon-dyed fabric and undyed fabric were each used to make galot(dyed dress) and white(undyed) dress, with which comparative wearing tests were performed on 4 females in their 20s in a climatic chamber with 30±1°C, 50±5% R.H., and 0.2m/sec. In the wearing tests, rectal temperature(Tr), skin temperature(Ts), microclimate, and regional sweat rate were measured to analyze the difference between galot and white dress. The 80-minute tests were divided as 30' rest – 30' walking on treadmill with 5° slope and 70m/

min speed – 20' rest and the subjects' physiological response and subjective sensation were measured.

RESULT

First, persimmon dyed-fabric showed increased air permeability, moisture permeability, moisture regain, and UV cut ability compared to undyed fabric. Second, significant differences of physiological response were observed during the last 10 minutes of the 30' exercise interval of the wearing test. Tr in galot was lower compared to undyed dress by about 0.1-0.2°C, but the difference was not significant. During the last 10' when sweat rate most increased, the mean Ts decrease rate was higher for galot by about 2%, showing significant difference. Micro-temperature and humidity on the chest and back were significantly lower in galot subjects(p<0.01). This showed that persimmon dyeing lowers micro-temperature and humidity, relatively improving microclimate and comfort of the garment. When thermal sensation, wet sensation, and comfort sensation of the subjects were investigated, it was found galot was considered most comfortable and cool(p<0.01). Because micro-humidity, sweat rate, and wear comfort are related, it seems galot, which showed lower micro-humidity and sweat rate during the overall wear test, caused a more comfortable sensation.

CONCLUSION

When galot is worn in a hot environment, it gives the wearer a more comfortable and cool sensation because of its relatively lower microclimate. Thus, galot is recommendable for delivering satisfaction to people in hot environments. In a time where global warming is a worldwide problem, this research, which develops and proves the value of human body & eco-friendly clothing employing moisture regain and permeability of Korean traditional and natural persimmon dyeing, will inform people in and out of Korea about the benefits of galot, make them experience the comfort of galot, and provide further basis for people's happier choice of clothes.

PT_1468

A Study on the Features of Complementary Color Combinations in Marni Collection

First Author (Main Author)	Yong-ja Kwon (Chungnam National University)	Republic of Korea
Co-Author(s)	Yoonmi Choi (Chungnam National University)	
Presenting Author	Yong-ja Kwon (Chungnam National University)	Republic of Korea

As consumers are sensitive to products' color when purchasing the product, its color is a decisive factor. Accordingly, it is important for a fashion-designer to harmoniously use the colors to complete its style. The purpose of this paper is to investigate the relevance to a color combinations and its effect, One of the top brands in Milano collection, Marni, which has a high level of recognition and sales

figures, is chosen. Based on the Munsell Color Circle and Korean Standard Color, C&D155, the features of a complementary color combination harmoniously used in the works of its S/S collection are analyzed. The paper takes a theoretical approach from the preceding study on color harmony. These studies say the combination of a similar or same color gives rather monotonous and dull effects, while that of complementary ones reeks of sophistication and style. The research includes the season's S/S collection of Marni from 2000s to 2016s during which its works applying the complementary color contrast are analyzed. The results are as follows.

First, the complementary color combination is used in the 104 pieces of the works out of 853 in total. The complementary color combinations are largely divided into three groups: complementary color (2-hue format), adjacent-complementary color(3-hue format), single-split complementary color contrast(3-hue format). Second, the most widely used contrasts in the works are the combination of blue with orange(complementary color), blue with yellow and red(single-split complementary color), blue with orange and yellow(adjacent-complementary color), blue with orange and red(adjacent-complementary color) in each groups. Third, when dividing the adjacent-complementary color tone of each work into 4 categories like 'vivid', 'light', 'dull', 'dark', the order frequently used is 'vivid', 'light' and 'dull'. According to the analysis of the tone using the complementary color combination, the contrast combinations of vivid tone with dull or dark one are much more compelling and stylish than those with similar ones. In accordance with a color order analysis, though using many colors seems to be disordered, adjacent-complementary contrast one can cause quite more various and dynamic changes than the direct effect of two color contrast in color and tone.

* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044)

PT_1474

Contractional and Extensional Behavior of Knit Depending on the Axis of Extension for the Pattern Making of Sportswear

First Author (Main Author)	Gyeongmi Lee (Chungnam National University)	Republic of Korea
Co-Author(s)	Kyunghi Hong (Chungnam National University) Yejin Lee (Chungnam National University)	
Presenting Author	Gyeongmi Lee (Chungnam National University)	Republic of Korea

It is very important to understand physical behavior of stretch fabric in the design of sportswear, since almost all sportswear use knit to serve functional purposes. Recently, the rate of stretchability of

material has been observed by the method developed by Ziegert & Keil (1998), measuring the percentage of extended fabric when a 500g load is weighed to the 20x20cm material for 30 minutes. The method is convenient to use in the practical process of pattern making, however, it applies weight in one direction only and is not sufficient to reflect stretchability of knit which changes by multiple levels during movement depending on body parts. Deformation of knit on the body varies depending on the extra binding force, i.e. shoulder, crotch and armpit, etc. Therefore this study applied Knit Shrinkage Gauge(Tokyo Seiki Seisakusho Co., Ltd. JAPAN) to the measurement of knit deformation caused by the way of external force applied. The study adopted the following methods: draw the horizontal and vertical lines 1cm apart on the knit, fix a tricot fabric to Knit Shrinkage Gauge in multi-direction and 3D scan it to obtain data when gradually administered force in both directions. RapidForm XOR program is used to analyze the amount of change depending on the position of knit and external force applied. The ratio of longitudinal strain and lateral strain by vertical stress, called Poisson's ratio was also observed.

Knit Shrinkage Gauge method does not require sewing to measure stretchability of material. It can measure various directions with one sample and can examine stretching properties in various directions according to purpose. By such analysis, the pattern reduction rates of the center of top, sleeve and upper bottom could be estimated considering the Poisson's ratio and the amount of fabric deformation on the extra binding force.

* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044)

PT_1491

3D Analysis of Commercial Winter Facemasks and Face for a Prototype of Optimal 3D Facemask

First Author (Main Author)	Ran-i Eom (Chungnam National University)	Republic of Korea
Co-Author(s)	Yejin Lee (Chungnam National University)	
Presenting Author	Ran-i Eom (Chungnam National University)	Republic of Korea

In winter, a facemask serves as a protective item for face. Nonetheless its role of face temperature keeping function deteriorates when the outside air comes in through a gap between the mask and face. Therefore it is necessary to design a facemask considering 3D shape of the face. In this paper, facemasks from the market were investigated to find current design problems and the prototype of an optimal pattern of facemask was suggested based on 3D facial shape. As experimental methods, three different facemasks with different patterns were selected and they were disassembled along the seam to obtain patterns of three types: Product A with a rectangular

pattern, product B with a vertical center dart at nose and jaw and product C with horizontal center cutting line between face and jaw. Next, 3D facial shape was obtained with and without the masks, and the 3D data was analyzed for fit evaluation of each mask in precise detail. Product A showed irregular fit, evoking uncomfortable wear. Product B gives insufficient tightness around cheek because of protruding parts near nose and mouth. Products C revealed even tightness along the face and better wear comfort. From the results, key design points of facemasks were selected as follows: It is highly desired that facemask should fit to the 3D facial shape especially at the outline, while securing the inner space for nose and mouth. The application of horizontal incision on the mask-pattern is efficient for enhancing the fit. According to the selected design points, a sleek and ergonomic facemask was designed and tested based on the 3D information of face.

*This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044).

PT_1861

An Exploratory Study on the Success Factors of Small Fashion Business: Focus on Internet Fashion Shopping Mall

First Author (Main Author)	Mi Young Son (Korea National Open University)	Republic of Korea
Co-Author(s)		
Presenting Author	Mi Young Son (Korea National Open University)	Republic of Korea

Entering 21th century identifying Information Society, small fashion startup has been increasingly established under favor of the creative ideas and practical experience in industrial field. Especially for a domestic solution to the chronic problem of youth unemployment, the Korean government have been offering a variety of government policies and support relating to entrepreneurship as the main keyword of the government policy ' creative economy '. This study investigates what the critical success factors of internet fashion shopping mall sites impact the performance of the startup firms. In this study, the successful performance of startup firms was investigated by the average monthly net income, duration and initial investment payback period of online fashion shopping mall site firms. The success factors on the basis of results of previous researches are categorized into six groups: entrepreneur factor, business items factor, entrepreneurship funds factor, preparation factor, business management factor and internet shopping mall factor. The factors of entrepreneur were sub-categorized into the personal characteristics of entrepreneurs(desire for achievement, risk-taking propensity), the visionary missions(clear visions and goals of firm), experiential capability(expertise/career, business management/

administration experience), and the business management capabilities(the resource from network, sale/service management, business strategy).

The factors of business items were sub-categorized into the marketability of their business items(market entry, growth potential, price competitiveness, competitive environment), the profitabilities of items(clarity of profit model, estimated payback period of initial investment, risk on the investment), and the differential competitiveness of item(conceptual differentiation, functional differentiation, demand differentiation).

The factors of entrepreneurship funds were sub-categorized into government support, the amount and source of fund, funding strategy). The factors of business preparation were sub-categorized into startup education, feasibility study of business items, consulting expert advice, information collection and analysis, startup preparation period). The factors of business management were sub-categorized into capital controls, budgeting, product development and sourcing, pricing, promotion, cost savings, professional human resources). The factors of internet shopping mall were sub-categorized into 'ease of obtaining information', reliability and accuracy, and reliability of delivery', 'design suitability', 'raising the level of value', 'after-sales service', 'incentives', 'ease-of- order processing'.

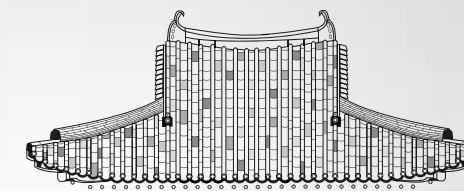
PT_1914

Thermal Liner Effect for the Heat Stress of Firefighters' Turnout Gear

First Author (Main Author)	Eunjin Park (Yonsei University)	Republic of Korea
Co-Author(s)	Yeji Choi (Yonsei University) Eunae Kim (Yonsei University)	
Presenting Author	Eunjin Park (Yonsei University)	Republic of Korea

Firefighters' protective clothing is multilayer clothing system where each layer fulfills a specific requirements. They are usually made of at least three layers. The third layer is a thermal liner which plays an important role to protect the body from high heat transfer. The air is most effective insulator and many efforts have been made to increase the proportion of air in firefighters' clothing systems. To minimize the thermal stress while offering protection from thermal hazards, an air gap was created dynamically between two layers of fabrics by incorporating SMA springs or using knitted 3D spacer thermal liner. The purpose of this study is to verify the effects of the different thermal liners of the firefighters' protective clothing using full-size garments and human subject tests. Six professional firefighters volunteered to perform the experiment. They followed the test protocol to rest 10min at room temperature, 10min in an environmental chamber maintained at 40±0.5°C and 65±5% RH, and ran on the treadmill at 7km/hr for 20 min and took a rest to cool down. Physiological data (temperature and relative humidity in the

microclimate, sweat loss and sweat accumulation within layers); and perceptual data (subjective sensation of thermal, moisture, clingy and overall comfort sensation) were obtained. The turnout gear incorporating springs sweated less and less sweat was accumulated in the clothing than other two ensembles, 3D spacer one and conventional control. The average microclimate temperature and relative humidity between the layers of the combined clothing ensemble incorporated SMA springs remained significantly lower than other thermal liner type ensembles throughout testing. The perceived thermal and moisture sensations of spring attached thermal liners were generally scored lower than other two thermal liners.



**XXIII IFHE
WORLD CONGRESS 2016**

POSTER

Thursday August 4

09:00 ~ 17:00



Exhibition Hall (1F)

CODE	TITLE	PRESENTER	COUNTRY
0804-CHD-01	The Relation between Parental Marriage Quality, Home Environment's Stimulation and 4-Year-Old Child's Behavioral Problem toward Child's Negative Peer-Play Behavior	Seri Kim (Seoul National University)	Republic of Korea
0804-CHD-02	How Does a Child-Rearing Woman Decide upon Her Permanent Residential Location? : The Effects of Childcare Support Services and Support Networks for Child-Rearing Women on Residential Preference	Mari Kikuchi (Osaka Sangyo University)	Japan
0804-CHD-03	The Survey of Dietary Education Related to Mastication in Japanese Day Care Centers	Kiyomi Kuramochi (Tokyo Gakugei University)	Japan
0804-CHD-04	The Influences of a Child Care Center's Environmental Factors and a Mother's Concern for Daily Lives of Their Children on Children's Play Interaction	Hye-Ryung An (Seoul National University)	Republic of Korea
0804-CHD-05	The Cooperation between Regional Area and National School-Based on the Inheritance of Traditional Culture in Inner Mongolia-	Rina Sa (Nara Women's University)	China
0804-CHD-06	Mothers' Educational Involvement and Parental Efficacy in South Korea	Hanjin Bae (Seoul National University)	Republic of Korea
0804-CHD-07	The Effect of Mother's Employment Status and Parental Network on Parental Knowledge about the Child's School Life	Jingya Ding (Seoul National University)	Republic of Korea
0804-CHD-08	Factors Associated with Multicultural Acceptability of High School Students in South Korea	Miai Sung (Korea National Open University)	Republic of Korea
0804-CHD-10	A Study on the Joy of the Elementary School Children in Japan, How They Feel in Their Daily Lives	Yoshikawa Haruna (Saitama University)	Japan
0804-CHD-11	Estimate Longitudinal Changes of Parenting Stress of Mothers with 0-3 Year-Old Children	Seri Kim (Seoul National University)	Republic of Korea
0804-CHD-12	The Effects of Children's Executive Function and Peer Play Interaction on Preschool Adjustment	Eun Kyung Lee (Seoul National University)	Republic of Korea
0804-CHD-13	A Structural Analysis of Mothers' and Fathers' Parenting Stress, Parenting Behavior and Toddlers' Negative Peer Interaction: Focusing on the Actor and Partner Effect	Bo Ram No (Seoul National University)	Republic of Korea
0804-CHD-14	The Korean On-Line Version of Early Child Development Scale: A Validation Study	So Jung Seo (Kyung Hee University)	Republic of Korea
0804-CHD-15	A Comparison of Familialism among Asian Marriage Migrant Women in Korea	Meejung Chin (Seoul National University)	Republic of Korea
0804-CHD-16	Age Gap and Conflict-Coping Styles among Korean Married Couples	Soon Bum Kwon (Seoul National University)	Republic of Korea
0804-CHD-17	The Influence of Communication with Parents on Adolescents' Participant Behaviors in the Bullying Situation: The Mediating Effect of Social Self-Efficacy	Kyungsun Yang (Seoul National University)	Republic of Korea
0804-CHD-18	Indirect Effects of Maternal Work Characteristics on Korean Children's Aggression	Soyoung Kwon (Seoul National University)	Republic of Korea
0804-CHD-19	An Evaluation of Parent Career Counsel from a Parent Competence Enhancement Perspective	Soon Bum Kwon (Seoul National University)	Republic of Korea
0804-CHD-20	The Relationship between Mother's Psychological Well-Being and Infant's Emotional Intelligence : An Analysis Mediating Effects of Mother's Parenting Behaviors	Yeounhee Yoon (Sookmyung Women's University Graduate School)	Republic of Korea
0804-CHD-21	The Study on Cultural Competency of Multicultural Family Children and Mothers; Focusing on Homes Visiting Child Care Service	Seohee Son (Sookmyung Women's University) Su Sun Park (Seowon University)	Republic of Korea
0804-CHD-22	Time-Poverty of Working Mothers and Fathers in Korea	Jiwon Seo (Korea National Open University)	Republic of Korea
0804-EDU-02	Improving (US) HBCU Students' Familiarity with the Family and Consumer Sciences Body of Knowledge (FCS-BOK)	Sung-Jin Lee (North Carolina Agricultural and Technical State University)	USA
0804-EDU-03	FACS in the Middle: The Impact of Family and Consumer Sciences on the Career Development and Self-Efficacy of Eighth Grade Middle School Students	Jacqueline M. Holland (Morgan State University)	USA
0804-EDU-04	Practice in Improving the Living Conditions of University Students	Miyuki Okada (Hokkaido University of Education)	Japan

Exhibition Hall (1F)

CODE	TITLE	PRESENTER	COUNTRY
0804-EDU-05	Development of Lesson Study Packages for Support in Planning and Improving Home Economics Lessons	Tomoko Nagata (Hyogo University of Teacher Education)	Japan
0804-EDU-06	Service Learning in Home Economics Education: The Practices in the U.S. and Japan	Keiko Masuda (Tokoha University)	Japan
0804-EDU-07	Risk Management as Part of Home Economics Education	Sachiko Aoki (Tokyo Kasei University)	Japan
0804-EDU-08	Curriculum Development and Changes of Home Economics Education in Zambia	Veronica Mulenga (The University of Zambia)	Zambia
0804-EDU-09	Development of Experiential Type of Educational Program Including Try-On Yukata in Home Economics for Junior or High School Students to Transmit the Kimono Culture to the Next Generation	Sachie Oya (Tokyo Gakugei University)	Japan
0804-EDU-10	Development of Home Economics Lifestyle Culture Lessons in Japan	Yuko Kamei (Aikoku Gakuen Junior College)	Japan
0804-EDU-11	Effect of Home Economics Education on "Assumed Competence" Based on Undervaluing Others: Cultivating Children's Empathy and Happiness	Toyoko Fukuda (Tokiwa University)	Japan
0804-EDU-12	An Introduction to Teach "Life and Disaster" by Using Sewing Kits to Make "Hang in There: Gambappeshi" Bags: Cultivating Empathy in Students and Hope in the Sufferers	Toyoko Fukuda (Tokiwa University)	Japan
0804-EDU-13	Examining the Text and Learning Activities of Korean and American Home Economics Textbooks	Soo Hee Lee (Incheon Dong Yang Middle School)	Republic of Korea
0804-EDU-14	Trends of Home Economics Research in the Journal of Home Economics Society in the World	Tomoko Akatsuka (Utsunomiya University)	Japan
0804-EDU-15	Lesson Improvement through Lesson Studies and Effects of Improvements: Ideas for Cooking Practice Emphasizing Language Activities	Mayuko Suzuki (Osaka Kyoiku University)	Japan
0804-EDU-16	First-Aid Training Workshop for Childcare Workers Experimentally Provided by Nurses	Mika Shishido (Kanagawa Institute of Technology)	Japan
0804-EDU-17	A "Financial Education" Lesson for University Students and Its Effect on Achieving a Sustainable Environment and Consumption	Hiroko Kamata (Hokkaido University of Education)	Japan
0804-EDU-18	A Study of Youth Fashion Behavior and Education -The Perspective of a Curriculum Responsive to Globalization-	Mieko Saito (Kawamura Gakuen Women's University)	Japan
0804-EDU-19	Including Disaster Education in Home Economics	Satomi Terasaki (Hosei University)	Japan
0804-EDU-20	Theory and Practice of Role-Playing in 'Family Studies' of Kateika in Japanese Junior High School	Ikuyo Kamano (Oji Junior High School)	Japan
0804-EDU-21	The Significance and Challenges of Coed Home Economics Studies in the Structure of "Learning Relevance" Regarding Home Economics	Tomoko Fujita (Tokyo Gakugei University)	Japan
0804-EDU-22	Evaluation of Sewing Lessons for Elementary School Students in an After School Care Program in a Local Tokyo Community	Naoe Nishihara (University of the Sacred Heart)	Japan
0804-EDU-23	Developing a Teacher Training Standard for Home Economics Teachers	Kaoru Horiuchi (Yokohama National University)	Japan
0804-EDU-24	Consumer Education through Linking of Multiple Subjects	Satoko Mishima (Tokyo Gakugei University)	Japan
0804-EDU-25	Development of North Korean Family Living Culture Education Program for South Korean Adolescents in Preparation for Reunification of Korea	Hana Lee (Korea University Graduate School)	Republic of Korea
0804-FDN-01	Nutrition Education Utilizing Paraprofessionals	Lauren Amaya (Oklahoma State University)	USA
0804-FDN-03	Regional Vitalization and Living Support for Victims of the Great East Japan Earthquake	Natsumi Noda (Shokei Gakuin University)	Japan
0804-FDN-04	Effects of Adding Oil and Funori (Gloiopeltis Furcata) on the Quality of Rice Noodles	Tomoko Yamaguchi (Niigata University)	Japan
0804-FDN-06	The Intake of Bean Products and Vegetables Associated with Mental and Physical Health of Japanese University Students	Noriko Tanaka (Kobe Women's University)	Japan
0804-FDN-07	Analysis of Conjugated Linolenic Acid in the Seed Oil from Various Cherry Cultivars	Taro Honma (Tokyo University of Technology)	Japan

Exhibition Hall (1F)

CODE	TITLE	PRESENTER	COUNTRY
0804-FDN-08	School-Lunch Satisfaction Is Associated with Consumption of a Mid-Morning Snacking and Hunger Feeling in Adolescents	Hyesun Min (Hannam University)	Republic of Korea
0804-FDN-09	Influence of the Characteristics of Households and Primary Food Shoppers on Household's Food Consumption in a Korean Urban-Rural Complex Region	Sang Eun Lee (National Academy of Agriculture Science)	Republic of Korea
0804-FDN-10	Effect of Aloe Noodle on Loperamide-Induced Constipation in SD Rats	Young-Eun Lee (Wonkwang Univrsity)	Republic of Korea
0804-FDN-11	Dietary Pattern and Health-Related Quality of Life among Korean Breast Cancer Survivors	Nahui Kim (Sookmyung Women's University)	Republic of Korea
0804-FDN-12	Coffee Consumption and the Prevalence of Pre-Hypertension and Hypertension in Filipino Women Living in Korea	Jung Eun Lee (Sookmyung Women's University)	Republic of Korea
0804-FDN-13	The Effect of Food Restriction and Betaine Supplementation on Methionine Metabolism and Plasma Lipid Profile in Ethanol Treated Rats	Hyesun Min (Hannam University)	Republic of Korea
0804-FDN-14	Physicochemical and Antimicrobial Activity of Allium Chinense	Mihye Kim (Hoseo University)	Republic of Korea
0804-FDN-15	Healthy Korean-Styled Diet Patterns for Brains and the Development of Related Healthy Meal Models	Hyekyung Chung (Hoseo University)	Republic of Korea
0804-FDN-16	A Study on the Probability of Eat Out Tourism Products by Utilizing Local Food	Mihye Kim (Hoseo University)	Republic of Korea
0804-FDN-17	Study on Wholesome Bread, Made with Sikhye and Mixed Grain Power: Its Unique Qualities and Commercial Potentials	Mihye Kim (Hoseo University)	Republic of Korea
0804-FDN-18	Comparison of Food Databases among African Countries	Mariam Nakitto (Seoul National University)	Uganda
0804-FDN-19	Folic Acid Supplementation Can Lower Homocysteine Levels in Diabetic Post-Menopausal Women	Aswathy Vijayakumar (Ewha Womans University)	India
0804-HOS-01	Condition of Fire Fighting Facilities and Fire Safety Consciousness among Residents of Small House around University	Jeong Hoon Han (Kyung Hee University)	Republic of Korea
0804-HOS-02	Young Renter Households' Perception and Experience of Housing Cost Burdens: Focusing on the 2014 Korea Housing Survey	Hyun-Jeong Lee (Chungbuk National University)	Republic of Korea
0804-HOS-03	What Returnee Students Learn from "Katazuke" Studies in Japanese Elementary School Kateika Classes	Nao Furushige (Tokyo Gakugei University Doctoral Course)	Japan
0804-HOS-04	Effect of Japanese Cedar on Psychological and Physiological Factors Influencing Quality of Sleep and Mental Health Status in an Indoor Environment	Ikuko Bamba (Tokyo Gakugei University)	Japan
0804-HOS-05	The Flowability and Living Environment of Migrant Workers in China	JingYing Deng	Japan
0804-HOS-06	Living Conditions of the Uyghur Tribe in Urban and Rural Areas --Targeting Xinjiang Uyghur Autonomous Region, Kashgar District--	Tajiguli Aierken (Nara Women's University)	Japan
0804-HOS-07	The Lifestyle and the Change of Pastoral People's Residence in Desert Area of Mongolia the Case of Badain Jaran in Alxa Right Banner	Arong Zhaole (Nara Women's University)	Japan
0804-HOS-08	Study of the Residential Environment Barrier-Free Considered the Life Stages of Old Age	Yoshie Shibata (Kyoto Prefectural University)	Japan
0804-HOS-09	Impact What Farmers Market Give to Small Scale Farmers around the Matket in Suburban Area	Ikuko Omi (Nara Women's University)	Japan
0804-HOS-10	Park Use as a Coping Strategy for Climate Change: A Focus on Low-Income Hispanic Families	Mira Ahn (Texas State University)	USA
0804-HOS-11	Life Satisfaction and Aging-in-Place Preference of Older Females in the US	Mira Ahn (Texas State University)	USA
0804-HOS-12	Housing Asset and Its Wealth Effects on Consumption Spending of Korean Households	Hyunjeong Lee (Kyung Hee University)	Republic of Korea
0804-HOS-13	Changing Korean Housing System and Its Challenges	Hyunjeong Lee (Kyung Hee University)	Republic of Korea
0804-HOS-14	Positive Bedroom Deficits and Intergenerational Home Share	Jaesoon Cho (Korea National University of Education)	Republic of Korea

Exhibition Hall (1F)

CODE	TITLE	PRESENTER	COUNTRY
0804-HOS-15	Testbed Based Case Study on the Space Model of House Customized with the Peoples Left Alone with the Unstable Housing Condition	Jiwon Hyun (Yonsei University)	Republic of Korea
0804-TEX-01	Construction of an Automated Garment Pattern Development and 3D Fitting Simulation System in Virtual Reality (Part 1) Representation of the Surface Shape Features of Tight Skirts by Means of Angle Curvatures with the System	Tomoe Masuda (Mie University)	Japan
0804-TEX-02	Construction of an Automated Garment Pattern Development and 3D Fitting Simulation System in Virtual Reality (Part 2) Automated Pattern Development of Flare Skirts from Tight Skirts to Verify the Curvature Angle Treatments with Actual Production	Tetsuya Danno (Otsuma Women's University)	Japan
0804-TEX-03	Analysis of the Gaps between Body Surfaces and Clothing while Wearing Clothes	Kaori Murakami (Hiroshima University)	Japan
0804-TEX-04	Deodorization by Wastes of Daily Use and of Fibrous Materials	Hiromi Gocho (Jissen Women's University)	Japan
0804-TEX-05	The Wardrobe - Think, Mend, Recycle. Everyday Solutions to the Problematics of Global Textile Production and Consumption	Teija Jerkku (Martha Association)	Finland
0804-TEX-06	Learning Language of Dress through Theatrical Costume Design	Seunghye Cho (Framingham State University)	USA
0804-TEX-07	The Importance of the Soft Skills	Eunyoung Yang (Meredith College)	USA
0804-TEX-08	Muscle Activity and Fatigue Depending on Clothing Pressure of 3D Compression Suits during Isokinetic Training of Knee Joint	Jiyoung Choi (Chungnam National University)	Republic of Korea
0804-TEX-11	Integrating Natural Dye Techniques and Cultural Research into the Undergraduate Apparel Design Project	Eunyoung Yang (Meredith College)	USA
0804-TEX-12	Fashion Professionals' Recommendations of Newly Graduating College Students: Job Searching Process and Organizational Characteristics	Kim Hahn (Kent State University)	USA
0804-TEX-13	Study on Rinsing Properties of the Ultra-Concentrated Liquid Laundry Detergent	Kiyomi Mase (IFHE, The Japan Society of Home Economics)	Japan
0804-TEX-14	Study on Women's Happiness Brought by Grands Magasins Du Louvre Catalogues	Naomi Yokota (The University of Shiga Prefecture)	Japan
0804-TEX-15	Outdoor Wear Market Segmentation by Consumption Values of Outdoor Wear	Hwa-Sook Yoo (University of Ulsan)	Republic of Korea
0804-TEX-17	Analysis of Brassieres Products and Evaluation of Adolescent's Brassiere Pattern-Making	Youn Joo Kim (Seoul National University)	Republic of Korea

PT_0972

The Relation between Parental Marriage Quality, Home Environment's Stimulation and 4-Year-Old Child's Behavioral Problem toward Child's Negative Peer-Play Behavior

First Author (Main Author)	Seri Kim (Seoul National University)	Republic of Korea
Co-Author(s)	Jungmin Lee (Seoul National University) Kangyi Lee (Seoul National University)	
Presenting Author	Seri Kim (Seoul National University)	Republic of Korea

The relation of parental marital quality, home environment's stimulation and child's behavioral problem on child's negative peer-play behavior. Surveys of 2,150 Korean mothers with their preschool children (Mean age= 51.9 months) from the Panel Study of Korean Children by Korea Institute of Child Care and Education were analyzed using structural equation modeling. Child's negative peer-play behavior has been rated by teacher, with two sub categories of play disturbance and play disconnection, from Peer Penn Interactive Peer Play Scale. Parental marriage quality has been reported from mothers, and the measure consisted of two scales; marriage satisfaction and couple conflict. Home environment's stimulation was measured by mothers using Early Childhood HOME. Child's behavioral problem consisted of internalized and externalized behaviours, and measured by mothers using Child Behavior Checklist. Each variable's confirmatory factor analysis showed the correlation coefficient below .85, which made satisfactory level of discriminant validity. The model fit to the data well, with agreeable level of index ($\chi^2=401.779$, $p=.000$, $df=74$, $TLI=.903$, $CFI=.932$, $RMSEA=.045$).

When mothers reported better level of marital quality, better home environmental stimulation ($\beta=.14$, $p<.001$), and less behavioral problem of children ($\beta=-.21$, $p<.001$) were estimated. Marital quality showed both direct ($\beta=-.21$, $p<.01$) and indirect ($\beta=-.01$, $p<.01$) path through home environmental stimulation to behavioral problem of children. Higher level of home environmental stimulation estimated negative peer play behavior of children through direct ($\beta=-.13$, $p<.01$) and indirect path by behavioral problem of child ($\beta=-.02$, $p<.01$). All the indirect effects turned to significant by Sobel's test, which means parents' marital life estimate behavioral problem of child through home environmental stimulation ($Z=-2.62$, $p<.01$). Also home environmental stimulation estimated negative peer play behavior of child through behavioral problem of child ($Z=-2.51$, $p<.01$). This results help better understanding of the paths among the parents' and home characteristics on child's social development. Key Word: negative peer play interaction, marital quality, home environment's stimulation, EC-HOME, behavioral problem

PT_0977

How Does a Child-Rearing Woman Decide upon Her Permanent Residential Location? : The Effects of Childcare Support Services and Support Networks for Child-Rearing Women on Residential Preference

First Author (Main Author)	Mari Kikuchi (Osaka Sangyo University)	Japan
Co-Author(s)	Tatsuya Goto (Osaka Sangyo University) Kanao Aoki (Nara Women's University) Keiko Kikuchi (Nara Women's University)	
Presenting Author	Mari Kikuchi (Osaka Sangyo University)	Japan

Japan is experiencing a decreasing population with fewer children and an aging society, so it is moving into an age of "interurban competition." Young people and families with small children have a great influence on the regional economy and local government finances, so local governments compete to gain them as residents. In this report, the effects of childcare support services and support networks for child-rearing women on residential preference are analyzed.

Previous studies suggest that the factors affecting the residential preference of families with small children are the presence of relatives, accessibility of nurseries, and childcare support services. The securing of childcare support from relatives or public services is the determinant of willingness to reside permanently for families with small children. However, these factors have yet to be verified using questionnaire research. We focused on the factors of whether or not sufficient support networks for child-rearing women were present and the accessibility of childcare support services.

The survey examined the questionnaire research of citizens in Daito City, which is located in the eastern part of Osaka prefecture, in the Kansai area. This city faces difficulty maintaining government finances because of a drain in the younger population.

The results revealed that childcare support service factors do not have a direct effect on decreasing the distress of child-rearing women or increasing their willingness to become permanent residents. Rather, it has an indirect influence on decreasing their distress and increasing their willingness to reside permanently through the expansion of support networks and the construction of social capital. On the other hand, support networks for child-rearing women have a positive effect of decreasing distress. The evidence suggests that willingness to reside permanently in the area is increased by a decline in the distress of child-rearing women.

Based on these findings, we conclude that if the local government

wishes to increase the number of families with small children, it needs to bolster childcare support services with a goal of expanding support networks for child-rearing women and constructing social capital.

PT_1022

The Survey of Dietary Education Related to Mastication in Japanese Day Care Centers

First Author (Main Author)	Kiyomi Kuramochi (Tokyo Gakugei University)	Japan
Co-Author(s)	Akane Kanouchi (Tokyo Gakugei University) Michiko Minami (Tokyo Gakugei University)	
Presenting Author	Kiyomi Kuramochi (Tokyo Gakugei University)	Japan

AIM

The masticatory ability is not innate but is got by learning. It is needed for children to have adequate opportunities to learn mastication. Our studies suggested that the dietary education program for mastication including the biting activity with parents and the parenting education had a significant effect. Such a program should be conducted in day care center or kindergarten which most of younger children belong to. But it has not yet found preschool teacher attitude toward the dietary education for mastication. This study aimed to investigate the preschool teachers' awareness and their educational practice of mastication.

METHOD

The questionnaire survey of 46 day care centers in Tokyo Japan was carried out in June 2015, and 27 day care centers responded. The questionnaire asked the contents of masticatory education, the way to practice and the awareness of mastication.

RESULTS

More than 80% of day care centers replied that masticatory education was very important. More than 60% replied that they included hard-to-chew foods in younger children's diet. Whereas more than 70% replied that it was important for parents to learn parenting education with younger children, only 10% replied that they conducted parenting educational program in day care centers.

CONCLUSIONS

The rate of conducting parenting education in day care center was low. It is expected that as parenting education about mastication in day care centers advances, the masticatory ability of younger children will be improved.

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PT_1045

The Influences of a Child Care Center's Environmental Factors and a Mother's Concern for Daily Lives of Their Children on Children's Play Interaction

First Author (Main Author)	Hye-Ryung An (Seoul National University)	Republic of Korea
Co-Author(s)	Yea-Ji Hong (Seoul National University) Soon-Hyung Yi (Seoul National University)	
Presenting Author	Hye-Ryung An (Seoul National University)	Republic of Korea

General child-care centers provide the time for free play everyday to children and children interact with peers in positive or negative ways through play. Naturally, these experiences related with interactive peer play lead to improving various abilities including linguistic, cognitive, social emotional, and physical and motor abilities. Given children's play interactions' importance for their development, it is necessary to investigate factors of influencing on children's play interaction for supporting their positive peer play interactions in child-care centers. Thus, we conducted this study for finding the factors influencing on children's play interaction with focusing on a child care center's environmental factors and a mother's concern for the daily lives in a child-care center of their children mainly. We utilized the fifth waves of Panel Study of Korean Children (PSKC) data and participants were a total of 632 families with 4-year-old children attending a child-care center. Data was analysed by using Hierarchical Regression Analysis having child personal factors (sex - boy0, girl1, sociable temperament, linguistic ability, cognitive ability), structural and procedural factors of child caring environment (ratio of children to teachers, environmental condition of classroom, quality of teacher-child interaction, mother's concern in the daily lives of their children) as independent variables and play interaction, play disruption, play disconnection as dependent variables. The results were as follows. First of all, sex, linguistic ability, mother's concern in the daily lives of their children and cognitive ability affected play interaction positively in order. Secondly, sex, quality of teacher-child interaction and mother's concern in the daily lives of their children affected play disruption negatively in order while sociable temperament affected play disruption positively. Thirdly, quality of teacher-child interaction, sociable temperament, sex, mother's concern in the daily lives of their children, linguistic ability and cognitive ability affected play disconnection negatively in order. In conclusion, the results of the study indicate that teacher's continuous high-quality interactions with children through affective observations and proper play intervention and mother's sufficient concern and understanding for the daily lives in a child-care center of their children as well as improvements of linguistic ability and cognitive ability as growing age help children interact with peers more positively.

PT_1052

The Cooperation between Regional Area and National School-Based on the Inheritance of Traditional Culture in Inner Mongolia-

First Author (Main Author)	Rina Sa (Nara Women's University)	China
Co-Author(s)	Tooru Nakayama (Nara Women's University)	
Presenting Author	Rina Sa (Nara Women's University)	China

The Inner Mongolia area is regarded as the traditional Mongolia settlement in China. In recent years, Urbanization has influenced the Mongolia nomadic life. In particular, consolidation of schools are proceeded. Students who go to school leave their houses, because there is no school in their village where they can study. So, they can only go to schools of Han nationality. They are influenced by the Han culture more than their own culture, it causes the problem that they don't feel strong attainment to their own traditional culture. In view of the above problem. My purpose of this study is continuing inheritance of traditional culture among national students in Inner Mongolia, we would like to promote cooperation amongst people and national schools. In particular, using the national culture and local human resources. I would like to hand down traditional culture to students. Recently, curriculum in local schools, there are classes which have been made include local culture in the, and these types of schools are becoming widespread in Inner Mongolia. In this study, I put emphasis on traditional culture classes. I investigate classes and activities that are carried out by local people. I asked people who attended those activities, students, their parents, teachers and locals to fill in questionnaires, my main focus was children's attitude towards their own traditional culture. It was important great opportunity for them to be aware of their traditional culture, but also serves to help to identify themselves as Inner Mongolian and gain confidence in themselves.

PT_1058

Mothers' Educational Involvement and Parental Efficacy in South Korea

First Author (Main Author)	Hanjin Bae (Seoul National University)	Republic of Korea
Co-Author(s)	Young Mi Shin (Seoul National University) Hyojong So (Seoul National University) Meejung Chin (Seoul National University)	
Presenting Author	Hanjin Bae (Seoul National University)	Republic of Korea

AIM
The aim of this paper is to examine an association between home-

based family educational involvement and parental efficacy among Korean mothers. Korean parents are well known for educational involvement for their children. It is not known whether and how educational involvement is related to parental efficacy.

METHOD

We drew data from the survey conducted by Center for Family-School Partnership Policy Research at Seoul National University in 2015. The sample included 1,388 mothers(599 mothers whose first child attends elementary school, 370 mothers whose first child attends middle school, 369 mothers whose first child attends high school). To assess home-based educational involvement, we used Shim(2003)'s measure, which consists of 6 domains; stimulating studying environment, direct teaching, arranging study-time, controlling lifestyle of their children, gathering education-related information and cultural enrichment. This study carried out the one-way ANOVA to analyze the different educational involvement at children's school levels. An OLS regression was performed to examine whether involvement was associated with parental efficacy and whether the domains related to parental efficacy were different at children's school level.

RESULTS

The results show that Korean mothers' home-based educational involvement significantly differ at their children's school levels. Specifically, the levels of direct teaching, arranging study-time and cultural enrichment are the highest among mothers with elementary school students followed by mothers of middle school students and of highschool students. The level of controlling lifestyle is higher among mothers with middle school students than in elementary school. Next, home-based educational involvement are positively associated with mothers'parental efficacy. Third, the involvement domains associated with parental efficacy are different at school levels. Among mothers with elementary school students, stimulating studying environment, arranging study-time and gathering education-related information are positively related to parental efficacy while stimulating studying environment, controlling lifestyle, arranging study-time and cultural enrichment are positively related to parental efficacy among mothers with middle school students. Among mothers with high school students, stimulating studying environment and cultural enrichment are positively related to parental efficacy.

CONCLUSION

The findings indicate that Korean mothers are involved more in managerial activities such as stimulating studying environment, arranging study-time and controlling lifestyle than direct teaching. Moreover, Korean mothers' parental efficacy is generally related to managerial involvement than to direct teaching. However, domains related to parental efficacy are different at school level. Management is related to parental efficacy of mothers with elementary school students, while controlling adolescents is related to parental efficacy of mothers with middle school students. Since Korean high school

students generally spend all day in school, parental efficacy of their mothers is not related with controlling or management, but cultural enrichment. Previous studies regarding educational involvement focused mainly on the children's self-efficacy or academic achievement. This study expands that parental efficacy is also related to home-based family education involvement.

PT_1061

The Effect of Mother's Employment Status and Parental Network on Parental Knowledge about the Child's School Life

First Author (Main Author)	Jingya Ding (Seoul National University)	Republic of Korea
Co-Author(s)	Soon Bum Kwon (Seoul National University) Sangha Kim (Seoul National University) Meejung Chin (Seoul National University)	
Presenting Author	Jingya Ding (Seoul National University)	Republic of Korea

AIM
The aim of this study is to examine whether mother's employment status predict parental knowledge about child's school life and to test a mediation effect of parental network. Parental knowledge on their child's school life is important in that they can intervene child's problems or assist their child's adaptation to school at adequate timing. We attempt to examine the effect of mothers employment status on this matter focusing on mother's parental network.

METHODS

For this purpose, we drew data from the Survey of Parental Socialization and School Involvement in Republic of Korea conducted by the Ministry of Education, Science and Technology (MEST) in 2015. A total of 1,338 mothers were included in analysis. Parental knowledge about child's school life was measured on each of the following areas: classroom behavior, relationship with teachers, peer relations, and after-school activities. If mother is employed, the employment status is coded as one, if not as zero. Parental network was measured by the number of parents that they exchange casual greetings with. 'Age of mother', 'mother's education level', 'monthly household income', 'first child's gender', and 'first child's school level' were included as control variables in regression models.

RESULTS

The results indicate that working mothers have smaller parental network and less knowledge about child's school life than that of stay-at-home mothers. Both the employment status and the size of parental network have significant effects on knowledge about child's school life. The results also show that the effect of mothers' employment status on children's school life is partially mediated by

the size of parental network.

CONCLUSION

This implies that employed mothers are disadvantaged at developing parental network and have less sources to collect information on their child. This explains partly why employed mothers have low level of understanding on their child's school life.

PT_1160

Factors Associated with Multicultural Acceptability of High School Students in South Korea

First Author (Main Author)	Miai Sung (Korea National Open University)	Republic of Korea
Co-Author(s)	Yeojean Choi (Sungkyunkwan University)	
Presenting Author	Miai Sung (Korea National Open University)	Republic of Korea

AIM

This study investigated factors associating multicultural acceptability of high school students in Republic of Korea (Korea hereafter). While Korea has been known as a racially homogeneous, labor migrants and multicultural families have been increasingly after early 1990s (Chin, Lee, Lee, Son, & Sung, 2012). However, because of racially homogeneously ideology of Korean, it is not easy to accept multicultural society in Korea. Social integration of multicultural family and ordinary Korean family has been big issue in Korea. For this to happen, multicultural acceptability of students is important, because they are the main agent to integrate Korean society in the near future. We attempt to examine the level of multicultural acceptability of high school students its related factors.

METHOD

We draw data from the 5th Korean Children and Youth Panel Survey, which is a nationally representative data set. We selected high school students (N=2035). We investigated the level of multicultural acceptability (5 items on a 4 point Likert scale, $\alpha=.86$), individual characteristics (sex, self-esteem, life satisfaction, religion, and community awareness), family characteristics (family type, parenting attitude, subjective economic status, and parent's awareness of friends,), and school characteristics (friend attachment, and school life adaptation). We used OLS regression models to analyze the data.

RESULTS

The mean of the multicultural acceptability was 3.13 (SD=.56), which was higher than the mid-point of the scale. All of the factors explained 37.6% of the total variance of high school students' multicultural acceptability. School life adaptation ($\beta=.27, p<.001$), friend attachment ($\beta=.13, p<.001$), sex ($\beta=-.08, p<.01$), subjective economic status ($\beta=-.07, p<.01$), and parent's awareness of friends

($\beta = -.06, p < .01$) were significantly associated with the level of multicultural acceptability. Those who have better school life and friend attachment, do not have better economic status and parents who know their friends well have higher level of multicultural acceptability. And girls are more accept multi-culture than boys.

CONCLUSIONS

These results implied that the multicultural acceptability of high school students was related more to their school life and friendship than to their individual and family backgrounds. And empathy ability like girls was related to their multicultural acceptability. Therefore, the content of public education, which is focus on the empathy ability and friendship, is very important to integrate our society.

PT_1204

A Study on the Joy of the Elementary School Children in Japan, How They Feel in Their Daily Lives

First Author (Main Author)	Yoshikawa Haruna (Saitama University)	Japan
Co-Author(s)	Shuzui Kaori (Chiba Keizai college)	
Presenting Author	Yoshikawa Haruna (Saitama University)	Japan

PURPOSE

We study the "joy" or "happiness" when the higher classes of Japanese elementary school children feel in their everyday life.

METHODS

We did a survey questionnaire. The children reported on their self in the survey. The items are based on all 24 items (using health status, time, etc.) created as a result of the preliminary investigation in leading research. Total 363, fourth and sixth grade students in public elementary schools conducted survey. Total 345 were recovered (164 male, female 181) and analyzed. It was investigated during the period at 7/2014.

RESULTS

1) 73.4% male answered "being happy" and 82.3% female so and significantly more girl than boy were observed happiness ($p < 0.1$). 2) Students feeling comfortable in their own community, showed "happiness" significantly ($p < 0.5$). 3) Both sixth grade and fourth grade student reported the happiest time when they play with friends. 4) The approximately 50% of the children had found happiness time "when they can be" free to use their time. 5) Fourth grade were observed more a euphoria and a sense of happiness in a visible way from someone "give" many (fourth grade students 25%, sixth-grade, 12%) wanted. Many children said they felt sense of well-being for the fulfillment and satisfaction obtained through their own efforts and actions in sixth grade (fourth grade students 23%, sixth

grade 35%).

CONCLUSION

The fourth grade and sixth grade find pleasure in everyday life for different contents. Children found happiness in their community where they feel comfortable, found joyful time when they play with friends and the time when they can use freely. The sixth-grade students feel joy and happiness about their efforts and their achieved results, not about goods given from others.

PT_1242

Estimate Longitudinal Changes of Parenting Stress of Mothers with 0-3 Year-Old Children

First Author (Main Author)	Seri Kim (Seoul National University)	Republic of Korea
Co-Author(s)	Hye-Rhim Cho (Seoul National University) Kang-Yi Lee (Seoul National University) Eun-Young Kim (Seoul National University)	
Presenting Author	Seri Kim (Seoul National University)	Republic of Korea

The purpose of this study is to investigate the integrated relations among variables which are mothers' employment status, value of children (emotional and instrumental value of children), maternal perception of husband's involvement social support and maternal parenting stress and then examined the longitudinal changes of these variables. The authors analyzed the four waves (2008-2011) of data collected from 1754 mothers who raise infants or preschoolers aged 0 to 3 years old nationwide in Republic of Korea. This data was harvested from the Panel Study on Korean Children conducted by the Korea Institute of Child Care and Education. First, by using SPSS Win. 19.0 program, the mean and standard deviation of variables were analyzed. Then, through the method of maximum likelihood estimation by applying hierarchical linear model 7.0 program, the changes of individual variation of maternal parenting stress for four years from 2008 to 2011 were analyzed.

The summary of the results was as follow: First, the result of unconditional model of hierarchical linear model showed that the total individual variance ($t = 213.53, p < .001$) and the changes based on time dimension ($\chi^2 = 9470.32, p < .001$) of maternal parenting stress were significant. Moreover, the Intraclass Correlation Coefficient (ICC) of individual variance of the total variance of maternal parenting stress was 55.5%. Second, the results of linear model showed that the fixed effect of maternal parenting stress's average initial status ($\beta_{00} = 25.80, p < .001$) and that of its rate of change ($\beta_{10} = 1.29, p < .001$) were statistically significant. Third, the results of random effect showed that the initial status ($\tau_{00} = 25.97, p < .001$) and rate of change ($\tau_{11} = 1.28, p < .001$) of maternal parenting stress were statistically significant which means there are significant individual differences of maternal parenting stress so investigating possible

influential independent variables should be studied necessarily to explain these individual differences of maternal parenting stress. Therefore, the authors decided to put five prediction factors including mother's employment status, emotional value of children, instrumental value of children, husband's involvement and social support. As a result, the initial status of maternal parenting stress was significant ($t = 149.61, p < .001$) and emotional value of children ($t = -2.69, p < .01$), husband's involvement ($t = -4.19, p < .001$) and social support ($t = -6.17, p < .001$) had significant negative effects on maternal parenting stress. In addition, only emotional value of children ($t = -4.43, p < .001$) had significant effect on maternal parenting stress based on the result of slope which represents the rate of change. Fourth, the initial status ($\tau_{00} = 22.25, p < .001$) and rate of change ($\tau_{11} = 1.20, p < .001$) of random effect model were significant. That is to say, emotional value of children is an explanatory variable among other variables to describe longitudinal changes of maternal parenting stress. In other words, if mother has higher emotional value of their children, the speed of increasing their parenting stress would be get lower.

Hence, from this study, it was clear that mothers who have child in infancy and early developmental stages of life have experienced parenting stress with the course of time. However, since the authors identified the critical factors of longitudinal changes of maternal parenting stress, the findings of this study can be used as a baseline data for making diverse needful plan for dealing with maternal parenting stress in the near future.

PT_1279

The Effects of Children's Executive Function and Peer Play Interaction on Preschool Adjustment

First Author (Main Author)	Eun Kyung Lee (Seoul National University)	Republic of Korea
Co-Author(s)	Soon Hyung Lee (Seoul National University)	
Presenting Author	Eun Kyung Lee (Seoul National University)	Republic of Korea

This study was to investigate the relationships between children's executive function, peer play interaction and preschool adjustment in controlled language ability situation: The participants were composed of 3- and 5-year-olds preschoolers ($n = 120$) and their teachers ($n = 23$). The main results were as follows: First, there was a significant relation between children's executive function, peer play interaction, language ability and preschool adjustment with each age. Second, the effect of children's executive function on their preschool adjustment varied according to age. 3-year-olds' cognitive flexibility turned out to have a significant effect on preschool adjustment. Third, Children's peer play interaction, play disruption and play disconnection were identified as key factors of predicting 3- and 5-year-olds' preschool adjustment. Finally, it was founded that peer play interaction is the most effective, play disconnection is the second, play disruption is the third, and

cognitive flexibility is the least factor on preschool adjustment. These results clearly indicated that children's executive function and peer play interaction contribute to their preschool adjustment even under a 'controlled language ability' situation, and the effect can vary according to children's age.

PT_1280

A Structural Analysis of Mothers' and Fathers' Parenting Stress, Parenting Behavior and Toddlers' Negative Peer Interaction: Focusing on the Actor and Partner Effect

First Author (Main Author)	Bo Ram No (Seoul National University)	Republic of Korea
Co-Author(s)	Sun Min Eun (Seoul National University) Soon Hyung Yi (Seoul National University) Kangyi Lee (Seoul National University) Eun Young Kim (Seoul National University)	
Presenting Author	Bo Ram No (Seoul National University)	Republic of Korea

This study examines the mutual dynamism of mothers' and fathers' parenting stress, parenting behavior and their effects on toddlers' negative peer interaction. Constructing a healthy relationship with peers has long been considered as an important developmental task in toddlerhood (Rubin, Bukowski, & Parker, 1998). Also, the research findings indicate the heightened risks of negative peer interaction in children's later adjustment problems such as bullying (Jung & Kim, 2011). Prior studies evaluating the associated parental roles have generally focused on mothers' and fathers' independent aspects. However, given that mothers and fathers not only influence each other, but can also buffer or complement partners' effects on children's developmental outcomes, it may be essential to acknowledge mother and father as one dyad. In consideration of research findings that indicate compelling effects of parenting stress on parenting behavior, as well as on children's adjustment (Deater-Deckard, 1998; Anthony et al., 2005; Crnic et al., 2005), there is a need to examine the relationship between parenting stress, parenting behavior and toddlers' negative interaction that are both structural and interdependent. The authors used 4th and 5th year (2011-2012) data of the Panel Study on Korean Children (PSKC), and their corresponding participants were 885 households total. Data were analyzed upon the actor-partner interdependence model (APIM) using SPSS and AMOS program. In regard to the associations between parenting stress and parenting behavior, significant negative actor effects between fathers' parenting stress and fathers' affective parenting behavior were identified. Mothers' parenting stress were also negatively associated with mothers' affective behavior and mothers' limit setting behavior. Moreover, mothers' parenting stress were negatively associated with fathers' affective behavior, indicating

a significant partner effect. Both mothers' and fathers' parenting stress were negatively associated with fathers' affective behavior, both of which are found to be negatively associated with toddlers' negative peer interaction.

PT_1354

The Korean On-Line Version of Early Child Development Scale: A Validation Study

First Author (Main Author)	So Jung Seo (Kyung Hee University)	Republic of Korea
Co-Author(s)	Ji Young Ha (Woosong University) Ju Young Park (Seoul Gangnam Support Center for Childcare)	
Presenting Author	So Jung Seo (Kyung Hee University)	Republic of Korea

Up to date the importance of provision of early intervention programs for children under less than 5 years old has been consistently addressed by researchers in that those programs, specifically targeted for young children with developmental challenges have been found to be effective enough to provide lifelong benefits to the children. Research using a cost-benefit approach has supported the claim that the provision of early intervention program for young children in need would bring about larger return from government investment incurred in early childhood, as compared to adulthood. Keeping with this trend in child care research and policy, this study was designed to report on the development and validation of the on-line version of the Korean Early Child Development Scale (e-DEP), a measure of early child development designed specifically for young children (aged birth to 36 months old) in Korea. The study samples were 6,383 young Korean children. The instrument was composed of 344 items in six developmental domains including gross-motor, fine-motor, communication, social emotion, cognition and self help. Data were analyzed by item response distribution, item discrimination, reliability, and validity of the scale. Items reflected the developmental levels of each of 8 age groups. Item analyses indicated that it is a developmental scale and that it has an appropriate level of difficulty for young children. It also discriminates between zero to three olds young children by their gender. Overall internal consistency was relatively high (Cronbach's $\alpha = .90 \sim .95$), and test-retest reliability was also satisfactory. Content validity was examined by a panel of experts in the related field. The construct validity and the concurrent validity of this instrument were also established. This measure is the first standardized on-line version of the Korean early child development scale. Along with the main results of this study, implications for child care research and policy were discussed.

PT_1427

A Comparison of Familialism among Asian Marriage Migrant Women in Korea

First Author (Main Author)	Meejung Chin (Seoul National University)	Republic of Korea
Co-Author(s)		
Presenting Author	Meejung Chin (Seoul National University)	Republic of Korea

AIM

The aim of this paper is to compare similarities and differences in the tendency of familialism among Asian marriage migrant women in Korea. Familialism is a social norm which emphasizes family-centeredness, patriarchal lineage, first-son preference, and separate gender relations. Asian culture is well known for their strong familialism under the influence Confucianism. In this paper, we address the tendency of familialism among marriage migrant women, particularly Vietnamese, Chinese, and Japanese women who married to Korean men in comparison of Korean married women.

METHODS

Data were drawn from four different survey data sets. The data sets included information on family life and culture of Korean (n=250), Vietnamese (n=104), Chinese (n=309), and Japanese (n=239) women who married to Korean men. Because each data set has common questions on familialism, it allows a direct comparison. Their responses were compared controlling age and educational background of the women using an OLS model.

RESULTS

The findings show that the tendency of familialism differs by the nationality of married women. The familialism score was the lowest among Japanese women and highest among Vietnamese women even after controlling their age. Their tendencies also vary depending on the aspects of familialism. For example, women in the four groups tend to strongly agree on the priority of family over individual but they agree less on the inheritance to the eldest son.

CONCLUSION

While it is expected that Asian women share similar values with respect to family, there are some dissimilarities in their tendencies in familialism. These results indicate that Korean husband and other members in multicultural families should not presume that their wives would have the same cultural norms on familialism. Cultural sensitivity should be emphasized in multicultural families.

PT_1496

Age Gap and Conflict-Coping Styles among Korean Married Couples

First Author (Main Author)	Soon Bum Kwon (Seoul National University)	Republic of Korea
Co-Author(s)	Joosoo Byun (Seoul National University) Meejung Chin (Seoul National University)	
Presenting Author	Soon Bum Kwon (Seoul National University)	Republic of Korea

AIM

The purpose of this study is to investigate a relationship between age gap and conflict-coping styles among Korean married couples. We presume that age difference between spouses may affect marital power relations and consequently coping styles in conflict situations.

METHODS

The data was drawn from fourth wave of Korean Longitudinal Survey of Women and Families (KLoWF) provided by the Korea Women's Development Institute. A total of 1,356 married women were included in the analysis. Three types of marriage were identified according to spousal age gap: 'age hypogamy', 'age hypergamy', and 'age homogamy'. Three different marital conflict-coping styles were measured as follows: 'rational coping', 'avoidant coping', and 'negative emotions and acts'. We used multiple regression models and controlled age, educational level, employment status of women, whether woman had been married previously, and current economic state of household in the regression models.

RESULTS

The results indicated that women of age hypogamy were less likely to use avoidant coping in marital conflict than women of age hypergamy. Rational coping and negative emotions and acts were not related to age gap between spouses.

CONCLUSION

The results imply that women may express their thoughts and emotions more easily when they are older than their husbands in conflict situations. This indicates women may have more power or say in age hypogamy. Given the trend of increasing women's age hypogamy in Korea, future study needs to pay more attention to marital power relations taking place in women's age hypogamy.

PT_1607

The Influence of Communication with Parents on Adolescents' Participant Behaviors in the Bullying Situation: The Mediating Effect of Social Self-Efficacy

First Author (Main Author)	Kyungsun Yang (Seoul National University)	Republic of Korea
Co-Author(s)	Yuen Mi Cheon (Seoul National University) Jiyeon Lee (Seoul National University)	
Presenting Author	Kyungsun Yang (Seoul National University)	Republic of Korea

The aim of this study was to examine the effect of frequency of conversation with parents on adolescents' participant behavior in bullying situations mediated by social self-efficacy. Many previous studies were focused exclusively on the bully-victim dyad. However, bullying involves the entire group in which it occurs. Especially, the defending behaviors of members not directly involved are critical in preventing and ceasing the bullying culture (Salmivalli, 2010; Gini, Pozzoli, Borghi, & Franzoni, 2008). In order to engage in defending behaviors, adolescents need to have a high level of social self-efficacy, a belief that their behaviors will make a change and ultimately contribute to stopping the bullying (Bandura, 2010; Sherer et al., 1982; Gini et al., 2008; Lee, 2014). Particularly, frequent communication with parents provides opportunities to develop a high sense of social self-efficacy (Bandura, 1989; Song, 1998). In order to test these paths from frequency of conversation with parents to participant behaviors mediated by social self-efficacy relationships, data collected from 501 middle school students (219 boys, 282 girls) in Republic of Korea in 2013 was used. The fitness of the final structural model was considered suitable ($\chi^2/df = 3.460$, $TLI = .887$, $CFI = .899$, $RMSEA = .070$). The results are as follows: First, frequency of conversation with parents had no direct effect on adolescents' participant behavior in bullying situation. The effect was significant only through the adolescents' social self-efficacy. The indirect effects investigated through Bootstrap method (Shrout & Bloger, 2002) was significant. Second, the higher the frequency of conversation with parents, the higher the social self-efficacy (Father $\beta = .120$, $p < .05$; Mother $\beta = .221$, $p < .001$). The higher the social self-efficacy, the more defending behaviors ($\beta = .341$, $p < .001$) and the less bystanding and bully supporting behaviors in the bullying situations (Bystanding $\beta = -.314$, $p < .001$; Bully supporting $\beta = -.149$, $p < .05$). The results demonstrate the influence of parents and social self-efficacy on adolescents' behaviors in bullying situations.

PT_1699

Indirect Effects of Maternal Work Characteristics on Korean Children's Aggression

First Author (Main Author)	Soyoung Kwon (Seoul National University)	Republic of Korea
Co-Author(s)	Jaerim Lee (Seoul National University)	
Presenting Author	Soyoung Kwon (Seoul National University)	Republic of Korea

AIM

Maternal employment is likely to be associated with young children's outcomes because employed mothers' resources and parenting practices might be different from stay-at-home mothers. However, the vast majority of studies on maternal employment have shown either no or few consequences for children mainly due to the focus on the direct effects of maternal work characteristics on children's outcomes. To address this gap in the literature, we aim to investigate the indirect effects of maternal work characteristics on children's outcome, especially aggression, through parenting behaviors.

METHOD

We used a subset of Wave 3 (2012) and Wave 4 (2013) data from the Korean Children and Youth Panel Survey (KCYPs), a nationally representative longitudinal study. Our sample was 962 children who entered elementary school in 2010 and their mothers who had a job at both waves. Maternal work characteristics (hours of work, occupational status, employment type, standard work hours, working on weekends) and control variables (the mother's age, education, family income, family structure, children's gender, having siblings, paternal employment) were assessed at Wave 3. In addition, parenting behaviors (monitoring, affectionate parenting, over-expectations) and children's aggression were measured at Wave 4. We employed structural equation modeling to evaluate the direct and indirect effects of maternal work characteristics on children's aggression and used Sobel tests to determine the statistical significance of the indirect effects.

RESULTS

The model showed a close fit to the data ($\chi^2 = 529.84, p < .001, TLI = .907, CFI = .943, RMSEA = .036$). Maternal work characteristics did not have direct effects on children's aggression. However, some work characteristics had indirect effects on children's aggression through parenting behaviors. Mothers who were paid employees showed less monitoring and less affection compared to those who were employers, self-employed, or unpaid family workers, which in turn led to their children's greater aggression ($Z = 2.298, p < .05; Z = 2.478, p < .05$). Working on weekends was also related to less affection, which predicted increased aggression ($Z = 2.088, p < .05$).

CONCLUSION

Our findings clarify the mechanism of how maternal work

characteristics affect children's aggression. Although maternal work characteristics did not directly affect children's aggression, they indirectly influenced children's aggression via parenting practices. This research suggests that it is necessary to consider parenting behaviors when attempting to investigate relationships between maternal work characteristics and children's outcomes.

PT_1741

An Evaluation of Parent Career Counsel from a Parent Competence Enhancement Perspective

First Author (Main Author)	Wol-Seop Kim (Seoul National University)	Republic of Korea
Co-Author(s)	Soon Bum Kwon (Seoul National University) Meejung Chin (Seoul National University)	
Presenting Author	Soon Bum Kwon (Seoul National University)	Republic of Korea

PURPOSE

As 'The Free-Semester Program' has been enforced in the middle schools in Korea from 2016, local education offices run parent career counseling programs, which are designed to train parents as a career coach. This paper will examine basic characteristics of the programs and participants in order to provide suggestions for the program developers.

METHODOLOGY

We look to examine the participants and the contents of career counseling education programs being held in 25 local offices of education in Gyeonggi-Do. According to the education performance report of Gyeonggi Provincial Office of Education in 2015, the data on parent career counsel coach training show that all of the local offices of education in Gyeonggi-Do are running parent career counsel coach training programs under the cooperation with local autonomy, and as of December 2015, 44,240 people completed the programs. Almost all of the participants were mothers of students. Most programs consisted of basic course, intensive course, and advanced course, after which the parents are appointed as a volunteer parent coach and work in the school scene. There were no uniform regulations or guidelines, and each local office of education differed in contents.

RESULTS AND SUGGESTIONS

According to the results, the parent career coach training programs successfully involved parents. However, they have a limitation in education contents and lack information especially on how parents should be involved in child career education. The education program should be able to guide parents to observe the children's interest and help develop what the children can and like to do, accompanying them in preparing for their future. To accomplish this, the content about career information and planning strategy is crucial, and the

PT_1847

The Relationship between Mother's Psychological Well-Being and Infant's Emotional Intelligence : An Analysis Mediating Effects of Mother's Parenting Behaviors

First Author (Main Author)	Younhee Yoon (Sookmyung Women's University Graduate School)	Republic of Korea
Co-Author(s)		
Presenting Author	Younhee Yoon (Sookmyung Women's University Graduate School)	Republic of Korea

This study is find out the relationship among the infant's emotional intelligence who is in the 12 months from 36, mother's psychological wellbeing, and Mother's Parenting Behaviors.

This study want to Know how mother's parenting behaviors through mother's parenting behaviors affects the emotional intelligence of the infant.

The subjects of this study is to conduct a survey to infants 36 months from 12 months attending nursery in Seoul and this infant's mothers, used a total of 211 cases of materials to the final report.

The survey is conducted to infant(12months to 36months) who are attending child care center in Seoul area and their mother. we used data total 211 as the final analysis data.

Statistical methods were correlation analysis and structural equation model analysis.

The results of this study are as follows.

First, it was found that mother's psychological wellbeing have a direct impact on the mother's parenting behaviors.

this study showed that if mother's psychological wellbeing have a high point, Mother's compassion, nurturing and parenting behavior also have a high point. however mother's rejection, the sanctions and neglect attitude have a low point.

Secondly, this study showed that the mother's parenting behaviors have a direct impact on the infant's emotional intelligence. between the mother's parenting behaviors and the infant's emotional intelligence have a significant correlation.

Third, this study showed that the mother's psychological wellbeing have a direct impact on the infant's emotional intelligence. between the mother's psychological wellbeing and the infant's emotional intelligence have a significant correlation.

Fourth, the mother's parenting behaviors have a direct impact on between the mother's psychological wellbeing and the infant's emotional intelligence. this part has a mediating effect between the mother's psychological wellbeing and the infant's emotional intelligence.

parent career counseling education program must encompass these contents.

Through the results of this study make us know that the mother's psychological wellbeing affects the mother's parenting behaviors. In conclusion, the mother's psychological wellbeing develop the mother's parenting behaviors.

In modern society, Infants are properly protected in important environments such as a home, And for a desirable development the mother's psychological wellbeing is also important.

Eventually, mothers need to recognised that there are in psychological wellbeing and help infants emotional intelligence by mother's positive and accepting behavior.

PT_1926

The Study on Cultural Competency of Multicultural Family Children and Mothers; Focusing on Homes Visiting Child Care Service

First Author (Main Author)	Ki-Jung Kang (Baekseok University)	Republic of Korea
Co-Author(s)	Su Sun Park (Seowon University) Seohee Son (Sookmyung Women's University)	
Presenting Author	Su Sun Park (Seowon University) Seohee Son (Sookmyung Women's University)	Republic of Korea

This study has the primary purpose of verifying the yearly effect of multicultural family children cultural competency area through utilizing childcare service data conducted by the Ministry of Gender Equality and Family through multicultural family support centers from 2012 to 2014. The secondary purpose is to suggest detailed service operation plans and provide policy suggestions through factor analysis including mother variable for service effect enhancement. The survey was conducted on 1088 multicultural family children that received childcare service from 2012 to 2014 utilizing multicultural awareness scale. This scale used 18 questions created by Jang Insil. Jeong Kyungmi (2009) for elementary students. With a total of 18 questions, it is a 5 point Likert scale and higher points the note higher multicultural awareness. The reliability of the scale, Cronbach's α was .790.

Data analysis was done through SPSS Win 18.0 and the pre and post test scores of the multicultural children cultural awareness area was analyzed by year through matching sample t-test. The differences in cultural competencies in multicultural family children and mothers through demographic characteristics were analyzed through independent sample t-test, and ANOVA.

In the yearly analysis that investigating the differences in cultural competency according to demographic the rebels, there were no significant differences in all cultural competency children variables between 2012 and 2014. There were partial differences according to the graphic characteristics in the mother variables between 2013 and 2014. In 2013, there were significant differences according to the

origin country of the mother and monthly income and for mothers from Japan and higher income contributed to large pre and post scores. In 2014, the age range 21 to 30, and Vietnamese origin mother group showed the highest differences in cultural competency after receiving childcare service.

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PT_1007

Time-Poverty of Working Mothers and Fathers in Korea

First Author (Main Author)	Jiwon Seo (Korea National Open University)	Republic of Korea
Co-Author(s)		
Presenting Author	Jiwon Seo (Korea National Open University)	Republic of Korea

Time is an important human resource in family well-being, especially for double-income families with young children in Korea, having the longest working hours in the world. Recently, time-poverty has been regarded as one of the major aspects of the well-being as well as income-poverty. To estimate time-poverty, the subjective perception of time-pressure has been used in time-use studies mostly. Few studies have measured time-poverty in the objective perspective. The purpose of this study was to provide adequate objective measures of time-poverty, including absolute measures as well as relative measures, for double-income families and to investigate the differences in the household time use which is composed of two areas, housework and family care, comparing with their counterpart of non-time poor families. Data from the Korean time use survey, including working mothers and fathers with children under 18(n=6,700), by Statistics Korea. The major findings were as follows. First, about 20% of working mothers and fathers were the time poor with the relative measure using the threshold under 0.5 times of median values in leisure time, and less than 10% were time poor using the threshold over 1.5 times of median values in paid work time; in addition, several thresholds of absolute measure were tried, using the time use data in OECD countries, for cross-national comparisons. Second, among time poor families, gender differences were found in the double-income household time use, especially in the area of family care; working mothers spent more than 3 times in family work than working fathers in Korea. The probability of being time-poor is higher as the level of family income increases for working mothers, whereas an opposite relationship between time and income was found for working fathers. The results were discussed to provide time-use policy implications for families with special demands of family-time management in their lifespan.

PT_0143

Improving (US) HBCU Students' Familiarity with the Family and Consumer Sciences Body of Knowledge (FCS-BOK)

First Author (Main Author)	Jane Walker (North Carolina Agricultural and Technical State University)	USA
Co-Author(s)	Sung-Jin Lee (North Carolina Agricultural and Technical State University) Meeshay Williams-Wheeler (North Carolina Agricultural and Technical State University)	
Presenting Author	Sung-Jin Lee (North Carolina Agricultural and Technical State University)	USA

AIM
The Family and Consumer Sciences body of knowledge (FCS-BOK) is the framework for the profession, and students' familiarity with the FCS-BOK (Family and Consumer Sciences Body of Knowledge) has implications for the profession. This study aimed to assess United States HBCU (historically black college and university) students' familiarity with the FCS-BOK as they entered an introductory FCS course and upon completion of that course. Specifically, the researchers examined the effect of course instruction and purposeful assignments on students' familiarity with the FCS-BOK.

METHODS
A survey on FCS-BOK was administered as a pre- and post-test to students enrolled in an introductory course, FCS 160: Introduction to Family and Consumer Sciences in the 2014 fall semester. The pre-test was given during the first week of the class (N=78) and the post-test was administered during the last week of the class (N=43). Participants rated their familiarity with 11 FCS-BOK statements using a five-point Likert-type scale, ranging from 1 (not at all familiar) to 5 (extremely familiar). Descriptive statistics and an independent samples t-test were used for data analyses.

RESULTS
In both pre- and post-tests, the highest mean score was found in the basic human needs statement (Core Concept) with M=4.46 (pre-test) and M=4.63 (post-test), while the lowest mean score was found in the human eco-system statement (Integrative Elements) with M=2.53 (pre-test) and M=3.77 (post-test). From the 11 independent t-tests, significant mean (pre- and post-test) differences were found in 10 of the 11 FCS-BOK familiarity statements; that is, increased familiarity with the body of knowledge after taking the course.

CONCLUSION
This present study provides strong evidence that such integration indeed increases HBCU student's familiarity with the FCS-BOK, intimating familiarity with the philosophical framework of the

profession. This study bodes well for future allegiance with and commitment to the FCS profession in the US.

PT_0336

FACS in the Middle: The Impact of Family and Consumer Sciences on the Career Development and Self-Efficacy of Eighth Grade Middle School Students

First Author (Main Author)	Jacqueline M. Holland (Morgan State University)	USA
Co-Author(s)		
Presenting Author	Jacqueline M. Holland (Morgan State University)	USA

Career development is a topic pertinent to young people as they transition from elementary into secondary years of education. To progress effectively toward a career goal, the attribute of self-efficacy is essential. Many factors contribute to a student's growth in self-efficacy, including relationships with family, peers, and teachers. This mixed-methods study focused on the effect Family and Consumer Sciences has on the self-efficacy of eighth grade middle school students to pursue career goals.

AIM
To develop an overview of common certifications / labels used in hospitality services with a focus on catering in institutional households in Switzerland, Germany, Austria, Canada and USA. Thereby the questions, what certifications are on the market, what they have in common and how both providers of labels and hospitality services experience this market, are answered.

METHODS
The mixed methods approach included a survey, one-on-one interviews, and focus group interviews to examine forty-one eighth grade middle school students' self-efficacy and career development in the context of participating in FACS classes. The quantitative method of data collection was acquired from a modified survey that measured four themes: self-efficacy, academics (FACS course), career development, and the perception of the FACS teacher. The qualitative method of data collection included teacher and student interviews centered on the aforementioned themes and focus group interviews with students.

RESULTS
Effective strategies implemented through FACS contributed to the self-efficacy of students and increases student knowledge of related career pathways. Although this exploratory study indicated that the middle school students perceived limited influence on their career development from their FACS course experiences, they did identify parents and peers as influencing their career interests.

CONCLUSION
The research concluded that family and consumer sciences does influence the self-efficacy of students in several ways; however, based upon the experiences in the FACS courses, the influence on their career development was perceived as limited when compared to the influence of parents and peers.

PT_0386

Practice in Improving the Living Conditions of University Students

First Author (Main Author)	Miyuki Okada (Hokkaido University of Education)	Japan
Co-Author(s)	Keisuke Doki (Hokkaido University of Education)	
Presenting Author	Miyuki Okada (Hokkaido University of Education)	Japan

AIM
University students' attitude in class is becoming worse year by year in Japan. The number of students whispering, dozing, and sending an e-mail and playing a game by smartphone in class has been increasing. On the contrary, the number of students telling word of greetings and thanks, being very punctual, and being dressing neatly has been decreasing. That is to say, the number of students establishing the basic lifestyle, and being unable to understand the importance of that has been increasing. It is mandatory for all students in Japan to receive home economics education at least for six years, starting from the 5th grade. Through such compulsory home economics education, students learn the basic lifestyle. However, it is necessary to reeducate the basic lifestyle for them. This study presents a new education program for university students in order to improve their living conditions. This program consists of twelve themes from the whole area of home economics: such as clothing, food, housing, time use, family budget, family relationships, human relationships, and environment.

METHODS
The students practice one theme, and submit the report every month. They carry out twelve themes within a year. This study aims identify the degree of university students' achievement to improve their living conditions by the questionnaire and their reports.

RESULTS
We report the results of two university students' achievement. The female student developed her abilities to manage her life. The male student could keep things in order and save money in order to go on to a graduate school. He developed his skills in order to make real the life he imagined for himself.

CONCLUSION
They described in their reports the practices that they realized

were effective in improving their living conditions, and noticed the importance of the well-regulated life.

PT_0414

Development of Lesson Study Packages for Support in Planning and Improving Home Economics Lessons

First Author (Main Author)	Tomoko Nagata (Hyogo University of Teacher Education) Japan
Co-Author(s)	Hisashi Ogawa (Hyogo University Of Teacher Education) Jyunichi Kakegawa (Hyogo University Of Teacher Education) Koichiro Morihiro (Hyogo University Of Teacher Education) Junko Akamatsu (Wakayama University) Nami Yamamoto (Wakayama University) Fumiko Noda (Osaka Kyoiku University) Mayuko Suzuki (Osaka Kyoiku University) Noriko Sakakibara (Kyoto University Of Education) Yoko Suzuki (Nara University Of Education) Yuki Yano (Shiga University)
Presenting Author	Tomoko Nagata (Hyogo University of Teacher Education) Japan

BACKGROUND AND PURPOSE OF THE STUDY

Japan has fewer home economics teachers than for other subjects, meaning that instruction of junior teachers by senior teachers is more difficult, as is information exchange between fellow teachers. There is therefore a need for teaching materials of excellence in the form of lesson videos and teaching plans. However, amassing numerous lesson videos and teaching plans does not guarantee lesson excellence in every situation. Rather, teaching materials can be made more effective if, through lesson study, home economics education experts can bring attention to specific areas of excellence and problem points.

The purpose of this study is therefore to develop lesson study packages. These comprise home economics lesson videos and a video sharing system by which the comments of home economics education experts can be viewed in synchronization with the videos.

DEVELOPMENT OF THE PACKAGE

Firstly, we developed VISCO (Video Sharing System for Supporting Collaborative lesson improvement). VISCO is a system by which comments on a video by multiple participants can be shared over the Internet. When a lesson video is watched using VISCO, comment balloons of multiple participants are displayed on it. We then collected videos of home economics lessons given at an elementary schools, junior high schools, and senior high schools and edited them. They were then shared with home economics education

experts from teachers colleges and school departments who, using VISCO, made comments on them regarding such things as points of excellence, problems, and advice.

RESULTS

These, VISCO and home economics lesson videos, were then packaged as teaching materials and distributed to home economics teachers.

CONCLUSION AND FUTURE WORK

We developed lesson study packages as we intended. In our future research, we will utilize them and verified the validity. This study was supported by JSPS KAKENHI Grant Number 24531124.

PT_0468

Service Learning in Home Economics Education: The Practices in the U.S. and Japan

First Author (Main Author)	Keiko Masuda (Tokoha University) Japan
Co-Author(s)	
Presenting Author	Keiko Masuda (Tokoha University) Japan

AIM

The purpose of this study is to explore the possibility of taking advantage of service learning (hereinafter, SL) in practice of home economics education. SL is experiential education that combines classroom instruction with organized service to the community, emphasizing civic engagement, reflection, and application of learning. I investigated the actual conditions of SL and considered the introduction and utilization of home economics education.

METHODS

1. Analysis of previous studies on SL in the U.S. and Japan.
2. Conducting interviews with officials and relevant parties involved with SL in the U.S. and Japan.
3. Examination of the challenges involved in practice of SL in home economics education.

RESULTS

SL is being put into practice in the U.S. in various fields. In the field of home economics education, it has been put into practice at numerous universities, high schools, and other educational institutions. In secondary education, a program involving SL practice has been nominated for the FCS Teacher of the Year Award. At the university level, its educational results are regarded highly and it is in the process of becoming an established educational methodology. In Japan, practice began in the first decade of the 21st century, under names such as community education and SL. Although educational results of SL were identified in fields such as education, childcare, and economics, none were apparent in the area of home economics

education. There is a movement to put SL into practice in general education. There are only a few cases of practice in home economics education, and almost no prior studies. Results of an interview with Florida State University in the U.S. showed that while there are some examples of SL practice apparent in the field of home economics education, their number remains very small. SL is included as part of the university's academic content, and numerous students participate. According to interviews with secondary education researchers, SL has been established as an educational methodology at the high school level and attempts are being made toward its systematization. Publication of a manual by practitioners is under consideration.

At a high school in Shizuoka Prefecture, Japan, community volunteer activities are being added to the curriculum and students can earn units through such activities, as an independent subject. Instead of focusing on home economics education alone, the school is implementing SL in connection with a variety of domains. Interviews with HE researchers showed low levels of both awareness of SL and interest in it.

CONCLUSION

SL has been practiced in many academic areas, and exchange activities have begun between universities in the US and Japan. I believe it would be appropriate for home economics researchers to take leadership in SL activities, because home economics is a practical science. But there is less awareness of SL in the field of home economics, especially in Japan. Activities to raise awareness of SL among home economics researchers are necessary.

PT_0500

Risk Management as Part of Home Economics Education

First Author (Main Author)	Sachiko Aoki (Tokyo Kasei University) Japan
Co-Author(s)	
Presenting Author	Sachiko Aoki (Tokyo Kasei University) Japan

AIM

The March 11, 2011, earthquake and tsunami caused unprecedented damage in Japan. As a result, many people's lives were changed in unexpected ways. My aim is to analyze how the content of high school home economics classes can help people recover.

METHOD

I distributed a questionnaire to high school students living in the disaster area in Eastern Japan, consisting of Tokyo and five prefectures along the Pacific coast. I analyzed the regional characteristics of each areas, the students' recognition of problems in their lives, and their means of overcoming these issues. I also examined the content of home economics classes in these areas.

RESULT

1. The severity of the multiple disasters-the earthquake, the tsunami, and the accident at the nuclear power plant-was unprecedented in Fukushima prefecture.
2. It is natural that high school students in Fukushima prefecture tried to recognize problems in their lives. Accordingly, the number of opinions concerning what measures should be taken in response to a disaster was greater in Fukushima than in other areas.
3. By analyzing problems that occurred in different areas, I have proposed a plan to include disaster preparation as part of the home economics curriculum.

CONCLUSION

Experiencing the disaster in 2011 made high school students recognize the importance of preparing for such unexpected events. We have concluded that risk management is an indispensable part of home economics education.

PT_0517

Curriculum Development and Changes of Home Economics Education in Zambia

First Author (Main Author)	Veronica Mulenga (The University of Zambia) Zambia
Co-Author(s)	Bestern Kaani (The University of Zambia) Robinson Mambwe (The University of Zambia) Enala S Lufungulo (The University of Zambia)
Presenting Author	Veronica Mulenga (The University of Zambia) Zambia

This paper traces the history of curriculum development in Home Economics (HE) Education and proposes appropriate changes for effective teaching and learning in Zambia. Unlike in the past, Home Economics education is no longer a realm of the womenfolk as men are beginning to take an active role in both teaching and learning of the subject. Home Economics is taught at three levels: from primary through secondary to tertiary levels covering all aspects of the Home Economics program. Home Economics as currently offered from the primary school level to university level in Zambia requires significant curriculum changes. Since the subject is only offered at undergraduate level in universities, there is an urgent need to extend the subject to post graduate level. Additionally, alongside the proposed curriculum development changes, stakeholders should also consider increasing the number of well-trained teaching staff in institutions of learning, together with the procurement of modern equipment—as Home Economics is a practical subject. Despite encouraging recent curriculum revisions aimed producing a cadre of creative, innovative, and productive learners able to respond to the needs of the family, community and act as agents of change in transforming society, the need for appropriate curriculum change and modifications cannot be over emphasized. This paper recommends

other career prospects of H.E like Consumer Consultancy, Financial Counseling, Media Relations, Marketing and Sales in addition to the usual Teacher education prospect.

PT_0552

Development of Experiential Type of Educational Program Including Try-On Yukata in Home Economics for Junior or High School Students to Transmit the Kimono Culture to the Next Generation

First Author (Main Author)	Sachie Oya (Tokyo Gakugei University) Japan
Co-Author(s)	Yayoi Satsumoto (Yokohama National University) Hideko Saito (Yamanashi Prefectural University) Hiroko Kawabata (Saitama University)
Presenting Author	Sachie Oya (Tokyo Gakugei University) Japan

AIM

The aim of this study is to evaluate the effectiveness of experiential type of education program including try-on Yukata for the junior or high school students to promote their honor to Japanese kimono culture by conducting teaching practice in home economics. For examining what kinds of educational programs are effective for students to promote their honor to kimono culture which is one of the Japanese traditional culture, reviewing how teachers consider about Japanese culture education, and significance of educational program of Kimono culture.

METHODS

Having a class of try-on Yukata for junior high school and high school students, and carrying out questionnaire about Yukata before and after the class.
Having a class of lecture and try-on Yukata for teachers in the same way, and carrying out questionnaire and interviewing.

RESULTS

By conducting try-on Yukata class, we succeed to enhance students' interests for Kimono culture, and find difference in the level of understanding between junior high school students and high school students.
We also find that it is important for teachers to have enough self-confidence about their knowledge and technique of Yukata, and to realize the importance of try-on Yukata class as a home economics class.

CONCLUSION

We need to consider what kinds of classes are effective after try-on Yukata, to apply it for daily life.
We also need to take place teachers' training with enough training contents.

PT_0562

Development of Home Economics Lifestyle Culture Lessons in Japan

First Author (Main Author)	Yuko Kamei (Aikoku Gakuen Junior College) Japan
Co-Author(s)	Yumi Shimura (University of Yamanashi) Keiko Senba (Kagawa Nutrition University) Mutsuko Abe (Tokyo Gakugei University Senior High School) Ikuko Nakada (Nagareyama Otakanomori High School) Nobuko Narafu (Secondary School Attached to Faculty of Education The University of Tokyo)
Presenting Author	Yuko Kamei (Aikoku Gakuen Junior College) Japan

AIM

In modern Japan, the everyday life experience of youngsters is becoming impoverished. Japanese young people tend to lack ability to take initiative and act individually. To successfully interact in a multicultural and globalizing society protecting, maintaining and understanding one's own traditional culture is important. The Japanese Central Council for Education 2008 report stated; "improvement of home economics teaching is required to plan the succession and development of traditional lifestyle culture". The intention of this research was to study changes that have occurred in home economics teaching and textbooks since postwar Japan, and to create, perform and modify home economics lessons to promote teaching improvement.

METHOD

Courses of Study for lifestyle culture lessons and home economics textbook contents for elementary, junior and high school students were analyzed and examined. Then, lessons on lifestyle culture were given to junior high, high school and university students in home economics classes. The results of these classes were examined.

RESULTS

We found that course of study revisions on succession and promotion of Japanese lifestyle culture was limited. However, since the 1998 revision, teaching practices on lifestyle culture have shown positive tendencies. Since the 2008 revision, the teaching of local traditional food culture and cooking events has improved. Also, general increase in teaching concerning food, clothing and housing culture has been noticed. According to these positive changes textbook contents have adapted too. There have been various developments in classes with themes of 'oru' (folding) and 'musubu' (tying).

CONCLUSION

From our findings on transitions of textbook contents and study

courses, it became clear that, matching generational changes, high importance is being placed on appropriate teaching of lifestyle culture again. With more practical lessons on lifestyle culture a noticeable change in attitudes and awareness of students towards lifestyle culture was recorded.

PT_0582

Effect of Home Economics Education on "Assumed Competence" Based on Undervaluing Others: Cultivating Children's Empathy and Happiness

First Author (Main Author)	Toyoko Fukuda (Tokiwa University) Japan
Co-Author(s)	
Presenting Author	Toyoko Fukuda (Tokiwa University) Japan

The Japanese psychologist Hayamizu points out young people trait of maintaining their self-esteem by undervaluing others, calling it "assumed competence". He demonstrated that it has a negative correlation with empathy, and a positive correlation with bullying. This study examines how Home Economics Education relates to "assumed competence" and discuss its potential in preventing children from acquiring this mentality. Controlling "assumed competence" means cultivating empathy and happiness. The study participants were 198 junior high school students and 194 high school students (199 males, 193 females). Participants considered Home Economics as they completed an "assumed competence" scale test. The results revealed a significant negative correlation between "assumed competence" and a sense of intimacy with Home Economics, including feelings of interest, respect and affection. Recognition of the importance of Home Economics Education had a lower "assumed competence" score, especially concerning the utility of learning how to use cooking knives, for example. This result suggests that Home Economics Education can affect children's "assumed competence", irrespective of cause and effect, because there were some cases in a preceding study where the teacher's acts changed the "assumed competence" level of students. These results were discussed in terms of "zest for life": "Ikiru-chikara", a goal supported by the Japanese Ministry of Education, Culture, Sports, Science and Technology. Students who use a kitchen knife very often have more empathy than ones who have seldom do. They also tend to be more independent and autonomous. In other words they have a zest for life. Today's young generation devotes a lot of time to virtual world, with more than half million students estimated to be internet dependents. Heavy users tend to lose empathy and their zest for life. Home Economics Education could have a positive effect on false competence and help students attain real competence.

PT_0586

An Introduction to Teach "Life and Disaster" by Using Sewing Kits to Make "Hang in There: Gambappeshi" Bags: Cultivating Empathy in Students and Hope in the Sufferers

First Author (Main Author)	Toyoko Fukuda (Tokiwa University) Japan
Co-Author(s)	
Presenting Author	Toyoko Fukuda (Tokiwa University) Japan

A great earthquake attacked Japan on March 11th in 2011: the Great East Japan Earthquake (or 3.11). It wrought several disasters in the region, including Fukushima, where people have suffered radioactive contamination. The northeast area along the Pacific Ocean coastline was hit by a major Tsunami and many people still in temporary housing. "Minami Sanriku Sewing Machine Studio" was established after 3.11 for women who lost their houses or jobs because of the Tsunami. They make products from scraps of curtain cloth using donated sewing machines. Their trial products were small bags imprinted with "hang in there" to express their feelings. They called these bags "gambappeshi" bags. "Gambappeshi" is the northeast dialect for "gambarou: hang in there". Lucy Walker directed a short documentary "The Tsunami and the Cherry Blossom", showing survivors finding "the courage to revive and rebuild as cherry blossom season begins" and say to themselves. "Hang in there just like cherry blossoms". After 3.11 the number of natural disasters has increased in Japan: eruptions of volcanoes, concentrated heavy rains and strong earthquakes. The number of earthquakes higher than magnitude 6 is now more than 20% in spite of the country's small landmass which is only 0.25% of the world. The person who started "Minami Sanriku Sewing Machine Studio" arranged sewing kits for junior high school students to sew "hang in there" bags easily and gave them a lecture titled "Life and Disaster" via the audio visual media. They could be conscious of the sufferer's mind by seeing the words "hang in there" continuously during sewing lessons. This second year program is expected to cultivate the empathy of students, whose schools are located in areas only slightly damaged by the destruction of 3.11, and create a bond to the hope of sufferers.

PT_0588

Examining the Text and Learning Activities of Korean and American Home Economics Textbooks

First Author (Main Author)	Min Ji Suh (Incheon Dong Yang Middle School)	Republic of Korea
Co-Author(s)	Sang Hee Sohn (Seoul National University) Soo Hee Lee (Incheon Dong Yang Middle School)	
Presenting Author	Soo Hee Lee (Incheon Dong Yang Middle School)	Republic of Korea

The purpose of this study is to examine the text and learning activities of Korean and American home economics textbooks from the perspective of developing adolescent empowerment and to suggest an alternative framework for the textbook. An in-depth content analysis was conducted for the Korean and American home economics textbooks. We analyzed the text and learning activities in the textbooks on three levels of empowerment: Micro, Meso, and Macro. The micro-level empowerment is the individual empowerment (IE), which emphasizes personal competencies by one's own effort. The meso-level includes not only individual empowerment (IE) but also group empowerment (GE), which is strengthened by interacting with group members. The macro-level includes not only IE and GE, but also organizational empowerment (OE), which is developed from the responsibility as a member of the society through community participation.

Major findings are as follows.

First, in the case of Korean textbooks, the results showed that the three levels of empowerment were off-balance (IE: 55%, GE: 37%, OE: 8%). The educational contents in Korean textbooks were described in the Meso-level. In the case of the American textbooks, the result showed that the educational contents of IE (43%), GE (40%), and OE (17%) were relatively balanced. Therefore, the educational contents of the American textbooks were described in the Macro-level.

Second, the learning activities in the Korean textbooks put a greater weight on IE at 66%, followed by GE at 25%, but OE at 9% only. The results showed that learning activities in Korean textbooks were presented in the Meso-level, but that the three levels of empowerment were significantly off-balance. In the case of the American textbooks, the results showed that the learning activities were comparatively well balanced at IE (36%), GE (40%) and OE (23%). Therefore, learning activities in the American textbooks were presented on a Macro-level. Based on the results, we suggested an alternative framework for "understanding of self as an adolescent" unit, to build adolescent empowerment on a Macro-level.

Key words: Empowerment, Home economics textbooks, Text description, Learning activities

PT_0597

Trends of Home Economics Research in the Journal of Home Economics Society in the World

First Author (Main Author)	Tomoko Akatsuka (Utsunomiya University)	Japan
Co-Author(s)	Miho Kawashima (Tokyo Metropolitan University) Michiko Naito ((Former)Tokyo Bunka Junior College) Terumi Asako (Tokyo YMCA Medical Welfare College) Naomi Suzuki (Senshu University) Ryoko Ounoda ((Former)Japan Women's University) Akiko Matsumoto (Jumonji University)	
Presenting Author	Tomoko Akatsuka (Utsunomiya University)	Japan

AIM

This study aims at analyzing the research trends about all the Journals of Home Economics Society in the world and getting the materials about the perspective of Home Economics.

METHOD

Based on the classification sheet of the Japan Society of Home Economics, we classified and discussed the trends of the research papers from 2000 to 2014 in some countries and regions. Including USA, GER, UK, AUS, KOR, JPN, African region, IFHE and ARAHE. Such as Family&Consumer Sciences Research Journal, Journal of Family&Consumer Sciences, Hauswirtschaft und Wissenschaft, International Journal of Consumer Studies, Journal of Home Economics Institute of Australia, Journal of the Korean Home Economics Association, Family and Environment Reseach, Journal of Home Economics in Japan, Journal of the Asian Regional Association for Home Economics, International Journal of Home Economics and oral abstracts. Classified journals were 700-odd and research papers were 5500-odd.

RESULT

Logging in the special fields of Home Economics papers show the changes of the local communities and the life needs. Etc. On the other hand, as the development of globalization and infomatization, there are more and more complicated special fields in Home Economics that surpassed the traditional framework. And we all can see the trends of diversity in all the countries and regions. From 2000, the paper relations to UN Millennium Development Goals have been increasing too.

CONCLUSION

Under the expansion and complexity of living issues, from now on the

subject for Home Economics is how to lead the people who respects their living and has global visions to the sustainable Hope&Happiness.

PT_0616

Lesson Improvement through Lesson Studies and Effects of Improvements: Ideas for Cooking Practice Emphasizing Language Activities

First Author (Main Author)	Mayuko Suzuki (Osaka Kyoiku University)	Japan
Co-Author(s)	Noriko Kishi (University of Teacher Education Fukuoka) Noriko Arai (Osaka University of Health and Sport Sciences) Yuko Hane (Nagoya Future Culture College) Rie Imoto (Kagawa Nutrition University) Rieko Issiki (Yasuda Women's University) Shino Kanzawa (Kojimachi Gakuen Girls' Junior and Senior High School) Yuko Kamei (Aikoku Gakuen Junior College)	
Presenting Author	Mayuko Suzuki (Osaka Kyoiku University)	Japan

AIM

In recent years, with the aim of allowing instructors to provide better standards of class, the practice of lesson study—a system of conceiving, executing, and reflecting on lessons together with peers—has been garnering increased attention. Several organizations in Japan conduct home economics lesson studies. Focusing on study group-based lesson studies supported by government boards of education and education centers, we present an Osaka junior high school case study as an investigation of how such studies improved cooking practice lessons emphasizing language activities and effects on learners.

METHODS

This case was part of a project conducted by the Osaka City Education Center between 2011 and 2013. Other project members besides instructors were a governmental teacher supervisor, administrator, cooperating faculty member, and two university faculty members. The lesson study process consists of the following: 1) Instructors put forward a lesson plan; 2) Mutual discussions are held and the plan is revised in collaboration with project members; 3) The lesson is carried out and observed on a trial basis; 4) Further discussions and revisions are made in collaboration with project members following the trial; 5) The lesson is actually carried out and discussed by observers; and 6) A generic lesson plan is proposed taking into account reflections as a whole. The lesson theme was "cooking practice and reflection" to master cooking skills and use them in everyday life. To determine how lesson studies improved lessons and what effects improvements had, semi-structured interviews (1 hour) were conducted. Lesson

plans and worksheets were also examined.

RESULTS

The lesson was structured as a cycle of preparatory study, cooking practice, and reflection. Practice sessions were held five times in groups of four or five. A different dish, ingredients, and cooking techniques were introduced each session. There were four different working roles and each student acted as leader for each role at least once. Reflections consisted of collaborative learning sessions emphasizing language activities incorporating jigsaw methods, with students divided by group and role.

Effects of lesson studies can be summarized as follows.

1. Feedback from members during lesson studies enabled instructors to undertake greater challenges. After observation and discussion of trial lessons, worksheets and teaching guidelines were edited and polished based on children's actual learning, and plans effectively revised.
2. When improved lessons were taught, language-based activity objectives became clear. Through improving the worksheet form, students consequently wrote more and were more focused in their writings. Information exchange using jigsaw methods resulted in stimulating intercommunication, and generated more "realizations" from various perspectives. This created a positive cycle leading to success in the next session.
3. Students' understanding improved regarding the purpose of home economics and cooking practice. Moreover, cooking practice tied theory to practice by building understanding of food characteristics and changes during cooking.

CONCLUSION

Through lesson study, lesson content, teaching methods, and worksheets were all improved. Thus, student learning motivation was raised, and results suggested a deepened understanding of the purpose of practical lessons and the potential for such lessons to foster cooking skills.

PT_0660

First-Aid Training Workshop for Childcare Workers Experimentally Provided by Nurses

First Author (Main Author)	Mika Shishido (Kanagawa Institute of Technology)	Japan
Co-Author(s)	Kyoko Kubo (Kanagawa Institute of Technology) Masako Kawashima (Kanagawa Institute of Technology)	
Presenting Author	Mika Shishido (Kanagawa Institute of Technology)	Japan

AIM

With the increase of two-income families due to women's advance into the society, requests for childcare have become stronger in

Japan. In fact, many children are left long under childcare workers. The childcare workers are therefore too busy to participate in external training workshops. This study aimed to report the results of a first-aid training workshop for the childcare workers experimentally provided by university teachers qualified as nurses.

METHODS

Through the previous discussion with the childcare workers, cardio-pulmonary resuscitation, removal of asphyxia, medical treatment of wounds, and management of food allergy should be chosen for the first-aid training program. The date and time was chosen so that as many childcare workers as possible could participate. Thus, the workshop including a brief lecture and practice was conducted over approximately two hours.

RESULTS/FINDINGS AND CONCLUSIONS

There were 23 participants in total, and impressions and comments were obtained from the 18 participants after the workshop. All but one participant had already received some first-aid training courses of cardio-pulmonary resuscitation, removal of asphyxia and management of food allergy; and the eight had never received any training of first-aid of wounds. No one had put such skills into practice. It was also found that many childcare workers had been at a loss how to deal with children getting convulsions. All the participants positively accepted this workshop in terms of the degrees of understanding and satisfaction. Some wanted to attend such a workshop regularly and repeatedly. The childcare workers are pressed with their daily tasks, but they feel themselves responsible for the safety of the children. It is considered important to provide these childcare workers with opportunities to readily attend proper workshops, thereby leading to improvement in the quality of childcare and guarantee of the safety of the children.

PT_0678

A "Financial Education" Lesson for University Students and Its Effect on Achieving a Sustainable Environment and Consumption

First Author (Main Author)	Hiroko Kamata (Hokkaidou University of Education)	Japan
Co-Author(s)	Kawabe Jyunko (Hokkaido University of Education) Doki Keisuke (Hokkaido University of Education)	
Presenting Author	Hiroko Kamata (Hokkaidou University of Education)	Japan

AIM

In the IFHE POSITION STATEMENTS UN MILLENNIUM DEVELOPMENT GOALS 2011 adopted by the International Federation for Home Economics (IFHE), Goal 7 (Ensure environmental sustainability) specifies the role of home economics as "improvement of the quality of everyday life through education in resource management and

sustainable consumption." Therefore, the aim of this report is to clarify changes in the awareness of university students concerning that role through "financial education" which is a home-economics-related lesson in universities and to clarify the lesson's significance as well as future problems.

METHODS

For the participants in the "financial education" lesson, which was provided to achieve "sustainable environment and consumption" at the Hokkaido University of Education in 2014, we asked the following question before and after the lesson: What educational content should be learned through subjects, such as "home economics" and "consumer education?" Then, the differences between research results before and after the lesson were discussed.

RESULTS AND DISCUSSION

After the lesson, the awareness of the participants concerning the importance of "the correlation between consumer life and the global environment" and "the creation of a sustainable society" increased, which showed that the objective of the lesson was achieved. The research results also suggested that "the diversity of consumer life" is the most desired content among those of consumer education in the future. These findings revealed that the diversity of consumer life which is required for improving quality of life should be more studied.

PT_0709

A Study of Youth Fashion Behavior and Education -The Perspective of a Curriculum Responsive to Globalization-

First Author (Main Author)	Mieko Saito (Kawamura Gakuen Women's University)	Japan
Co-Author(s)	Eriko Matsuoka (Osaka Seikei College) Megumi Kawamura (Chiba University) Kumiko Ohmoto (Osaka Kyoiku University) Kazue Mochizuki (Japan Women's University)	
Presenting Author	Mieko Saito (Kawamura Gakuen Women's University)	Japan

AIM

Despite the fact that fashion is by nature a global phenomenon, dressmaking, fashion-related consumption and business, and home economics education in Japan has been narrowly focused on Japanese people. However, in the process of globalization, with trends such as a declining number of young people pursuing fashion-related educational paths, there are calls for a review of fashion education and clothing and human life education. This research examines future directions for fashion education and clothing and human life education in home economics, based on trends in fashion behavior among female university students in Japan and Taiwan, and a survey of education in Australia.

METHOD

During 2013-2015, female university students in Japan and Taiwan were surveyed regarding their fashion behavior. Also, issues were identified by investigating fashion education at vocational schools and clothing and human life education at high schools in Australia.

RESULTS

Points of similarity and difference were found through the survey of fashion behavior (fashion and body ornamentation) in Japan and Taiwan. Investigation of fashion education in Australia showed that an educational system has been established which emphasizes sensitivity and has connections with work.

CONCLUSION

Based on above-mentioned findings, certain keywords—mental health, sensitivity, and career—were identified as items which have been overlooked in Japanese fashion education and clothing and human life education. Reconstruct the curriculum based on these issues, and develop an effective curriculum by measuring educational effectiveness through actual practice in the classroom.

PT_0718

Including Disaster Education in Home Economics

First Author (Main Author)	Satomi Terasaki (Hosei University)	Japan
Co-Author(s)	Yuri Nakajima (Nagasaki University)	
Presenting Author	Satomi Terasaki (Hosei University)	Japan

This study aims to explore what problems female victims held in the Great East Japan Earthquake in 2011, so that disaster education can embrace women's needs.

Recently, disaster risk has been increasing; for example because of natural hazards frequently occurred such as earthquakes and volcanic eruptions, and human-induced environment destruction. In a time of such disasters, the vulnerable as women, foreigners, the elderly, and the disabled are more easily and strongly exposed to risk. In Japan, academic studies on the Great Hanshin-Awaji Earthquake in 1995 have pointed out the vulnerability of these people. This study applies the secondary analysis of interview data with female victims in the 2011 Earthquake, conducted in March to August, 2012 and published by a NPO called Equal-Net in the Tohoku area. Forty women in the Miyagi prefecture participated in the interviews. The interviews show four kinds of issues as follows; 1) sexual molesters or sexual violence; 2) narrow gender perspective of leaders on health such as menstruation; 3) stereotypes of gender role in evacuation centers and at the time of reconstruction; and in a related move, 4) paid work for men and unpaid work for women. In conclusion, we give two suggestions to the future disaster

education. First, it is significant to include disaster education in home economics to make children think the lives in evacuation centers and temporary housings and their difficulties, and make them learn knowledge and skills home economics can provide for maintaining healthy lives. By both women and men equally learning the knowledge and skills of home economics and their significance, people could notice the need of woman's leaders. This will encourage women to be leaders and raise their voices for woman's needs. In this sense, the role of home economics will become more significant.

PT_0740

Theory and Practice of Role-Playing in 'Family Studies' of Kateika in Japanese Junior High School

First Author (Main Author)	Ikuyo Kamano (Oji Junior High School)	Japan
Co-Author(s)	Yoko Ito (Chiba University)	
Presenting Author	Ikuyo Kamano (Oji Junior High School)	Japan

AIM

Role-playing is considered a beneficial teaching method for 'Family Studies,' because it enables students to learn how to interact with other family members and to critically rethink relationships between oneself and others. However, it is often pointed out that there are few links between such the practice and academic theory regarding the use of different role-playing methods in classes. Therefore, in this research, role-playing methods based on Dr. Matsumura's theory of 'human relations science' are used in 'Family Studies' of Japanese Kateika (Home Economics Education) classes in Junior High School. The goal of the research is to develop a curriculum for 'Family Studies' of Kateika in Junior High school in Japan using role-playing methods and to clarify the curriculum's educational effectiveness.

METHODS

First, the relationship between academic theory regarding interaction with others and practice was examined. Next, the curriculum that was developed was introduced. Lastly, the effectiveness of the curriculum was investigated by questionnaire and observation of junior high school students.

FINDINGS AND CONCLUSIONS

The educational outcome of the curriculum for junior high school students is summarized as follows: The students...

- (1) developed greater interest in role-playing methods
- (2) acquired social skills for interacting with family members
- (3) gained better understanding family member's thinking through role-playing activity
- (4) gained self-confidence with respect to social interactions with

others (not only family members but also their friends) Positive results were especially notable for students who had shown lower self-confidence with respect to interacting with others before classes. Most junior high school students are incapable of objectively examining their relationships with others, so the 'Family Studies' curriculum using role-playing methods were useful in improving the students' understanding of their relationships. The results indicate that all students have the ability to learn how to interact more effectively with family members.

PT_0743

The Significance and Challenges of Coed Home Economics Studies in the Structure of "Learning Relevance" Regarding Home Economics

First Author (Main Author)	Tomoko Fujita (Tokyo Gakugei University)	Japan
Co-Author(s)		
Presenting Author	Tomoko Fujita (Tokyo Gakugei University)	Japan

AIM

The aim of this study is to examine significance and challenges of coeducational Home Economics by clarifying the structure of "learning relevance (students' sense of the meaning and significance of learning)" with respect to Home Economics.

METHODS

Semi-structured interviews were conducted with university students who had received coed Home Economics education in Japan. The sample comprised 21 undergraduate students in the education department (10 students specializing in Home Economics and 11 students specializing in disciplines other than Home Economics) and 18 undergraduate students in other departments. Interviews were conducted between November 2014 and March 2015.

RESULTS

"Learning relevance" can be divided into "current relevance," referring to whether or not a subject is perceived as interesting at the moment, and "future relevance," referring to the sense that a subject will be useful in the future (Honda 2004). 87.2% of the students reported that they "agreed" or "agreed somewhat" that they liked Home Economics, while 94.9% of the students reported that they "agreed" or "agreed somewhat" that Home Economics will prove useful in the future. Cooking and sewing were frequently cited as reason why the students found Home Economics studies interesting. Students noted that classes in which they were able to freely plan menus or make designs were the most fun. Cooking and simple sewing techniques were frequently cited as skills that the students' found to be useful. Many students reported that Home Economics was the first time that they had sewed on a button or had used a sewing machine and that

these skills were useful when making costumes for club activities, etc. All of the students had a positive assessment of coed Home Economics classes, and many students responded that Home Economics was essential training for everyday life and independent living. However, the students believed that the significance of coed Home Economics has to do with helping men to understand their mothers' and future wives' housework and to enable independent living.

CONCLUSION

The majority of respondents reported that they liked Home Economics and believed it to be useful, and all respondents had a positive assessment of coed Home Economics. However, the students believed that Home Economics was important for acquiring the knowledge and skills needed to live on one's own but not for living together with others.

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PT_0750

Evaluation of Sewing Lessons for Elementary School Students in an After School Care Program in a Local Tokyo Community

First Author (Main Author)	Naoe Nishihara (University of the Sacred Heart)	Japan
Co-Author(s)	Yuko Kamei (Aikokugakuen Junior College) Rie Imoto (Kagawa Nutrition University) Kyoko Tsubouchi ((Former) Tokyo Metropolitan Oedo Senior High School)	
Presenting Author	Naoe Nishihara (University of the Sacred Heart)	Japan

AIM

The objective of this study is to evaluate the effectiveness of sewing lessons for elementary school students in an After School Care Program in a local community in Tokyo, Japan. The lessons were conducted by home economics and university teachers who were motivated by the observation that students' life skills, especially when fine motor skills were required, had been drastically declining.

METHODS

Two sewing lessons were conducted in two After School Care Programs for elementary school students (from 1st grade to 6th grade) in Edogawa ward in Tokyo in August 2015. Home economics as a subject is compulsory only in the 5th and 6th grade in elementary school. However, the participants were mainly from the lower elementary grades. Teachers in the lessons were volunteers, and included home economics teachers, university teachers, and university students in a teacher-training course. In the morning, volunteers learned from each other, lead by the more experienced

teachers, and in the afternoon the lessons were conducted for the students. Fourteen students, four parents, and eight volunteers participated in School A. Twenty students, two parents, and fourteen volunteers participated in School B. In the lesson, students learned how to make a cloth bag from one bandana. After the lesson, students and volunteers were asked to fill out questionnaires.

RESULTS

The results showed that most of the students participated in this lesson of their own accord and that they felt a sense of achievement. Evidence of this sense of achievement is that many students expressed an interest in continuing the lesson. In fact, the students between 1st and 4th grade, who do not have home economics in the curriculum at present, showed a great interest in making the bag and made it quite well.

CONCLUSIONS

It is suggested that home economics in early elementary grades might be effective for improving students' life skills. It is also suggested that such activities provide good opportunities for the younger teachers and university students in teacher-training courses to be trained by experienced teachers.

PT_1232

Developing a Teacher Training Standard for Home Economics Teachers

First Author (Main Author)	Kaoru Horiuchi (Yokohama National University)	Japan
Co-Author(s)		
Presenting Author	Kaoru Horiuchi (Yokohama National University)	Japan

Home economics teachers face difficult conditions at schools in Japan.

First, there is extensive content that teachers want to teach to students; however, there are very few lesson hours available in a year to do so.

Second, there are both regularly employed teachers and also part-time teachers who teach home economics. Because many home economics teachers are the only person to teach home economics in the school, they tend to be isolated and face difficulties in having discussions with other teachers about the classes and curriculum. Third, home economics teachers are very busy every day because of the situation noted previously. Most home economics teachers take charge of all classes in a junior high school, which involves more than 20 units of time weekly.

For these reasons, the object of this study is to clarify home economics teachers' qualities and teaching abilities. Teachers need to focus on their career development, and home economics teachers need to acquire the knowledge and skills for teaching their

subject. Teacher training standards will be developed and presented through the study. The standard is constructed according to a home economics teacher's typical situation. This model is designed using four dimensions: basic qualities, home economics knowledge, home economics teaching skills and evaluation, and subject management. Subject management is an important concept for teachers' development. Teachers extend their abilities as professionals teaching home economics because they have to manage the classroom and environment of the school for effective teaching. The standard that is developed for home economics teachers will become a useful set of indicators for lifelong development as home economics teachers.

PT_1255

Consumer Education through Linking of Multiple Subjects

First Author (Main Author)	Satoko Mishima (Tokyo Gakugei University)	Japan
Co-Author(s)	Midori Otake (Tokyo Gakugei University)	
Presenting Author	Satoko Mishima (Tokyo Gakugei University)	Japan

OBJECTIVE

With globalization and the introduction of IT, issues surrounding consumption are becoming more complex and advanced. Given these circumstances, the promotion of consumer education in schools that cultivates the ability to take action as a consumer and avoid problems is now more in demand than ever. In Japan, consumer education is being incorporated into home economics, social studies and information science, but it is felt that effective consumer education could be achieved through classes linking together all of these subjects. Therefore, the objective of this study is to clearly define the characteristics of consumer education in each subject and search for a way to make use of each through linking.

METHODS

Collect case examples of consumer education and sort out distinctions in the number and content of approaches for each subject. Pick out the classes conducted along the same themes from among the many approaches to home economics and social studies, and compare the differences in content.

RESULTS

Home economics is the subject where consumer education is being implemented the most, followed by social studies. Based on the results of comparing the respective content employed in home economics and social studies classes, in home economics classes, actual purchases are hypothesized and importance is placed on learning to make use of this knowledge in daily life. In social studies, on the other hand, the focus is on comprehension of laws and socio-

economic systems necessary for consumers to know. It is clear that by linking these subjects and conducting classes that study a combination of actual consumer behavior and its social implications it is possible to focus on and make progress in learning how to raise one's ability in carrying these actions out.

PT_1637

Development of North Korean Family Living Culture Education Program for South Korean Adolescents in Preparation for Reunification of Korea

First Author (Main Author)	Hana Lee (Korea University Graduate School)	Republic of Korea
Co-Author(s)	Jieun Song (Korea University Graduate School) Jungha Lim (Korea University) Min Young Jung (Korea University Graduate School) Soonhee An (Korea University Graduate School) Soonhwa Chung (Korea University) Yhe-Young Lee (Korea University) Yookyung Kim (Korea University) Yonsuk Lee (Korea University) Yoon-Jung Lee (Korea University) Youngsun Han (Korea University)	
Presenting Author	Hana Lee (Korea University Graduate School)	Republic of Korea

This study aimed at developing an education program for Republic of Korean middle school students on North Koreans' family living culture so that the students become familiar with the values and everyday lifestyles of the North. Understanding of North Korean culture is considered important in prospect of future reunification as a foundation for social integration. The contents of the program was developed based on a literature review and analyses of North Korean defectors' interviews and media reports on North Korean culture. The program consists of 10 units of 40-minute sessions with the following topics: economy and consumption, leisure activities, family life, dating and spouse choices, fashion changes, clothing acquisition and care, local foods, dietary problems, housing, and neighborhood. The program was implemented between December 21 and 30, 2015 in a middle school located in Seoul. A total of 62 students in two classes of grade 7 participated in the program. Evaluation was conducted by pre-/post-test comparisons, with a self-administered questionnaire consisted of 34 items asking students to indicate their perceived levels of knowledge and skills about and attitudes toward North Korean family living culture on 5-point scales. A total of 54 matched questionnaires were analyzed. The pre-test results revealed that the prior knowledge/skill/attitude level of Republic of Korean students was relatively low (m=2.78,

s.d.=0.86), which verified that reunification education is imperative. The pre-/post-test comparison revealed that self-perceived knowledge/skill/attitude was improved in general (m=3.83, s.d.=0.89, paired t=7.70, p<.001), as well as in all unit topic areas. Students' verbal feedback was also very positive; they would recommend this program to other students because it helped them become aware of reunification issues and better understand North Korean culture. This program is expected to be useful in preparing the students as future leaders to create harmonious family living culture in the reunified Korea.

PT_1129

Nutrition Education Utilizing Paraprofessionals

First Author (Main Author)	Lauren Amaya (Oklahoma State University)	USA
Co-Author(s)		
Presenting Author	Lauren Amaya (Oklahoma State University)	USA

In 2013, the food insecurity rate of the US population was 14.3%, while the food insecurity rate in Oklahoma was above the national average with an overall rate of 17.0% and 26.0% for children, with poverty rates consistently higher than the national average. As the number of Oklahomans living below the federal poverty line continues to be a major concern, prevalence of low-socioeconomic status manifests itself in poor nutrition habits and physical activity levels. Through the Expanded Food and Nutrition Education Program (EFNEP) and Supplemental Nutrition Assistance Program Education (SNAP-Ed), known as the Oklahoma Nutrition Education (ONE) program in our state, Oklahoma State University has helped individuals find the answers to planning and preparing healthy meals and expanding their food dollars. The EFNEP and ONE programs are two federal/ state partnerships that support nutrition education for the improved health of limited-resource audiences. Both programs provide nutrition education to limited-resource individuals and families within their communities and are delivered using a learner-centered approach. Program graduates report increased knowledge, enhanced skills and abilities, and improved conditions related to nutrition, health, and well-being. This poster will focus on the use of paraprofessionals, referred to as Nutrition Education Assistants (NEAs) indigenous to their communities to reach a large number of low-income participants to help overcome health challenges in Oklahoma.

PT_1218

Regional Vitalization and Living Support for Victims of the Great East Japan Earthquake

First Author (Main Author)	Natsumi Noda (Shokei Gakuin University)	Japan
Co-Author(s)	Noriko Ogawa (Chubu University) Midori Otake (Tokyo Gakugei University) Takashi Sakata (Ishinomaki Senshu University) Kei Sasai (Japan Women's University) Akiko Nakajima (Wayo Women's University) Rumiko Kuji (Shokei Gakuin University) Michio Miyano (Osaka City University) Ikuko Bamba (Tokyo Gakugei University) Eisuke Ikuta (Osaka City University)	
Presenting Author	Natsumi Noda (Shokei Gakuin University)	Japan

AIM
Ishinomaki in Miyagi Prefecture suffered tremendous damage in the Great East Japan Earthquake. We clarified the changes to people's diets after the disaster and investigated the use of cooking classes for living support for disaster victims and regional vitalization.

METHOD
The subjects were people living in temporary housing, who were interviewed about their diets before and after the disaster. Based on issues identified in the interviews, temporary housing residents held cooking classes to teach Ishinomaki New Year's dishes to university students.

RESULTS/FINDINGS
In the interviews, subjects who previously made local dishes for both daily meals and special events said they had fewer opportunities to make those dishes after moving to temporary housing because of lack of space and cooking utensils in the kitchen. This suggests that regional food culture may cease. The cooking classes were opportunities not only for continuation of food culture and social interactions among participants, but also for the temporary housing residents acting as instructors to feel they were doing something worthwhile and involved in society. Most of the university students learned about Ishinomaki New Year's dishes for the first time, and with attitudes of interest and respect toward local cuisine may make this food culture more recognized and sustained by introducing it to friends, family, tourists, and the next generation.

CONCLUSION
Young people's participation is essential for regional vitalization. Activities related to nearby foods readily capture people's interest and are likely to lead to continuation of food culture and regional

vitalization. The cooking classes described herein may also help disaster victims gain a sense of fulfillment and satisfaction by playing a central role, and support a lifestyle revival.

PT_1231

Effects of Adding Oil and Funori (Gloiopeltis Furcata) on the Quality of Rice Noodles

First Author (Main Author)	Tomoko Yamaguchi (Niigata University)	Japan
Co-Author(s)	Chiho Ikeda (Niigata University) Mami Tokida (Niigata University) Jun-ichi Sakai (Niigata University)	
Presenting Author	Tomoko Yamaguchi (Niigata University)	Japan

Rice is one of the most important crops in Asian countries, especially in Japan. However, the consumption of rice in Japan has gradually decreasing, because Japanese dietary habit is changed. The utilization of rice flour contributes to increase the national consumption of rice. Because of absence of gluten in the rice flour, it is difficult to make breads and noodles. In this study, we investigated to utilization of rice flour for noodles, and the effect of adding oil and Funori on the quality of rice noodles. Basic type of rice noodles was prepared with 30 % of rice flour, wheat flour, salt, and water using automatic noodle maker. To attempt to improve the quality of rice noodles, 1, 5, 7.5, and 10% of camellia oil or olive oil were added to the basic rice noodles. Water content, color (L*, a*, b*), physical properties, and sensory attributes were measured after making and boiling noodles. As a result of the basic type of rice noodles, better quality was obtained at 110mL of adding water for noodle making. Moreover, 1 or 5% adding oil improved the quality of the basic type of rice noodles. The water content of raw and boiled noodles was 37.4-37.6% and 66.3-67.6%, respectively. The water content of the noodles added 5% camellia oil was the lowest in the boiled noodles. The noodles added 5% camellia oil indicated the lowest hardness on physical properties in the raw and boiled noodles. The sensory evaluation of the noodles, the effects of adding oil to the noodles were observed at smoothness, hardness, adhesiveness, and elasticity. These results suggested that the adding of 1% camellia oil improved the quality of 30% rice flour noodles. We are still studying about effect of adding Funori to rice noodles for making 100% of rice flour noodles.

PT_1243

The Intake of Bean Products and Vegetables Associated with Mental and Physical Health of Japanese University Students

First Author (Main Author)	Noriko Tanaka (Kobe Women's University)	Japan
Co-Author(s)	Toyoko Okuda (Tezukayama Gakuin University) Naomi Hirano (Kobe Women's Junior College) Hisae Shinohara (University of Miyazaki) Yasuyo Asano (Kio University) Ikue Hamaguchi (Konan Women's University) Mami Umemoto (Tezukayama Gakuin University) Jangmi Kang (Hyogo NCC College) Yuko Higashine (Osaka Aoyama University) Rie Shimonaka (Kobe Women's University) Yumiko Morikawa (Kobe Women's University)	
Presenting Author	Noriko Tanaka (Kobe Women's University)	Japan

BACKGROUND AND AIMS

It has recently been reported that food intake patterns are associated with mental health, and high intakes of soybean products and vegetables may decrease the depressive symptoms. In the present study, we investigated daily meals of female university students, that is, how much they daily take beans and vegetables in order to see the relation between intake of beans or vegetables and the mental state, life style, or body composition as physical status

METHODS

Japanese 28 female university students (aged 20-23) participated in the study from winter to autumn of 2013-2014. A questionnaire on diet and life-style was administered to the subjects and depressive status was assessed by CES-D(The center for Epidemiologic Studies Depression Scale). Dietary investigation was done by using 3-day weighed dairy record methodology and energy intake and intakes of beans(including its products) and vegetables were calculated. Physical activity and exercise was recorded daily by the uniaxial accelerometer(Suzuken) and was calculated as energy expenditure. The body weight and body composition were measured by body composition analyzer (Inbody 720, Biospace).

RESULTS

There was a significantly negative correlation between amount intake of beans and CES total score(i.e. depression score) or frequency intake of fast food, but significantly positive correlation between beans intake and energy intake was recognized. Body composition was not affected by intake of beans. On the other hand, high intake of vegetables induced lower body fat content, e.g., it was lower within normal range. However, less intake of vegetables indicated some higher fat level more than 30 % of normal level . Vegetable intake did

not affect CES score.

CONCLUSION

The results suggest that beans may be good for mental health, and vegetables may be good for physical health.

PT_1264

Analysis of Conjugated Linolenic Acid in the Seed Oil from Various Cherry Cultivars

First Author (Main Author)	Taro Honma (Tokyo University of Technology)	Japan
Co-Author(s)	Mayu Hayashi (Tokyo University of Technology) Maki Obinata (Tokyo University of Technology) Kazuhiro Uchida (Tokyo University of Technology) Ryuta Akazawa (Tokyo University of Technology) Tsutomu Takayanagi (Tokyo University of Technology)	
Presenting Author	Taro Honma (Tokyo University of Technology)	Japan

Polyunsaturated fatty acids, which have a conjugated double bond system, are thought to have cancer prevention effects. Natural seed oils of some plants (tung, karela etc.) have been reported to contain conjugated linolenic acids (CLNs), which are isomers of α -linolenic acid with a conjugated trienoic structure. In our previous study, we found that the seed oil of Sato Nishiki, one of the various kinds of cherry cultivar (a type of Prunus) grown in Japan, contains CLN. However, little is known about their CLN content. In this study, we analyzed the fatty acid composition of seed oils of 23 cherry cultivars to compare their CLN contents.

The lipid fractions were extracted from the homogenates of cherry seeds according to the Bligh & Dyer procedure. Fatty acids of the lipid fractions were methylated with trimethylsilyldiazomethane and sodium methoxide/methanol, and then analyzed by gas chromatography (GC) to determine the fatty acid composition. The lipid fractions were further fractionated to neutral lipids, glycolipids, and phospholipids by silica column chromatography. The fatty acid compositions in the separated fractions were measured using gas chromatography.

As a result, α -eleostearic acid (α -ESA; 9c, 11t, 13t-18:3), a type of CLN, was detected from the seed oils from cherry cultivars used in this study. The lipid content of these seeds and α -ESA content of these seed oils were different among cultivars. The CLN seemed to exist as triacylglycerol because most of it was detected in the neutral lipid fraction.

PT_1356

School-Lunch Satisfaction Is Associated with Consumption of a Mid-Morning Snacking and Hunger Feeling in Adolescents

First Author (Main Author)	Hyesun Min (Hannam University)	Republic of Korea
Co-Author(s)	Hyun-jin Choi (Hannam University)	
Presenting Author	Hyesun Min (Hannam University)	Republic of Korea

Unhealthy snacking behavior is increasing in adolescents. Eating snack before a meal has been known to affect the subsequent meal intake through decreasing appetites or increasing satiety feeling. Regular consumption of school lunches was associated with a healthier diet, such as lower consumption of sweet and salty snack. The objective of present study was to determine whether eating morning snack could influence the satisfaction of school lunch service. The study was conducted with 283 middle school students at Daejeon city. Students filled in a self-administered questionnaires about eating patterns, dietary habit, food quality, food service, satisfaction with school lunch, and hunger feeling before lunchtime. Students to eat morning snack were significantly more likely than non-snack eater to feel less hunger before school lunch and leave more food served with school lunch. Morning snack eaters were significantly more likely than non-snack eaters to be less satisfied with overall quality of school lunch including taste of food, diversity of menu, meal temperature, portion size, nutritional value, quality of food ingredient, serving seasonal food, serving preferred food, and hygiene of meal. The results indicate that satisfaction with school lunch service is associated with morning snack eating behavior, presumably due to the reduced feeling of hunger through morning snack consumption. However, irregular breakfast eating did not affect either adolescent's feeling of hunger before school lunch or overall satisfaction with school lunch, presumably because skipping breakfast leads to frequent morning snacking. Therefore, whether skipping breakfast leads to eat morning snack more should be further examined. In conclusion, eating morning snack affected adolescent's satisfaction with school lunch presumably due to the reduced feeling of hunger through morning snack consumption.

PT_1495

Influence of the Characteristics of Households and Primary Food Shoppers on Household's Food Consumption in a Korean Urban-Rural Complex Region

First Author (Main Author)	Sang Eun Lee (National Academy of Agriculture Science)	Republic of Korea
Co-Author(s)	Yoon-Ju Song (The Catholic University) Jungsook Choe (National Academy of Agriculture Science) Young Kim (National Academy of Agriculture Science) Hee-Young Paik (Seoul National University)	
Presenting Author	Sang Eun Lee (National Academy of Agriculture Science)	Republic of Korea

Dietary intake and food consumption in Korea have been rapidly changing with increased eating-out, the increased international exchange, and the changes in population structure.

AIM

The aims of this study were to investigate food environment factors that influence the food consumption of the households and to determine how these factors are associated with food consumption in a Korean urban-rural complex region.

METHODS

The study was designed as a cross-sectional household study. We recruited 151 households (urban 99, rural 52) in a Korean urban-rural complex region from October 2012 to March 2014. We collected data related with food environments of food stores from a family member in charge of food purchases per household. Also the household's primary food shoppers were requested to record all foods purchased or obtained for family during a week, all food purchased by bulk or used by year, and all amounts consumed of them.

RESULTS

There were significant differences between urban and rural areas in the characteristics of households and primary food shoppers, and household's food purchase related factors. However, there was no difference in household's food availability and food consumption between the areas. In multiple regression analysis, in rural areas, total food amount available was positively associated with household food shopper's education level (elementary vs. middle school: $\beta=16.5$, $p=0.013$). Total food amount consumed was also positively associated with ease of food purchase ($\beta=1.03$, $p=0.006$). In both urban and rural areas, a significant positive association between total food amount consumed during the week and the number of food items available at home was found (urban: $\beta=0.38$, $p<0.001$, rural: $\beta=0.29$, $p<0.001$).

CONCLUSION

In this study, food consumption of households in rural area was more associated with a variety of food environmental factors. This showed that food environmental factors having influence on food consumption of households could vary depending on a community's characteristics.

PT_1497

Effect of Aloe Noodle on Loperamide-Induced Constipation in SD Rats

First Author (Main Author)	Young-Eun Lee (Wonkwang Univrsity)	Republic of Korea
Co-Author(s)	Hyun-Ook Jang (Wonkwang University) Eun-Sook Kim (Wonkwang University) Eun-Young Choi (Wonkwang University)	
Presenting Author	Young-Eun Lee (Wonkwang Univrsity)	Republic of Korea

AIM

Constipation is one of the most frequent gastrointestinal complaints in the people of all ages. In this study, the effects of Aloe noodle as a functional material in food form was studied on loperamide-induced constipation in SD rats.

METHODS

Sprague-Dawley rats were divided in to five groups, Control group, constipated rats group(L), constipated rats treated with wheat noodle(WN), constipated rats treated with 1.25% aloe powder group(1.25% APN), constipated rats treated with 4% aloe powder group(4% APN). Male SD-rats given Aloe noodle in their diets for 31 days. Constipation was induced by oral administration of loperamide (2mg/kg, twice per day) for the final 3days(29~31) during which the feeding characteristics, body weight, properties of fecal and gastrointestinal transit time.

RESULTS

Feed containing Aloe noodle improved intestinal motility. consequently, the fecal number with 4% APN was increased to 66.3% compared with the L-group. furthermore, fecal weight with 4% APN was increased to 56.6% compared with the L-group. and the fecal water content was some increased in the constipated rats than 4% group. Also 4% APN group was decreased to 68% fecal number in the colon compared with L-group. In addition, 4% APN increased to 85.6% gastrointestinal transit time than L-group.

CONCLUSION

These results indicate that Aloe noodle is good for the prevention of constipation.

PT_1498

Dietary Pattern and Health-Related Quality of Life among Korean Breast Cancer Survivors

First Author (Main Author)	Nahui Kim (Sookmyung Women's University)	Republic of Korea
Co-Author(s)	Sihan Song (Sookmyung Women's University) Eunkyung Hwang (Seoul National University Hospital) Hyeong-Gon Moon (Seoul National University College of Medicine) Dong-Young Noh (Seoul National University College of Medicine) Jung Eun Lee (Sookmyung Women's University)	
Presenting Author	Nahui Kim (Sookmyung Women's University)	Republic of Korea

OBJECTIVES

We aimed to examine the association between dietary pattern and health-related quality of life (HRQOL) among Korean breast cancer survivors in a cross-sectional study.

METHODS

A total of 171 women aged 21 to 79 years who had been diagnosed with breast cancer of the American Joint Committee on Cancer (AJCC) stage I to III and had breast cancer surgery at least 6 months before baseline were included. To measure HRQOL levels, we used a validated Korean version of Core 30 (C30) and Breast cancer 23 (BR23) module of the European Organization for Research and Treatment of Cancer (EORTC-QOL). Dietary intake information was obtained through the 3 day dietary records. We conducted a factor analysis to identify major dietary pattern and calculated pattern scores for each participant. To examine the association between dietary pattern and HRQOL levels, we obtained the least squares means (LS means) and 95% confidence interval (CI)s of HRQOL levels according to dietary pattern scores using the generalized linear model.

RESULTS

We identified 3 major dietary patterns, "Healthy pattern", "Western pattern" and "Unspecified pattern". We found that Insomnia scores assessed by the EORTC-QOL increased significantly with increasing scores of the healthy pattern among breast cancer survivors; LS means were 21.89 (95% CI =9.10-52.67) for top quartile and 9.34 (95% CI=4.04-21.6) for bottom quartile (p for trend = 0.04). Also, Physical Functioning scores increased significantly with increasing scores of western pattern among breast cancer survivors; LS means were 85.81 (95% CI =70.80-104.01) for top quartile and 73.47 (95% CI=60.49-89.23) for bottom quartile (p for trend = 0.03).

CONCLUSIONS

Our study suggests the evidence that breast cancer survivors may have different dietary patterns according to their health-related

quality of life.

PT_1499

Coffee Consumption and the Prevalence of Pre-Hypertension and Hypertension in Filipino Women Living in Korea

First Author (Main Author)	Soonji Kim (Sookmyung Women's University)	Republic of Korea
Co-Author(s)	Jung Eun Lee (Sookmyung Women's University) Chang Beom Lee (Hanyang University School of Medicine) Sangmo Hong (Hanyang University School of Medicine) Sherlyn Provido (Sookmyung Women's University) Grace Abris (Sookmyung Women's University)	
Presenting Author	Jung Eun Lee (Sookmyung Women's University)	Republic of Korea

BACKGROUND

Several epidemiologic studies suggest the health benefit of coffee intake, but there is limited evidence to distinguish types of coffee drinking.

AIM

We conducted a cross-sectional study to determine whether coffee intake with sugar and cream was associated with the prevalence of pre-hypertension and hypertension in Filipino women living in Korea.

METHODS

Filipino women married to Korean men were recruited from March to August, 2014. Age range of participants was 20-55 years. A total of 162 participants who answered the questions on coffee intake and had blood pressure levels measured were included in this analysis. Information on coffee intake and addition of sugar or cream was obtained using the structured questionnaire through face-to-face interviews. Of 141 coffee drinkers, 79.43 % of participants (n=112) answered to drink coffee with sugar and cream. Coffee with sugar and cream intake was categorized into <1 cup per month, 1 per month -<1 cup per day, 1-<2 cups per day, and ≥2 cups per day. Hypertension stage was identified by criteria suggested by the Korean Society of Hypertension. Multivariate odds ratio(OR)s and 95% confidence interval(CI)s were estimated using the logistic regression models.

RESULTS

Compared with <1 cup per month of coffee intake with sugar and cream, ORs (95% CIs) of pre-hypertension and hypertension combined were 1.28(0.39-4.23) for 1 per month -<1 per day, 2.51(0.63-9.99) for 1-<2 cups per day and 1.87(0.57-6.13) for ≥2 cups per day (p for trend=0.34).

CONCLUSIONS

Although we did not observe a statistically significant association between coffee with sugar and cream and the prevalence of pre-hypertension and hypertension combined among Filipino women living in Korea, increase in sample size and further analysis are warranted in this ongoing study.

PT_1508

The Effect of Food Restriction and Betaine Supplementation on Methionine Metabolism and Plasma Lipid Profile in Ethanol Treated Rats

First Author (Main Author)	Hyesun Min (Hannam University)	Republic of Korea
Co-Author(s)	Hyewon Kim (Hannam University)	
Presenting Author	Hyesun Min (Hannam University)	Republic of Korea

Chronic ethanol exposure increases plasma homocysteine (Hcy) and Triglyceride (TG), hepatic S-adenosyl homocysteine (SAH) and TG in animal and human studies. These changes in methionine metabolism and plasma lipids are associated with liver injury. Alcoholic patients with liver disease tend to consume approximately 40% of caloric intake as alcohol and lower intakes of protein, carbohydrates, fat, vitamins, and minerals as compared with nonalcoholics. On the other hand, caloric restriction to 60~70% of daily energy needs attenuates acute ethanol-induced oxidative and nitrosative cardiac damage while caloric restriction to 40~50% of energy needs aggravates lipid peroxidation and nitrosative stress. Betaine regulates homocysteine levels by participating in the methionine cycle as a methyl donor. Present study was designed to determine whether food restriction (FR) would affect plasma lipid and methionine cycle when betaine is supplemented in ethanol-fed rats. Therefore, male wistar rats were divided into seven experimental groups for 4 weeks as follows: control; ad libitum ethanol groups (E, E+ 0.25% betaine(w/v), E+ 0.5% betaine); food-restricted ethanol groups (FRE, FRE+ 0.25% betaine, E+ 0.5% betaine). FRE groups were fed with 60% amount of diets ingested by ad libitum E group. Betaine supplementation (BS) was found to increase plasma HDL cholesterol, plasma malondialdehyde (MDA), liver S-adenosyl methionine (SAM) (p<0.05), plasma TG, liver SAH (p<0.001) but decreased plasma Hcy (p<0.01) and SAM/SAH ratio (p<0.001). FR increased plasma ALT (p<0.05) but decreased plasma TG (p<0.05) and Hcy (p<0.001) in ethanol-fed rats. These results indicate that BS attenuates mild homocysteinemia in ethanol-fed rats, but leads to increase in plasma TG and MDA. We speculate that BS may increase plasma lipids by increased export of lipids from liver into circulation. FR tends to increase plasma ALT although it decreased plasma Hcy and TG. Thus, FR may cause liver injury in chronically ethanol-fed rats by different metabolic disturbance from methionine cycle. [This work was supported by the National Research Foundation (NRF) grant funded by the Korea government (2014N124).]

PT_1509

Physicochemical and Antimicrobial Activity of Allium Chinense

First Author (Main Author)	Eunji Kim (Hoseo University)	Republic of Korea
Co-Author(s)	Mihye Kim (Hoseo University)	
Presenting Author	Mihye Kim (Hoseo University)	Republic of Korea

Pig welsh onion is also known as Rakkyo. It is scientifically classified as Allium chinense; its roots can be pickled for consumption. Originated in China, Koreans started to cultivate it at Naju province in 1920's through Japan. The recent concerns regarding the radioactive contamination makes it as one of the possible domestic food source, but there is not enough data on it in Korea as of now. The lack of data pushes researchers to evaluate its quality as a high value functionality product by using its physicochemical and antimicrobial properties. Its physicochemical properties are measured by proximate, antioxidant activities, and antimicrobial activity analysis. The control group of antioxidant activities and antimicrobial activity analysis was the Allium fistulosum because it had a similar set of traits and properties to those of Allium chinense. These two plant subjects' EDA, Total phenolic acid, and SOD-like activity were examined under the antioxidant activities analysis method. Antimicrobial activity was tested using Salmonella, bacillus, E.coli, and S.aureus. According to the proximate analysis, Allium chinense had: 114 kcal of energy, 65.3grams of moisture, 1.0gram of protein, 0.1 gram of lipid, 20.6 grams of glucide, and 0.6 grams of ash per 100 grams of Allium chinense. Allium chinense extract, with antioxidant activities of 79.49%, showed a higher antioxidant activities by about thirty percent compared to those of Allium fistulosum, with antioxidant activities of 45.65%; both extracts were measured using EDA. Allium chinense extract, with total phenolic acid of 1.49±0.02 mg/ml, showed a higher total phenolic acid compared to those of Allium fistulosum, with total phenolic acid of 1.17±0.00 mg/ml. Allium fistulosum extract, with SOD-like activity of 89.96±1.47 %, had a higher SOD-like activity compared to that of Allium chinense, with SOD-like activity of 83.74±2.45 %; both extracts displayed a relatively high SOD-like activity well above 80%. Allium fistulosum extract had no antimicrobial activity when interacted with bacteria or germs, but Allium chinense was immune to Salmonella and bacillus: a indication of its antimicrobial activity. When Allium chinense extract and Allium fistulosum extract's antioxidant activities were compared, Allium chinense extract clearly had a higher antimicrobial activity. Because Allium chinense demonstrated its resilience against Salmonella and bacillus, it proved itself to be the better functionality product than Allium fistulosum. Although there are more information to be obtained from Allium chinense, its high antioxidant activities, SOD-like activity, and total phenolic acid qualifies it as a potential candidate as a functionality product in the future.

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PT_1510

Healthy Korean-Styled Diet Patterns for Brains and the Development of Related Healthy Meal Models

First Author (Main Author)	Hyekyung Chung (Hoseo University)	Republic of Korea
Co-Author(s)	Mihye Kim (Hoseo University) Eunji Kim (Hoseo University)	
Presenting Author	Hyekyung Chung (Hoseo University)	Republic of Korea

There is an increasing attention towards elderly healthcare issues due to the malnutrition, disease-related fatalities, medical expenses, and chronically degenerative disease mainly caused by an augment within the elderly population. This study aims to analyze the functional and intelligent elderly Koreans' diet patterns; it plans to construct a healthy meal for the brains of all the elderly Koreans, directly contributing to the elderly healthcare. Implement called K-MMSE was used to gather data on 316 elders above sixty five years of age; they were divided into categories such as normal, boundary area, mild, moderate, and high dementia according to the resulting scores. The elders' diet structures were recorded by 24-hour Recall Method and food intake frequency method. The healthy meal models for brains were designed based on the analysis of food group and consumed nutritions. Fat consumptions varied depending on the severity of elders' dementia: 31.78 g, 25.95 g, 23.06 g, and 11.21 g normal to moderate dementia; protein consumptions were 65.80 g, 62.77 g, 52.97 g, and 39.32 g respectively(p<0.05). The data shows that the elders with dementia had less vitamin and minerals compared to those of normal elders. Antioxidant vitamins E and C, especially, were detected in low levels from the elders with dementia: normal elders with 13.68mg, 115.41mg, boundary area elders with 10.23 mg, 96.92 mg, mild dementia elders with 10.72 mg, 74.08 mg, and moderate dementia elders with 7.14 mg, 61.63 mg; the less healthy elders, as the study suggests, consume less vitamins (p<0.05), thiamine, riboflavin, and niacin, below the recommended intake. The elders tended to be less cognitively developed as they included more food such as: grain and culinary vegetables in their regular diets. The elders were more cognitively developed if they included more meat, eggs, and fruits in their regular diets. The best health solution for elders with dementia are the foods with high antioxidant vitamins and low unsaturated fatty acid. The researchers created a three-meal plan for the elders with weak health, by the foods' nutritional values. Three-meal menu with lots of antioxidant vitamins: Breakfast consists of: Patobakjuk,semoguk,donyukchaepapeurikabokkeum,tomatosaengchae,deodeongmulgimchi,grapes. Lunch consists of: Memilbap,soe

gogimojabanguk,godeungeoomijajorim,chwinamulbaengnyeoncho muchim,gochugamjajeon,gatgimchi,danggeunjuseu. Dinner consists of: Jasaekgogumabap,kongnamulbuchuguk,ssiasureongssamjang,g omchwi&yangbaechu&biteussam,yeondubusaessaengchae,pagi mchi,gyulsaenggangcha. Three-meal menu with little of unsaturated fatty acid: Breakfast consists of: Heugimjajatjuk,sogogibaechudoenjan gguk,mineaohobakseon,gamtaettangkongmuchim,janggimchi,app les. Lunch consists of: Hodujobap,deulkaeakguk,eochaeyaksanjeo kjeorim,gochunnipdeulkaemuchim,baechugimchi,3saekkaegangjeo ng. Dinner consists of: Yeongyangsusubap,gulguk,jeonbokssam,kkae sundaulkaemuchim,deodeokdeulgireumgui,sukgimchi,heungmiam ondeusweikeu. Three-meal menu with lots of unsaturated B-vitamin: Breakfast consists of: Hyeonminokdujuk,hwangtaemiyeokguk, osae kbijiyeongeunjeon,totdubumuchim,sunmunabakgimchi,gamdanja. Lunch consists of: Heungmiyeongbap,beoseotjochi,mukbokkeum, soegogijuksunjjim,baechuseon,sangchugimchi,dorajicheongyogeot eu. Dinner consists of: Gijangjobap,donyugwanjabijijigae,daegusaich ijeujjim,tomatojeon,mulparaebeoseotganghoe,yeonimmulgimchi,og okduyu.

PT_1511

A Study on the Probability of Eat Out Tourism Products by Utilizing Local Food

First Author (Main Author)	Hyemin Ahn (Hoseo University)	Republic of Korea
Co-Author(s)	Mihye Kim (Hoseo University)	
Presenting Author	Mihye Kim (Hoseo University)	Republic of Korea

At the present time due to the enhancement of national income and the increasing of leisure life time and so on, there is a growing interest in rest and consumer is increasingly looking for and participation put together food and culture. For this reason, the project to attract tourists to eat products of Asan area in the limelight of the Asan spa resort is underway. The ingredients and environmental analysis through the relevant literature and site survey of Asan area were conducted through product development and standardization through the marketing analysis and brand image development, storytelling. Afterwards, the evaluation of the overall satisfaction level of this tourism spot was conducted. The main ingredients were Dogo's local product, rakkyo and rice produced in spa component, sulfur pig and Asan's freshwater fish known as specialties from ancient times. According to the analysis SWOT and 4p, Asan area synergizes the nearby locations in various tourist spots with the spa at its center; support for specialization of local and federal organizations at Asan area is increasing. As a result, the number of tourists is increasing and the shifting interest benefits the local food commercialization for tourists in Asan area. Following the newly established brand image, five special items have been made: a pig with sulfur, rakkyo and sulfur pig, rice topped with "sulpiggy", "hotpig" at the hot spring

and comedy hall, the rail-bike on cold weather with warm food, and "bungeotang" and "bungddeok". "hot-spring soda" maded using Asan hot spring and edible petals soda springs. It was designed to eat in the relaxation area of the world botanical garden flower cafe. The possibility evaluation of these items was targeted towards thirty trained professional panelists. Out of five points, "sulpiggy" rice had a high greasiness scores of 4.8 and 4.23 from the panelists; addition of more onions and pig welsh onions to minimize the greasiness. Compared to the commercialized hotdogs, "hotpig" scored a saltiness of 3.33 points and 3.56 from the panelists; addition of steamed sweet potatoes will neutralize the saltiness and reduce the sodium level. Compared to the commercialized ddeokbbokki, "bungddeok" received an overall scores of 3.66 points and 3.87 points from the panelists; the change in the color and shape of "bungddeok" has been made. Compared to the commercialized fish cake soup, greasiness was given a greasiness of 4.25 points and 3.67 from the panelists; the cooking method was adjusted from frying to roasting over the oven to improve the greasiness. Compared to the commercialized aid drinks, "hot-spring soda" scored a freshness of 3.8 points and 4.03 points from the panelists; addition of carbon dioxide will boost its freshness. In the conclusion, the overall satisfaction scores are: "hotpig" with 4.06 points, "hot-spring soda" with 4.03 points, "sulppigi" rice with 3.83 points, "buungddeok" with 3.35 points, and "bungeo soup" with 3.29 points. Relatively, the scores were high, which is an evidence to a high potential that lies in investing on the outdoor food industry in Asan area for tourists.

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PT_1521

Study on Wholesome Bread, Made with Sikhye and Mixed Grain Power: Its Unique Qualities and Commercial Potentials

First Author (Main Author)	Hyekyung Chung (Hoseo University)	Republic of Korea
Co-Author(s)	Jungin Han (Hoseo University) Mihye Kim (Hoseo University)	
Presenting Author	Mihye Kim (Hoseo University)	Republic of Korea

According to the national nutrition survey, Koreans' individual rice consumption rate has been on the decline compared to that of the past. Modern Koreans rather prefer the simplified dietary spectrum due to their busy lives. Unlike the past, the present has abundant food supplies, which causes wasted food: an environmental issue. The study hopes to develop a commercialized "simple" bread made from sikhyerice that will increase the rice consumption today. The ingredients were sikhyerice that were filtered by filter papers, dried by hot-air dryer, and crushed into powder. The bread contains

0 to 6% sikhye rice. Rice and sikhye rice powder were analyzed under the AOAC laws; they were measured for their: water content, crude protein, crude fat, and crude ash. They were measured for their: appearance, color, olfactory sense, taste, and texture as sensory evaluation. Their quality characteristics were defined by their chromaticity and physical properties.

Rice powder had: 34.05% water, 2.57% crude protein, 0.13% crude fat, and 0.21% crude ash. Sikhye rice Powder had: 43.78% water, 2.87% crude protein, 0.97% crude fat, and 0.57% crude ash.

Sikhye rice powder had a higher amount of general component content compared to that of Rice powder. Bread's chromaticity changed in response to the amount of Sikhye rice powder: 0% addition 43.21, 2% addition 47.36, 4% addition 49.56, 6% addition 62.86 .

A's values were: 0% addition -1.03, 2% addition -1.05, 4% addition -1.13, 6% addition -1.26 .(P <0.01), respectively. The texture testing states: 0% addition 0.82, 2% addition 0.63, 4% addition 0.53, 6% addition 0.41; the hardness decreased as Sikhye rice powder's amount increased.

Based on the sensory survey, both rice and Sikhye rice powder bread gathered more public favor (preference investigation?) than the normal white bread, with Sikhye rice powder 4% increased demand than the regular bread. Sikhye rice powder proves to be highly nutritional, so it can be concluded that products using Sikhye rice powder will be a positive externality.

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PT_1848

Comparison of Food Databases among African Countries

First Author (Main Author)	Mariam Nakitto (Seoul National University)	Uganda
Co-Author(s)	Asano Kana (Seoul National University) Chengyu Zhang (Seoul National University) Suhua Jin (Seoul National University) Jihyun Yoon (Seoul National University)	
Presenting Author	Mariam Nakitto (Seoul National University)	Uganda

BACKGROUND

Updated country-based food databases provide information on nutrient composition of commonly consumed and locally available foods. Such databases can be used in the process of planning and developing national nutrition policies and programs. However, only a few African countries have updated country-based food databases.

AIM

The aim of this study was to examine and compare country-based food databases of selected African countries.

METHOD

Among the 20 African countries with country-based food databases, only South Africa, Uganda, Gambia, and Mozambique had versions that had been updated after 2010. The food databases for these countries were compared in terms of the characteristics of foods included and attributes of data sources from which nutrient values were obtained

RESULTS

The food databases of South Africa, Uganda, Gambia, and Mozambique contained 1,471, 1,221, 463, and 205 food items, respectively. The food categories common to all the databases were beverages, fats and oils, and vegetables. Gambia had the highest number of food groups with 17, followed by South Africa, Uganda and Mozambique which had 16, 14 and 12, respectively. All the databases provided values for energy, carbohydrates, protein, lipids, and fiber. However, the nutrient subclasses for which information was provided in each database were different. The reported values were mostly literature/borrowed, and calculated data, with a few cases of analytical data.

CONCLUSION

The study provides information with which South Africa, Uganda, Gambia, and Mozambique can revise their existing databases. In addition, other African countries without food databases can refer to this information when developing their own country-based food databases.

PT_1877

Folic Acid Supplementation Can Lower Homocysteine Levels in Diabetic Post-Menopausal Women

First Author (Main Author)	Aswathy Vijayakumar (Ewha Womans University)	India
Co-Author(s)	Eun-kyung Kim (Ewha Womans University) Hyesook Kim (Ewha Womans University) Young Ju Choi (Diabetes and Vascular Research Institute) Kap Bum Huh (Diabetes and Vascular Research Institute) Namsoo Chang (Ewha Womans University)	
Presenting Author	Aswathy Vijayakumar (Ewha Womans University)	India

Complications of diabetes such as premature atherosclerosis and CVD events have been associated with increased mortality among

diabetes patients. Homocysteine (Hcys), a risk factor for CVD has also been recently identified as predictor for complications in diabetes. We investigated whether supplementation with folic acid (FA) tablets can lower Hcys levels and improve vascular complication parameters. This study was a non-randomized 8-weeks long clinical trial where 800µg of FA tablets (400µg*2) was supplemented daily to postmenopausal diabetic women aged 55-75 years. The blood levels of folate, Hcys, and Vitamin B12 were measured, along with measures of vascular complications, pulse wave velocity (PWV). For the analysis, participants (n=28) who had ≥70% compliance were included.

There was no statistically significant difference in dietary habit scores during the trial. Supplementation with 800µg of FA daily statistically significantly increased blood folate levels (baseline mean=13.5ng/L and follow-up mean=44.3ng/L; p-value<0.0001), reduced Hcys levels (baseline mean=15.5µmol/L and follow-up mean=11.9µmol/L; p-value<0.0001) and increased vitamin B12 levels ((baseline mean=549.5ng/L and follow-up mean=621.6ng/L; p-value=0.0063). However, no significant changes was observed in PWV. Daily supplementation with FA was able to reduce Hcys levels. There was no direct improvement in parameters of vascular complication from FA supplementation. However, the reduction in Hcys levels might lead to reduction in vascular complications as high levels of Hcys is associated with endothelial dysfunction.

PT_0398

Condition of Fire Fighting Facilities and Fire Safety Consciousness among Residents of Small House around University

First Author (Main Author)	Jeong Hoon Han (Kyung Hee University)	Republic of Korea
Co-Author(s)		
Presenting Author	Jeong Hoon Han (Kyung Hee University)	Republic of Korea

AIM

The purpose of this study is to propose an improvement plan for safe environments in small houses without blind areas in the fire safety aspect.

METHODS

In order to do the research about awareness of fire safety and current conditions of fire fighting facilities, one hundred subjects living in small houses in Seoul (urban-type housing, officetel, Gosiwon, etc.) responded to the questionnaire survey. The survey data was analyzed by SPSS 21.0 program.

RESULTS

1. The research showed that targets in this study generally have low awareness in fire safety, however only the targets living in urban-type housing showed they had high awareness in the current

situation that they live in a fire prone area.

- Urban-type housing has lower rates of possession in basic fire-fighting equipment (fire extinguisher 42%, fire alarm 14%, none 14%). They also have lower rates of purchasing intention (49%) for fire-fighting equipment. However, home owners have positive awareness (100%) for improvement of fire-fighting facilities compared to tenants.
- Only 21% of all subjects experienced fire-fighting safety education. However, 84% of subjects responded that they feel the necessity for fire-fighting safety education.

CONCLUSION

In conclusion, there should be an increase in supply of low-cost and easy-to-use fire-fighting equipment in facilities, reinforcement of the fire department regulation, government support costs for fire-fighting facilities, and diversified fire department public relations as well as education for fire-fighting safety awareness that will be needed for fire safety of small houses around the university.

PT_0593

Young Renter Households' Perception and Experience of Housing Cost Burdens: Focusing on the 2014 Korea Housing Survey

First Author (Main Author)	Hyun-Jeong Lee (Chungbuk National University)	Republic of Korea
Co-Author(s)		
Presenting Author	Hyun-Jeong Lee (Chungbuk National University)	Republic of Korea

Housing cost burden is one of the major measurements of a households' housing stability. The purpose of this study was to explore young renter households' perception and experience of housing cost burdens in Republic of Korea. This study utilized microdata of the 2014 Korea Housing Survey as secondary data and selected 1,856,617 renter households in private housing units headed by persons between 20 and 34 years of age (weighted counts) as study subjects. Major findings were as follows. (1) Perceived housing cost burdens were measured in 4-point scale ('not burdened at all (1)' to 'very burdened (4)') and the average was 3.11 (SD=.773). To see the frequencies, more than 80 percent perceived they were burdened. (2) Monthly housing costs were calculated by adding deposit converted to monthly rent using official deposit-to-rent conversion rates by regions, monthly cash rent, and monthly housing maintenance costs. When housing costs to income ratios were reviewed, 47.3 percent were found to suffer from housing cost burdens to pay 30 percent or more of their household income for housing costs (households with zero incomes were considered to have housing cost burdens). (3) When perceived housing cost burden scores were compared between households with and without housing cost burdens, households with housing cost burden showed a significantly stronger

perception of housing cost burdens ($t(1,264,364.738)=94.026$, $p=.000$). (4) Perceived housing cost burden scores and whether or not actually having housing cost burdens were compared across three rental types (Jeon-se rental, monthly rental with deposit, monthly rental without deposit). As results, monthly renters without deposit showed both the strongest perceptions to be burdened (3.24) and the greatest percentage of actually burdened households (60.7%); followed by monthly renters with deposit (3.12, 51.9%). Jeon-se renters showed the weakest perception to be burdened (2.96) and the smallest percentage of actually burdened households (40.7%).

PT_0694

What Returnee Students Learn from "Katazuke" Studies in Japanese Elementary School Kateika Classes

First Author (Main Author)	Nao Furushige (Tokyo Gakugei University Doctoral Course)	Japan
Co-Author(s)	Yoko Ito (Chiba University)	
Presenting Author	Nao Furushige (Tokyo Gakugei University Doctoral Course)	Japan

AIM
 "Katazuke," which means cleaning up or tidying up, is one of the words that express Japan's everyday culture.. Students learn "Katazuke" studies in Kateika (Home Economics Education in Japan) in Elementary School. Because we take "Katazuke" for granted it, and it is rather hard to find characteristics of "Katazuke" studies. As such, we thought that it would be possible to clarify the significance of "Katazuke" studies by examining what returnee students (students returning to Japan after living abroad for a period of time) learned from such classes. The purpose of this research is to clarify the significance of "Katazuke" in Kateika related to distinctive Japanese everyday culture.

METHODS
 First, we developed a "Katazuke" studies program. Then, returnees in the 5th and 6th grade of elementary school were given instruction based on this program. A questionnaire was conducted before and after classes to investigate changes in the students' interest in "Katazuke." Lastly, the students were interviewed after classes regarding their feelings and opinions towards "Katazuke" studies.

FINDINGS AND CONCLUSIONS
 Quantitative analysis of the questionnaire data indicated that the returnee students became more interested in 'Katazuke' after classes. Qualitative analysis of interview transcripts indicated the students improved skills in the following areas:
 (1) Taking into consideration of when and how they or others will use an item the next time
 (2) Doing 'Katazuke' independently

(3) Understanding their own lifestyle
 (4) Decision-making regarding Katazuke choices and actions
 The results of the two analyses demonstrated the educational effectiveness of "Katazuke" studies in Kateika. The program helped elementary school returnees acquire skills and knowledge regarding 'Katazuke' and increased the students' interest in another aspect of distinct Japanese cultural identity.

PT_0703

Effect of Japanese Cedar on Psychological and Physiological Factors Influencing Quality of Sleep and Mental Health Status in an Indoor Environment

First Author (Main Author)	Ikuko Bamba (Tokyo Gakugei University)	Japan
Co-Author(s)	Kenichi Azuma (Kinki University)	
Presenting Author	Ikuko Bamba (Tokyo Gakugei University)	Japan

AIM
 We evaluated the effect of installation of a cedar panel in the living room on the quality of sleep and mental health status of residents.

METHODS
 The experiment was conducted from December 2014 to February 2015. We recruited 13 healthy subjects (mean age 20.5 ± 1.2 years). The participants resided in the experimental room until the morning of the fourth day. A cedar panel was installed in the living room on the night of the fourth day and the participants resided in that room until the morning of the seventh day. The cedar panel was made of wood from Oguni-machi in Kumamoto prefecture of Japan. A slit was made to widen the surface area, and two pieces were connected with a 240 × 325 mm panel. Sleep efficiency were analyzed using actigraphy. Cortisol and immunoglobulin levels of Saliva were analyzed. For subjective evaluation, quality of the sleep was analyzed using the Oguri-Shirakawa-Azuma sleep inventory (OSA), and mental health status was analyzed using the general health questionnaire (GHQ). The results of these evaluations before and after the installation of the cedar panels were compared using t-tests.

RESULTS
 "Falling sleep" and "sleep maintenance" were significantly improved after panel setting as evidenced by changes in OSA scores ($p < .05$). However, this difference was not confirmed by actigraphy. The mental health status as assessed by the GHQ was significantly improved after installation of the panel ($p < .1$). In the saliva analysis, cortisol levels remained the same, but IgA levels were significantly increased after panel installation ($p < .01$).

CONCLUSION
 While the beneficial effects of forest environments on immunity are known, our study results indicate that the use of cedar wood panels in an indoor environment could result in immune system stimulation and improvement in quality of sleep and mental health status.

PT_0758

The Flowability and Living Environment of Migrant Workers in China

First Author (Main Author)	JingYing Deng	Japan
Co-Author(s)		
Presenting Author	JingYing Deng	Japan

In this essay, I would like to clarify 4 issues. the first one is to grasp the characteristics of flowability of migrant workers; second one is to clarify the migration process of migrant workers; the third one is to grasp the accompanying family of migrant workers and their living conditions; and last one is to clarify the children's educational problems of migrant workers. I have done questionnaire survey two times to migrant workers and their children in Shanghai this year. According to their answer, if migrant workers move from a place to another place fluently, their living conditions change too . some migrant workers went better, but some went bad. Migrant workers change their living places not only because they care about their living conditions, but also change their works, or because their children can only go to this or that school in Shanghai. There have some conditions if migrant workers children want to go to school in Shanghai.

PT_0805

Living Conditions of the Uyghur Tribe in Urban and Rural Areas --Targeting Xinjiang Uyghur Autonomous Region, Kashgar District--

First Author (Main Author)	Tajiguli Aierken (Nara Women's University)	Japan
Co-Author(s)		
Presenting Author	Tajiguli Aierken (Nara Women's University)	Japan

The purpose of this study was to understand the living conditions of the three-generation Uyghur Tribe living in urban areas and rural areas centered on the Kashgar district and to clarify how the lifestyle of the Uyghur Tribe is changing viewed from the aspects of the three generations' clothing, food, housing, daily life, religion, etc., in both areas. he research method was a questionnaire survey given to the

three generations comprising 5th grade tribal elementary school students and the parents and grandparents of the students
 It covered items relating to the dwelling life, eating habits, clothing, daily life and religion of the three generations in both areas, and I gained an understanding of the present conditions thereof. Also, in order to define the changes to these, I established standards to deem them "is maintained", "is about half maintained", or "isn't maintained", and I classified them into 11 patterns from a to k. Furthermore, I classified the items belonging to the 11 patterns into clothes, food, housing, daily life, and religious awareness, and the results of analyzing the respective changing processes between urban areas and rural areas showed that because awareness regarding religion is stronger in urban areas than rural areas, in urban areas items deemed "is maintained" from the grandparents' generation to the present or deemed "is maintained" up to the parents' generation and "is about half maintained" presently were predominant. However, in urban areas where modernization has progressed, although religious awareness is strong, a few traditional customs were seen which could not be maintained although they wanted to maintain them. 4 items in rural areas regarding religion were being maintained, but the ways of saying the most basic greetings were only maintained about half from the grandparents' generation until the present.

PT_0810

The Lifestyle and the Change of Pastoral People's Residence in Desert Area of Mongolia the Case of Badain Jaran in Alxa Right Banner

First Author (Main Author)	Arong Zhaole (Nara Women's University)	Japan
Co-Author(s)		
Presenting Author	Arong Zhaole (Nara Women's University)	Japan

The purpose of this paper is by discussing the connection between the grazing and residence of pastoral people, furthermore, analyzing the layout drawing of pastoral people's residences to document changes of traditional pastoral residence.
 We had did a survey by interviewing and measurement in Badain Jaran in Alxa Right Banner of Inner Mongolia of China for 3times, by September, 2011, March, 2012, and November, 2012. The coverage of the survey was 38 families which still keeping stock farming at now. From the connection between the grazing and pastoral people's residence, We found that in order to follow the moving of livestock, there is a necessary to migrate different places in different season. Therefore, sine the residence was fixed, the amount of houses was increased from 1 to multilateral. Right now there are 5 kinds of residences.
 The feature of the using of winter quarters was that, the range of life activities was classified in one room in the 60s. In the 70s, one-room model has become two-rooms model, and the function was divided

into two kinds, one room for daily life, and the other room was used as a warehouse. As to corresponding the specific living behavior, the kitchen, and the bedroom could be seen for the first time, and the passage and the yard were also made in the 80s. The distinction of space was become definitely in the 90s, and it also became to install the visitor's drawing room. Since 2000 the garage, the shower room, the traveler's bedroom, the kitchen was appeared. The feature of spring quarters and autumn quarters were that, spring quarters had not spread through the all households, and room's arrangement was still simple, furthermore, utility time was also shorter than autumn quarters.

PT_0829

Study of the Residential Environment Barrier-Free Considered the Life Stages of Old Age

First Author (Main Author)	Yoshie Shibata (Kyoto Prefectural University)	Japan
Co-Author(s)	Naoki Matsubara (Kyoto Prefectural University)	
Presenting Author	Yoshie Shibata (Kyoto Prefectural University)	Japan

AIM

Recently, there has been a rapid acceleration in demographic aging in Japan. A barrier-free (BF) environment at home is important for a safe and comfortable life. The physical aspect is the traditional element of a BF environment, and we added the important sensory and environmental aspects (environmental BF = physical BF + sensory BF).

METHODS

We conducted a questionnaire survey targeting elderly and middle-aged subjects. The 606 respondents ranged in age from 21 to 88, with a mean age of 60.8. The questionnaire concerned the installation of barrier-free facilities. Moreover, the list of 58 items in the questionnaire included the environmental aspect in addition to the physical barrier-free aspect. The physical environmental indices included the sound, optical, thermal, and humidity environment, indoor air quality and space (elbow room). A 5-point scale was employed in the questionnaire, with importance ranging from 2 (very important) to -2 (very unimportant), and satisfaction ranging from 1 (very dissatisfied) to 5 (very satisfied).

RESULTS

The study was conducted to compare the importance and satisfaction rating of environmental factors in 4 groups classified according to age stages (young-middle; under 54 years old, middle; 55-64 years old, young-old; 65-74 years old, old-old; over 75 years old). The satisfaction with the physical BF items and thermal environment were lower in the old-old group, compared with the young-old group. We performed the analysis using the benefit-portfolio analysis method.

The results showed that the thermal environments in summer and winter were not satisfactory, with the possibly related risk of heat disorders in summer and heat shock in winter.

CONCLUSION

It is important to enhance the environment for the elderly in home care cases, depending on the life stages. In future studies, it will be necessary to consider the BF environment when nursing is required.

Keywords: The elderly, Housing, Home care support, Barrier-free environment, Satisfaction

PT_0832

Impact What Farmers Market Give to Small Scale Farmers around the Matket in Suburban Area

First Author (Main Author)	Ikuko Omi (Nara Women's University)	Japan
Co-Author(s)		
Presenting Author	Ikuko Omi (Nara Women's University)	Japan

AIM

In suburban areas, there are many small-scale farmers. In addition, the elderly are increasing. Crop yields are reduced. Farmers market is supporting the shipment of those farmers. Many city residents are shopping at farmers market. They are looking forward to buy fresh vegetables at there. To clarify the role of direct sale place by the survey of city suburbs of farmers market.

METHOD(S)

Questionnaire survey to farmers market in the urban city and suburban city was done. There are the cities in the three major metropolitan area, Tokyo area, Osaka area, Nagoya area. It was mailed to last November.

Also we have a hearing survey of farmers market and farmers.

RESULTS / FINDINGS

Farmers are aging and have declined. Some of the farmers markets are in the effort of solving the problem actively. They held the agriculture school, and are cooperating in regional initiatives. In addition, it has been held the initiatives that urban residents to experience the agriculture. Such efforts are increase the willingness of farmers. And they are increasing profits.

CONCLUSION

Farmers markets give to local agriculture large effect. Small-scale farmers can ensure a place of sale. And farmers market in urban cities and suburban cities connect farmers and urban residents in the region. However, there is a need for efforts to do so. There is the potential

for cooperation of the region with farmers market. Also it has many possibilities in addition.

PT_0897

Park Use as a Coping Strategy for Climate Change: A Focus on Low-Income Hispanic Families

First Author (Main Author)	Mira Ahn (Texas State University)	USA
Co-Author(s)	Thomas Sievers (City of Austin) Jiyun Kang (Texas Sate University) Gwendolyn Hustvedt (Texas Sate University)	
Presenting Author	Mira Ahn (Texas State University)	USA

PURPOSE

Low-income Hispanic families have been identified as being at risk towards climate change due to the pressures caused by socio-economic barriers, which hastens their ability to cope with adverse weather conditions. This study has interests in examining the use of outdoor amenities, such as civic space, urban parks, and greenbelts, as a possible coping strategy when it is too hot outside. The purpose of this study is to investigate the effect of income on the stress levels of Hispanic families to heat and their experience of park use.

METHODS

Data collection was done through two stages, focus groups and an on-line survey. Data from focus groups of 20 participants were used for designing a survey questionnaire. This questionnaire was used for an on-line survey with a random sample of Hispanic residents in California and Texas that was purchased from a large data company in the US. The survey results were analyzed with descriptive statistics, t-tests, ANOVA, and regression.

RESULTS

A total of 761 responses were collected. The results indicated that there was no income influence on frequencies of park use and accessibility to a park. However, the satisfaction towards neighborhood and surroundings showed a difference according to income. The average of the satisfaction by high-income families who earned more than US median income, \$50,000, was higher than that of low-income families with a statistical significance. Regarding the perceptions, there was an income influence on the stress levels towards heat. The result showed that low-income Hispanic families experienced more stress to heat than higher income families, whereas there was no significant effect of income on the respondents' overall ability to cope with heat. Finally, regression result showed that income, perceived 'too hot' temperature threshold, and staying inside as a coping strategy had significant effects on respondents' perceived stress to heat.

CONCLUSION AND IMPLICATIONS TO FCS

When realized as an issue of human health and well-being, urban greenery takes on a different meaning other than environmental utility and urban aesthetics. It could function as a sustainable alternative to cooling off in city especially for families with limited resources. The results from this study, however, indicated overall strategies to cope with heat, including using a park, by low-income families were not distinctive compared to high-income families, although they were experiencing more stress to heat. This study provides implications to researchers in family and consumer sciences field and community planners and policy makers to better serve these families by suggesting the need of exploring the motivations and barriers in using a park by low-income families. Also examining inconsistencies and gaps in public policies surrounding the types of park, location, the features they exhibit, and the degree to which cities are committed to urban greening is suggested.

PT_0693

Life Satisfaction and Aging-in-Place Preference of Older Females in the US

First Author (Main Author)	Mira Ahn (Texas State University)	USA
Co-Author(s)	Jiyun Kang (Texas State University)	
Presenting Author	Mira Ahn (Texas State University)	USA

PURPOSE

The study aims to explore the influence of psychological environment and life satisfaction on aging-in -place preference of females who are 55 years and older (hereafter older females). To investigate the relationships, authors developed a model illustrating the relationships among socio-economic variables, housing variables, psychological environment variables, and life satisfaction.

METHODS

For the data collection, a paper-and-pencil survey was conducted with a convenience sample. A total of 107 undergraduate students from a large university in the Southern U.S. were trained to collect data. Path analysis was used to test the model.

RESULTS

A total of 213 responses were collected. The results indicated that social connectedness and depression were associated with life satisfaction and life satisfaction was related to aging-in-place preference with a statistical significance. Among socio-economic and housing variables, age, income, housing type, and location were significantly related to life satisfaction. More specifically, a female who was relatively younger (less than 65 years old), had an annual household income of less than \$50,000, lived in a single-family detached house, and lived in a rural area was more likely to show a higher level of life satisfaction than one who was relatively older, had

a higher income, lived in other than a single-family detached house, and lived in other than a rural area. Thus these socio-economic and housing variables were indirectly associated with aging-in-place preference mediated by life satisfaction.

CONCLUSION AND IMPLICATIONS TO FCS

Although the significance of understanding aging-in-place decision by older persons, there has not been research to explore multi-dimensional meanings of aging-in-place by connecting psychological environment and life satisfaction to it. The results from this study suggests that there are a number of layered factors under the preference of aging-in-place, which calls the importance of psychological environments, including depression and social connectedness, to be considered for researchers, practitioners, and policy makers who are interested in the housing and community programs and services to support to age in place.

PT_1687

Housing Asset and Its Wealth Effects on Consumption Spending of Korean Households

First Author (Main Author)	Hyunjeong Lee (Kyung Hee University)	Republic of Korea
Co-Author(s)		
Presenting Author	Hyunjeong Lee (Kyung Hee University)	Republic of Korea

Housing is the single largest item in the aggregate wealth holdings of Korean households, and housing equity becomes an increasingly important asset in that it can be accumulated over their life course and realized to trigger the consumption. Recently, the link between housing wealth and household consumption, known as the wealth effect, has been gaining more attention.

The purpose of this study is to explore housing wealth effects of homeowners by different age groups on household expenditure on non-durable products and services. The age groups are divided into three distinct categories – eco boomers, baby boomers and older adults. Further, the wealth effects by each age group are examined in accordance to region (Seoul Metropolitan Area [SMA] vs. non-SMA), housing structure type (apartment [Apt] vs. non-Apt housing), debt-to-asset ratio (less than 25% vs. 25% and more), and employment status (self-employed vs. wage workers). Using the 2014 Korean Labour and Income Panel Study, this research extracts 1,541 homeowners out of the age groups, and conducts statistical analyses. The statistical results reveal that housing asset is the largest holding of their wealth, and both housing value and financial debt become smaller as the age of homeowners increases. It's statistically significant that housing wealth has much stronger effects on household spending than does financial asset or real estate asset. Also, the housing wealth effect is greatest among older adults, followed by baby boomers. The reason for the largest consumption

elasticity among the particular group is attributed to the absence of formal pension scheme during their working years.

While the empirical findings explicitly support that housing wealth effects vary with different age groups, it's clear that rising housing wealth enables households to reduce insurance against future contingencies.

PT_1692

Changing Korean Housing System and Its Challenges

First Author (Main Author)	Hyunjeong Lee (Kyung Hee University)	Republic of Korea
Co-Author(s)		
Presenting Author	Hyunjeong Lee (Kyung Hee University)	Republic of Korea

The Korean housing policy has strongly embedded into a developmental state model of which features include strong authoritarian rule, state-guided top-down strategic planning, export-driven and industrialization-led economy, robust budgetary management, instrumentality of social policy to economic policy and underdeveloped welfare system. The developmental trajectory had put a strong emphasis on market-driven homeownership and low state expenditure on public housing provision, and the strategy was enhanced by economic prosperity. However, the Korean housing system has faced with numerous challenges since a series of economic crises (including the Asian Financial Crisis in 1997 and the Global Financial Crisis in 2008). Economic instability and uncertainties coupled with demographic shifts have had negative impacts on the housing system. Indeed, the casualization of employment, reduction in real wages and prolonged family formation has led to dwindling housing opportunities, and even deepened socio-economic inequality (e.g., shrinking middle-class and housing price fluctuations by regions). In recent years, it's obvious that the housing sector has been threatened by continuing economic slowdown, low birth rate and low interest rate, deepening housing transformation and household transitions.

This research is to explore changing Korean housing system and its various challenges. Using extensive data collection and analysis, this study identifies institutional forces transforming the home-owning sector (e.g., price fluctuations and homeownership), and reviews an array of structural factors affecting the rental housing sector (e.g., Chonseil and public rental housing). The results provide a deep understanding of the interconnectedness among socio-economic shift, demographic change and housing transformation. Further, the findings highlight that the profound and dynamic housing variations result from path dependence.

PT_1702

Positive Bedroom Deficits and Intergenerational Home Share

First Author (Main Author)	Jaesoon Cho (Korea National University of Education)	Republic of Korea
Co-Author(s)	Kuee Sook Suh (Soongsil University) Ju Yeon Kim (Soongsil University)	
Presenting Author	Jaesoon Cho (Korea National University of Education)	Republic of Korea

Rapid increase of single household, especially the youth and the aged, is one of the most dramatic changes occurred in Korean demographic phenomena. Housing circumstance between the youth and the aged is contrasting. The aged show the highest home ownership rate while the youth show the highest housing poverty rate. Home sharing program started by integrating two unrelated programs of Seoul metropolitan city. One was as a welfare program for the aged to utilize the extra room as an income source and have a company. The other one was to supply inexpensive rental housing to the youth. Since one test bed in Nowon-gu district began in 2013, the program expanded to 102 cases in four gu-districts in Seoul as of 2015.

Through face to face interviews this study searched how the householders(the aged) get information about home share, how they share the space with homesharers(the youth), and how satisfied both parties are. Results showed that householders relied on public sources and they thought house repairing service provided by the program helped their house betterment. The character of homesharers was an important factor in developing successful relationship. The householders were satisfied with home share as extra income source as well as having a company like a grandchild and had plan to continue joining the program as long as possible. It could be concluded that intergenerational home share play a role for the aged householders to ride over positive bedroom deficits without residential mobility nor by adjusting with own family. Follow-up study would develop step-by-step manual and rules to systemize the whole program.

PT_1770

Testbed Based Case Study on the Space Model of House Customized with the Peoples Left Alone with the Unstable Housing Condition

First Author (Main Author)	Jiwon Hyun (Yonsei University)	Republic of Korea
Co-Author(s)	Yeunsook Lee (Yonsei University) Dongjoo Lee (Yonsei University)	
Presenting Author	Jiwon Hyun (Yonsei University)	Republic of Korea

Research Group on the Housing welfare system is developing the Korean style's housing welfare models for the people who left alone with the unstable housing condition to cope with the vulnerable population supported by the Ministry of the Land and Transportation. By the research, space models of house have been developed to realize the housing welfare. Also the developed space models of house should be tested by the building construction. Five testbed have been operated by research group.

Among the five testbed, Hamyang testbed's space model of house include the variable functions and techniques to realize the housing welfare. So that, this paper handled with the function, space program, technologies adopted in space model of house in Hamyang testbed. The space model of house for Hamyang testbed had been planned to carry out the next four functions ; Realizing the prototype space model for housing welfare, Improvement of anti-ageing industry that the local government concentrate their efforts, Improvement the Independent and self-support of the peasantry returned to the farm, Office and lodging for VIP during the wild ginseng EXPO For carrying out the functions, the space model of house adopted with the SI(support-infill) system, supportive housing type, anti-noisy floor and wall system, fog-farm and wall planting system, solar-energy panel system will be constructed in future by potential user's Do-It-Yourself methods, and Korean style double skin manufactured by a paper mulberry, etc Introduced in this paper, the space model of house for Hamyang testbed is leading case for realizing the housing welfare and revealed out the technical and special methods to apply the derived out technologies results from the R&D

Key Words : Housing Welfare, Space model, Supportive-Housing, Support-infill, Testbed

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PF_0101

Construction of an Automated Garment Pattern Development and 3D Fitting Simulation System in Virtual Reality (Part 1) Representation of the Surface Shape Features of Tight Skirts by Means of Angle Curvatures with the System

First Author (Main Author)	Tomoe Masuda (Mie University)	Japan
Co-Author(s)	Minami Wada (Mie University)	
Presenting Author	Tomoe Masuda (Mie University)	Japan

AIM

In future, we will order garments created to fit individual 3D-body shape and suiting via the internet. If the requisite garment ordering, purchase and sale system is useful and rational, this in turn will achieve lower levels of waste for both producers and consumers in an "Eco-clothing life style". In Part 1, an automatic order made system for 3D & 2D tight fitting skirts was developed from 3D imaginary skirt forms in simulation by constructing individual 3D-body shapes by means of a convex hull.

METHODS

The 3D tight fitting skirt curved shapes on each 3D-body surface of approximately 1000 Japanese females (18 to 84 years old) were realized by our automatic order made simulation system using a non-contact 3D Body Line Scanner in a short time. Each 3D tight fitting skirt shape was divided into 540 triangle meshes with a total of 300 vertexes, and the concentrated vertex angle of every triangle yielded the deficit angles of Concentrated Gaussian Curvature K_c ($K_c=360^\circ(2\pi)-\theta_n$, $K_c=0$: developable surface, $K_c>0$: elliptical surface, $K_c<0$: hyperbolic surface) on interior area vertexes and Concentrated Geodesic Curvature k_c ($k_c=180^\circ(\pi)-\theta_n$, $k_c=0$: straight line, $k_c>0$: convex line, $k_c<0$: concave line) on the exterior boundary line vertexes.

RESULTS

The total angle values showed "Zero" of Sum K_c and Sum k_c in all female skirts in accordance with the Gauss-Bonnet theorem. The 3D tight fitting skirt shape types were extracted by means of Principal Component and Cluster Analysis using each total value of Sum K_c and Sum k_c in eight areas.

CONCLUSION

We recognized the features of 3D & 2D tight fitting skirt curved surface shape including the presence of darts for a considerable number of women for 2D pattern generation regardless of body size without using cloth.

PF_0032

Construction of an Automated Garment Pattern Development and 3D Fitting Simulation System in Virtual Reality (Part 2) Automated Pattern Development of Flare Skirts from Tight Skirts to Verify the Curvature Angle Treatments with Actual Production

First Author (Main Author)	Tetsuya Danno (Otsuma Women's University)	Japan
Co-Author(s)	Tomoe Masuda (Mie University) Minami Wada (Mie University)	
Presenting Author	Tetsuya Danno (Otsuma Women's University)	Japan

AIM

Based on the results of Part 1, the pattern of flare skirts were generated automatically by the developing system and 3D flare skirt curved shapes with several fabrics on the 20's, 40's and 70's Japanese women's standard bodice models. extracted by means of angle curvatures for forming/creating virtual reality system in Part 2.

METHODS

Patterns of flare skirts with three kinds of volume were generated by means of the 3D custom-made pattern system for three women's models via Part 1. Six fabrics were selected and KES parameters for them were measured in advance. 54 flare skirts (3 age groups \times three types of flare volume \times six kinds of fabric) were produced in-house. The coordinates (X,Y,Z) of 300 set vertexes (V) using triangle meshed with 840 edges(E) and 540 faces(F), on each skirt were measured by means of the 3D-body Scanner as fitted on the corresponding bodies. Concentrated Gaussian Curvature K_c , Concentrated Geodesic Curvature k_c , and Concentrated Mean Curvature H_c were calculated using the angles of 300 vertexes as well as Part 1. The number of flare nodes and flare value of 54 skirts were also measured.

RESULTS

Sum of K_c and the one for k_c in all 54 flare skirts values showed "Zero" according to the Euler characteristics ($V+F-E=0$). This enable a comprehensive comparison and discussion about the 3D surface shape of the skirts regardless of the differences in size between age groups, flare values, and fabrics for each skirt. The correlation coefficient between $|K_c|+|k_c|$ and $|H_c|$ represents a high value ($r=0.94$). The angle values of K_c , k_c and H_c display the 3D curved shape of flare skirts. A single high value correlation ($r=0.88$) between the total of $|H_c|$ and nodes was extracted, and the total of $|H_c|$ and a combined skirt parameter (flare values \times weight values) were highly correlated ($r=0.82$).

CONCLUSION

The total curvature parameters and physical properties or drape

values of skirts were well correlated as mentioned above. This argument strongly suggests that it is worth a lot to represent the shape of the flare by means of capturing the three dimensional angle curvature. It is also worthwhile to compare the garment features using the angle curvature for the virtual and custom-made production.

PT_0174

Analysis of the Gaps between Body Surfaces and Clothing while Wearing Clothes

First Author (Main Author)	Kaori Murakami (Hiroshima University)	Japan
Co-Author(s)	Tomoe Masuda (Mie University)	
Presenting Author	Kaori Murakami (Hiroshima University)	Japan

AIM

Not only in Japan but also elsewhere worldwide, the proportion of elderly people is increasing. The body shapes of elderly people are different from those of young people. (Most people's body shapes change with age, as do their activities of daily living (ADL).) Elderly people often feel discomfort in wearing ready-made apparel, on account of those body-shape changes. To ensure comfort, it is necessary for elderly people to analyze their motion, find their characteristic body shape, and determine what clothes would be most comfortable to wear.

METHODS

We examined people's movements through the use of three-dimensional motion analysis. Some adapted materials regarding clothing were examined in the analysis. Finally, for the nearly the first time, the gaps between body surfaces and clothes while wearing clothes could be analyzed in terms of three-dimensional space information.

RESULTS

The analysis system was a KinemaTracer (three-dimensional multi motion analysis system). Preliminary experiments were carried out on the upper body of one elderly woman. We examined the positions of the measurement points where the lights had been placed; 10 positions (e.g., left and right axillary point, shoulder point) were selected. Motion was studied to examine the relationship between ADL and the range of motion of the upper limbs. Two kinds of blouses and shirts were used as experimental clothes, to emulate what elderly women wear in daily life. We also studied the color of the clothes best used in the analysis system. Our results showed that white clothes, in conjunction with black meshed shirts, were appropriate for use with suitable lights.

CONCLUSION

The gaps between body surfaces and clothes while wearing clothes could be determined by analyzing the trajectory of the lights through the use of the three-dimensional motion analysis system.

PT_0327

Deodorization by Wastes of Daily Use and of Fibrous Materials

First Author (Main Author)	Hiromi Gocho (Jissen Women's University)	Japan
Co-Author(s)	Sanae Inagaki (Jissen Women's University) Hiroko Ikeda Jiro Komiyama	
Presenting Author	Hiromi Gocho (Jissen Women's University)	Japan

INTRODUCTION

Reutilization of living wastes must be explored from ecological concern. They are now mostly used as materials for heat recovery and fermentation. It is hoped that any wastes be converted to some useful materials making use of the characteristics of each waste. Organic wastes contain functional groups and fibrous wastes have a character of high surface area. These advantages may be utilized for the deodorization of bad-smells by adsorption. The present study aims at two purposes: 1. Scrutiny of wasted materials for this purpose and 2. Provision of deodorizing property to fibrous wastes by mordant dyeing.

EXPERIMENTAL

Ammonia and isovaleric acid were chosen as representative bad smells. The absorption of these smells by the materials was measured with Tedlar bag method under appropriate conditions. The concentrations of the smells in the bag were determined with gas detector method.

RESULTS AND DISCUSSION

1. For ammonia, residual percentages less than 10% in 5 min were attained with old newspaper, crashed roasted coffee beans, descaled wool and silk fibers Cu(II) mordanted and two commercial deodorants; the percentage in 10~50 %, blue jean cloth, green tea waste, roasted grain tea wastes, over 60 %, egg shell. For isovaleric acid, the percentages were in 10~25 % with the fastest with old newspaper. Thus, the most promising material was found to be old newspaper. 2. Silk, cotton and damaged feather were mordant dyed with C. I. Mordant yellow 3 and indigo with Cu and other salts. Generally any mordant dyed fiber with Cu salts showed residual % less than 30 % for twobad smells. In summary, the deodorization efficiencies of old newspaper, crashed roasted coffee beans, damaged feather Cu mordant dyed, were found to be comparable with commercial deodorants.

PT_0369

The Wardrobe - Think, Mend, Recycle. Everyday Solutions to the Problematics of Global Textile Production and Consumption

First Author (Main Author)	Teija Jerkku (Martha Association)	Finland
Co-Author(s)	Terhi Lindqvist (Martha Association)	
Presenting Author	Teija Jerkku (Martha Association)	Finland

BACKGROUND

The Martha Association is a Finnish home economics extension organization that promotes the wellbeing of home and family and the value of home economics.

Home economics professionals organize workshops for 140 000 consumers all around Finland every year. The organization has a membership of 48 000.

Choosing and maintaining textiles is a central theme in our work. The Finns buy an average of 13 kg of textiles per person per year. Clothes are often cheap and many people buy them more than is needed. Over 10 kg of textile waste ends at the garbage dumps. Part of this is low quality, but a lot could still be recycled and reused. According to the law, in the beginning of 2016 textile waste can no longer be dumped at garbage dumps.

There are several problems in the global textile industry. The salaries are not enough to provide a living, the workers have limited rights to organize, and working conditions are often dangerous. Finnish consumers already have a positive attitude towards ethical certificates, but finding the products, and finding out information of country of origin and conditions of production is difficult. Governments and enterprises should always be responsible of respecting human rights, but as consumers we all can have a say.

OBJECTIVE

To influence the practices of middle-aged women and young people towards a more responsible textile consumption by motivating them

- to find out about the origin of clothing, to communicate with different actors in the production chain, as well as to make informed purchasing decisions,
- to increase the longevity of textiles by learning to correctly maintain and mend them, and to use them as raw material for new kinds of do-it-yourself clothing

The project promotes climate sustainability (avoiding waste, decreasing water consumption by avoiding unnecessary consumption) and social justice (workers' rights).

METHODS

Both professional extension officers and volunteers are involved. They organize workshops and discussions as well as bigger events at fairs and festivals in cooperation with other organizations and the private sector. People are taught to mend and tune their clothes, and

to consider their own ways of consumption. A wider impact will be reached by articles in media and active use of social media.

RESULTS

We aim at

- influencing the target group's consumption behavior
- creating new ways to make volunteers participate in campaigning work
- making the Wardrobe activity a permanent part of both our professional work and the local associations' activities

CONCLUSION

The project is evaluated by collecting both quantitative and qualitative feedback from professionals, volunteers and participants, as well as following key figures in the media hits and fb and twitter likes and shares in 2015-2016.

PT_0595

Learning Language of Dress through Theatrical Costume Design

First Author (Main Author)	Seunghye Cho (Framingham State University)	USA
Co-Author(s)		
Presenting Author	Seunghye Cho (Framingham State University)	USA

Dress is a unique instrument of communication to express wearer's identity, opinion or idea. In order to develop creative designs that effectively deliver message to customers and meet their satisfaction, fashion design major students face dual challenges: how to identify and analyze design elements and how to organize and incorporate the elements into the final designs. Character analysis in theatrical costume design provides a unique opportunity to practice design process with a focus on in-depth examination of an imaginary customer's life and traits. In an effort to nurture creative imagination in our students, a special topics course titled "Theatrical Costume Design" was developed for a collaborative theatrical production for spring semester 2015. The course aimed to provide costumes for a production of Shakespeare's A Midsummer Night's Dream launched by Fashion Design & Retailing and Communication Arts departments at our school on April 24, 2015. A total of 10 students enrolled this interdisciplinary course explored the process of theatrical costume design. They were all design majors consisted of a range of students from freshman to senior-level undergraduate students. First, they examined characters' traits such as personality, psychological and social status, life obstacles, and relationships between characters. Students then filled in a costume plot and a character analysis chart with description of characters with only adjectives to convey each character's traits (e.g. stubborn, strict, authority, or control). Based on the description of each character, students developed designs

PT_0761

Muscle Activity and Fatigue Depending on Clothing Pressure of 3D Compression Suits during Isokinetic Training of Knee Joint

First Author (Main Author)	Jiyoung Choi (Chungnam National University)	Republic of Korea
Co-Author(s)	Kyunghi Hong (Chungnam National University)	
Presenting Author	Jiyoung Choi (Chungnam National University)	Republic of Korea

Recently, various structural features of compression suits (CS) with differential clothing pressure have been widely introduced, however, information on the structural variables of CS on the muscle activity and fatigue is not clear yet. The aim of this study is to determine whether the 3D CS with differential pressurization or with additional power films has positive effects on muscle activity and fatigue during isokinetic training of knee joint.

Five trained males were recruited for this study. Subjects wearing three types of experimental suits, i.e., loose-fit T shirts and short pants (BS), 3D CS, and power film welded on CS (3D WCS), performed knee joint flexion and extension using Cybex 660(Orthotron Co. Ltd, USA). Muscle activity (RMS, μV) and fatigue (MDF, Hz) were measured on right leg from the rectus femoris, vastus lateral, vastus medialis, semitendinous, and biceps femoris muscles using EMG signals (Telemyo 2400T G2, Noraxon, USA). The range of motion covers from 0° to 100° and angular velocity was 60°/sec, 180°/sec, and 240°/sec. Results demonstrated that 3D WCS led to significant improvement in muscle activity: mean RMS and peak RMS were higher than those of BS and CS when leg was 0° (p<.001) at all angular velocities. Also, MDF increased significantly when wearing 3D WCS at 180°/sec and 240°/sec. It is concluded that the muscle activity and fatigue improved significantly (p<.01) when power film was incorporated into the CS. Applying differential pressurization to 3D compression suit enhanced the muscle function of the lower body during knee joint exercise.

This work was supported by the National Research Foundation of Korea (NRF) grant funded by the Korea government (MEST) (NRF-2010-0014897).

utilizing psychological effects of design elements. Students revised their design details considering the specific physical characteristics of actors based on the body measurements and adjusted texture, colors, and shape of their designs to develop a harmonious ensemble of costumes after extensive group critiques. The results of class assessments indicated that students acquired better understanding of how to use design elements for creative design development through this course. Implementation of a regular theatrical costume course is expected with successful execution of this interdisciplinary project.

PT_0747

The Importance of the Soft Skills

First Author (Main Author)	Eunyoung Yang (Meredith College)	USA
Co-Author(s)		
Presenting Author	Eunyoung Yang (Meredith College)	USA

According to a survey of corporate recruiters by the National Association of Colleges and Employers in Job Outlook, interpersonal skills were the most predominant attributes sought by employers. Although technical skills are a part of many excellent educational curricula, it has become critical that the curricular body of knowledge expands to develop soft skills. Thus, the purpose of this descriptive study was to focus on soft skills required by employers for entry-level positions in apparel and fashion-oriented design and manufacturing companies.

Participants in the online survey included 171 industry professionals and 219 fashion educators. The online survey inquired about the importance of specific soft skills including 35 soft skills associated with attitude, character, communication, teamwork, leadership, and management skills. With the response rate of 19.96%, the results identified the top soft skills as perceived as the most important by participants: responsibility, reliability, strong work ethic, positive attitude, integrity, professionalism, organization, communication, teamwork, and problem solver.

While it would seem that teaching students to be people oriented would be quite difficult, the researchers began to consider ways to improve students' soft skills while in college by incorporating activities and assignments. For example, when requiring students to present design work to their peers, perhaps the setting should be outside of the design lab and in a conference room with a reception type atmosphere that includes invited faculty and industry members in addition to the students. As part of the assignment, students would be required to interact with each other as well as faculty and industry members prior to and after presentations to learn more about each other and their work. Although we see many challenges, educators need to understand the importance of interpersonal skills for their students and continually develop instructional strategies and methods to include soft skills in their curriculum.

PT_0773

Integrating Natural Dye Techniques and Cultural Research into the Undergraduate Apparel Design Project

First Author (Main Author)	Eunyoung Yang (Meredith College)	USA
Co-Author(s)		
Presenting Author	Eunyoung Yang (Meredith College)	USA

It is the goal of apparel design instructors to enable their students to take complex inspiration and incorporate it into visually appealing garments. In introductory course in fashion design, students learn the fundamentals and techniques of making patterns through flat pattern and draping techniques, and begin to develop their own designs. Although students attempt to incorporate as many design styles as possible to demonstrate their skills, the inspiration for these garments proves to be difficult for the students to incorporate into the designs. Using cultural inspiration is one method of resolving the inspiration breach. Inspiration research involves decoding and examining visual materials through actual artifacts or images using content analysis for better understanding of the styles of the chosen culture.

The purpose of this teaching model was for the students; 1) to create a formal inspiration process for apparel design using content analysis of inspiration of Korean traditional costume and patchwork techniques, 2) to research and experiment with natural dyes and dye process, and 3) to implement fully to a product development project led by two findings above.

The project was based upon concepts presented in researching literature related to the cultural inspiration. Students were asked to incorporate cultural features of Korean costume and Korean patchwork, Jogakbo, to achieve successful cross-cultural design. In order to encourage the undergraduate research, students were required to collect and analyze information using the library collections and scholarly databases to obtain images instead of "googling." Books, magazines, and artifacts collected during my visit to Korea were provided as extra resources after students' search. The project was presented at the undergraduate research symposium at our institution providing an opportunity for students to share their research through poster presentations. In addition, this was an example of a creative research project encouraging other students to explore undergraduate research.

PT_0791

Fashion Professionals' Recommendations of Newly Graduating College Students: Job Searching Process and Organizational Characteristics

First Author (Main Author)	Kim Hahn (Kent State University)	USA
Co-Author(s)	Yoonjin Ma (Illinois State University)	
Presenting Author	Kim Hahn (Kent State University)	USA

AIM

With newly graduating students employed at lower rates in the fashion industry than in the past (US BLS, 2012), fashion graduates faced with the challenge of staying current with new demands for education and skills required in the current industry. This research aimed to explore the perspectives of professionals in the fashion industry surrounding the job search process and aggregate their desired recommendations regarding job organizational characteristics of newly graduating students in order to help them succeed in the competitive field of the fashion industry.

METHOD

Sixty-three responses were collected from a convenient sample of U.S. professionals in the fashion industry using an online-survey method. Participants had majored in fashion design (51.4%), fashion merchandising (35.1%), and business (8.1%). The respondents' fashion industry working experience varied from 3-5 years (45.9%), 5-10 years (18.9%), to more than 10 years (18.9%). The items on job searching process and organizational characteristics were measured on a 5 points scale (1 being not important; 5 being very important).

RESULTS

The most important recommendation during job searching process for newly graduates was resume writing and career skills (M=4.59) and the least important one was establishing career goals (M=4.10). The following items regarding "Communication," "Decision Making," "Team working," and "Motivation" were rated most important by industry professionals; being polite and supportive when talking to people (M=4.35), making decisions based on detailed analysis of factual information (M=3.86), taking notes or minutes of the meeting (M=3.56), and the attraction of the opportunity to develop one's skills and abilities (M=4.51).

CONCLUSION

Findings from this study will help educators guide graduating students during their often difficult job search process and provide an organizational characteristic development that will enable prospective applicants meet the expectations of fashion industry professionals.

US Bureau of Labor Statistics. (2012). Occupational outlook handbook: Fashion designers. Retrieved from <http://www.bls.gov/ooh/arts-and-design/fashion-designers.htm>

PT_0836

Study on Rinsing Properties of the Ultra-Concentrated Liquid Laundry Detergent

First Author (Main Author)	Fumi Masuko (Japan Women's University)	Japan
Co-Author(s)	Chizu Mitani Kiyomi Mase (IFHE, The Japan Society of Home Economics) Miyuki Morita	
Presenting Author	Kiyomi Mase (IFHE, The Japan Society of Home Economics)	Japan

To examine the detergency and the rinsing properties of laundry detergents from fabrics, a comparison test was conducted using an ultra-concentrated liquid laundry detergent recommending a single rinse, and a concentrated liquid laundry detergent and a concentrated powder laundry detergent each recommending two rinse times. The Terg-O-Tometer was used for simulation, with the concentration of each detergent solution being set in accordance with the normal dosage indicated on the label of each detergent. One experimental cycle consisted of one wash of 10 minutes' duration, and the subsequent one or two rinse times of three minutes for any detergents. This cycle was repeated five times. The amount of detergent remaining on the test fabrics after each cycle was determined by quantitative analysis of the residual surfactant. The test fabrics were shirting made of 100% cotton and taffeta made of 100% polyester. The test results were as follows. The concentrated powder laundry detergent exhibited the highest detergency; while the ultra-concentrated liquid laundry detergent, the lowest detergency. As compared with the single rinse, the two rinse times lowered the amounts of residual detergent on the test fabrics in any case. The detergent amount remaining on the polyester fabric was more than that on the cotton fabric. The increasing tendency of the residual detergent on the fabrics was less observed in the ultra-concentrated liquid laundry detergent.

PT_0994

Study on Women's Happiness Brought by Grands Magasins Du Louvre Catalogues

First Author (Main Author)	Naomi Yokota (The University of Shiga Prefecture)	Japan
Co-Author(s)		
Presenting Author	Naomi Yokota (The University of Shiga Prefecture)	Japan

When the first World Exposition was held in Paris in 1855, the second department store, the Grands Magasins du Louvre, opened for business. What happiness were department stores able to bring to women?

This presentation aims to study the fashion design of the goods through an analysis of the print media of the Grands Magasins du Louvre.

The data and materials analyzed in this study are 85 print media products dated 1863 to 1882, belonging to 3 libraries. These include 17 fashion catalogues with many fashion illustrations. The number of merchandise in fashion illustration catalogue reaches 6,662 items. These include many data of price, fabric, colors, decoration, patterns, combination, size and other characters.

Daily and special fashions of the time were identified, which made clear that the fashion business of department stores tapped trends and customs.

Because these include many coats, gowns, dresses, skirts, petticoats, hats, shawls, ties, corsets, bustles, and so on. And these include for evening, wedding, walking, home, etc.

The findings of this research are that customers could choose a design from a line-up of products according to their taste, trends, and usefulness. Catalogues supported their happy and luxurious life experience by providing information at their homes, on the least fashions, trends and complex special rules and practices such as changing clothes many times a day according to time and occasion. Then, what were the consumers' criteria when they picked up a favorite garment from the catalogues?

As I already pointed out in my doctoral dissertation, the product information in the catalogues was rich in qualifiers such as 'beautiful', 'extremely beautiful', 'elegant', and 'incredibly elegant'. Such words did not necessarily represent the reality; however, it is not only truth which can make people happy. These words may raise customers' expectation of high quality garments and resulting high quality happy life. It seems that the department stores promoted their products, making good use of the power of those qualifiers to place higher value on the goods than actual in the eyes of consumers.

Therefore, this study focuses on the qualifiers in product information. For the purpose of comparison of description and illustration of garments, samples are taken from the catalogues with fashion illustration only.

The study revealed that some catalogues used qualifiers even for 60% of the products. It is not uncommon that multiple qualifiers used in the information about one product. This abundant use of qualifiers shows that the department stores clearly understood the effects of the use of such qualifiers.

These qualifies in catalogues made women, who dreamed of better daily clothing, happy even before actual purchase. To this day, fashion gives us happiness and will continue to do so in the future. GML print media provides us with perfect insights on happiness in daily clothing.

PT_1756

Outdoor Wear Market Segmentation by Consumption Values of Outdoor Wear

First Author (Main Author)	Hwa-Sook Yoo (University of Ulsan)	Republic of Korea
Co-Author(s)		
Presenting Author	Hwa-Sook Yoo (University of Ulsan)	Republic of Korea

Outdoor wear market in Korea has experienced the incredible boom for almost 30 years, but the market is now having a hard time. The change of the market made outdoor companies seek out what is important for consumers in buying outdoor wear. In these kinds of situations, many researchers are interested in the concept of consumption value. Consumption value leads to consumers' behavior as an individual's internal standard of judgement when consumers make a buying decision. The purposes of this study were to identify the consumption values of outdoor wear and to classify the outdoor wear market by the consumption values.

Data were acquired from a survey and analyzed with descriptives, factor analysis, reliability, cluster analysis and one-way ANOVA. Respondents were 454 adults in their 20s(24.0%), 30s(23.1%), 40s(25.3%), and 50s(27.5%). Male subjects were 226(49.8%) and the married were 293(64.5%) among respondents.

As the result of factor analysis for reduction of the number of variables, four factors were extracted and the total variance explained by four factors was 61.6%. The factors were named after their constructs; functional value, epistemic value, social value, and emotional value. Based on these factors, outdoor wear consumers were classified into four groups by k-means clustering; the Epistemic, the Integrated, the Emotional, the Functional. For post-hoc comparison between groups, one-way ANOVA was carried out under the condition that the factor scores of consumption values were the

dependent variables and cluster variables were the group variables, and consequently the validity of group names and classification was identified.

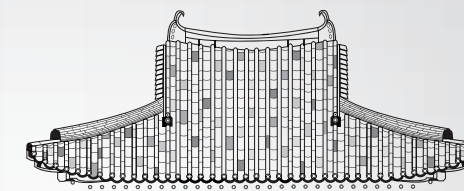
In conclusion, it was found that outdoor wear consumers had consumption values such as functional value, epistemic value, social value, and emotional value, and were segmented into four markets by these consumption values.

PT_1803

Analysis of Brassieres Products and Evaluation of Adolescent's Brassiere Pattern-Making

First Author (Main Author)	Youn Joo Kim (Seoul National University)	Republic of Korea
Co-Author(s)	Yun Ja Nam (Seoul National University)	
Presenting Author	Youn Joo Kim (Seoul National University)	Republic of Korea

The age of adolescent is notable period, which is the biggest change according to the growth. As Korean Brassieres manufacturers promote that the brassieres for only adolescents can be help to make beautiful body silhouette, the brassieres market in Korea is getting bigger. However, the brassieres pattern-making for adolescent is only downgraded from adult's. Those pattern-making has a problem which does not reflected the adolescent's anthropometric attributes. Accordingly, this research was conducted comparative analysis of adolescent's brassieres products on the market and their pattern-making to figure out the correlation between adolescent's brassieres and the adolescent's anthropometric attributes. In this research, four brands (initial A, B, C, D), located in Korea, were selected. Selected brands are composed of three product groups based on the breast growth of adolescents. Each group has different styles. The First group is composed of sports-brassiere style. The second group has no-wire brassiere style and the third one has wire brassiere style. Therefore, twelve samples were used to compare according to each group and brand. The process for analysis are 1) comparative analyzed the measurement of products, 2) comparative analyzed the measurement of pattern-making and the degree of polymerization, 3) comparative analyzed the materials and composition and 4) Descriptive statistics and variance analysis in data analysis, the correlation between pattern-makings and anthropometric attributes of adolescent, were carried out with SPSS IBM statistics 22.0. This study deducted the suitability of adolescent brassiere for anthropometric attributes of adolescent in the growth by comparing the pattern- of each company. These results imply base data to design and manufacture for adolescent brassieres in order to make beautiful adolescent's breast silhouette.



**XXIII IFHE
WORLD CONGRESS 2016**

EXHIBITION
Tuesday August 2
~ Thursday August 4
09:00 ~ 17:00



Exhibition Hall (1F)			
CODE	TITLE	PRESENTER	COUNTRY
EH01	2016 Textile Challenge: Switzerland	Franziska Honegger (Zurich University of Applied Sciences)	Switzerland
EH02	South Africa: Our Hope and Happiness	Sonia Van Zyl (University of the Free State)	South Africa
EH03	Fox in Birches	Gwendolyn Hustvedt (Texas State University)	USA
EH04	Tulip	Yong-ja Kwon (Chungnam National University)	Republic of Korea
EH05	Happy Knot	Kyoung-ha Ji (Chungnam National University)	Republic of Korea
EH06	Dress with Expression	Ran-I Eom (Chungnam National University)	Republic of Korea
EH07	Second-Skin Pants with Skin Deformation Mapping	Jiyoung Choi (Chungnam National University)	Republic of Korea
EH08	Body-Friendly Design for the Handicapped	Gyeongmi Lee (Chungnam National University)	Republic of Korea
EH09	G-Gear	Yejin Lee (Chungnam National University)	Republic of Korea
EH10	Performance Gear for Women	Jiyoung Choi (Chungnam National University)	Republic of Korea
EH11	Blue & Hope	Myoung Ok Kim (Chungnam National University)	Republic of Korea
EH12	Gold Wave	Sam Kang (Chungnam National University)	Republic of Korea
EH13	Sweet and Happy Girl	Qianwen Wang (Chungnam National University)	China
EH14	Dress for Sweet Dance	Yejin Lee (Chungnam National University)	Republic of Korea
EH15	Shirts with Dream Box	Yejin Lee (Chungnam National University)	Republic of Korea

EH_0332

2016 Textile Challenge: Switzerland

First Author (Main Author)	Esther Thalmann (IFHE Section Switzerland)	Switzerland
Co-Author(s)	Franziska Honegger (Zurich University of Applied Sciences)	
Presenting Author	Franziska Honegger (Zurich University of Applied Sciences)	Switzerland

Switzerland selects its contribution to the 2016 textile challenge in a national competition. The winner will not be chosen before December 2015. Therefore a specific abstract cannot be presented yet. The contribution will certainly relate to the set specific theme.

In accordance with the chair of the programme committee textiles and design this information acts as a "place holder" for the Swiss country map.

EH_0405

South Africa: Our Hope and Happiness

First Author (Main Author)	Sonia Van Zyl (University of the Free State)	South Africa
Co-Author(s)	Corrie Van Heerden Hester Steyn (University of the Free State)	
Presenting Author	Sonia Van Zyl (University of the Free State)	South Africa

AIM

South Africa is our country, our Hope and Happiness! It covers 1.2 million square kilometers of land and are divided into nine provinces. These nine provinces have seven climatic regions, from Mediterranean to subtropical to semi-desert. This biodiversity favours the cultivation of a great and diverse range of marine and agricultural products.

METHODS

The nine provinces will be introduced through a textile collage. Each province will represent the textiles and products that are characteristic of that province. Textile fibres are the main component, but other outstanding characteristics will also be highlighted. Various hand techniques, like natural handspun threads, hand woven textiles and machine produced textiles will be used. Other techniques such as, knitting, crochet, embroidery and beadwork will also be incorporated to show the most popular symbols in South Africa. The collage will be supported with an interactive electronic program to explain all the details.

RESULTS

The agro processing industry in South Africa processes our well known products such as maize, wheat, sugar cane, sunflowers and cut flowers, especially the protea. Wine, leather and indigenous rooibos tea are also characteristic of that country. Our merino wool and angora mohair are outstanding, while cotton, hemp, sisal, linen, kenaf, alpaca, wild silk and pineapple are also processed as textiles and will be used in the collage.

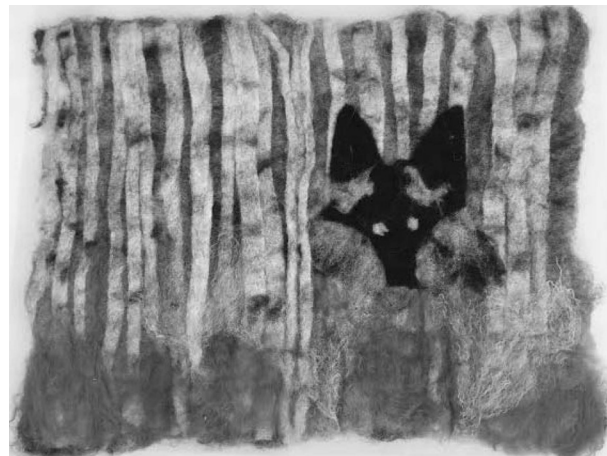


EH_1100

Fox in Birches

First Author (Main Author)	Gwendolyn Hustvedt (Texas State University)	USA
Co-Author(s)		
Presenting Author	Gwendolyn Hustvedt (Texas State University)	USA

Created with wool from a Texas ranch, this hand and needle felted piece celebrates the harmony of nature with a red fox emerging from her home among ferns beneath the birch trees. The use of half-felting techniques allows for a multi-dimensional depth of field with the impression of continuing forest due to the variegated color of the Corridale wool used as a base. Dyed with low-impact dyes, the brilliant tones of the decaying ferns reminds the viewer of the hope created even in the final days of natural cycles.



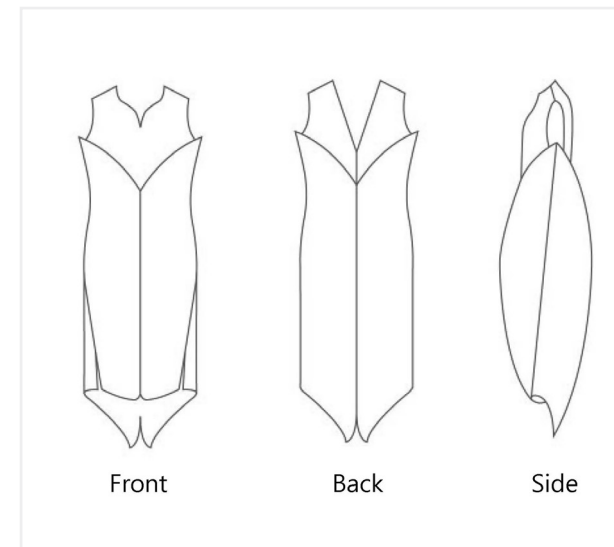
EH_1555

Tulip

First Author (Main Author)	Yong-ja Kwon (Chungnam National University)	Republic of Korea
Co-Author(s)	Yoonmi Choi (Chungnam National University)	
Presenting Author	Yong-ja Kwon (Chungnam National University)	Republic of Korea

Designed by: Yong-ja Kwon, Yoonmi Choi
Dept. of Clothing and Textiles, Chungnam National University
Materials: doupion silk
Techniques: dyeing
Inspiration:
A shape of tulip skirt expresses full of hope and happiness. A intensive cut-out in an all-angle gives aesthetic quality, and polished impression is emerged because of its unbalanced length and a proper cutting line. The purpose of production is to elevate feelings of hope and happiness when dressed to be celebrated or refreshed.

sketch:



* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044)

EH_1623

Happy Knot

First Author (Main Author)	Kyoungha Ji (Chungnam National University)	Republic of Korea
Co-Author(s)	Hanna Kim (Chungnam National University)	
Presenting Author	Kyoungha Ji (Chungnam National University)	Republic of Korea

Inspiration; "something old, something new, something borrowed, something blue and a silver sixpence in her shoe" is one of traditional marriage customs in England. It is believed a bride to have these five things at the wedding will bring a lot of luck. Sixpence is a silver coin which was minted between 1551 and 1967 in England and is a token of wealthy fortune when it is kept in shoes. Although a silver sixpence in her shoes is disappeared these days, the other four things are still popular traditions for wish of luck and happiness in Europe and America

This work reinterprets the desire for luck to achieve the wish of anyone as well as a bride at wedding by the above four things added with Korean emotion and cross-over technique (mix-matched). At Korean wedding, there is a bundle of blue and red threads, which means to protect the couples from bad luck and evil spirit as well as symbolize the bond of bride and groom. For a new-born baby, there is a straw rope to keep out of misfortune. These have in common settings of twisted threads or straws around for elder family's wish to protect bad luck from good events. This work includes something old, by using NOBANG which is fabric for Korean traditional clothes, something borrowed, by adapting the twisting style of threads and straws, the meaning of bundles for the desire to maintain the relations with others as well as matrimony, and the wish for no bad luck, and something blue, by using bluegray, a trendy color in blue series.

Materials: On chest, nuts of tools as a masculine image were attached by collage or tie as decorations and chiffon as feminine image was draped as cross-over. In addition, NOBANG, Korean traditional fabric, and mesh, new materials using for recent sport clothes, were mix-matched.

As the last one among four things, it is intended to involve something new by surprise, fun and change in mind of cross-over technique, which is a latest fashion trend along with post-modernism.

Techniques: Harmony of layered and see-through was expressed with thin NOBANG fabric and mesh materials. As well, twisting and knotting were utilized.

By adding Korean emotional depth and unexpected fun to four things from English marriage custom, it is aimed to represent everyone's desire for happiness and fortune.



* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044).

EH_1630

Dress with Expression

First Author (Main Author)	Ran-I Eom (Chungnam National University)	Republic of Korea
Co-Author(s)	Jeong Ok Park (Chungnam National University) Hyo Jeong Lee (Chungnam National University) Yejin Lee (Chungnam National University)	
Presenting Author	Ran-I Eom (Chungnam National University)	Republic of Korea

Designed by : Ran-I Eom, Hyo Jeong Lee, Yejin Lee
CIAT (Center of Innovative Apparel Technology)
Dept. of Clothing and Textiles, Chungnam National University
Materials : Stretch Fabrics
Techniques : Draping and fastening techniques
Inspiration :

An expressive dress was designed to boost up our feelings at the very moment. A lady could change the length and volume of the dress by fastener, changing the amount and locations of gather at the front of the dress in different ways depending on her state of emotion. Being able to dress up in her own style with the transformable dress could make the wearer happier.



*This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044).

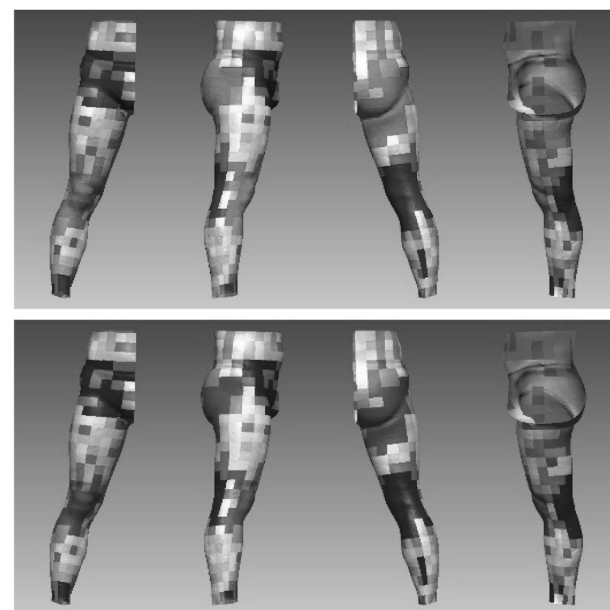
EH_1632

Second-Skin Pants with Skin Deformation Mapping

First Author (Main Author)	Jiyoung Choi (Chungnam National University)	Republic of Korea
Co-Author(s)	Gyeongmi Lee (Chungnam National University) Yejin Lee (Chungnam National University) Kyunghi Hong (Chungnam National University)	
Presenting Author	Jiyoung Choi (Chungnam National University)	Republic of Korea

- Designed by : Jiyoung Choi, Gyeongmi Lee, Yejin Lee and Kyunghi Hong - CIAT (Center of Innovative Apparel Technology), Dept. of Clothing and Textiles, Chungnam National University.
- Materials : Stretch Fabrics
- Technical design details :
Design line was drawn based on the body mapping of skin deformation during knee joint flexion, which can be one of the optimal positions of seams for the functional compression pants. Lines of non-extension (LoNE) and maximum stretch (LoMS) during knee flexion can be found in the mapping. Blue squares represent the visualized images of the contracted skin deformation area, whereas the red squares represent that of the extended one (left).

* Fundamental study was supported by the National Research Foundation of Korea (NRF-2010-0014897).
* Design of pants was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044).

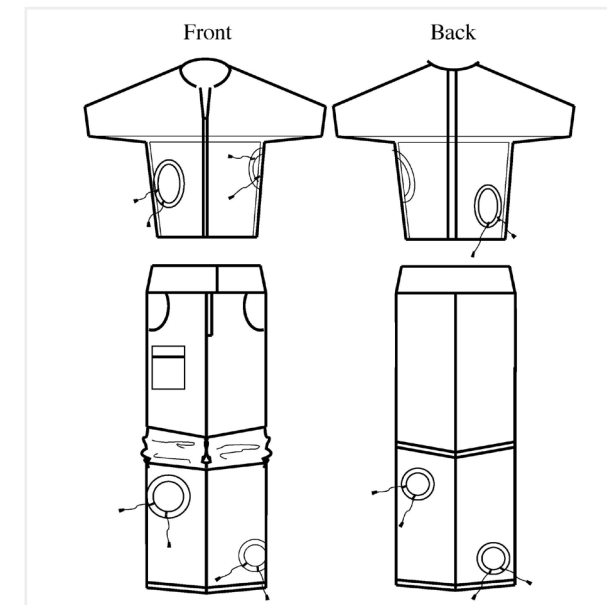


EH_1640

Body-Friendly Design for the Handicapped

First Author (Main Author)	Choeun Lee (Chungnam National University)	Republic of Korea
Co-Author(s)	Jiyoung Choi (Chungnam National University) Gyeongmi Lee (Chungnam National University) Kyunghi Hong (Chungnam National University)	
Presenting Author	Gyeongmi Lee (Chungnam National University)	Republic of Korea

- Designed by : Choeun Lee, Jiyoung Choi, Gyeongmi Lee, Kyunghi Hong
- Materials : Cotton & Polyester, Stretch Fabrics
- Technical design details :
A universal design of top and pants was developed for men who sit on wheel chairs. The size of top can be adjusted by the string inside the tunnel of circles. It can be loosened for ventilation when necessary. Legs of pants can be also adjusted for a tight or loose fitting depending on activities. Extra ventilating features are inserted on the back of the pants. The design of top and pants can also cover various body sizes with fastening systems.



* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044)

EH_1641

G-Gear

First Author (Main Author)	Hyojeong Lee (Chungnam National University)	Republic of Korea
Co-Author(s)	Namyim Kim (Chungnam National University) Kyunghi Hong (Chungnam National University) Yejin Lee (Chungnam National University) © Good People (Designer)	
Presenting Author	Yejin Lee (Chungnam National University)	Republic of Korea

Materials: Stretch Fabrics
Design1 : wrist pro-protector (Chief designer: Nam Yim Kim)
Commercialized by Good People Inc.
Design2 : lower body exercise supporter (Chief designer: Hyojeong Lee)
Commercialized by Good People Inc.

Inspiration:
G-GEAR is an engineered compression wear by 3D technology. It supports movement, facilitates recovery from fatigue and protects body from injury.
G-GEAR can help you focus on higher performance during daily sports activity. It is completed by technology integrating human anatomy, physiology and kinetics.
In addition, it can effectively support movement, facilitate fast recovery from fatigue in intermittent rest periods and protect wrist and knee joints, all of which are made possible by 3D geometrical sculpturing, differentiating pressure level of each region of body.

Design 1: wrist pro-protector (Chief designer: Nam Yim Kim)
Commercialized by Good People Inc.



Design 2: lower body exercise supporter (Chief designer: Hyojeong Lee)
Commercialized by Good People Inc.

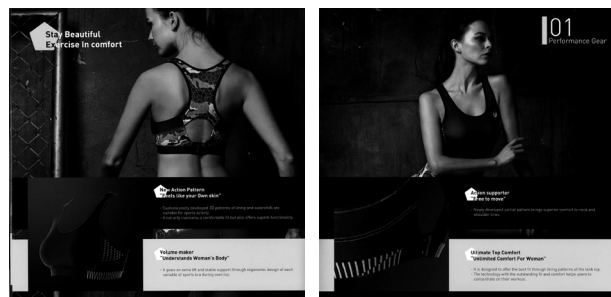
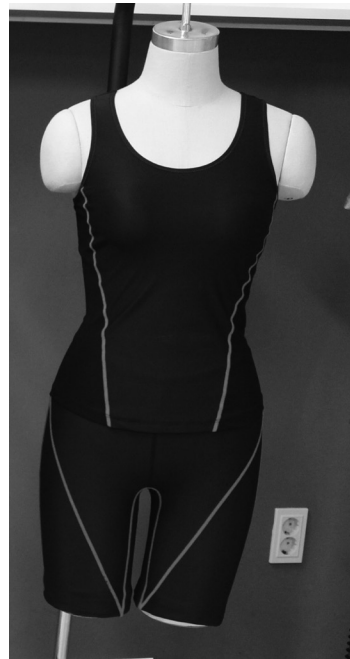


EH_1758

Performance Gear for Women

First Author (Main Author)	Jiyoung Choi (Chungnam National University)	Republic of Korea
Co-Author(s)	Soyoung Kim (Chungnam National University) Yejin Lee (Chungnam National University) Kyunghi Hong (Chungnam National University)	
Presenting Author	Jiyoung Choi (Chungnam National University)	Republic of Korea

- Designed by : Jiyoung Choi, Soyoung Kim, Yejin Lee, Kyunghi Hong
- Materials : Stretch Fabrics
- Technical design details :
Sophisticatedly developed 3D patterns of sleeveless top and pants for female. Commercialized by Good Peoples as " G-GEAR"
Lining and outershell are separately designed by 3D technology for sports activity.
It not only maintains a comfortable fit but also offers superb functionality.
It gives an extra lift and stable support through ergonomic design of each variable of sports gear during exercise.



EH_1764

Blue & Hope

First Author (Main Author)	Myoung Ok Kim (Chungnam National University)	Republic of Korea
Co-Author(s)	Jung Soon Lee (Chungnam National University)	
Presenting Author	Myoung Ok Kim (Chungnam National University)	Republic of Korea

Blue wrap skirt represents the hope. Wrap skirt was modified Hanbok, traditional Korean daily clothing. Dress was inspired from the shape of Joseon Dynasty military uniform, Cheollik. Materials are linen dyed with Persicaria tinctorium extracts and cotton printed with pattern.



*This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044).

EH_1766

Gold Wave

First Author (Main Author)	Sam Kang (Chungnam National University)	Republic of Korea
Co-Author(s)	Jung Soon Lee (Chungnam National University)	
Presenting Author	Sam Kang (Chungnam National University)	Republic of Korea

Bright gold color of Curcuma longa represent the joy and happiness. Wrap skirt was modified Hanbok, traditional Korean daily clothing. Dress was inspired from the shape of Joseon Dynasty military uniform, Cheollik. Materials are linen dyed with Curcuma longa extracts and cotton.



*This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044).

EH_1767

Sweet and Happy Girl

First Author (Main Author)	Qianwen Wang (Chungam National University)	China
Co-Author(s)	Jung Soon Lee (Chungam National University)	
Presenting Author	Qianwen Wang (Chungam National University)	China

This work is inspired by the Korea's traditional costume, cheolrik, which is dress of the military officer or the envoy in Joseon Dynasty. Materials are linen dyed with Juniperus chinensis extracts and cotton. Fabric dyed with Juniperus chinensis has sweet scent and enthusiastic red color. When you wear it, you will be a sweet and happy girl.



*This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044).

EH_1810

Dress for Sweet Dance

First Author (Main Author)	Heeran Lee (Chungnam National University)	Republic of Korea
Co-Author(s)	Yejin Lee (Chungnam National University)	
Presenting Author	Yejin Lee (Chungnam National University)	Republic of Korea

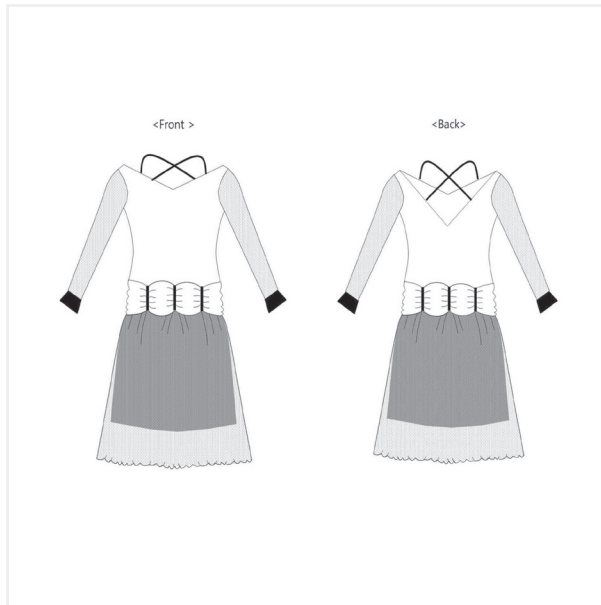
Designed by: Heeran Lee, CIAT (Center of Innovative Apparel Technology)

Dept. of Clothing and Textiles, Chungnam National University

Materials: Stretch Fabrics and Stretch mesh

Techniques: Body-conscious pattern without any barrier for dancing was achieved by apparel technology

Inspiration: A lovely dress was designed for dancing. Anybody wearing this dress would feel more beautiful and comfortable in the swinging motion on the floor like a dancing queen, enjoying the happy moment and sharing happiness with persons around her.



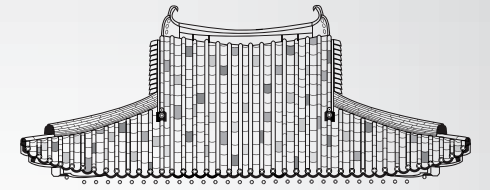
EH_1811

Shirts with Dream Box

First Author (Main Author)	Sun Hee Park (Chungnam National University)	Republic of Korea
Co-Author(s)	Namyim Kim (Chungnam National University) Kyunghi Hong (Chungnam National University) Yejin Lee (Chungnam National University)	
Presenting Author	Yejin Lee (Chungnam National University)	Republic of Korea

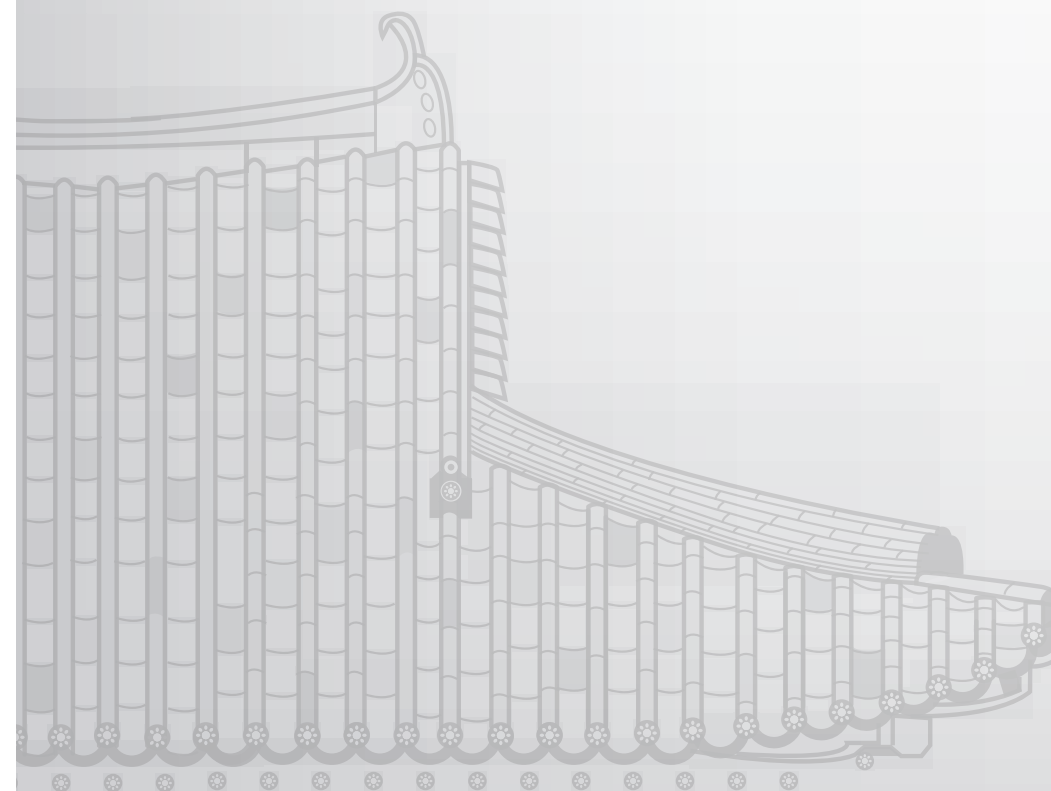
Techniques- Box sleeves/ Using LED (Materials - Neoprene)

We have dream and often reserve it inside the square box deep in mind. Now, it is the time of bringing the dream box from the secret place. Sleeves were made of square dream boxes. LED is blinking on the lid of dream box, shouting for action toward beautiful days when dreams come true.



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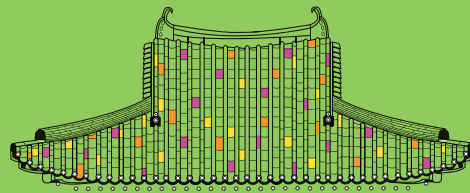
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