# ACHP SYMPOSIUM

Day          : Friday
Date         : 20 September 2019
Venue        : Faculty of Medicine and Health Sciences, UMS
Time         : 2.00 PM – 4.00 PM

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## SYMPOSIUM 1

Team Leader     : Joonha Park (Japan)
University       : NUCB Business School
Title            : Recent advance in Japanese Health Psychology: Life
                   satisfaction and  quality of life in current Japan society.
Contact person   : joonha35@gmail.com

## SYMPOSIUM 2

Team Leader     : Chiaki Oshiyama (Japan)
University       : National Institute of Advanced Industrial Science and
                   Technology
Title            : Strategies for healthy agingCoP
Contact person   : chiaki.oshiyama@aist.go.jp

# SYMPOSIUM 1

Team Leader : Joonha Park (Japan)
University : NUCB Business School
Title : Recent advance in Japanese Health Psychology: Life
  satisfaction and quality of life in current Japan society.
Contact person : joonha35@gmail.com
Presenters : Joonha Park
  : Yi Sun
  : Kosuke Sato
  : Ayumi Fusejima

## Summary

In this symposium we present recent research on different aspects of life satisfaction focusing on different social groups in Japan society and discuss potential ways to improve Japanese people's life satisfaction. Dr. Park will present a study that examined various demographic, social and psychological factors associated with people's life satisfaction using a representative annual survey of Japanese respondents. Dr. Sun's presentation specifies the focus to life satisfaction among first-time parents and presents two large studies that looked at parents' well-being during the transition to first-time parenthood. Dr. Sato's presentation turns towards psychological issues among people with disabilities in Japan based on several studies that examined feasibility of inclusive education, well-being, and social barriers from people with/without disabilities. Finally, Dr. Fusejima presents a recent program implemented to enhance Japanese participants' subjective well-being using a theory-based PERMA-Profiler, and discusses effective ways to improve subjective well-being in daily lives.

## Presenter 1

Life satisfaction in Japan: In and outside of the country
*Joonha Park*
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Life satisfaction (LS), as a major indicator of subjective well-being, is a rapidly growing concern all over the world. Despite their country's powerful economic status, Japanese people experience relatively low levels of LS. The presentation looks into the recent status of LS expressed with Japan society in comparison with other OECD countries. Then it moves its focus to a recent study that investigated

demographic, social and psychological variables associated with Japanese people's life evaluation. Using a representative annual survey of Japanese respondents, the study finds that material well-being (household income satisfaction, satisfaction with standards of living) is most strongly associated with LS. Other factors such as marital status, affective experience, and education, are also significant predictors. The data show that LS decreases over the life course and that individuals in late adulthood are the least satisfied with their lives. Furthermore, there is evidence that a gender gap exists for levels of LS at each stage of life. The presentation, based on the recent study, identifies important factors associated with LS across gender and age groups and suggests a comprehensive model of life evaluation in Japan. I discuss that follow-up studies will benefit from a consideration of key social issues in the context of Japanese society such as relative wealth, ageing, and gender inequality.

## Presenter 2

Quality of life among first-time parents: from two large studies in Japan
*Yi Sun*
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Relevant literature suggests that health status of women get lower during pregnancy and the postpartum period. However, little is known about their partner's well-being during the transition to parenthood, and few research addressed the difference and correlation of couples' QOL in multiple domains. This study aimed to examine the quality of life (QOL) of first-time parents, both women and their partners. The data came from two large studies. Study 1 is a national study conducted in 2006 and 2011— "Survey on pregnancy, childbirth, and child-rearing", which included 9,216 married Japanese men and women (3,729 couples) who were expecting or raising a first child of 0–2 years old. Study 2 is an ongoing longitudinal study on the QOL and mental health of parents— "QOL and Mental Health across the Life Span survey", which recruited 1,550 first-time parents in Kawasaki city, between 2013 and 2014. The results of study 1 show that, during the transition to first-time parenthood, men had higher scores in the psychological domain, while women had higher scores in the social and environment domains. The interaction effect between gender and stage of transition to parenthood was found. The men with a 2-year old child showed significantly lower scores than the other men in physical/psychological/environment domain, whereas the women during postpartum had significantly lower scores than those women during pregnancy in psychological/social/environment domain. The moderation effect of age between the stage and QOL was also found for men in physical and psychological

domains. Couples' QOL scores were weakly to moderately correlated. Study 2 suggests that the effect of educational attainment on psychological domain was significant for mothers only, whereas the effects of household income on psychological and environmental domains were stronger for the younger (below age 26) than the older (over 43) couples.

## Presenter 3

Difficult situation of people with disabilities in Japan – Feasibility of inclusive education, well-being, and social barriers from people with/without disabilities
*Kosuke Sato*
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Japan ratified the United Nations Convention on the Rights of Persons with Disabilities in 2014 (United Nation, 2006). In line with this, Japan enacted the law, "Act for Eliminating Discrimination against Persons with Disabilities (2016)," which ensures that no citizens are discriminated according to whether or not they have a disability. This law is landmark legislation in two points. First, it prohibits disparate and unfair discriminatory treatment on the basis of one's disability. Second, it is aimed to provide reasonable accommodation to implement the elimination of the social barrier so long as the burden associated with the relevant implementation is not disproportionate. Therefore, the law promises that the social inclusion of people with disabilities will be more propelled on a great scale than ever before in Japan. However, there are little quantitative data for further understanding and improving the surrounded situations of people with disabilities. In this talk, we report several studies about 1) feasibility of inclusive education, 2) well-being, and 3) social barriers from people with/without disabilities. Across university students (n = 204), general samples (n = 1,556), people with disabilities (n = 523), and elementary and middle-school teachers (n = 283), we found that although people approve the idea of inclusive education, they perceive it as the most difficult way to be achieved. People with disabilities (n = 177) showed lower extraversion, psychological health, self-esteem, life satisfaction, satisfaction with family and friends, social adaptiveness and income than people without disabilities (n = 1,468). Particularly, women with disabilities were in the most miserable consequences. According to the text data mining on their reports of social barriers of each life domain and social model of disabilities, we discuss how we can improve the surrounding situations of people with disabilities.

The use of PERMA-model to enhance Japanese subjective well-being effectively
*Ayumi Fusejima*
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The PERMA-model (Seligman, 2011) consists of five domains of subjective well-being (SWB); "Positive emotion," "Engagement," "Relationships," "Meaning," and "Accomplishment."  This model shows the direction of support that based on features of individuals' indigenous and cultural background; though, the target in several interventions has been apt to spread because of the broader idea of SWB. With use of the PERMA-Profiler (Butler & Kern, 2016), resent researches indicated that many domains of the PERMA in Japanese adults and university students were significantly worse than its in other countries (Butler & Kern, 2016; Fusejima, 2017; Shiotani et al., 2015). The author will present distinguishing features of Japanese SWB, and discuss the ways to enhance Japanese SWB through studies using the PERMA-Profiler.  In our program that went through four weeks, Japanese adults and university students learned "basic listening skills" once a week, and wrote down "Three Good Things (TGT)" in a day at every night as a homework.   The participants' "Positive emotion" and "Accomplishment" were enhanced thorough the program, but not the other domains of PERMA.  As same as Seligman (2005) 's report of which TGT made us more happy, the participants could found pleasure through focusing positive side of their daily life.  Moreover, they got a sense of achievement when they complete all of the program. According to Fusejima et.al. (2019), awareness of own character strengths has a tied relationship between SWB among Japanese university students who have very weak sense of confidence.  Although our previous program could enhance aggregate level of SWB and two domains of PERMA, the view of participants' character strengths might be needed in order to enhance Japanese SWB more effectively.  To enhance all domains of PERMA, Japanese should recognize their own life that they have several own strengths and good things in daily life.

# SYMPOSIUM 2

Team Leader            : Chiaki Oshiyama (Japan)
University          : NUCB Business School
Title              : Strategies for healthy aging
Contact person        : chiaki.oshiyama@aist.go.jp
Presenters           : Hisashi KAWAI
                 : Yasuyuki YOSHIDA
                 : Yuko SHIGEEDA
                 : Takuichi NISHIMURA

## Summary

In line with global trends, the population ratio in Japan is shifting towards a larger proportion of elderly people, with dementia also on the rise. Various systems are being implemented in Japan as the interest in extended, healthy living grows. Accordingly, this symposium will discuss effective strategies for extending a healthy lifespan and preventing dementia. Dr Kawai from the Tokyo Metropolitan Institute of Gerontology will present "Prevention of psychological frailty in Japan". This presentation describes an intervention program that uses group work to help the elderly fulfil their roles in their communities, along with a beauty care program to increase their self-esteem. Next, Dr Yoshida from the National Institute of Advanced Industrial Science and Technology in Japan will present "Ballroom dance makes you happy". This presentation suggests the implementation of strategies that include dancing, which is popular among elderly people in Japan. Finally, Mrs. Shigeeda, Clinical psychologist, from the National Center of Neurology and Psychiatry in Japan will present "Artificial intelligence-informed approach to training cognitive behavioral therapists in the unified protocol of transdiagnostic treatment for emotional disorders in Japan". This presentation will discuss making implicit knowledge explicit using an ontological approach in cognitive behavioral therapy training. From these presentations, we will discuss multi-faceted strategies for overcoming frailty in older people. Dr Nishimura, an AI researcher and designated debater, will join in the discussion.

## Presenter 1

Prevention of psychological frailty in community-dwelling older people in Japan
*Hisashi KAWAI*
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In 2000, Japan implemented a Long-Term Care (LTC) insurance system. Subsequently, in 2006, "Kaigoyobou" service was initiated to prevent and delay the onset of conditions requiring LTC. The reason for older Japanese requiring LTC reveals age-related issues such as cognitive and functional decline, muscle weakness, fractures, and falls. In recent years, such functional decline has been defined as "frailty" and the prevention of frailty is an important topic in the field of gerontology. Kaigoyobou programs are based on scientific evidence, which include physical training, improvement of oral function, and education on nutrition. The participants are screened to identify older adults with high risk to frailty. The intervention is short-term lasting three months and aims to improve general function. However, these are mainly focused on physical frailty. Unhealthy life expectancy defined in Japan, is calculated based on a subjective perception of the restriction of daily life for the individuals. This means that even if older adults have no physical disability, psychological frailty can shorten their healthy life expectancy. In our survey of older urban residents, approximately half the respondents who answered that they were able to go out alone, also answered that during the week they had almost no interactions with their neighbors or friends. Therefore, even though older adults are physically healthy, they could be at risk of future frailty if they have no place to go to, or no activity to participate in. At this conference, based on research from perspective of preventing psychological frailty, I introduce an intervention program that uses group work to help the elderly realize their role in the community, along with a beauty care program to increase their self-esteem.

## Presenter 2

Ballroom dance makes you happy!
*Yasuyuki YOSHIDA*
yasuyuki.yoshida@aist.go.jp

Ballroom dance is a popular dance worldwide. Competitive dance, also called DanceSport, consists of Latin American and ballroom dances. Our long-term objects of the project are to make a coaching system using artificial intelligence technology combining sensor data and knowledge of human movements. The coaching system might be beneficial for people of many ages and skill groups

including elderly people and athletes. They might prevent injury, improve performance, and promote health. The purposes of this presentation is to introduce that 1) previous studies about ballroom dance related to health psychology and 2) the movement analysis of the ballroom dance as the part of our long-term project. The characteristic of the ballroom dance is its closed hold position, with interactions between the male and female dancers. This study used kinematic analysis of the lower extremities to explore the interaction during pair dancing between male and female dancers. This study examined 13 national high-level competitive ballroom dance couples and one current world champion couple participated. The competitive ballroom dancer movements were recorded using a motion capture system. The ballroom sequence dance steps for the waltz were used with the music as a trial. Male and female dancers with higher dance skills dancing together exhibit movements that are apparently more dynamic. Furthermore, based on my own experience for ballroom dance activity, I would like you to know how fun it is to doing ballroom dance.

## Presenter 3

Artificial intelligence informed approach to training cognitive behavioral therapists of the unified protocol of transdiagnostic treatment for emotional disorders in Japan

*Yuko SHIGEEDA*
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More than half of the older adults who suffer from depression do not show typical depressive symptoms, and may be undiagnosed and/or untreated. Even if the symptoms appear mild, their functioning may have seriously declined. Therefore, early intervention for depression is critical for older adults. Cognitive Behavioral Therapy (CBT) is one of the most established evidence-based interventions for depression and anxiety. However, the dissemination of CBT has not been sufficiently executed in Japan; training therapists who can provide CBT is highly warranted. One of the barriers in dissemination is that it takes a huge amount of time and effort to train CBT therapists. This is because conducting CBT as a therapist includes various types of implicit and undescribed knowledge. To acquire the implicit skills for CBT sufficiently, the trainee needs to practice and reflect on and practice their moment-to-moment clinical behaviors. Therefore,

making implicit knowledge explicit is one of the most important aspects of CBT training. The methodology utilized in developing Artificial Intelligence (AI) is one of the most promising approaches in making implicit knowledge explicit, because the ontological approach has been investigating these aspects traditionally. In collaboration with experts in AI engineering, we began developing an AI-aided therapist training system. In this project, we have been trying to clarify the therapist's moment-to-moment purpose-oriented procedural behavior in conducting the Unified Protocol for transdiagnostic treatment for emotional disorders (Barlow et al., 2018). We expect that this clarified structured knowledge will contribute to more efficient and effective training programs. This is expected to accelerate the dissemination process of CBT. Ultimately, it is expected that older adults who have difficulty moving can gain access to treatment with AI-CBT, thereby prolonging their improving their health and prolonging their life expectancy.

## Presenter 4

How AI can support prolonging mental healthy life expectancy?
*Takuichi NISHIMURA*
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In Japan, children are decreasing in recent years, and elderly people are rapidly increasing. Along with this, the labor force is decreasing, and the elderly 's care cost increases. In order to increase effectiveness, various stakeholders such as caregivers, nurses, doctors, volunteers, physical therapists, family supporters, etc. have to collaborate smoothly as a community. Therefore, technologies to enhance the intelligence (observation, judgment, cooperation) of people in such community are necessary. I would like to discuss themes below.

- What kind of AI technologies will help reducing risk, improving productivity, and improving quality of service?
- How to increase supporters' observation, judgment and cooperation ability?
- How to synthesize IoT, machine learning, knowledge engineering?