

A-PL1

Evidence Based CBT in Asia: Where Do We Go from Here?

Moderator: Sakano, Yuji

School of Psychological Science, Health Sciences University of Hokkaido, Japan

Speaker: Oei, Tian Po

The University of Queensland, Australia

CBT is now very well accepted and practiced in Asia. However, there is a lack of organization and procedures that can help to unite and thus improve the use of CBT for the benefits of patients in Asia. Thus this talk will briefly outline the development of the Asian CBT Association. Research and training strengths and weaknesses will be discussed taking into account the CBT in Asia.

A-PL2**Training Competent CBT Therapists - What Works?**

Moderator: Ono, Yutaka

Center for Cognitive Behavior Therapy and Research, National Center of Neurology and Psychiatry,
Japan

Speaker: Sudak, Donna M

Department of Psychiatry, Drexel University College of Medicine, Philadelphia, Pennsylvania, U.S.A.

CBT has become a global phenomenon. It is widely practiced and used in research efforts in many parts of the world. The dissemination of CBT has become the stated goal of many health systems. There are significant public health benefits to be realized by the adequate training of care providers and increasing access to competently practiced CBT, because of the substantial burden of mental illness. Unfortunately, the theory and science that has advanced CBT has not as yet extended to the provision of training. There are, however, practical guidelines that can be drawn from the evidence available; and a thoughtful analysis of the experience of large-scale training efforts may help us to prepare the next generation of CBT providers more efficiently and economically. This plenary will discuss guidelines for training and suggest future directions for training and dissemination research.

A-EL1**The Community Reinforcement Approach and Family Training (CRAFT)**

Moderator: Harai, Hiroaki
Nagoya Mental Clinic, Japan

Speaker: Meyers, Robert J.
Emeritus Associate Research Professor of Psychology, University of New Mexico, U.S.A.

The Community Reinforcement Approach and Family Training (CRAFT) intervention is a scientifically based intervention designed to help concerned significant others (CSOs) to engage treatment-refusing substance abusers into treatment. This new intervention method was developed with the belief that since family members can, and do make important contribution in other areas of addiction treatment (i.e. family and couples therapy), that the CSO can play a powerful role in helping to engage the substance user who is in denial to submit to treatment. In addition, it is often the substance user who reports that family pressure or influence is the reason sought treatment.

Also, CSOs who attend the CRAFT program also benefit by becoming more independent and reducing their depression, anxiety and anger symptoms even if their loved one does not enter treatment. CRAFT uses an overall positive approach and steers clear of any confrontation. CRAFT is a culturally sensitive program that works with the client's mores and beliefs to develop an appropriate treatment plan. The program emphasizes learning new skills to cope with old problems. Some of the components include how to stay safety, outlining the context in which substance abusing behavior occurs, teaching CSOs how to use positive reinforcers (rewards) and how to let the substance user suffer the natural consequences for their using behavior. No one has better information about the substance user's behavior patterns than a close family member. CRAFT teaches the CSO how to use this information in a motivational way to increase the chance of the substance user entering treatment. CRAFT research has shown that almost 7 out of 10 people who use the program get their substance user to attend treatment.

A-EL2**Beyond Content-informed Treatment Delivery:
Importance of Principle-Informed Case Conceptualization and Treatment Delivery**

Moderator: Muto, Takashi

Center for Wing of Empirically Supported treatments, Doshisha University Faculty of Psychology, Japan

Speaker: Masuda, Akihiko

Department of Psychology, Georgia State University, U.S.A.

A treatment manual has been an essential part of therapist training and treatment dissemination in the field of CBT. Recently, many scholars and clinicians have emphasized the importance of principle-based treatment delivery. Focusing on therapist training, the present educational lecture highlights the benefits and pitfalls of topographical (content-focused) adherence to a treatment protocol, and how it may obscure a principle-based case conceptualization and treatment delivery. Using an Acceptance and commitment therapy (ACT) treatment manual as a clinical example, the author first presents how we typically use a treatment protocol in the context of treatment delivery, then identifies the pitfalls clinicians make when they are trying to follow the treatment manual rigidly in content. Then, the author proposes a functional and contextual way of assessment, case conceptualization, and treatment delivery that have been the essential features of CBT tradition.

A-EL3**Entropy of Mind and Negative Entropy - A Complex and Cognitive Approach to Schizophrenia and Its Treatment**

Moderator: Watanabe, Norio

Department of Clinical Epidemiology Translational Medical Center National Center of Neurology & Psychiatry, Japan

Speaker: Scrimali, Tullio

Department of Psychiatry, University of Catania, Italian Republic

Schizophrenia is the central problem in the sciences of the mind, not only for its etiological, psychopathological, and clinical aspects, but also because of its implications for therapy and rehabilitation. Keeping in mind the burden of suffering this condition entails for patient and family, as well as its enormous social costs, it is clear why schizophrenia is one of the most important challenges for psychiatry, clinical psychology, psychotherapy, and rehabilitation today. When faced with this dramatic and complex reality, one is forced to admit the persistent backwardness in scientific knowledge regarding the dynamics of this disorder and, above all, the lack of a systematic and satisfying treatment. During the lecture the Author will describe a series of new scientific and clinical perspectives for schizophrenia, influenced by cognitive and constructivist approaches and informed by the logic of complexity and non-linear, dynamic systems. The author delineates a new complex theory of the brain and a procedural theory of the mind, founded on the concept of the modular brain and the coalitional mind. Subsequently, the Author develops a multi-factorial conceptualization of the etiological dynamic and an original, complex, and evolutionary perspective concerning the psychotic condition, which has been redefined, in this case, as Entropy of the Mind. During the second part of his presentation, the Author illustrates an innovative, integrated protocol, denominated Negative Entropy, for the treatment and rehabilitation of patients with schizophrenia. The reference textbook is: Tullio Scrimali - Entropy of Mind and Negative Entropy - A cognitive and complex approach to schizophrenia and its therapy - Karnac Books, London, 2008.

A-EL4**Broadening the Impact of Cognitive-Behavioral Therapy:
CBT Across Cultural Contexts**

Moderator: Sasagawa, Satoko
Mejiro University, Japan

Speaker: Hall, Gordon C. Nagayama
Department of Psychology, University of Oregon, Eugene, U.S.A.

The principles of cognitive-behavioral therapy (CBT) are generally assumed to be culturally universal. Although some CBT principles may be applicable across cultures, others are not. The individually-based cultural worldview of CBT often requires CBT to be adapted for optimal effectiveness across cultural contexts. For relatively individualistic persons, CBT may not require adaptation. There exist individualist persons in all cultures. Some clients may deliberately seek CBT because of its individualistic cultural worldview. Standard CBT may be indicated in these contexts.

Effective CBT in collectivist cultural contexts where group membership is the primary source of cultural values and cultural norms may differ from standard CBT. Persons in collectivist cultures may not seek CBT for psychological problems because of concerns about face loss for their family, community, themselves, and even the therapist who is trying to help them. Instead, the presenting problem may be an issue indirectly associated with psychological problems, such as health, work, or academic issues. CBT to improve functioning in these areas may be seen as more acceptable than seeking CBT for individual psychological problems. Although CBT addresses psychological issues that may interfere with health, work, and academic functioning, the therapist does not necessarily need to reconceptualize the client's presenting issues as psychological issues. A goal of improved functioning in health, work, or academic areas will allow an individual to be a more productive group member.

The process of CBT in collectivist cultural contexts may also differ from individualist contexts. Again as a result of face concerns, clients in collectivist contexts may focus more on somatic issues, be less emotionally expressive, and be more concerned with the impact of their behavior on their family and community than the individualistic clients for whom CBT was designed. CBT needs to be culturally adapted to address somatic symptoms, to address emotional issues in a nuanced manner, and to be guided by the cultural values and norms of a client's family and community.

Because of increasing societal globalization, many clients will benefit most from an integration of standard individualist and adapted collectivist approaches. However, an exclusively individualist approach has limited applicability. About two-thirds of the world is relatively collectivist. Moreover, cooperation and collaboration is essential to the success of any society, including individualist ones. CBT has the potential to broaden its impact and increase its relevance if it is culturally adapted to incorporate a collectivist worldview.

●Asian Symposium 1

Education and Training in CBT - Paths to Develop Quality-Assured Therapists

認知行動療法の教育と研修：質の良い治療者育成のために

Organizer: Fujisawa, Daisuke Psycho-Oncology Division, National Cancer Center East, Japan

Moderators: Ono, Yutaka Center for Cognitive Behavior Therapy and Research, National Center of
Neurology and Psychiatry, Japan

Fujisawa, Daisuke Psycho-Oncology Division, National Cancer Center East, Japan

Speaker: Fujisawa, Daisuke Psycho-Oncology Division, National Cancer Center East, Japan

Narasappa, Kumaraswamy
University Malaysia Sabah, Malaysia

Scrimali, Tullio Department of Psychiatry, University of Catania, Italian Republic

Meyers, Robert J. Emeritus Associate Research Professor of Psychology, University of New
Mexico, U.S.A.

Sudak, Donna M Department of Psychiatry, Drexel University College of Medicine,
Philadelphia, PA, U.S.A.

Establishing efficacious training programs is pivotal in developing competent cognitive therapists, and is indispensable for disseminating quality-assured therapies. This symposium aims to share experiences of education and training in CBT in various settings of various regions. Five invited speakers from four countries (Italy, Malaysia, Unites States, and Japan) are expected to talk on education and training in CBT. Topics may cover, but not limited to, contents, structures, management, evaluation, application, and research in training and education in CBT.

A-S1-1**Development of the National Training System of CBT - An Experience of Japan**

Speaker: Fujisawa, Daisuke

Psycho-Oncology Division, National Cancer Center East, Japan

Overview of the nationally-funded Cognitive Behavioral Therapy (CBT) training system, which was launched in 2011, will be presented in this symposium.

Eligible trainees for this training system are psychiatrists with clinical experience of three years or over. The training starts with two-day "Start-up Workshop", followed by weekly supervision and one-day "Brush-up Workshop".

Using of information technology (IT) enabled us to provide nation-wide training in CBT. The supervisees submit their audiotaped session files to their supervisor through the secured website. Supervisions are provided through Skype.

The evaluation of training is done with several assessment tools;

- Attitude and confidence in CBT (self-evaluation on Likert Scales)
- Quiz concerning knowledge on CBT (Cognitive Therapy Awareness Scale and 10-item quiz (Padesky C, unpublished))
- Cognitive Therapy Rating Scale (CTRS)
- Cognitive Formulation Rating Scale (CFRS)
- Working Alliance Inventory (WAI)
- Barrett-Lennard Relationship Inventory-Empathy Scale

Future challenges include development of continuous education system for trainees and development of training program for supervisors.

A-S1-2**Education & Training in CBT: A Proposed Model for Malaysian Perspective**

Speaker: Narasappa, Kumaraswamy
University Malaysia Sabah, Malaysia

Education & training in CBT: A proposed model for Malaysian perspective.

Narasappa Kumaraswamy Cognitive Behavior Therapy (CBT) is a type of psychotherapeutic treatment that helps patients understanding the thoughts and feelings that influence behavior. CBT is commonly used to treat effectively with Anxiety related disorders and Depression. CBT is popular because it is short term and focused helping clients deal with specific problems. During the treatment people learn how to identify and change distractive or disturbing thought pattern that help a negative influence on behavior. Beck & his colleagues have identified three major levels of cognitions that are relevant to practice of CBT. Consciousness, automatic thoughts & schema. Malaysia is a multi-cultural & multi-racial society. Each one has their own belief system. The major races in Malaysia are Malay (60%) following Islam, Chinese (20%) majority of them follow Buddhism. Hindus (10%) follows Hindu religion with strong belief in Karma theory. If Malay encounters mental illness first consultation is Bomoh. Chinese consult a traditional healer & Hindu consult an astrologer. No one first think about mental health professionals for therapy. If you want to practice CBT effectively in Malaysia one should be well versed in most of the religious belief system strongly hold by the patient otherwise CBT will not work effectively.

In therapy we are contemplating in changing the Core beliefs hold by patients. Still CBT is not popular in Malaysian society as majority of the patients cling on to their belief pattern and difficulty in comprehending when therapist ask them to do homework in writing diary, recording thoughts etc. Hence in the training module of CBT one should clearly emphasize the belief system hold by patients and how it can be changed. In my experience Relaxation & breathing exercise work effectively and educate the patient in a simple & lucid manner. As in most of the Asian countries the patient looks at the therapists/Doctor as omnipotent who can have solutions to all the problems. However still majority of the patients are not happy with talking therapy (psychotherapies) as they expect some kind of treatment in the form of medication or injection. During my talk will discuss the case seen in the Malaysian perspective by using CBT and propose a training model..CBT therapists in Malaysia should form a single applicable model of CBT which can be effective in treating the patients.

A-S1-3**Training in CBT - The European Guidelines and the Italian Experience**

Speaker: Scrimali, Tullio

Department of Psychiatry, University of Catania, Italian Republic

The Author will present data and results coming out from his personal experience, lasting more than 30 years, carried out in Italy, as a Teacher and Supervisor in CBT. The European guidelines and the specific Italian rules in CBT trainings will be presented and discussed. According to the guideline of the European Association for Cognitive and Behavior Therapy (EABCT) the competencies to become an effective cognitive and/or behaviour therapist are usually developed in two stages. Firstly, there are those competencies in generic therapeutic skills and the understanding of psychopathology that form part of a clinicians core professional training. Secondly, there is the development of knowledge about the cognitive and behavioural model and specific competencies in behavioural and cognitive therapeutic skills that are usually developed as part of a post-professional qualification period of training. A very interesting topic, which is actually under experimentation, is that of the trainee's personal analysis/personal development. In Italy the specialisation in Psychotherapy is under the control of the Ministry of the University. The training, developed and largely experimented in Italy by Tullio Scrimali and recognized by the Italian Ministry of University, will be described and discussed.

A-S1-4**A Model Program to Change Therapists Behaviors**

Speaker: Meyers, Robert J.

Emeritus Associate Research Professor of Psychology, University of New Mexico, U.S.A.

Natural diffusion processes for innovations in substance abuse treatments are relatively informal and have yielded a widely acknowledged gap between science and community practice.

Therapist manuals and one-time workshops are in themselves relatively ineffective in helping practitioners gain proficiency in new clinical approaches. Individual performance, review of audio therapy tapes with feedback and coaching improve the acquisition of clinical skills. Specific incentives for implementation may also be needed to encourage treatment providers, programs, and systems to adopt new approaches (Miller, et al., 2006). The community reinforcement approach (CRA), the adolescent community reinforcement approach (ACRA) & community reinforcement and family training (CRAFT) each has a coding manual for rating tapes and protocols for training therapists, coders, supervisors and trainers in these evidence based treatments for substance misuse.

A-S1-5**Cross Cultural Perspectives on the Development and Application of Cognitive Behavior Therapy in Asia**

Speaker: Sudak, Donna M

Department of Psychiatry, Drexel University College of Medicine, Philadelphia, PA, U.S.A.

International Perspectives in CBT Training: The Experience in Psychiatry Residency Training in the United States: In 2001, psychiatric residency training in the United States introduced the requirement for residents to become competent in CBT. At the time of this mandate, at least 25% of training programs had no requirement for resident CBT education. A follow-up survey found that in 2006, 98% of training programs were providing at least some didactic and clinical experience in CBT. The specific efforts made by noted CBT educators that have facilitated this process will be discussed and the particular challenges in residency training in the US will be illustrated in this symposium presentation.

●Asian Symposium 2

Cross-Cultural Perspectives on the Development and Application of Cognitive Behavior Therapy (CBT) in Asia

アジアにおける認知行動療法の発展と応用：比較文化的視点

Organizer/Moderator:

Tanaka-Matsumi Junko

Kwansei Gakuin University, Japan

Speaker: Choi, Young Hee

Mettaa Institute, Republic of Korea

Masuda, Akihiko

Department of Psychology, Georgia State University, U.S.A.

Oei, Tian Po

The University of Queensland, Australia

Discussant: Hall, Gordon C. Nagayama

Department of Psychology, University of Oregon, Eugene, U.S.A.

Evidence-based practice has become a hallmark of professional clinical activities across diverse cultures of the world. CBT leads other interventions in producing efficacious outcomes in treating specific disorders in Western cultures. Directing attention to Asia, the goals of this symposium are (1) gaining cross-cultural perspectives on the development and application of CBT in Asia; and (2) advancing discussions on diversity issues in CBT. Four invited CBT experts will present highlights of their CBT research and practice, and discuss potential cross-cultural issues that need addressing in the development of CBT networks in Asia.

A-S2-1**Cross-Cultural Features in Applying CBT to Korean Clients**

Speaker: Choi, Young Hee
Mettaa Institute, Republic of Korea

Because of their sensitivity to shame, their unfamiliarity with treatment and their fear of stigma, Korean clients can easily drop out of therapy in the initial stages unless the therapist joins with them successfully. Many Korean clients equate a psychological problem with being insane, being shame to one's family, being incompetent, or having weak will power. Such negative perceptions of treatment evoke a strong sense of shame and humiliation. Finding out that someone obtained some personal information about them without their approval not only offends Korean but also causes them shame and leads to their distrust of the therapist. Korean clients are often afraid that the therapist might make negative judgments about them. Use of medical language such as the term psychotherapy can feel threatening and alien to many Korean clients. If the client has been advised to see someone to receive psychotherapy, the individual believes that he or she is perceived as crazy. For many Koreans, even the word treatment has negative connotations. Most Korean clients feel very uncomfortable when the therapist, who is a stranger to them, asks personal questions such as those concerning childhood traumas or private sex life. Nowadays Korean families often come for treatment because of their children's problems. During the early stages of the treatment, if a therapist tries to deal with underlying problems by pointing out that one often parents or the parental relationship is the real source of the problem, he or she is likely to face resistance or client dropout. Many Korean clients are not familiar with the concept of self-therapist which may be the true goal of CBT. They usually want to receive intense and brief therapy by putting less effort of themselves. Due to these reasons, most of the clients show low compliance with homework which is also a very important therapeutic method of changing process. Although cognitive therapy is a distinct empirically supported psychotherapy, many Korean therapists identify themselves as cognitive therapists, when their overall practice does not reflect such an orientation and most of them do not have proper certifications or eligible skills for doing CBT. Clients, agencies, insurance companies, and researchers may be misled by this erroneous self-labeling. The presenter will discuss a variety of CBT strategies for joining and producing change that are important when working with Korean clients in cross-cultural perspectives.

A-S2-2**At What Levels Do We Need Cultural Adaptation in CBT?**

Speaker: Masuda, Akihiko

Department of Psychology, Georgia State University, U.S.A.

There has been continuous and growing interest in CBT across the field of Western medicine and mental health. As CBTs have been applied to individuals from diverse sociocultural backgrounds, many scholars and practitioners wonder 1) whether their essential concepts, processes, and principles, such as schema and dysfunctional belief, are culturally biased; 2) whether CBTs are appropriate for culturally diverse populations; and 3) whether cultural adaptation is necessary to enhance their effectiveness when applied to individuals from a given sociocultural background. From a pragmatic point of view, the author suggests that questions such as these should be investigated separately at technical, conceptual, and philosophical levels. Subsequently, the author presents how these investigations inform practitioners/researchers of making clinical decisions.

A-S2-3

Development of Asian CBT Research Network

Speaker: Oei, Tian Po
The University of Queensland, Australia

CBT is now very well accepted and practiced in Asia. However, there is a lack of organization and procedures that can help to unite and thus improve the use of CBT for the benefits of patients in Asia. Thus, this talk will briefly outline the development of the Asian CBT Association. Research and training strengths and weaknesses will be discussed taking into account the CBT in Asia.

A-PS1**Coaching Psychology Workshop : Theory and Practice**

○Tokuyoshi, Yoga¹, Hori, Tadashi², Moriya, Mitsuru³

¹Coaching Psychology Center for Japan, Cognitive Psychology Lab, Graduate School of Information Sciences, Tohoku University, Japan, ²Professor Emeritus of Gunma University / Japan Coaching Psychology Association, Japan,

³Associate Professor Institute of Personalized Medical Science Department of Psychosomatic Internal Medicine Health Sciences University of Hokkaido, Japan

This symposium aims to introduce some theories and practices of Coaching Psychology. Coaching Psychology is one of new research fields of Psychology around Asia. Coaching psychology is for enhancing well-being and performance in personal life and work domains underpinned by models of coaching grounded in established adult learning or psychological approaches (Grant & Palmer, 2002; Palmer & Whybrow, 2007). Some theories and practices of Coaching Psychology involve application of Cognitive and Brief therapy.

Japan Coaching Psychology Association (JCPA) developed original theories, tools, and intervention programs of Coaching Psychology in Japan. This symposium will provide information on Human Support, Culture topics, Medical practices, Tools and interventions of Cognitive Behavior Coaching and Solution Focused Coaching in association with the 4th Asian Cognitive Behavior Therapy (CBT) Conference. During the first half of the symposium, we will provide some information of Coaching Psychology in Japan. On the second of half, we will host a workshop for Coaching Psychology.

Participants are kindly requested to seriously talk together about possibilities of Coaching Psychology in Asia.

The speakers are practitioners of Coaching Psychology in Japan and they translated the Handbook from English into Japanese.

A-PS2**Prison-Based Cognitive-Behavioral Therapy for Convicted Offenders**

Organizer / Moderator:

Harada, Takayuki
Mejiro University, Japan

Speakers: Shinkai, Hiroyuki
Ministry of Justice, Japan

Nomura, Kazutaka
Yokohama Prison, Japan

Tomoto, Aika
Chiba University, Japan

The high recidivism rate of convicted offenders is a serious problem in Japan as well as anywhere in the world. According to the official statistics, almost 50% of sentenced prisoners come back to prison within 5 years after release (Ministry of Justice, 2007). The law enforcement agencies tried to reduce recidivism by imposing tougher judicial sanctioning. However, scientific evidence indicates that such a retributive approach is not effective and human services including psychological treatment are effective to reduce recidivism (Andrews & Bonta, 2011).

Japan's Justice Ministry began to strengthen the efforts of prison-based treatment for prisoners after the implementation of the new prison legislation in 2006. Under the new prison law, all sentenced prisoners must receive education and/or treatment according to their problems (Harada & Shinkai, 2010).

We have developed prison-based cognitive-behavioral programs for drug users, sex offenders and violent offenders (especially those who committed lethal offences), conducted them in prison and evaluated the effectiveness. These programs basically based on the relapse prevention model (Marlatt & Donovan, 2006) and main treatment components include the identification of high-risk situations and skills training to cope with these risky situations. However, these treatment programs were originally developed in the US and therefore they need to be tailored to address the treatment needs of Japanese offenders (Harada, 2010).

Moreover, conducting CBT programs in a predominantly punishing justice context involves many challenges. For example, adherence with the clinical principles along with the institutional principles including "prison culture", settings, management and custodial requirements is often very challenging. This symposium will seek to find the best practice for CBT in the custodial settings and offender treatment. In the symposium, the results of the effectiveness studies will be presented and the challenges and clinical implications will be discussed from the perspective of cognitive-behavioral therapy.

A-PS3**Depression & Memory: For the CBT Based on Psychology**

○Sugiyama, Takashi¹, Yamada, Yuko², Suguro, Shintaro³, Mikami, Kenichi⁴, Yamamoto, Tetsuya⁵,
Matsumoto, Noboru⁶

¹Kanagawa University Faculty of Human Sciences, Japan, ²Kitasato University, Japan, ³Sumitomo Hospital, Japan,

⁴Hokkaido University of Education, Japan, ⁵Hirosima University, Japan, ⁶Tsukuba University, Japan

The modern psychotherapy is said to need integration of two. The first is integration of the some approaches of psychotherapy. Some trials to already integrate psychodynamic approach, humanistic approach, and system's approach with cognitive behavior approach are performed, and the arguments begin to be performed in Japan. The second is integration between psychotherapy and psychology. The behavior therapy is based on result of the behavioral psychology. Thus behavior therapy has been integrated with psychology from the first. The cognitive therapy was developed as a psychotherapy integrating cognitive psychology and social psychology because these were remarkably developing in those days. And the cognitive behavior therapy has achieved reliable treatment result. It will be necessary to absorb the latest knowledge and trend of the psychology study in future to aim at the further development.

This symposium would focus on CBT and memory psychology about depression, and would try to integrate memory psychology with the CBT for better treatment about depression. The authors as researchers would introduce results of research and therapeutic suggestion from some studies about depressive bias and dysfunction in memory, over generalized autobiographical memory in depression, and depressive features on attachment style. And the authors as psychotherapists would discuss based on some clinical instances in depressive cases to practice the CBT based on psychology.

A-PS4**Present Status and Future Challenge in Asia for Delivering Cognitive Behavior Therapy for the Patients**

Organizers: Sado, Mitsuhiro

Department of Neuropsychiatry, Keio University, School of Medicine, Japan

Nakagawa, Atsuo

Center for Clinical Research, Clinical Research Training Program, Keio University School of Medicine, Japan

Speakers: Rahman, Habeebul

Department of Psychological Medicine, Tan Tock Seng Hospital, Singapore

Cheng, Chin

Department of Public Health and Primary Care, School of Clinical Medicine, University of Cambridge, U.K.

Lee, Boung-Chul

Department of Psychiatry, Hangeang Sacred Heart Hospital, Hallym University, Korea

Nakagawa, Atsuo

Center for Clinical Research, Clinical Research Training Program, Keio University School of Medicine, Japan

Raveepatarakul, Jirapattara

Faculty of Psychology, Chulalongkorn University, Bangkok, Thailand School of Psychological and Behavioral Science, University of West Florida, Pensacola, Florida, U.S.A.

Cognitive Behavior Therapy (CBT) is one of few psychotherapies effectiveness of which have been well established through numerous number of scientific researches. However, present status of the provision of CBT in Asian countries is not known well. Although it is considered that provision status would differ among countries, the details are not clear as far as we know. Therefore, we plan to hold this symposium in order to

- (1) reveal the present status of CBT provision in each Asian country,
- (2) understand common features and differences, and
- (3) discuss what should be needed for improving the provision of CBT with good quality.

In this session, first, the symposiasts from Singapore, Thailand, South Korea, Taiwan, and Japan will present how CBT is provided and what are the future challenges for improving the situation respectively. In the later part of symposium, we will discuss common parts and differences among countries and seek for possibility of collaboration for development of CBT in Asian countries.

A-PS5**Self-Image in Social Anxiety: Its Function and Intervention**

Organizer / Moderator:

Chen, Junwen

School of Psychology, Flinders University of South Australia, Australia

Speakers: Kwon, Junghye

Department of Psychology, Korea University, Korea

Yoshinaga, Naoki

Department of Cognitive Behavioral Physiology, Chiba University Graduate School of Medicine, Japan

Shirotsuki, Kentaro

Faculty of Human Sciences, Musashino University, Japan

Social anxiety disorder (SAD) is characterised by persistent and strong fear of social situations where the individuals perceive that their behaviour may be judged by others and lead to embarrassment. Cognitive models of SAD (Clark & Wells, 1995; Rapee & Heimberg, 1997) have posited that these self-images are excessively negative and distorted and serve an important maintenance factor.

This symposium focuses on understanding the role of self-image (self-perception) in developing and maintaining SAD and further proposing possible interventions. The first paper "Autobiographical memory, imagery, and self in SAD" (Prof. Jung-Hye Kwon) examines the relationships between self-image and autobiographical memory in socially anxious individuals. Forty three social anxiety patients and 49 control participants performed an autobiographical memory task using positive and negative cue words. Differences in the recall of autobiographical memories between the two groups and the effect of positive or negative images on the retrieval of autobiographical memories will be reported. Furthermore, the contents, the emotional tones, the self-beliefs of autobiographical memory and the effect of self-image on the interpretation bias will be presented.

The second paper "Recurrent self-image and early traumatic memory in SAD" (Dr. Naoki Yoshinaga) reports the preliminary findings on the intervention targeting negative self-images in earlier memories of socially traumatic events. Following a review of the contents of recurrent self-image and traumatic memories in outpatients with SAD, we will demonstrate how to conduct an imagery rescripting for early traumatic memory in CBT program.

The third paper "The effect of speech exposure with cognitive intervention to cost bias in SAD patients" (Dr. Kentaro Shirotsuki) focuses on understanding the relationship between cost bias and self-perception of performance (self-image) in SAD patients. The effect of exposure with cognitive intervention on cost bias and its impact on self-perception of performance will be discussed.

The final paper "The effect of video feedback on self-perception of performance in socially anxious individuals" (Dr. Junwen Chen) investigates the effect of pure exposure, video feedback with cognitive preparation, video feedback with post cognitive review and video feedback with live audience feedback on self-perception of performance. Sixty-four socially anxious individuals were randomly allocated to one of four conditions and were asked to deliver a 3-minute speech. Differences on the self-perception of performance in the four conditions will be reported and the implication for treatment will be discussed.

ACB-PS**新しいソーシャルネットワークを認知行動療法に応用する方法
—中高年こそ使いこなしたいレジリエンス(心の回復)ネットワーク—****Using Emerging Social Networking Services in Cognitive Behavioral Therapy:
Introducing Mental Resilience Network to Older Generations**

座長：熊野 宏昭

早稲田大学人間科学学術院/応用脳科学研究所(日本行動療法学会第39回大会大会長)

藤澤 大介

国立がん研究センター東病院 精神腫瘍学開発分野(第13回日本認知療法学会大会長)

Moderators : Kumano, Hiroaki

Faculty of Human Sciences/Institute of Applied Brain Sciences, Waseda University, Japan (Conference Chair)

Fujisawa, Daisuke

Psycho-Oncology Division, National Cancer Center East, Japan (Conference Chair)

Speaker : 海原 純子(Umihara, Junko)

日本医科大学(Nippon Medical School)

TwitterやFacebookなど新しいソーシャルメディアによる交流が2009年以降急速に増加している。2012年末のニールセン調査ではTwitterの利用者は全国で1278万人、Facebook利用者は1692万人とされている。こうした新しいソーシャルメディアは高齢者層には拒否反応を示す人があり利用率も低い。その背景には現実に対面していない人との交流は非現実であり、現実の人間関係を円滑に行えない人の逃避の場である、という見方があるためと思われる。こうしたとらえ方は我々日本人が‘言葉だけでなく’‘雰囲気、表情’でものを伝える低コンテキストスタイルの特徴を持つコミュニケーション方式を取るためであろう。Twitterは140字という短い文字数の中だけでメッセージを伝えるため従来の我々のコミュニケーション方式とは大きな隔たりがある。我々の調査では、Twitter使用者は、雰囲気にたよらず言葉だけで気持ちや情報を伝えるため 1. 自分の考えを一度客観的にみつめる 2. 考えを整理してまとめ、言葉を選ぶという作業を行っていることがわかった。短歌や俳句など気持ちを短い言葉に凝縮し感情を昇華していくことは日本文化の特徴でもある。認知療法と通じるこうしたプロセスについて紹介し新しいソーシャルメディアを認知療法的に活用する方法について提案したい。

Social networking services across the internet have dramatically increased its popularity as a means of communication around the world since 2009. According to a Nielsen research conducted in late 2012, Japan now has 12.78 million Twitter users and 16.92 million Facebook users. However, the number remains low among Japanese elderly people, partly because they typically react negatively towards such new media. It is speculated that older generations often find virtual communication through social media unreliable, considering it as a form of refuge for those who cannot manage real-world communication comfortably. This bias can be attributed to the high-context communication style that has been characteristic in Japanese culture where people rely largely on non-verbal communication cues, such as implication or facial expression. On the other hand, on Twitter for example, one has to express his/her messages precisely in the limited 140 words to get their points across, which radically differs from our conventional daily communication style. Our recent research shows that the Japanese Twitter users typically experience following two steps during the communication process through Twitter; to observe emotion objectively before posting and, to become significantly aware in arranging thoughts and choosing right words without relying on non-verbal channels. Interestingly, some of

traditional Japanese literatures including tanka or haiku also follow similar process in which writers' emotion is highly condensed into concise language, which consequently serves as a sublimation mechanism. In this presentation, such psychological process experienced by users of social media will be discussed in association with cognitive behavioral therapy techniques. In addition, some practical solutions to utilize social media network services in cognitive behavioral therapy practice will also be suggested.

ACB-PS

伝統的ヨーガに見る認知行動療法

The Traditional Yoga as a Cognitive Behavioral Therapy

座長：熊野 宏昭

早稲田大学人間科学学術院/応用脳科学研究所(日本行動療法学会第39回大会大会長)

藤澤 大介

国立がん研究センター東病院 精神腫瘍学開発分野(第13回日本認知療法学会大会長)

Moderators : Kumano, Hiroaki

Faculty of Human Sciences/Institute of Applied Brain Sciences, Waseda University, Japan (Conference Chair)

Fujisawa, Daisuke

Psycho-Oncology Division, National Cancer Center East, Japan (Conference Chair)

Speaker : 木村 慧心(Kimura, Keishin)

(社)日本ヨーガ療法学会(Japan Yoga Therapy Society)

内科医チャラカ(紀元元年頃)著になる「チャラカ本集」には3種ある療法の一つとして“有害な事物から精神を解放する心理療法/サットヴァ・アヴァジャヤ”が紹介されているが、その解説は一切なされていない。心理療法の診断・治療法は聖典ヨーガ・スートラ(西暦前300年頃)に以下の如くに記述されているからである。

「無智、自我意識、愛着、憎悪、生命欲とが煩惱である。無智とは、その他の煩惱の本源であり(略)。無智とは有限、不浄、苦、非我のものを、無限、浄、楽、真我であると思うことである」(YS II-3~5)

この認知間違い修正法が以下である。

「これらの微細な諸煩惱は、行者の意識がそれらの原因へ帰滅することによって除去することができる。それら諸煩惱の活動は、静慮(禪那/ディヤーナ)によって除かれねばならない」(YS II-10, 11)

この古くて新しい認知行動療法であるヨーガの智慧の活用法を紹介したい。

Caraka (physician/ 2000 years ago) mentioned in his medical book (Caraka's Compendium) 3 types of therapy--spiritual, rational and psychological. He explained psychological therapy as restraint of mind from the unwholesome objects, but he mentioned the name only and never explained how to do it (Introduction 11-54). But in India Yoga Sutra (300 BCE) mentioned various assessments & treatment methods as a Cognitive Behavior Therapy.

“The lack of awareness of Reality, the sense of egoism, attractions and repulsion towards objects and the strong desire for life are the great afflictions or cause of all miseries in life. Avidya/ ignorance is the source of those that are mentioned after it. . . . Avidya is taking the non-eternal, impure, evil and non-Atman/Self to be eternal, pure, good and Atman respectively.” And author Patanjali mentioned the techniques to change wrong cognition as follow:

“These, the subtle ones, can be reduced by resolving them backward into their origin. Their active modification are to be suppressed by meditation.” We introduce these yogic wisdom, ancient and quite now cognitive behavior therapy methods, as a yoga therapy in modern Japanese society.

ACB-PS**茶の湯の精神に与える影響****The Effects of Tea Ceremony on Mind**

座長：熊野 宏昭

早稲田大学人間科学学術院/応用脳科学研究所(日本行動療法学会第39回大会大会長)

藤澤 大介

国立がん研究センター東病院 精神腫瘍学開発分野(第13回日本認知療法学会大会長)

Moderators : Kumano, Hiroaki

Faculty of Human Sciences/Institute of Applied Brain Sciences, Waseda University, Japan (Conference Chair)

Fujisawa, Daisuke

Psycho-Oncology Division, National Cancer Center East, Japan (Conference Chair)

Speaker : 藤村 道代(Fujimura, Michiyo)

茶の湯 武者小路千家 官休庵/滋賀医科大学精神医学講座

(Musyanokouji-Senke Kankyuan/Department of Psychiatry, Shiga University of Medical Science)

茶の湯の稽古の目的は、従来の礼儀作法の習得から茶の湯を通じて心を落ち着かせる事に変化してきている。プレリミナリーな調査から、悩みや不適應を抱えた訪問者の割合は全体の6割で、その内の3割は通院やカウンセリング経験があった。彼らは稽古後に不安や緊張、イライラが解消したと話し、稽古の継続により、頭痛や睡眠障害、食欲不振、抑うつなどの症状が緩和した。更に「薬物療法や心理療法でも解決しなかった悩みと少し距離をおけるようになった」と話している。すなわち茶室における茶の湯の経験は、精神状態に有益な変化をもたらしている。現実から遮断された「茶室」という非日常空間において、ひと時静かに座することはマインドフルネスであり、シンプルで合理的な茶の湯の型にはめることは認知行動療法と言える。私は『茶の湯は日本古来の精神療法である』と考える。茶室と茶の湯の構成要因(音、照度、香り、手触り、味等の組み合わせ)はその中でも重要な役割を果たしている。

The Japanese tea ceremony is called Chanoyu or Sado in Japanese. The purpose of the Chanoyu practice is changing from learning good manners to calming down a heart through the acquisition of the conventional manners in the tea ceremony.

From our preliminary investigation, the rate of visitors who had distress and maladjustment in their mind was about 60%, and 30% of them had experiences to visit a hospital and received a counseling.

After the practice of the tea ceremony, they confess to me that their feeling of anxiety, tension, and agitation was ameliorated, and that their symptoms of headache, insomnia, loss of appetite, and depressed mood were improved. Moreover, they told me that they could make a distance from their distress which had not been resolved by drug treatment and psychotherapy. Namely, the experience in the tea practice in the special tea room is speculated to have good effects on their minds.

Sitting in quietness in the extraordinary space isolated from the reality, is mindful, and a kind of cognitive behavioral therapy by having them adapting simple and conventional pattern of Chanoyu. Therefore, I suppose that the Chanoyu is a traditional psychotherapy in Japan. The tea room and various components such as sound, light, smell, sense of touch, and taste have an important role in the effects of Chanoyu practice.

A-P-001

Withdrawn

A-P-002

The Interaction Effects between Social Skills and Behavioral Activation on Social Impairment in Adolescents with Depressive Symptoms

○Shinkawa, Hiroki¹, Haga, Michimasa², Nishiduka, Takumi¹, Tomiie, Tadaaki³

¹Graduate School of Psychological Science, Health Sciences University of Hokkaido, Japan, ²Graduate School of Literature and Social Sciences, Nihon University, Japan, ³School of Psychological Science, Health Sciences University of Hokkaido, Japan

Objectives: Social skills deficits are common among children and adolescents with social impairment (Walker, Ramsey, & Gresham, 2004), and are frequently associated with internalizing disorders like depression (Segrin, 2000). Researchers have emphasized to distinguish “skill acquisition deficits” and “skill performance deficits” because a type of social skill deficiencies influences selection of intervention strategies (Gresham, Robichaux, York, & O’Leary, 2012). In this study, by focusing on behavioral activation model (Martell, Addis, & Jacobson, 2001), we investigated the interaction effects between social skill repertory and behavioral activation level on school and social impairment in adolescents with depressive symptoms.

Methods: 811 high-school students who had been sampled by using stratified random sampling method were completed the Japanese version of Kessler 6 (K6; Furukawa, Ohno, Uda, & Nakane, 2003), Social Skills Scale for high-school students (SS; Takagi & Tomiie, 2004), and the Japanese version of Behavioral Activation for Depression Scale (BADs; Takagaki, Okajima, Kunisato, Nakajima, Kanai, Ishikawa, & Sakano, in press). 72 students with depressive symptoms (male = 27, female = 45; K6 score > 14) were selected for analyses. Hierarchical multiple regression analyses were conducted to examine unique contributions of social skills and behavioral activation variables, and of

their interactions on impairment measures while controlling for gender and grade.

Results: SS, BADs-Activation (AC), and BADs-Avoidance/Rumination (AR) were not significantly associated with BADs-Work/School Impairment (WS), whereas SS and AR were significantly associated with BADs-Social Impairment (SI). SS and AR were also significant predictors SI ($\beta = -.50$, $p < .01$; $\beta = .26$, $p < .05$) even when controlling for gender and grade. Hierarchical multiple regressions demonstrated that SS * AR interaction variable predicted WS ($\beta = .27$, $p < .05$) when controlling for gender and grade. Simple slope analysis showed that SS predicted WS ($\beta = -.35$, $p < .05$) in case of AR lower (*Mean - 1SD*).

Conclusions: Impairment on various social situations in depressive adolescents may arise as a result of social skill deficits, increased avoidant behaviors, especially, and the skill-avoidance interaction. Avoidant behaviors would be considered as an inhibitory factor during social skills training for improving social adjustment in adolescents with depressive symptoms. To maximize intervention effects, reduction of contingent negative emotions such as anxiety within skill performance process might be useful. Further research on actual therapeutic contexts in depressive adolescents is needed to illustrate mediators and moderators in treatment outcomes.

A-P-003

Attachment, Social Competencies, and Depression in Middle Childhood

○Murakami, Tatsuya¹, Nishimura, Takuma², Sakurai, Shigeo²

¹Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan, ²Faculty of Human Sciences, University of Tsukuba, Japan

Attachment theory has been proposed as a useful framework for understanding the development of a healthy and effective self, as well as the etiology of interpersonal problems that several individuals bring to psychotherapy. The social competencies and interpersonal processes (SCIP) model (Mallinckrodt, 2000), which is based on attachment theory, proposes that relatively secure attachment fosters the development of social competencies needed to recruit and maintain close, supportive relationships. Meanwhile, insecure attachment leads to deficits in social competency. Previous studies have revealed that the SCIP model is applicable to both non-clinical and clinical samples. However, all previous studies examining the SCIP model used adult participants. In the present study, we examined the SCIP model in middle childhood. The portion of the SCIP model begins with attachment. Recent research suggested that attachment is characterized by two dimensions of anxiety and avoidance. Attachment anxiety and avoidance contribute to a wide range of maladaptive outcomes. In this study, depression was examined as an outcome related to insecure attachment. The central element of SCIP model is social competence. This variable was assumed to

mediate the direct effect of attachment insecurities on depression. Participants were 256 children (138 boys, 118 girls; grade 4-6) from 2 elementary schools. First, they completed the Attachment Style Scale for children. This scale measures attachment anxiety of abandoned and avoidance of intimacy. Second, participants completed a measure of approval from classmates, which is one of the two subscales of the Questionnaire-Utilities as an index of social competence. Finally, participants completed the Depression Self-Rating Scale for children. Structural equation modeling revealed that approval from classmates served as a significant mediator for attachment avoidance. Attachment avoidance had a direct ($\beta = .23$) and indirect ($\beta = .14$) effect on depression. Meanwhile, attachment anxiety had only a direct ($\beta = .13$) effect on depression. This path model provided good fit to the data: CMIN = 1.468, AGFI = .971, CFI = .998, RMSEA = .043. These results revealed that the SCIP model could be applied to a middle childhood sample. Furthermore, our results suggest that both anxiety and avoidance has effects on depression. This is especially the case for the avoidance dimension has relatively strong effect on social competence and depression.

A-P-004

Cumulative Childhood Trauma and PTSD Symptoms of Sexually Abused Children in Korea: Mediating Effects of Emotion Regulation

○Choi, Ji Young¹, Oh, Kyung Ja²

¹Department of Psychiatry, Sanggye Paik Hospital, Inje University, Korea, ²Department of Psychology, Yonsei University, Korea

Background: Findings from previous studies suggested that the negative impact of childhood trauma on psychological adjustment is mediated by impairment in emotion regulation (Cloutier, et al., 2005; Shields & Cicchetti, 2001). We also know from previous studies that multiple traumas are associated with more serious psychological difficulties (Choi & Oh, 2013; Cloutier et al., 2009; Fergusson et al., 2008). However, little existing research has been done on the specific mechanism involved in the relationship between cumulative childhood trauma and severity of PTSD symptoms.

Objectives: The purpose of the present study was to identify the mediating effects of emotion regulation on the association between cumulative childhood trauma and PTSD symptoms in sexually abused children in Korea.

Methods: Data were collected on 171 children (ages 6-13 years) referred to a public counseling center for sexual abuse in Seoul, Korea. Cumulative childhood traumas were defined on the basis of number of traumas (physical abuse, witnessing domestic violence, neglect, traumatic separation from parent, and sexual abuse) as well as the severity and duration of traumas. Children were evaluated

by their parents on emotion regulation (Emotion Regulation Checklist) and PTSD symptoms (Trauma Symptom Checklist Young Children).

Results: The proposed full-mediation SEM model showed an acceptable fit, χ^2 (df = 18, N = 171) = 33.99, $p = .01$; CFI = .95; NFI = .95; RMSEA = .072, with all path coefficients significant at the .001 level. Cumulative childhood trauma is related to emotion dysregulation ($\beta = .43$, $p = .00$), and emotion dysregulation was predictive of PTSD symptoms ($\beta = .48$, $p = .00$). The partial mediation model also showed an acceptable fit, χ^2 (df = 17, N = 171) = 33.59, $p = .01$; CFI = .94; NFI = .95; RMSEA = .076, with insignificant decrease in fit. However, the direct paths from cumulative childhood traumas to PTSD symptoms in the partial mediation model was not significant. Thus, the full mediation model was deemed the most appropriate model for the relationship between these variables.

Conclusions: These findings indicate that emotion regulation is an important mechanism that can explain PTSD symptoms of cumulative childhood traumas. However longitudinal studies are needed in order to clearly verify a causal relationship.

A-P-005

Effects of Parental Behavior on Children's Anxiety-Related Reactions

○Mori, Ayaka¹, Minosaki, Kouji², Osawa, Chihaya⁵, Mine, Sayuri¹, Tabei, Miki¹, Terakado, Shiho¹, Chujoh, Nobuhiro^{1,4}, Shimada, Hironori³

¹Graduate School of Human Sciences, Waseda University, Japan, ²Counseling Center, Surugadai University, Saitama, Japan, ³Faculty of Human Sciences, Waseda University, Japan, ⁴Kawagoe Municipal Naguwasi Junior High School, Saitama, Japan, ⁵National Center of Neurology and Psychiatry, Tokyo, Japan

“Exposure” to daily life situations can serve as an intervention to reduce anxiety in young children (Hudson et al., 2009). Typically, such exposure is done with a parent (Scholing, Emmelkamp, & Minderaa, 2003). However, even when children and parents carry out exposure together, many children remain anxious (Creswell & Cartwright-Hatton, 2007). This may be partly due to how parents react to their children's expressions of negative emotion during exposure situations; some parents may interfere and thereby prevent sufficient exposure (Wood et al., 2003). Such parental reactions may be caused by low emotional competence—hat is, low ability to control emotions (Mikyo, 2008). Thus, after perceiving their parents' reactions, children might exhibit more evasive reactions. However, previous studies have only measured children or parents' reactions to hypothetical situations (e.g., scenario questionnaires). Thus, no study has yet assessed the relationships between children's anxiety and parental behavior by using the interactions between the participating parent and child. The current study investigated the effect of the parents' emotional competence and behavior on their children's anxiety-related reactions by considering the interactions between children and their respective parent. Twenty-seven children (mean age = 9.33 ± 1.86 years) and their mothers (40.48 ± 3.78 years)

participated in this study. Mothers completed the Emotional Competence Scale (Mikyo, 2008), while children completed the Behavioral Avoidance Task (Rachman, 1977). Mothers were allowed to behave freely during the task. The behavior of the mothers and children were videotaped. Then, we encoded participants' behaviors according to assessment criteria and calculated the frequency of behaviors divided by five whole that were displayed in mother-child interactions. Although statistical significance was not obtained, we found that mothers' approaching behavior reduced children's avoidance and subsequently led to children engaging in more frequent approaching behavior. Our findings imply that previous research methods could not clarify changes in children's behavior in response to parental behavior; however, this study suggested that children behavior is affected by parental behavior. In addition, we revealed that parents' emotional competence does not directly affect their behavior towards their children; in other words, the aspects of parental behavior that influence children's anxiety-related reactions likely extend beyond the parents' emotional competence. Reducing parental avoidance behavior towards their children's emotional expression may be helpful in exposure interventions that engage both the parents and children.

A-P-006

Reversion of Children's Automatic Thoughts Scale in Mainland Chinese Middle-School Students

○Sun, Ling, Wang, JianPing, Fabio, Favata, Fu, ZhongFang

School of Psychology, Beijing Normal University, Beijing, China

Background: It's proposed that the automatic thoughts contribute to the development and maintenance of psychological symptoms such as depression and anxiety. The automatic thoughts on personal failure or loss can predicted directly adolescents' depressive symptoms and the thoughts on threat was the strongest predictor of the anxiety symptom. Researches showed that anxiety disorders and mood disorders in children and adolescents do not remit with time without treatment and have significant impairments in adulthood. A meta-analysis research showed that the mental health of Chinese middle school students has been gradually decreasing over the recent ten years. Schniering and Rapee developed the Children's automatic thoughts Scale (CATS), which consisted four subscales about personal failure, social threat, physical threat and hostility. The scale was designed to examine the children's automatic thoughts across the emtional and behavioral problems. The aim of the present study was to measure the validity and reliability of the CATS in Mainland Chinese Middle-School students.

Methods: 1672 middle-school students from two schools complete the questionnaires, including CATS, the Screen for Child Anxiety Related Emotional Disorder (SCARED), Strength and Difficulties Questionnaire (SDQ) and the Short Mood and Feelings Questionnaire (SMFQ). 223 students were chosen to complete the CATS again after 1 to 4 weeks.

Results: (1) Confirmotroy factor analysis supported four distinct factor model: personal failure, social threat, physical threat and hostility. (2) Cronbach's alpha coefficients of the four subscales were between 0.868 to 0.925; the test-retest reliability results of the four subscales ranged from 0.635 to 0.793. (3) For the total scores of CATS, the correlation coefficients were 0.722 to anxiety, 0.774 to depression, and 0.687 to difficulty scores respectively($p < 0.05$). (4) Gender had a main effect on the hostility subscale. Age had a main effect on the CATS total score and all the four subscales except the personal failure factor.

Conclusion: The Chinese version of CATS showed acceptable psychometric quality and can be used to assess the negative automatic thoughts in Chinese Middle-school students.

A-P-007

Factor Structures of Cognition Relating To the “Minds” of Self and Others in Japanese Undergraduates

○Mohri, Ibuki

Teikyo University, Tokyo, Japan

Background: The mental state inference of others has been considered to be important for human survival. On the other hand, in cognitive therapy, mind reading is a type of cognitive error, to assume that a person knows what people think without having sufficient evidence of their thoughts. It has been pointed out that there is a possibility of cultural factors that affect cognitive errors and the understanding of others' mental states (Beck et al., 1979; Naito & Koyama, 2006), and thus groups that share cultural constants may have a shared cognitive bias with respect to understanding others' mental states. This study has exploratorily investigated the factor structure of cognition relating to the “minds” in Japanese undergraduates.

Method: Items related to cognition regarding the minds (e.g., feelings, thoughts) of self and others were prepared utilizing the results of previous study (Mohri, 2012). These items were administered to 152 Japanese undergraduates. Among them, 94 students also completed the Japanese version of the Short Fear of Negative Evaluation Scale (SFNE; Sasagawa et al., 2004) to measure the degree of social anxiety, the Anger Arousal Scale (Watanabe & Kodama, 2001), and the Self Rating Depression Scale (Zung, 1965). This study was approved by Teikyo University's

ethics committee on psychological research on human subjects on December 5, 2012 (Approval No. 74).

Results: To conduct exploratory factor analyses with promax rotation of the cognition regarding the minds extracted three self-related factors: desire to be understood (Factor 1), respect for sense of self (Factor 2), and isolation from the relationship with the self (Factor 3); and two other-related factors were identified: understanding and respect of others (Factor1), and others' lack of understanding (Factor 2). Significant correlations with SFNE were found for self-related Factor 1 ($r = 0.22$; $p = 0.05$), Factor 3 ($r = 0.32$; $p = 0.01$), other-related Factor 1 ($r = 0.53$; $p = 0.01$), and Factor 2 ($r = 0.24$; $p = 0.05$).

Discussions: The contents of other-related factor 1 are similar to the consideration towards others demanded of people in Japanese culture. Consideration towards others is an *a priori* goal in social situations, and attention towards the self is enhanced by consciousness of whether one has been able to achieve that goal. The anxiety that is evoked as a result may be characteristic of social anxiety in Japan. Note: This work was supported by MEXT KAKENHI Grant Number 24530890.

A-P-008

Treatment of a Novel Specific Phobia Using Cognitive Behavioural Therapy: Case Study on Sinoglossophobia (Phobia of Chinese Language)

○Poh, Brian, Penchaliah, Sivananda

Institute of Mental Health, Singapore

Specific phobia is an anxiety disorder characterised by a persistent and excessive fear of a particular object or situation, which is avoided or endured with intense distress. Specific phobia is highly prevalent but there is a common but mistaken perception that it is less severe than other anxiety disorders because the fear is limited to the phobic stimulus. In reality, the clinical picture of specific phobia shows that the patient can suffer from serious life impairment and distress comparable to other mental disorders. Five main types of specific phobia are listed in DSM-IV-TR, namely animal type, natural environment type, blood-injection-injury type, situational type and other type but there is no exact number on the total count of specific phobias. A search over the internet generates ever-increasing items with the -phobia suffix. Many of these phobias are not documented in scientific literature, but they could still be a genuine psychological condition. In this case study, a novel specific phobia was discovered and treated successfully using cognitive behavioural therapy (CBT). The subject, a Singaporean Chinese teenager, suffered from a phobia of Chinese language (hereby named Sinoglossophobia). He experienced intense fear and discomfort which exacerbated to

panic attacks whenever he came into contact with Chinese language and its derivatives, including the sight and sound of Chinese words and English words relating to Chinese. This is a novel specific phobia, unrecorded in scientific literature, of a Chinese subject who learned Chinese since young but developed a phobia towards this language in his teenage years. Critical components of CBT, in particular, graded exposure, coping and relaxation techniques, thought challenge, positive self-statement and cognitive restructuring are used extensively to treat the subject. The development of the phobia, case formulation and treatment using CBT are documented in details in this case study. Important learning points are attained from this case study. It showed that a specific phobia can develop from any stimulus, even one that was previously familiar. This case study also demonstrated the effectiveness of CBT on a novel specific phobia. With the high prevalence of specific phobia and literally thousands of unrecorded phobias found online, more evidence-based research of CBT treatment on these phobias can substantiate the robust effectiveness of CBT as a gold-standard psychological intervention of specific phobia.

A-P-009

Anxiety Disorder Symptoms between Adolescents and Parents: A Cross-Cultural Comparison in UK and Japan

○Ishikawa, Shin-ichi¹, Okajima, Isa², Sasagawa, Satoko³, Sato, Hiroshi⁴, Otsui, Kanako⁵, Essau, Cecilia⁶

¹Faculty of Psychology, Doshisha University, Kyoto, Japan, ²Japan Somnology Center, Neuropsychiatric Research Institute, Tokyo, Japan, ³Faculty of Human Sciences, Meiji University, Osaka, Japan, ⁴Faculty of Sociology, Kansai University, Osaka, Japan, ⁵Faculty of Applied Sociology, Kinki University, Osaka, Japan, ⁶Department of Psychology, University of Roehampton, Tokyo, Japan

Anxiety disorders are common psychological problems in children and adolescents. Numerous studies suggest anxiety disorders tend to run in families. However, these findings were based on studies conducted in only Western culture. Therefore, this study aims to examine the relationship between adolescents' and parents' anxiety symptoms in Japan and England.

Method:

Participants

The sample consisted of 689 adolescents, aged 12 to 17 years olds and their parents in Japan and England. The sample consisted of 689 adolescents, aged 12 to 17 years olds and their parents in Japan and England. Three hundred and thirty-eight of these adolescents were from England (mean age = 14.95, *SD* = 1.74; 149 boys and 189 girls) and 351 were from Japan (mean age = 13.72, *SD* = 0.77; 156 boys and 194 girls: 1 unspecified). A mean age of parents participated in the study were 44.75 years (*SD* = 7.04) in England and 42.75 years (*SD* = 5.05) in Japan.

Instruments

The Spence Children's Anxiety Scale (SCAS; Spence, 1998). The SCAS was used to measure adolescents' symptoms of anxiety disorders including separation anxiety, social phobia, obsessive-compulsive disorder (OCD), panic/agoraphobia, physical injury fears, and generalized anxiety disorder (GAD).

The Spence-Essau Anxiety Scale (SEA; Spence & Essau, 2000). The SEA was used to measure parents' symptoms of anxiety disorders including social phobia, OCD, panic/agoraphobia, specific fears, and GAD.

Results and Discussion: A MANOVA on the total score and subscales of the SEA was conducted to examine country differences; Wilks's lambda was significant, lambda = 0.74, $F(5,663) = 47.17$, $p < .001$. Results of the ANOVA indicated that English parents reported significantly higher score than Japanese for the panic/agoraphobia, GAD, and the total score, $F(1,668) = 97.81, 50.32, 14.88$, $p < .001$, respectively. On the other hand, OCD symptoms were significantly higher in Japan than in England, $F(1,668) = 4.81$, $p < .05$. Although correlations within the SEA were significant in England ($r = .41 - .90$, $p < .001$) and Japan ($r = .32 - .82$, $p < .001$), those of the SEA and the SCAS were different significantly between two countries. Specifically, English parents' and adolescents' anxiety symptoms were correlated moderately, whereas there was no correlation in Japan, $r = .25$ vs. $r = .01$, $z = 2.52$, $p < .05$, for the total score. In Japan, therefore, relationship between adolescents' and their parents' own symptoms of DSM-anxiety disorders were comparatively inconsistent than English family.

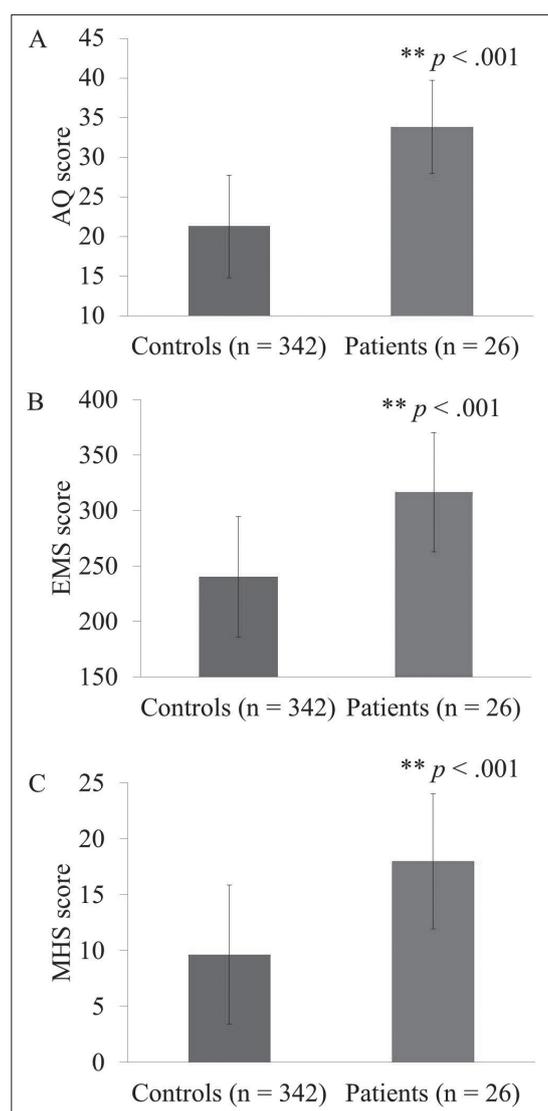
A-P-010

Autism Apectrum Traits in Adults Affect the Mental Health Status via Early Maladaptive Schemas

○Oshima, Fumiyo¹, Nishinaka, Hirofumi², Iwasa, Kazunori³, Ito, Emi¹, Shimizu, Eiji¹¹Research Center for Child Mental Development Chiba University Graduate School of Medicine, Japan, ²Chiba University Center for Forensic Mental Health, Japan, ³Department of Educational Psychology, Faculty of Education, Shujitsu, Japan

The present research reports on two studies that investigated relationships between adults with autism spectrum disorders (ASD), early maladaptive schemas (EMSs) and mental health status. Study 1 focused on the mediational role of EMSs on the relationship between autism traits and mental health status. Study 2 focused on the differences of autism traits, EMSs, and mental health status between ASD patients and healthy controls. In study 1, 342 people

completed the AQ, YSQ, and GHQ. Results indicated that autism traits in adults affect the mental health status via early maladaptive schemas. Moreover, 342 healthy controls and 26 ASD patients participated in study 2. There were significant differences between patients and healthy controls on the AQ, YSQ, and GHQ. These findings indicated that EMS might be a valuable framework to understand mental health problems in adults with ASD.



A-P-011

Implicit and Explicit Attitude in Person with High Personality Disorder Traits

○Ichikawa, Reiko, Murakami, Tatsuya, Mochizuki, Satoshi

Doctoral Program in Psychology, University of Tsukuba, Ibaraki, Japan

Introduction: Implicit attitude is an index of latent and unconscious attitude toward self. Especially, implicit self-esteem measured using Implicit Association Test (IAT), the influences of interaction of implicit and explicit self-esteem on various personalities and maladaptive tendencies have been clarified. Moreover, implicit attitudes predict unconscious behavior (Asendorpf et al., 2002), on the other hand, personality disorder (PD) in DSM-IV-TR (APA, 2000) includes dysfunction of controlling impulse. However, the relationships among implicit attitudes and PDs have not been studied well. The purpose of this study was to examine the relationships among implicit-explicit attitudes and personality disorder traits.

Method: Eighty-five undergraduates and graduates participated in this study. They carried out three IAT tasks which measure implicit self-esteem (Japanese ver.; Yamaguchi & Murakami, 2000), implicit shyness (Aikawa & Fujii, 2011), and implicit undervaluing others (Fujii & Kamibuchi, 2010). Also, they completed questionnaires measuring self-esteem, social self-esteem, and undervaluing others for explicit variables, and SCID-II (Japanese ver.; Takahashi & Osone, 2003) for borderline, narcissistic, histrionic, obsessive-compulsive, dependent, and avoidant personality disorder traits.

Results: Each IAT scores were computed according to Greenwald et al.(2003).Correlation analyses among

all variables showed, in explicit attitudes, borderline, dependent and avoidant PD traits correlated negatively with self-esteem and social self-esteem ($r=-.30--.72$, $p<.01$), narcissistic PD trait correlated positively with social self-esteem ($r=.27$, $p<.05$) and undervaluing others ($r=.45$, $p<.01$), histrionic PD trait correlated positively with self-esteem, social self-esteem and undervaluing others ($r=.31-57$, $p<.01$), and obsessive-compulsive PD trait correlated positively with undervaluing others ($r=.27$, $p<.05$). In implicit attitudes, only implicit shyness showed significant correlation with borderline and avoidant PD traits ($r=-.37--.39$, $p<.01$).T-test by groups with high or low PD trait scores showed high borderline or avoidant PD trait group showed higher implicit shyness than the low PD trait groups ($t(83)=4.11-4.49$, $p<.01$), high obsessive-compulsive PD trait group showed higher implicit undervaluing others score than the low group ($t(83)=2.18$, $p<.05$).

Discussion: There are differences in relationships with PDs between implicit and explicit attitudes; explicit attitudes predict PDs better than implicit attitudes. Only people with high borderline, avoidant or obsessive-compulsive PD trait showed difference in implicit attitudes to people with low scores in these PD traits. These results suggest that the discrepancy between implicit attitudes and explicit attitudes influences maladaptive personality traits.

A-P-012

Effects of Japanese Card Game Called Karuta on Self-Regulation in Children with Autism Spectrum Disorders

○Arimitsu, Kohki¹, Sumiya, Motofumi²

¹Komazawa University, Japan, ²The Graduate University for Advanced Studies, Japan

Objectives: Japanese card games called karuta have been used to educate children socially important things in Japan. A karuta has more than fifty reading and grabbing cards. A player read the words in the reading cards and other players will have to find its associated grabbing cards before anybody else does. As children play Karuta repeatedly, they are able to remember the lessons written in the reading cards. The present study would develop the Cognitive Behavioral Therapy using Karuta(CBT-Karuta) and explore its effects in improving the understanding of CBT concepts and self-regulation in children with ASD.

Methods: We determined the essential concepts in CBT and then prepared the reading sentences (e.g. When you are depressed, find your good quality.), and drawn up pictures which would conjure images of the reading cards. Seven children with ASD(8 to 12 years old) participated in the group CBT program which was carried out in fifteen, weekly sessions. Children played the CBT karuta with each other from the third to eighth session. Children were asked to read the sentence in the reading cards by turns and other children listened to the reading to the end and grabbed a picture card as soon as they found. Therapists observed the sessions which included

cognitive restructuring and other group games except playing karuta. At pre- and post-session, three to five therapists rated 10 items concerned the degree to which participants understood and used the CBT technique(CBT-T) and 20 items about the degree to which participants express positive and negative emotions during a session. Spence Child Anxiety Scale-Parents(SCAS-P) and Child Behavior Checklist(CBCL) were administered at pre- and post-treatment.

Results: Therapist ratings demonstrated an increase in the CBT-T(Cohen's $d=1.69$) and positive emotions(Cohen's $d=1.34$). Parents reports showed significant reductions on SCAS-P (Cohen's $d=.57$)and CBCL(Cohen's $d=.54$) from pre- to post-treatment.

Conclusions: Findings from present study suggest that Japanese card game called karuta could be used as an effective and autism-friendly psycho-educational method for children with ASD. It is also beneficial for children that they could express positive emotions through and after the card game. This study, however, has limitations that the effect sizes were medium on parents' ratings. Further research is needed to test the efficacy of karuta with a larger sample of children with ASD and a control group.

A-P-013

The Effects of the Dokkyo-Nakama-Program for Children with Autism Spectrum Disorders and Their Parents: A 12-month Follow-Up

○Okajima, Junko^{1,3}, Kato, Noriko^{2,3}, Yoshitomi, Yuko³, Otani, Ryoko³, Yamamoto, Junichi⁴, Sakuta, Ryoichi³

¹Department of Child and Adolescent Mental Health, National Institute of Mental Health, National Center of Neurology and Psychiatry, Japan, ²National Center for Cognitive Behavior Therapy and Research, National Center of Neurology and Psychiatry, Japan, ³Center for Child Development and Psychosomatic Medicine, Dokkyo Medical University Koshigaya Hospital, Japan, ⁴Department of Psychology, Keio University, Japan

Objective: We developed and conducted the manualized Dokkyo-Nakama-Program (DNP), which consisted of social skills training (SST) for children with autism spectrum disorders (ASDs) and parent training (PT) for their parents. This paper reports the effect of the program on parental stress and self-efficacy, and children's social skills, at a 12-month follow-up.

Methods: Seven children and their parents participated in the DNP for six months at the Dokkyo Medical University Koshigaya Hospital in Japan. The program consisted of thirteen 90-min sessions (an introductory session, six SST sessions, and six PT sessions). The inclusion criteria were as follows: (1) autistic disorder, Asperger's disorder, or pervasive developmental disorder not otherwise specified (PDD-NOS); (2) WISC -III pro-rated IQ score of 70 or above; and (3) age of 8-12 years at baseline assessment. The target skills of SST included self-introduction, conversational, peer-encouragement, peer-entry, and overture skills. The children and parents rehearsed each target skill during the session to practice at home. The target skills of PT included reinforcing greeting, conversation, engaging the

tasks, and a completion report. Each parent selected a home activity to practice the techniques over the next week and rehearsed with staff the session. In the next session, they reported and discussed their experiences (e.g., how they used the techniques, how their child responded). The parent-rated outcome measures were *the Social Responsiveness Scale (SRS; Constantino and Gruber, 2005)*, for estimating the children's social skills; *the Parent Self-Efficacy Scale (PSES; Tasaka, 2003)*, for estimating the parent's self-efficacy; and *the Stress Response Scale-18 (SRS-18; Suzuki et al., 1997)*, for estimating the parent's stress responses. The SRS was completed by elementary school teachers and parent.

Results: The complete data of five children and their parents were analyzed in a within-group comparison (pre-, post-treatment, and 12-month-follow-up). The result suggested the improvement of SRS was maintained at the 12-month-follow-up [$F(2,8) = 4.49, p < 0.05$]. After 12 months, the effect sizes of the all scales ranged from 0.10 to 1.20 (Cohen's d).

Conclusions: The improvement social skills in children with ASD was maintained after the conclusion of the DNP.

A-P-014

A Teacher Training Program for Disseminating Evidence-Based Intervention Services for Children with Developmental Delay: The Effect of On-the-Job Training (OJT)

○Matsuzaki, Atsuko¹, Yamamoto, Jun-ichi¹

¹Graduate School of Human Relations, Keio University, Tokyo, Japan, ²Keio University, Tokyo, Japan

Evidence has demonstrated that the outcomes for children with developmental delay are improved with early intervention services based on Applied Behavior Analysis (ABA). However, provision of those effective interventions is limited. In the current study, the authors developed a teacher training program, which was briefer and less intensive than others, for the purpose of dissemination. The primary goals were (i) to assess teacher's acquisition of the intervention techniques, and (ii) to assess changes in a child's development as a result of the teacher training.

Method:

Participants: Six children (three autism and three mental retardation), aged between 3-5 years old, and two female teachers participated. Both teachers had four years of experiences working at a regional support center.

Training procedures: The teacher training program consisted of (a) three 90-min lectures, (b) fifteen 30-min On-the-Job Training (OJT), and (c) nine 1-hour video feedback. Children had received one-to-one sessions from one of the teachers once in 1-2 weeks, and the OJT were implemented in the sessions.

Dependent Measures:

Teacher outcome: Teacher's intervention techniques were evaluated with 40 items of the fidelity scale.

Child outcome: Child changes were measured by the Japanese MacArthur Communicative Developmental Inventory (JCDI: Watamaki & Ogura, 2004), Kinder Infant Development Scale (KIDS: Miyake et al., 2001),

and Child Behavior Rating Scale (CBRS: Mahoney & Wheeden, 1998).

Results and Discussion:

Teacher outcome: The average of a baseline phase of the fidelity score was 74.0% and 73.4% respectively. One teacher kept a criteria of 80% from the 6th OJT, and the other from the 4th OJT. Both teachers sustained the improvements through the 3-month follow-up phase.

Child outcome: All six children improved the scores of JCDI and KIDS after the teacher training. Four children increased score of the attention category, and five children improved score of the initiation category in CBRS.

The results of this study suggested the feasibility of this brief teacher training program, and it must be greatly beneficial for children, families, and society to have evidence-based intervention services in the community.

References: Mahoney, G., & Wheeden, C.A. (1998). Effects of teacher style on the engagement of preschool-aged children with special learning needs. *Journal of Developmental and Learning Disorders*, 2, 293-315.

Miyake et al. (2001). *Kinder Infant Development Scale*. Tokyo, Japan: Center of Developmental Education and Research.

Watamaki, T., & Ogura, T. (2004). *The Japanese MacArthur Communicative Development Inventory*. Kyoto, Japan: Kyoto International Social Welfare Exchange Center.

A-P-015

Friendship on Adolescents with Autism Spectrum Disorders in Respect to Loneliness, Sex Differences, and Autism Spectrum Traits

○Sumiya, Motofumi^{1,2}, Arimitsu, Kohki³, Igarashi, Kazue⁴

¹School of Life Sciences, The Graduate University for Advanced Studies (SOKENDAI), Hayama, Kanagawa, Japan,

²Division of Cerebral Integration, National Institute for Physiological Sciences, Okazaki, Aichi, Japan, ³Department of Psychology, Komazawa University, Setagaya, Tokyo, Japan, ⁴Department of Child Culture, Shirayuri College, Choufu, Tokyo, Japan

Background: The nature of friendships and feelings of loneliness in people with autism spectrum disorders (ASD) has been investigated mainly in the United States (e.g., Bauminger and Kasari, 2000), and Israel (e.g., Bauminger, Shulman, & Agam, 2003), but not in other countries.

Objectives: Effects of sex difference and autism spectrum traits in understanding friendships and loneliness of adolescents with ASD and typically developing (TYP) adolescents were investigated in Japan.

Methods: Self-report questionnaires assessing the quality of friendships (Friendship Qualities Scale) and feeling of loneliness (Loneliness Scale) at school, were administered to Japanese adolescents (age range 10 to 15 years) with ASD (10 boys and 6 girls: WISC-3rd Verbal IQ > 85) and TYP (14 boys and 11 girls). Their parents also completed the Autism Spectrum Quotient (AQ).

Results: Adolescents with ASD, in comparison to TYP scored lower for quality of friendships with companions, and higher for emotional and social loneliness. Within the groups, the total AQ score was negatively correlated with companionship, conflict,

and help from friends in ASD, whereas there were no such correlations in TYP. Moreover, in the FQS and the subscales of AQ, social skills and conflict, imagination and companionship, as well as help were negatively correlated. TYP girls had closer friendships than boys, whereas there were no gender differences in the quality of friendships in ASD. Furthermore, there were no gender differences in loneliness in ASD, or TYP adolescents.

Conclusions: This is one of the first study to explore the nature of friendships and loneliness in Japanese adolescents with ASD and the findings were similar, though not identical to previous research in Israel and the United States. These findings again demonstrated that in their own perception, adolescents with ASD experience a high degree of loneliness and low quality of friendships, which was different from the perceptions of TYP adolescents. Also, deficits in social skills, including social motivation and imagination were identified as traits that affected friendships in the school. Lastly, implications for intervention is discussed. This study is based on a part of my master theses submitted to Shirayuri College on 2012.

A-P-016

The Effects of Rapid Auditory Processing on the Language Development in Korean Preschool Children

○Kim, Joohee, Oh, Kyung Ja

Dept. Of Psychology, Yonsei University, South Korea

Objective: Previous studies have shown that rapid auditory processing (RAP) ability predicts the development of spoken and written language in children. However, studies on RAP in preschool children have been relatively scarce until now, making RAP's applicability in preschool children largely unknown. The present study aimed to evaluate the predictive power of RAP on the development of receptive and expressive language in Korean preschool children.

Methods: Participants were 65 preschool children (32 males, 33 females) showing normal development. Each participant was tested with the Preschool Receptive-Expressive Language Scale (PRES), the Raven's Coloured Progressive Matrices (CPM), the Auditory Temporal Order Judgment (ATOJ, 155ms and 75ms), and Auditory Frequency Modulation-Detection Test (AFMD). Correlation analyses and hierarchical multiple regression analyses were conducted using PAWS 18.

Results: There was a significant positive correlation between RAP and language development. After controlling for age and general intelligence, the ATOJ significantly predicted participants' comprehensive language ability as well as both receptive and expressive language ability, while the

AFMD significantly predicted only comprehensive language ability and receptive language ability. More specifically, the additional predictive power of the ATOJ on comprehensive, receptive, and expressive language development were 3.2%, 2.0%, 4.1%, respectively. Furthermore, the ATOJ's predictive power remained significant even at the 6 months follow-up. On the other hand, the additional predictive power of the AFMD on comprehensive language development and receptive language development were 2.4% and 2.6%, respectively. However, the predictive power of the AFMD on expressive language development was not significant.

Discussion: RAP was found to be a significant predictor of language development in preschool children. Understanding a significant predictor of language development is vital for the diagnosis and treatment of language impairments. This is especially important in children with specific language impairment because RAP can predict the possibility of symptom improvement with the treatment. Thus, RAP can provide valuable information to predict prospective language development in preschool children and to plan proper interventions for children with language-development impairments.

A-P-017

Study on the Causal Relationship between Cognitive and Behavioral Factors and Depressive Symptoms in Children with Autistic Features

○Minosaki, Kouji^{1,2}, Koseki, Shunsuke³, Shimada, Hironori⁴

¹Graduate School of Human Sciences, Waseda University, Saitama, Japan, ²Counseling Center, Surugadai University, Saitama, Japan, ³Department of School Education, Aichi University of Education, Japan, ⁴Faculty of Human Sciences, Waseda University, Saitama, Japan

Because children with autistic features experience more failures in social activities or in performing various tasks, they tend to develop depressive symptoms. In recent years, an intervention based on cognitive behavioral theory has been applied to the symptoms of children with autistic features, and has been shown to reduce these symptoms. However, because the cognitive and behavioral variables that influence the symptoms of autistic children have not been clarified sufficiently. To conduct a more effective and efficient intervention, it is necessary to clarify the variables that influence the symptoms. We showed that, in children with autistic features, the "expectation for support" (negative thought) as well as the "constructive coping skills" (behavioral variable) weakened depressive symptoms, and that the "self - denying" (negative thought) strengthened the symptoms. However, because these results were obtained from the investigation at single - point, we cannot make mention to causal relationship. Therefore, this study aims to clarify the cognitive and behavioral variables that influence the depressive symptoms by longitudinal method.

A total of 111 junior high school students (63 males) and three classroom teachers (2 males) participated in this investigation. A part of the data of this study

overlaps with Minosaki et al. (2013). The students answered the Depression Self-Rating Scale (Birlson, 1981), the Automatic Thought Inventory (Sato & Shimada, 2006), and the Coping Scale (Shimada, 1998) twice (Time 2 was conducted 4 months later.). The teachers answered the Autism Spectrum Screening Questionnaire (Ehlers & Gillberg, 1993) once. This investigation was conducted on the basis of ethical considerations.

These data were analyzed by Cross - Lagged Effects Model. The results indicated that in "self - denying," a significant coefficient was shown only in the high autistic tendency (high autistic tendency: $\beta = .26, p < .01$, low tendency: $\beta = .10, n.s.$), and in "expectation of support" as well as "constructive coping," significant coefficients were shown only in the high autistic tendency ("expectation of support" high: $\beta = -.32, p < .01$, low: $\beta = -.14, n.s.$; "constructive coping" high: $\beta = -.19, p = .06$, low: $\beta = -.06, n.s.$). These results suggested that it is effective for children with high autistic tendency, it is necessary to raise their "expectation of support," and to weaken "self - denying," and it is also necessary to expand "constructive coping" skills. Since the number of samples of this study is not sufficient, it needs to increase the number of samples further from now on.

A-P-018

Visual Attention among University Students Demonstrating a Tendency Toward Autistic Spectrum Disorders

○Tsuchiya, Hatsuki¹, Sato, Yuka¹, Imai, Shouji², Kumano, Hiroaki¹

¹Graduate School of Human Sciences, Waseda University, Japan, ²Nagoya University of Arts and Sciences, Japan

Background: The ability to read facial expressions of individuals is the basis of human interpersonal communications (Sakakibara, 2007); this ability is often inhibited among autistic individuals (Mitsuto and Hashimoto, 2009). This study used an eye-tracking system (DITECT Corporation, Japan) to measure the gazing time while observing two kinds of stimuli among two groups.

Methods:

Participants: A total of 21 university students participated in the study.

Eye-tracking stimuli: Two types of facial stimuli were used. "A single-clue task" comprised an oval-shaped face with eyes oriented either to the left or to the right. In "a double-clue task" condition, the corners of the mouth were lifted upward or pushed downward in addition to the "single-clue task"

condition. Figure 1 presents eye-tracking stimuli.

Results: Participants were divided into either a high (AD) or low (TD) group of autistic spectrum disorders (ASD) tendencies based on a criterion of 20.7 points on the autistic quotient (AQ) test. A task (single or double) \times group (AD or TD) ANOVA of gazing time at each part of the face stimuli (eyebrows, eyes, nose, and mouth) yielded the main effect of the task ($F(1, 19) = 4.55, p < 0.05$) on eyebrows, and the main effect of the group ($F(1,19) = 5.38, p < 0.05$) and that on the task ($F(1,19) = 6.78, p < 0.05$) at the mouth.

Conclusions: We assumed that AD moved their eyes around the face because they found it difficult to decide which parts of face they should view to interpret facial expression quickly.

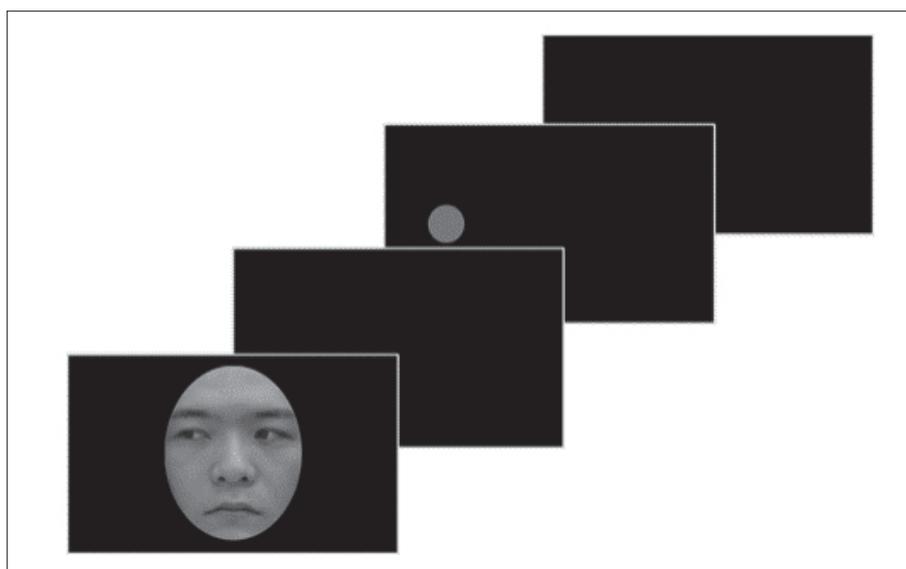


Figure 1: Flow of face stimuli

A-P-019

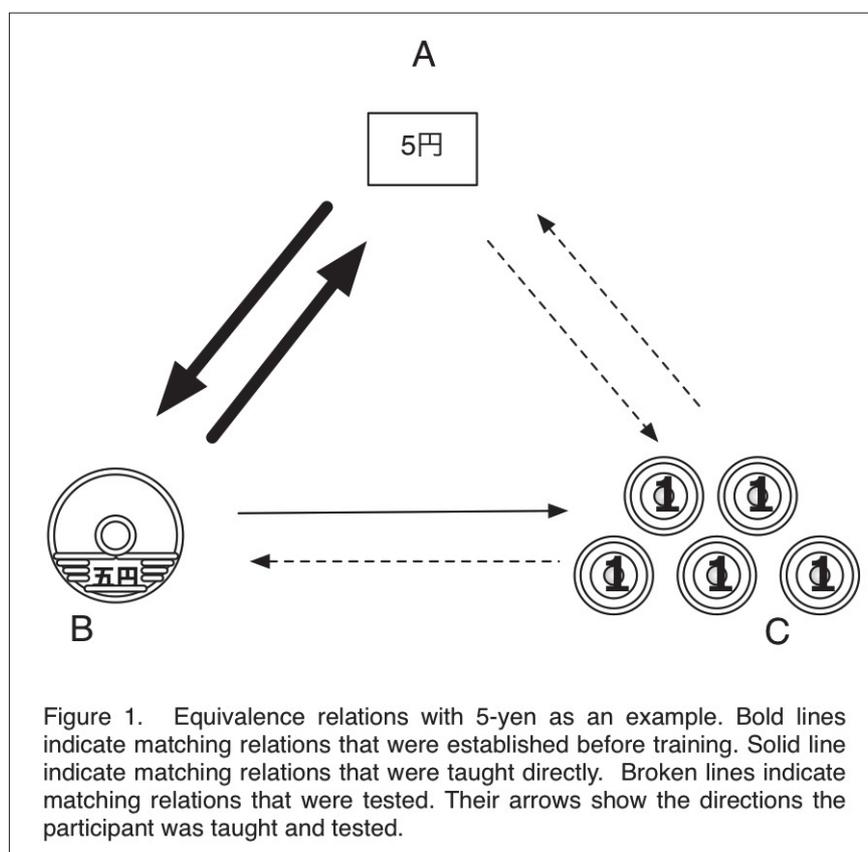
Teaching Coin Equivalences to the Youth with Mental Retardation Using Matching-to-Sample Procedures and Stimulus Equivalence

○Onishi, Risa¹, Ishikawa, Kensuke²

¹Graduate School of Psychological Sciences, Kanazawa Institute of Technology, Ishikawa, Japan, ²Laboratory of Psychological Sciences, Kanazawa Institute of Technology, Ishikawa, Japan

This purpose of this study was to teach coin equivalences (with 5-, 10-, 50-, 100-, 500-yen values) through matching-to-sample procedure and to test for the emergence of new conditional relations. Eighteen years old youth with mental retardation was participated. In the pretest before training, it was confirmed that the relation between printed prices (set A) and corresponding single coins (set B) had already learned (100%). But on the other hand, it was confirmed that the relation between groups of coins (set C) and corresponding stimulus set A (20%) and stimulus set B (48%) were not established. The participant was trained to match sample stimuli B to comparison stimuli C. For example, the participant

was trained to match a 5-yen coin to a group of 5 one-yen coins. After this matching-to-sample training, the untrained coin-to-group of coins matching tasks and printed price-to-groups of coins matching tasks were tested. As the result, the percentage of correct responses on the post equivalence test was remarkably increased. The participant could match A to C (100%), and C to A (84%), respectively. The results show a new relation between printed prices (set A) and groups of coins (set C) were formed, and suggest the stimulus-equivalence procedures for teaching money equivalences with the youth with mental retardation are effective.



A-P-020

What Makes Students with Developmental Disabilities Easy to Read and Comprehend?

○Omori, Mikimasa^{1,2}, Ishikawa, Natsumi¹, Yamamoto, Jun-ichi³

¹Department of Psychology, Graduate School of Human Relations, Keio University, Tokyo, Japan, ²Research Fellow, Japan Society for the Promotion of Science, Tokyo Japan, ³Department of Psychology, Faculty of Letter, Keio University, Tokyo, Japan

Students with developmental disabilities often show the difficulties in reading. Unlike alphabetic language reading system, there is no space between words or sentences in Japanese reading. Previous researches suggested that poor eye movements reflect the poor reading skills and its comprehension (Omori & Yamamoto, 2011; Rayner, 2009). And other study showed typically developing adults could read spaced sentences faster and identify each word easier than non-spaced ones. However, we still need to find out whether typically developing students and students with developmental disabilities show similar patterns of eye-movements during spaced-sentence reading. What is more, while some study show the brain plasticity after reading training, few study were focusing on the improvement of eye-movements after training. In first study, we examined the eye-movements patterns of typically developing adults, students, and students with developmental disabilities during reading spaced and non-spaced sentences by using an eye-tracker. We compared the patterns of them by quantitative analysis. Results showed that all group read spaced sentences faster and took smaller number of fixation than non-spaced ones. Results suggest that there were almost no different patterns of eye-movements among all groups. It is easier for typically developing adults, students, and students with developmental disabilities to read compared to read widely used

non-spaced ones. In second study, two students typically developing students and three students with developmental disabilities participated. We then conducted the two types of repeated reading training and examined whether participants show the improvement of reading accuracy, fluency, reading comprehension and eye-movements. In pre- and post-test, students were required to read spaced whole sentences and answer the five questions presented on the computer. We also measured the eye-movements during reading pre- and post-test. In whole sentence-unit reading training, students were required to read spaced whole sentences. In segment-unit reading training, students were required to read each segment of sentences one-by-one. The result indicated that all students improved their reading skills through both trainings. There was a significant interaction showing that the improvement of reading comprehension scores was greater after segment-unit reading training than the other. Both number of fixation and mean fixation duration during reading decreased after both of trainings. Results suggested that using spaced sentences and the amount of visual stimulus presentation were keys to improve reading skills and eye-movements during reading for students with developmental disabilities. We further need to examine whether two types of trainings show the different patterns of eye-movement improvement.

A-P-021

The Effect of Metaphors in Psychoeducation for Cognitive Behavioral Therapy

○Nagaoka, Sawako^{1,2}, Asano, Kenichi¹, Shimizu, Eiji^{1,2}

¹Research Center for Child Mental Development, Chiba University Graduate School of Medicine, Chiba, Japan, ²Dept. of Cognitive Behavioral Physiology, Chiba University Graduate School of Medicine, Chiba, Japan

Background: Metaphor is commonly used therapeutic tools in Cognitive behavioral therapy (CBT), which makes CBT further effective. Recently, CBT oriented clinicians have embraced the use of metaphors in their practices (Blenkiron 2005; Greenberg 2000; Stallard 2002). Beck (1995) suggests that metaphors can allow patients to distance themselves from their beliefs by reflecting on a different situation. When used properly metaphors allow the client and therapist to identify, discuss and make sense of other perspectives about what is happening which make sense to both (Salkovskis, 1996). On the other hand, it is said that the trend of autism, also make it difficult the understanding of the metaphor (Ami et al, 2000).

The purpose of this study is to explore the effect of metaphors in psychoeducation for people with Autism Spectrum.

Methods: One hundred forty-six Japanese undergraduate students (41 males and 105 females, mean age = 19.45±2.05) were randomly assigned to

two groups. One group was presented the text of psychoeducation using a metaphor (M group); the second group which do not use a metaphor (Control group). These questionnaires were what were written about the psychoeducation of depression.

Results: The participants were divided into two groups (High AQ/Low AQ). As a result of 2 (group) × 2 (High/Low AQ) ANOVA, M group's "get a new perspective" "easy to imagine" scores were higher than Control group ($p < .01$). In control group, Low AQ group's scores of understanding of psychoeducation were higher than High AQ groups. However, in M group, there was no significant difference between the two.

Conclusion: The use of metaphors in psychoeducation provides some effects. By comparing unfamiliar psychological terms to other familiar ones, participants are able to gain a better understanding of psychoeducation. Moreover, using metaphors, there is a possibility high AQ people to get a more positive effect of psychoeducation.

A-P-022

Teaching of Tact about the Life Scene in Children with Autism Examination of Instruction Using a Convenient Tool in Everyday Life

○Minagawa, Satomi¹, Hiramoto, Atsumi², Moroi, Ryoko³, Isawa, Shinzo⁴

¹Graduate School of Education, Hyogo University of Teacher Education, Japan, ²United Graduate School of Child Development, Osaka University, Japan, ³Akashi City Development Support Center, Japan, ⁴Hyogo University of Teacher Education Japan

The purpose of the present study was to examine the effect for teaching of tact about the life scene in children with autism using the tool which could use in the everyday life. The participants were four 4-11-year-old children with autism (DQ: 64-86, FSIQ: 67-114). The digital cameras which children could easily operate in everyday life were used as a tool. Then it was made by images which children oneself photographed in their life scene. The reason why let children photograph it was to show the stimulation that they watched objectively. For a method, the images which children photographed were used as the visual prompt, and demanded a report about the event that a child experienced. In the case of

correct response, they were given verbal reinforcers. In incorrect response, the verbal prompt was given. Items such as "a place", "the subject", and "at time" were assessed by three people of rating. In addition, contents were judged whether or not others could understand. The result of four children indicated improvement of tact and increase in vocabulary by having used images. The result suggested it about the effectiveness of the instruction using the tool which was easily usable in everyday life about tact. It was guessed an image was easy to share information only than words; the images were effective in promoting communication.

A-P-023

Autistic Traits Affect the Ability of Visuospatial Perspective Taking: fMRI Study

○Kanayama, Yusuke^{1,2}, Moriguchi, Yoshiya², Oba, Kentaro², Terasawa, Yuri², Mishima, Kazuo², Kumano, Hiroaki¹

¹Waseda University, Japan, ²National Center of Neurology and Psychiatry, Japan

Introduction: Perspective taking is one of the dimensions of empathy and plays a key role in our ability to promote communication. Previous research has shown that individuals with high-functioning Autism Spectrum Disorders (ASD) typically have difficulty in perspective taking. However, what processes contribute to the perspective taking in the brain remains vague. So, we used functional magnetic resonance imaging (fMRI) to investigate whether deficits in lower level of perspective taking such as 'visiospatial' perspective taking (VPT) correlate with autistic traits.

Methods: Participants were 20 right-handed college students and completed Autism Spectrum Quotient (AQ). The VPT task was an adapted version of the three mountains task introduced by Piaget & Inhelder (1948). Participants were shown a three-dimensional model of three mountains on the screen and were required to change their viewpoint as indicated by the marker around three mountains. The viewpoint angular difference was angle 0, 45, 90, 135 or 180. The response time was measured by pressing the button when participants visualized the layout of the objects from the required viewpoint (3PP).

Results: In order to analyze the behavioral data of the VPT, two-way ANOVA was conducted with

group (high AQ vs low AQ) as a between-subjects factor and viewpoint angular difference (angle 0,45, 90, 135,180) as a within-subjects factor. As a result, the response time in VPT differed between viewpoint angles, $F(4, 52) = 12.67$, $p < .001$, and the post hoc analysis indicates that participants took more response time at angle 45 and 135 than at 180 ($p < .05$). The response time were also different between high ($n=8$) and low ($n=7$) AQ groups $F(1,13) = 10.04$, $p < .01$, such that high AQ group took more response time than low AQ group. The result suggests that the task required more cognitive load in autistic people.

To identify the activated brain regions during VPT, we compared hemodynamic responses to taking perspectives from angle 45/135 vs. 0/ 90/180. As expected, we found significant activations in the precuneus, $p < .001$ (unc.) , cluster size >10 voxels. Finally, the contrast estimates of the brain activation in the precuneus positively correlated with the AQ score, $r(18) = .52$, $p < .05$. (e.g. social skill ($r=.47$), attention switching($r=.55$), attention to detail ($r=.13$), communication ($r=.36$), imagination ($r=.50$)).

Conclusion: These findings suggest that individuals with high autistic trait show difficulty in visuospatial perspective taking, and this difficulty in lower level of perspective taking may link to difficulty in mental perspective taking.

A-P-024

Emotional Coping Styles and Meta-Cognitive Processes in Adolescents with Self Harm Behaviors

○Yavuz, Kaasim F., Yavuz, Nuran , Uusoy, Sevinc

Bakirkoy Research and Training Hospital for Psychiatry, Neurological Sciences, Istanbul, Turkey

Objective: The aim of this study is to detect the emotion regulation processes, emotional schema styles and ruminative response styles which can contribute to self-harm behavior in adolescents and young adult patients.

Methods: The study included 101 patients who have self-harm behavior (SHB), 99 patients who have psychiatric diagnose without self-harm behavior admitted to psychiatric outpatient clinic for adolescents and healthy 99 adolescent and young adults as the control group. Participants evaluated with socio-demographic data form, self-harm behavior form, Young-Rygh Avoidance Inventory, Ruminative Thought Style Questionnaire, Meta-Cognitions Questionnaire-30 (MCQ-30) and Leahy Emotional Schemas Scale (LESS).

Results: Suicide attempts, childhood violence, domestic violence, separation from parents and migration story in the SHB group were significantly more than other two groups. These results suggest that negative life events can lead to use SHB as a coping mechanism for painful and intense emotions. Participants described rumination before and during self-harm behavior. Half of participants denoted their ruminations were going on after self-harm. This result suggests that rumination function serves the purpose of regulating emotions than cognitive content. Meta-cognitive processes of groups were evaluated by MCQ-30. Cognitive confidence,

Beliefs about need to control thoughts, Concerning uncontrollability and danger dimensions were significantly high in SHB group then others. These results suggest that individuals with SHB have difficulties about relying on their memory and attention. And also these individuals worry on their negative thoughts because of their appraisals about these negative thoughts can cause negative consequences. Groups were compared with LESS; and found that weakness against emotions, uncontrollability, rumination, seeing emotions as dangerous, dissimilarity and guilt sub-scale's mean scores were significantly higher in SHB group. Beside these results LESS acceptance of feelings, consensus, comprehensibility sub-scales were lower in SHB group. These results can show that while experiencing a negative emotion these individuals struggle to get out of this emotion, have attitudes that can increase emotional-behavioral avoidance, feels guilty and dissimilarity about their emotions and feelings. Also these indicate that individuals with SHB see their feelings as meaningless, they have reluctance of experiencing negative emotions and have lower emotional consensus. According to Young-Rygh Avoidance Inventory comparison SHB group members have more behavioral/somatic avoidance behaviors. This result suggests to us that SHB was an avoidant behavior attitude.

A-P-025

Development of a Scale Specialized in Measuring the Behavioral Aspect of Body Dysmorphic Concern

○Kurouji, Ken-ichirou¹, Ambo, Eriko², Nedate, Kaneo³

¹Toyoko-kai Medical Corporation, Japan, ²Research Center of Human Science, Waseda University, Japan, ³The Faculty of Human Science, Waseda University, Japan

Introduction: Body dysmorphic concern (BDC) is defined as negative thoughts, emotions or behaviors for a defect in one's appearance (Littleton, Axsom, & Pury, 2005). BDC regarded as a subordinate concept to body image, is believed to be a multifaceted concept consisting of cognitive, emotional and behavioral aspects (Littleton et al., 2005). However, the behavioral aspect of BDC is not sufficiently clarified. In addition, a scale specialized in measuring the behavioral aspect of BDC has not yet been developed. So, this study developed the Coping Behavior for Appearance Concern Scale (CBACS), a scale that specializes in measuring the behavioral aspect of BDC.

Results: The 66-items CBACS draft was then examined using exploratory factor analysis. In the end, 2 factors and 22 items were extracted. The first factor constituted items such as, "I wear clothes that hide my body shape or enhance its appearance", "I try to hide parts of my body with which I am concerned from others (turning one's face, turning one's body)". The first factor was named "avoidance behavior". The second factor constituted items, such as "concentrate on what I like", "enjoy the situation even if it makes me worry about my appearance

(swimming pools, baths, face-to-face situations)". The second factor was named "appropriate response behavior". Cronbach's alpha co-efficient was calculated for each. As a result, values for the frequency of avoidance behavior was $\alpha=.85$ and $\alpha=.81$ for function. The value for the frequency of appropriate response behavior was $\alpha=.76$ and $\alpha=.85$ for function. Also, examination of CBACS's validity showed a mildly significant, positive correlation between the frequency of avoidance behavior and behavioral aspect of BDC, BDC and appearance schemas. Conversely, the appropriate response behavior was only slightly negatively correlated with them.

Discussion: SBACS, a scale that can extract the behavioral aspects of BDC from two perspectives is considered to be clinically useful. Such a measure could be used as a screening device when psychologically intervening with individuals suffering with BDC. This scale could also be used to indicate which avoidance behaviors should be focused upon and the appropriate response behaviors that could replace the maladaptive avoidance behaviors.

A-P-026

Effect of Cancer Experience on Childhood Cancer Survivors' Psychological Responses (1)

○Takeuchi, Emi¹, Ozawa, Miwa², Ojiro, Yumi³, Nagao, Ayami^{1,2}, Takei, Yuko^{2,4}, Ogawa, Yuko¹,
Manabe, Atsushi², Suzuki, Shin-ichi¹, Hosoya, Ryota²

¹Graduate School of Human Sciences, Waseda University, Japan, ²St. Luke's International Hospital, Japan, ³BML Inc., Japan, ⁴Faculty of Medicine, University of Miyazaki Hospital, Japan

Purpose: Advances in cancer treatment have increased the number of childhood cancer survivors. Previous studies revealed that a significant population of childhood cancer survivors reported severe posttraumatic stress disorder (PTSD) symptoms; however, they did not fulfill DSM diagnostic criteria (Phipps et al., 2005; Gerhardt et al., 2007). Moreover, other studies reported that certain proportion of survivors experienced positive psychological changes following a struggle against cancer. Since survivors' symptoms did not meet full diagnostic criteria, their psychological responses to cancer experience as a whole were not fully identified. Therefore, this study aimed to capture the entire range of survivors' psychological responses and explore their predictors.

Method: Ninety-seven childhood cancer survivors at the completion of therapy (46 boys, 51 girls; mean age-at-survey, 14.4 ± 5.9 years) completed a survey at 7.8 ± 8.5 years after the cancer diagnosis. The patients were asked to complete the Japanese version of the Posttraumatic Stress Disorder Reaction Index (PTSD-RI) (Stuber et al., 1991), which assesses PTSD symptoms and positive psychological responses.

Results: Principal components analysis was

performed with the PTSD-RI items. Based on the previous research and the pre-analysis result, the items are classified into five main components: "psychophysiological effects of struggle against cancer," "difficulty in attention and sensation control," "repetitive recall of cancer experience," "social avoidance," and "changes in the patient's sense of values". Correlation coefficients were calculated to identify the predictors related to the five components of PTSD-RI. "Repetitive recall of cancer experience" was significantly correlated with female sex ($\beta = .44, p < .001$). "Social avoidance" was negatively correlated with age-at-diagnosis ($\beta = -.53, p < .001$). "Changes in the patient's sense of values" was positively correlated with age-at-survey ($\beta = .30, p < .005$).

Discussion: This study categorized cancer survivors' psychological responses against cancer experience into five components. Younger survivors tended to have difficulty with being positive about their cancer experience. Further, patients diagnosed at an early age were likely to have difficulties in social interactions. Intense support focusing on social skill training is needed, especially for younger survivors who are diagnosed at an early age.

A-P-027

Effect of Cancer Experience on Childhood Cancer Survivors' Psychological Responses (2)

○Nagao, Ayami^{1,2}, Ozawa, Miwa³, Ojio, Yumi⁴, Takei, Yuko^{2,5}, Takeuchi, Emi¹, Ogawa, Yuko¹, Manabe, Atsushi³, Suzuki, Shin-ichi¹, Hosoya, Ryota³

¹Graduate School of Human Sciences, Waseda University, Japan, ²Department of Research Management, St. Luke's International Hospital, ³Department of Pediatrics, St. Luke's International Hospital, Tokyo, Japan, ⁴BML, INC, ⁵Faculty of Medicine, University of Miyazaki Hospital, Miyazaki, Japan

Purpose: As the number of childhood cancer survivors increased dramatically, health and quality of life of long-term survivors became a significant clinical concern (Kamibeppu et al., 2010). One of the major problems the survivors suffer from is continual or new posttraumatic stress symptoms (PTSS). However, some survivors seemed to identify positive changes after cancer treatment (Kazak et al., 2006). Psychological experiences of childhood cancer survivors have hitherto been categorized into four negative factors ("psychophysiological effects of struggle against cancer" (PEC), "difficulty in attention and sensation control" (DAS), "repetitive recall of cancer experience" (RRC), and "social avoidance" (SA)) and one positive factor ("changes in the patient's sense of values" (CV)) (Takeuchi et al., 2013). Although previous studies have shown that psychological experiences are related with psychosocial aspects, such as the survivors' retrospective subjective appraisal of life threat at the time of treatment (RSAL), social support (SS), and trait anxiety (TA) (Izumi et al., 2002), the relationship between cancer survivors' psychological experiences and psychosocial aspects has not been clarified. Therefore, the goal of this study was to investigate the relationship between the survivors' psychosocial aspects and each factor of psychological experiences.

Method: Participants were 100 patients who had completed medical treatment (52 male and 48 female; mean age at onset 7.1 ± 5.5 years; mean age at survey 14.8 ± 6.5 years). They were asked to complete the Japanese version of the Posttraumatic Stress Disorder Reaction Index (Stuber et al., 1991), the Revised Children's Manifest Anxiety (Reynolds et al., 1985), a social support scale (Shimada et al., 1998), and an RSAL scale (Izumi et al., 2002).

Results: Hierarchical multiple regression analyses indicated that TA and RSAL were predictors of PEC (TA: $\beta = .37, p < .01$; RSAL: $\beta = .35, p < .05$; $R^2 = .44, p < .01$). In addition, TA and progress period were predictors of DAS (TA: $\beta = .45, p < .01$; progress period: $\beta = -.22, p < .05$; $R^2 = .21, p < .01$). Progress period, age at onset, and SS from the patient's mother were predictors of CV (progress period: $\beta = .38, p < .01$; age at onset: $\beta = .26, p < .05$; SS from the patient's mother: $\beta = .24, p < .05$; $R^2 = .19, p < .01$). Additionally, TA and female sex were predictors of RRC (TA: $\beta = .32, p < .01$; female sex: $\beta = .40, p < .01$; $R^2 = .31, p < .01$). Moreover, age at onset was a predictor of SA ($\beta = .47, p < .01$; $R^2 = .38, p < .01$).

Conclusions: Among psychological experiences, TA had the strongest influence on survivors' cognition of cancer. Therefore, care for childhood cancer should make particular efforts to reduce patients' anxiety.

A-P-028

The Relationship between Positive and Negative Aspects of Body Outcome Expectancy and Normal/Neurotic Dieting Behavior

○Suzuki, Tomohiro

School of Child Psychology, Tokyo Future University, Tokyo, Japan

Introduction: Previous study suggests that slimness may have psychological functions for others. And people have positive and negative aspects of body outcome expectancy and this expectancy affects the drive for thinness which could lead to dieting behavior (all behaviors performed with the intention of becoming slim or of keeping shape). Previous psychological study revealed that whether people focus on positive or negative information leads to different type of behavior. Considering that mechanism, the relationship between positive/negative aspects of body outcome expectancy and normal/neurotic dieting behavior may show different patterns. Thus, this study examined the relationship between positive and negative aspects of body outcome expectancy and normal/neurotic dieting behavior.

Method: One hundred and eighty-one female students ($M = 20.3$ yrs., $SD = 2.0$) completed a scale assessing positive/negative outcome expectancies of others' evaluations (Suzuki, 2013). This scale contains four subscales: positive outcome expectancy for females' evaluation, positive outcome expectancy for males' evaluation, negative outcome expectancy for females' evaluation, and negative outcome expectancy for males' evaluation. Participants also completed the Dieting Behavior Scale, which includes subscales on Structured Diet and Extraordinary Diet (Matsumoto, Kumano, and Sakano, 1997), the former reflects normal dieting behavior while the latter

reflects neurotic dieting behavior.

Results: Pearson's correlation coefficient r_s between the scores on the positive/negative outcome expectancies of others' evaluations scale and structured/extraordinary diet scale were calculated. Results showed that the positive outcome expectancies of female and male evaluations were positively related to structured diet ($r_s = .309$ and $.322$, $ps < .001$, respectively), while negative outcome expectancies of female and male evaluations were positively related to extraordinary diet ($r_s = .311$ and $.322$, $ps < .001$, respectively). Furthermore, positive outcome expectancies of male evaluations were positively related to extraordinary diet. The other relationships were slightly weak.

Discussion: As mentioned above, positive outcome expectancies of others' evaluations are related to normal dieting behavior. Therefore, normal dieting to become slim is considered one of adornment, and may have a positive function related to QOL. Conversely, negative outcome expectancies of others' evaluations are related to neurotic dieting behavior. It suggests that psychological education dealing with negative outcome expectancies of others' evaluations may be useful for preventing neurotic dieting behavior. The relationship between positive outcome expectancies of males' evaluations and both normal and neurotic dieting behavior may also play a key role in dieting behavior.

A-P-029

Relationship between Cognitive-Behavioral Types of Help-Seeking, Self-Esteem, and Well-Being

○Honda, Masahiro

Department of Education, Hokkaido University of Education, Hokkaido, Japan

Introduction: For ensuring appropriate help or treatment, it is important to not only develop more effective treatment methods but also make it easier for clients to enter clinics or counseling centers. Moreover, junior high school students in Japan tend to consult their friends rather than professionals such as school counselors (Ishikuma & Onose, 1996). "Help-seeking" refers to cognition or behavior whereby people seek help or consult others (e.g., Srebnik, Cause, & Baydar, 1996). While cognitive-behavioral interventions may be partially effective for improving help-seeking behavior (Gulliver, Griffiths, Christensen, & Brewer, 2012), cognitive-behavioral characteristics of help-seeking have not been thoroughly examined to date. This study investigates the relationship between the cognitive-behavioral patterns of help-seeking, self-esteem, and well-being.

Methods:

Participants: The participants were 236 junior high school students. The participants were asked to complete a questionnaire; The 208 questionnaires were completed.

Measures: *Help-seeking preferences.* Cognitive aspects were measured using the Help-Seeking Preferences Scale (Honda, Arai, & Ishikuma, 2011).

Help-seeking skills. Behavioral aspects were measured using Help-Seeking Skills Scale (Honda, Arai, & Ishikuma, 2010).

Self-esteem. The Scale of Self-Esteem (Yamamoto, Matsui, & Yamanari, 1982) was utilized.

Well-being. The scales used included the following: Stress Responses Scales (Miura, Sakano, & Agari, 1998) and Scale of

Enjoyments of school (Furuichi & Tamaki, 1994).

Results: The results of the cluster analysis showed that the participants could be grouped into the following four clusters: noninvolvement of help-seeking, active help-seeking, avoidance of help-seeking, and conflictive help-seeking. The results of the analysis of variation showed that (a) participants of the active-help-seeking type derived higher levels of enjoyment from their school scores than those of the avoidance of help-seeking type ($F_{(3,200)} = 9.48, p < 0.01$), (b) participants with lower levels of self-esteem had higher stress-response scores when compared with those with higher levels of self-esteem ($F_{(1,200)} = 55.48, p < 0.01$), (c) participants of the conflictive help-seeking type with lower levels of self-esteem had higher stress-response scores than the active-help-seeking participants ($F_{(3,200)} = 2.92, p < 0.05$).

Discussion: The findings of this study suggest that the people who seek help with conflicted cognition and low levels of self-esteem tend to have increased stress responses because low self-esteem leads to negative evaluations of received help (Honda & Ishikuma, 2008). The results of this study indicate that when cognitive-behavioral interventions for functional help-seeking are conducted, additional support for negative cognitions of help-seeking and self-esteem becomes important.

A-P-030

Mindful Yoga for Mothers: Focus on the Discrepancy between Ideals and Actualities of Child Rearing

○Soma, Hanae, Koshikawa, Fusako

Faculty of Letters, Arts and Sciences, Waseda University, Tokyo, Japan

Purpose: Many self-theories presume that discrepancies between the ideal and the actuality of child rearing influence the psychological adjustment of mothers. Mindfulness-based interventions, which develop awareness and acceptance of the present-moment experience, are an effective approach for dealing with an ideal-actual discrepancy. These interventions also protect against the reactivation of discrepancies, and lead practitioners to be consonant with actuality (Segal, Williams, & Teasdale, 2002).

Mindful yoga is a type of mindfulness-based intervention which cultivates awareness of body sensations, breathing, and the stream of thought and emotions, with an attitude of acceptance. This study investigated the effects of mindful yoga on the ideal, the actuality, and the discrepancy between them for mothers who are actively engaged in child rearing.

Method: Participants were 21 mothers, 26 to 43 years old ($M = 36.0$, $SD = 4.68$). Before the intervention, the participants were asked to wait for two weeks as a "control time" condition. Then the mothers were taught and practiced mindful yoga for two weeks, based on the yoga meditation exercises of the mindfulness-based stress reduction (MBSR) program. A questionnaire was administered three

times: before the control time, after the control time (pre-intervention), and post-intervention. This questionnaire about child rearing assessed the ideal, the actuality, and the discrepancies between them.

Result: The main results of the analyses of variance were as follows. First, the ideal scores did not differ significantly among the three times ($F(2,40) = 1.43$, *n.s.*). There were significant differences related to the times for the actuality scores ($F(2,40) = 9.46$, $p < .001$) and the discrepancy scores ($F(2,40) = 8.63$, $p < .001$). Tukey's multiple comparison test revealed that the actuality scores at post-intervention were higher than at pre-intervention ($p < .05$). The discrepancy scores at post-intervention were marginally lower than at pre-intervention ($p < .10$).

Conclusions: While there was no clear effect of mindful yoga on the ideal scores, there were changes in the actuality and discrepancy scores from pre- to post-intervention. These changes may be attributable to the enhancement of the mothers' awareness about their own experiences coexisting with an attitude of acceptance. Future research is necessary to determine why mindful yoga may help to enhance the perception of the actuality, and decrease the discrepancy with the ideal regarding child rearing.

A-P-031

Effects of Classwide Social Skills Training Implemented by Homeroom Teacher for Fifth Grade Elementary School Children

○Chinda, Yoko¹, Tanaka, Masanori²

¹Graduate School of Education, Hirosaki University, Hirosaki, Japan, ²Faculty of Education, Hirosaki University, Hirosaki, Japan

Objectives: Previous studies indicated that classwide social skills training (CSST) based on cognitive-behavioral approach was effective for not only prevention of various psychological problems but also promotion of adaptive behaviors among elementary school children. However, there were few studies that CSST program conductor was in charge of one's class in Japan. In the present study, we evaluated effects of CSST program implemented by homeroom teacher for fifth grade elementary school children.

Methods: This study was approved by both the principal of a school and the parents of their children at the school. To select the target skills, we discussed with homeroom teachers. As a result, we developed the program which included three 45-minute sessions. According to the session guidelines which were prepared by us, all sessions were implemented by homeroom teachers as a class of health and physical education with the support of first author. The components of this program were active listening skills, positive words, and empathic words. 129 fifth grade children participated in this study. We adopted a waiting list control design. Participants were assigned either to a CSST group ($n=97$) or a waiting list control group ($n=32$). They were asked to complete a set of questionnaires including the self-report items about target skills and

the self-worth subscales of Harter's self-perception profile for children at the time of before and after the program. To examine the effects of the intervention, we performed two-way analysis of variance (group \times time).

Results: The results showed that there were significant interactions on the scores of target skills (active listening skills; $F_{1,127}=16.70$, $p<.01$: positive words; $F_{1,127}=11.98$, $p<.01$: empathic words; $F_{1,127}=8.81$, $p<.01$). Compared with the control group, a self-report score of active listening skills in CSST group had significantly increased ($p<.05$). On the other hand, it was found that there were no significant differences between groups on the scores of positive words and empathic words at the endpoint of the program. On the score of self-worth, there was marginally significant interaction ($F_{1,127}=3.59$, $p<.10$). A self-report score of self-worth in intervention group was higher than control group at the time of after the program ($p<.10$).

Conclusion: Our findings suggested that CSST based on cognitive-behavioral approach for elementary school children was effective even if the program conductor was a homeroom teacher without training well about cognitive-behavioral approach. In the future, we need to evaluate the long term effects of this program.

A-P-032

Group Social Skills Training for the School Teacher Candidate Undergraduate Students

○Tanaka, Masanori¹, Chinda, Yoko²

¹Faculty of Education, Hirosaki University, Japan, ²Graduate School of Education, Hirosaki University, Japan

Objectives: Recently, the number of children and adolescents with various mental health problems has been increased in Japan. It is indispensable for the school teachers to acquire high empathic skills for dealing with them adequately. In this study, we evaluated the effects of group social skills training program that aimed to enhance the active listening skills for the school teacher candidate undergraduate students.

Methods: This study was carried out as an extra lecture of clinical psychology for school teacher candidate at university. We provided explanations on this study for undergraduate students who took a course in this lecture before the program. We obtained their consent to participate in this study from fifty undergraduates. We adopted a waiting list control design. Participants were assigned either to a training group ($N=25$) and a control group ($N=25$). The program had three times session. Each session was conducted a once per week. It consisted of instructions about active listening skills, modeling, rehearsal, and feedback. Finally, forty people ($N=16$ in training group, $N=24$ in control group) accomplished the program completely. In order to assess the effects of the program, we asked them to

fulfill a set of questionnaires about a self-report item about knowledge of active listening skills assessed by visual analogue scale (VAS) and Listening Attitude and Listening Skill subscales of Active Listening Attitude Scale (Mishima et al., 2000) at the time of before and after intervention.

Results: Two-way analysis of variance (group x time) revealed that there were significant interactions on the VAS score ($F_{1,38}=76.05, p<.01$), Listening Attitude score ($F_{1,38}=5.12, p<.05$). On the other hand, there was significant main effect of time ($F_{1,38}=5.30, p<.05$) only on the score of Listening Skill. Compared with control group, knowledge about active listening skills in training group was significantly elevated at the endpoint the program ($F_{1,38}=31.37, p<.01$). No significant differences between groups were found in Listening Attitude and Listening Skill at the time of after the program although Listening Attitude and Listening Skill in training group were increased.

Conclusion: These results suggested that group social skills training that aimed to enhance the active listening skills was effective at the endpoint of the program. We need to conduct a follow-up study whether these effects were maintained for a long time.

A-P-033

The Relationships between Psychological Flexibility, School Stressors, and Feeling of School Avoidance

○Suzuki, Minori¹, Tashiro, Kyoko¹, Ohtsuki, Tomu², Shimada, Hironori²

¹Graduate School of Human Sciences, Waseda University, Japan, ²Faculty of Human Science, Waseda University, Japan

The number of potential truants students, who continue to go to school while feeling that they would like to avoid it, is gradually increasing (Morita, 1991). This feeling of school avoidance is considered one factor that predicts truancy. According to previous studies, feeling of school avoidance may be predicted by school stressors. However, the factor that differentiates potential and actual truants is unclear. Acceptance and Commitment Therapy (ACT), which aims to improve psychological flexibility (Hayes, et al., 1999; Mutou, 2011), has been shown to be effective in reducing frequency of truancy behavior (Wilson & Coyne, 2003). Thus, it may be that the continuing school attendance of potential truants is due to their psychological flexibility. Therefore, in the present study, we investigated the relationships between psychological flexibility, school stressors, and feeling of school avoidance. One hundred and eighty-nine junior high school students completed the School Stressors Scale for Junior High School Students, the Feelings of School Avoidance Scale, and the Avoidance and Fusion Questionnaire for Youth

(AFQ-Y). A correlation analysis revealed a significant relationship between psychological flexibility and a subscale of the feeling of school avoidance scale in "hate tendency toward attendance at school" ($r = .41$). In order to examine the buffering effect of psychological flexibility, hierarchical multiple regression analysis was conducted. In step 1, we included the total scores of the AFQ-Y and school stressor scale, and step 2, we included the interaction terms. The results showed that the interaction between school stressors and psychological flexibility was not significant. These results indicated that psychological flexibility does not buffer the relation between school stressors and feeling of school avoidance. Nevertheless, students with high psychological flexibility appeared to have less feeling of school avoidance. This may suggest that improvement in psychological flexibility encourages students to accept their feelings of school avoidance, thus decreasing the likelihood of them engaging in truancy.

A-P-034

A Study of Relationship between School Adjustment and Teachers' Peculiar Belief in Japanese High School Students and Class Teachers

○Fujiwara, Kazumasa¹, Kawamura, Shigeo²

¹Graduate School of Education, Waseda University, Tokyo, Japan, ²School of Education, Waseda University, Tokyo, Japan

This study was conducted to investigate the relationship between high school students' adjustment to school and teachers' peculiar beliefs. Participants were 21 class teachers in high school (male; 17, female; 4) and 570 students in their class (male; 432, female; 414). Class teachers completed the scale of teachers' peculiar beliefs for high school teachers (fujiwara & kawamura, 2012) and students in their class completed the scale of school adjustment (kawamura, 1999). The results were as follows. Negative correlation coefficient was

observed among student control beliefs, vocation for teaching beliefs, expectation for student beliefs and school adjustment ($r=-0.40\sim 0.68$, $p<0.01$). These results suggested that peculiar beliefs reduced school adjustment. When teachers with strong peculiar beliefs educate their students, the teachers control students on educational activity. Therefore it is considered that it is necessary for teachers to experience rational emotive behavior therapy. In conclusion, school maladjustment problems are associated with teachers' peculiar beliefs.

A-P-035

Different Effects on Anger Reactions of Attentional Bias and Coping Interventions for Elementary and Junior High School Students (I): A Cross-Sectional Study

○Tabei, Miki¹, Hashimoto, Rui¹, Minosaki, Kouji^{1,2}, Sato, Tomoya¹, Shimada, Hironori³

¹Graduate School of Human Sciences, Waseda University, Saitama, Japan, ²Counseling Center, Surugadai University, Saitama, Japan, ³Faculty of Human Science, Waseda University, Saitama, Japan

Two related processes induce anger reactions: the information-processing process in automatic response to stimuli and the advanced cognitive information processing process, which requires the process of complicated evaluation (LeDoux, 1987). Because cognitive processing of controlling it called "the cognitive evaluation" exists among coping choice, anger is believed to have a stronger influence on interventions to improve coping repertory in junior high students than elementary school children, in whom cognitive skills are not yet mature. In contrast, interventions to reduce attention bias may be more effective in children than in youth because attention bias, which can predict anger to correspond to an automatic information processing circuit, is an automatic reaction that does not require highly advanced information processing. Therefore, this study that is fundamental researches to investigate the actual situation before the intervention enforcement is intended to clarify the difference of the primary and secondary student about the influence that coping needing "complicated information processing" and attention bias corresponding to "automatic information processing" give to anger emotion.

The subjects were 231 students of a public elementary school and 190 students of a public junior

high school. Anger and stress coping were measured by questionnaires. The degree of attentional bias was measured using a worksheet based on the research of Dandeneau et al. (2007).

Multiple linear regression analysis showed that attentional bias was not significant for both elementary school and junior high school students. For elementary school students, the β values of the coping subscales "behavioral avoidance," "refreshment," and "support seeking," were significant. For junior high school students, the β values of "support seeking," "cognitive coping," and "positive coping" were significant. Compared with previous studies (Otake et al., 1998), coping scores were high. Since the subjects were able to handle anger with their ample repertoire of coping strategies, coping can be considered to be strongly related to anger. Furthermore, anger scores of the present participants were generally lower than those of previous studies. This suggests that the intervention to improve the repertoire of coping methods is effective for reducing low levels of anger rather than correcting attentional bias. However, distracting attention from anger-triggering stimuli is effective immediately after anger is evoked (Hibino & Yukawa, 2004), so interventions to reduce attentional bias could be valid for decreasing anger.

A-P-036

Relationship among Targets of Social Skills, Needs of Social Skills and Pupils' Social Skills: From the Viewpoint of Comparison of Teachers' Compulsive Belief

○Fukuzumi, Noriaki¹, Kawamura, Shigeo², Yamaguchi, Shoji³

¹Graduate School of Advanced Technology and Science, Tokyo Denki University, Tokyo, Japan, ²School of Education, Waseda University, Tokyo, Japan, ³School of Science and Engineering, Tokyo Denki University, Tokyo, Japan

This study was conducted to investigate the relationship among targets of social skills, needs of social skills to pupils and pupils' social skills from the viewpoint of comparison of teachers' compulsive belief. Participants were 67 class teachers in elementary school from the fourth to the sixth grades (39 males and 28 females) and 1,777 pupils in their class (900 boys and 877 girls). Class teachers completed the scale of teachers' compulsive belief (Kawamura & Kokubu, 1996), the needs of social skills and the targets of social skills. Pupils in their class completed scale of social skills (Kawamura, 2001). The results were as follows. We classified participants according to whether their teachers'

compulsive belief score was above or below the sample median. Positive correlation coefficient was observed between targets of social skills and needs of social skills in high score of the scale of teachers' compulsive belief ($r=0.49$, $p<0.01$). Positive correlation coefficient was observed between targets of social skills and pupils' social skills in low score of the scale of teachers' compulsive belief ($r=0.41$, $p<0.05$). The present study suggested that teachers' compulsive belief interfered with the assessment of pupils' social skills. In conclusion, it is considered that it is necessary for teachers to be trained by program of rational emotive behavior therapy.

A-P-037

Effect of CRAFT to Parents of Individuals with Prolonged Social Withdrawal (HIKIKOMORI): Comparison Individual with Group

○Sakai, Motohiro¹, Hirakawa, Saori², Inahata, Yoko³, Ushio, Megumi³, Mizoguchi, Akiko³

¹Institute of Socio-Arts and Sciences, The University of Tokushima, Tokushima, Japan, ²Social Welfare Corporation Tumugi welfare Society, Ooka, Japan, ³Graduate school of Integrated Arts and Sciences, The University of Tokushima, Tokushima, Japan

The purpose of this study was to examine the effect of Community Reinforcement and Family Training (CRAFT) for the parents of individuals with prolonged social withdrawal (Hikikomori). In this study, the effect was examined by comparison individualized intervention with brief group intervention.

7 parents (mother: 100%, age: 52.4±5.58) participated in individualized intervention. Although 6 parents participated brief group intervention, 4 parents (mother: 75%, age: 60.0±11.2) only completed all sessions. Individualized intervention composed 8 sessions. Brief group intervention composed 4 sessions. The participation rate was 100% in individualized intervention and 93.8% in group intervention.

The results of this study indicated that the dropout rate of individualized intervention was 0.0%.

However, the dropout rate of brief group intervention was 33.3%. After this study, 5 individuals with Hikikomori of individualized intervention showed improvement. 2 individuals were not Hikikomori after the intervention, 3 individuals made progress on utilization of support service. So improvement rate in individualized intervention was 71.4%. But no individual with Hikikomori of brief group intervention showed improvement. Additionally, parents of individualized intervention demonstrated significantly bigger improvement in efficiency of coping with problem behaviors of individuals with Hikikomori.

This study indicated that CRAFT was an effective treatment for family of individuals with Hikikomori. Further results of this study suggested that individualized intervention is more effective than group intervention.

A-P-038

The Influence of Expectation of the Costs and the Benefits of Consulting and the Skills of Seeking-Help on the Cognition and the Utilization of Support Resources in Job-Hunting

○Mizuno, Masashi¹, Sato, Jun²

¹Graduate School of Comprehensive Human Sciences, University of Tsukuba, Ibaraki, Japan, ²Center for Humanities and Sciences, Ibaraki Prefectural University of Health Sciences, Ibaraki, Japan

The situations of the students who engaged in job-hunting in Japan get harder and harder. They feel anxiety concerning job-hunting and career decisions in their job-hunting processes. Furthermore, the anxiety harms their mental health and performance in their job-hunting. In the difficult situations, people seek and utilize support resources. Previous studies show that the cognition and the utilization of supports from friends and seniors weaken the harmful effect from anxiety in the job-hunting and career decisions. However there are no findings concerning the factors that facilitate the cognition and utilization of the support resources. In the studies of help-seeking, the expectations of the costs and the benefits of consulting and the skills of help-seeking promote help-seeking behavior. Therefore the results of this research domain are tried to apply to this research.

The purpose of this study is to explore the influence of expectations of the costs and the benefits of consulting and the skills of help-seeking on the cognition and the utilization of support resources in the job-hunting in Japan. In this study, the supports of friends who have the experiences with job-

hunting in Japan, friends who do not have those and the seniors who have those are paid attention in particular.

70 undergraduate students and graduate students who have the experiences with job-hunting in Japan completed the questionnaire. The questionnaire included scales concerning the utilization and the cognition of support resources, expectations of the cost and the benefits, and the skills of help-seeking.

The results of multiple regression analyses indicate that (1) the assiduities to the adversity of the person to consult prohibit the students from perceiving and utilizing the friends who are engaged in job-hunting as support resources, (2) the skills of help-seeking promote utilization of the friends who are not engaged in job-hunting and the seniors who have the experiences with job-hunting as support resources, (3) no findings promote the cognition of the friends who are not engaged in job-hunting as support resources are shown in this study, (4) the fears of damages of self evaluation by consulting prohibit the students from perceiving the seniors who have the experiences with job-hunting as support resources. The limitations of this study are discussed.

A-P-039

Effects of Cognitive Interventions to Reduce Children's Psychological Stress with School Elimination and Consolidation

○Koseki, Shunsuke, Suzuki, Ayana, Nakamura, Motomi, Hayashi, Moe, Koseki, Mami
Aichi University of Education, Aichi, Japan

This study examines how psychological stress can be reduced through an intervention that involves learning cognitive restructuring strategies to cope with stress-arousing situations such as changing schools or reception with school elimination and consolidation. A cognitive restructuring intervention was conducted for 4 students who entered a new school ("entering group"; 1 boy and 3 girls) and for the 79 students who were classmates of these 4 ("receiving group"; 45 boys and 34 girls). This study also examines individual differences in intervention effects by analyzing children's pre-intervention scores for automatic thoughts. The intervention comprised a single 45-min session, in which students were confronted with three problem scenes. In the each scene, the trainers engaged in role play demonstrating various school situations. In one such situation, a child receives assistance from a friend in carrying a heavy pack and then feels glad as a result of thinking "I have a kind friend who helps me." In another situation, a child's friend promised to go home with him/her but did not turn up, so the child either thought that his/her friend disliked him and felt extremely sad, or thought that his/her friend had simply forgotten about the promise and therefore did not feel very bad. After the role-play session,

children were required to fill out worksheets. An assistant trainer checked each answer individually, and prompted the children who were apprehensive about filling in their thoughts. Afterwards, several participants answered what kind of thoughts connected to what kind of feelings by raising their hands. Summing up the content of the session, the main trainer explained to the children that when they are thinking negative thoughts, they should try to think about something else, which might make them feel better. The results show that this cognitive intervention did not have an adequate effect on the stress levels of the four children who changed schools. This study showed that the effects of the cognitive restructuring approach to reduce children's psychological stress with school elimination and consolidation. Moreover, the class-wide cognitive restructuring intervention appeared to have resulted in functional changes in the behavior of children; however, analysis of the results of a questionnaire showed that these changes were not statistically significant. In the future, on the basis of this study, cognitive restructuring should be implemented effectively to reduce stress or prevent serious depression in students who experience stressful events in school.

A-P-040

Relationship between Mother-Daughter Attachment and Self-Efficacy

○Sakuma, Rei¹, Kosaka, Kazuko², Nakai, Azumi³

¹Meiji Gakuin University Graduate School of Psychology, Japan, ²Toyo Eiwa University Department of Human Sciences, ³Meiji Gakuin University Department of Psychology, Japan

Introduction: The modern mother-daughter relationship becomes closer (Watanabe, 2004). On the other hand, to build close relationships with friends and with romantic partner are major developmental tasks for adolescence. But if these relationships were failed, their self-efficacy is damaged. Then, basic trust, i.e. attachment to mothers, is important for adolescence to keep their self-efficacy. So we research about the relationship between mother-daughter attachment and self-efficacy.

Method: Participants were 104 Japanese female undergraduate students. They were administered the Generalized Self-efficacy Scale (Narita, Shimonaka, Nakazato, Kawai, Sato, & Nagata, 1995; GSES) and freely described about the most significant person in October 2012.

Results: Description about the most significant person was put into five groups, "mother", "friends", "boyfriend", "family", and "sibling". Percentage of frequency of each group was tested by a chi-square test ($\chi^2_{(4)}=73.89, p<.01$) and multiple comparison.

Fifty-one percent of female students answered that the most significant person was their mother ($p<.01$). Friends (24%, $p<.01$) were answered secondly, boyfriend (8%, $p<.01$), family (7%, $p<.01$), sibling (4%, *n.s.*) in turn. Difference of means of self-efficacy between "mother" group and the other group was examined ($F_{(4,99)}=.86, n.s.$).

Discussion: We studied the most significant person of Japanese female students. Half of female students choose a mother as the most significant person. This result was supported previous research (Watanabe, 2004). And there was no significance of self-efficacy between students selected their mother and students selected the others. Relationships between mother-daughter attachment and self-efficacy were not shown in this study. This result suggested the mother-daughter relationship doesn't have positive relationship to daughter's self-efficacy. Further investigation about what relationship is relative for self-efficacy will be required.

A-P-041

Measuring Psychological Inflexibility in Japanese Adolescents

○Ohtsuki, Tomu¹, Uemura, Midori², Kakutani, Yosuke², Kijima, Yuzo², Ishizu, Kenichiro³, Shimoda, Yoshiyuki³

¹Faculty of Human Sciences, Waseda University, Tokorozawa, Japan, ²Graduate School of Human Sciences, Waseda University, Tokyo, Japan, ³Faculty of Human Development, University of Toyama, Toyama, Japan

The present study assessed psychological inflexibility in Japanese adolescents by using the 7-item Acceptance and Action Questionnaire-II (AAQ-II: Bond et al., 2011) and the Avoidance and Fusion Questionnaire for Youth (AFQ-Y: Greco et al., 2008).

Two samples were employed. Sample A comprised 171 undergraduate students with a mean age of 19.91 ($SD = 1.23$) years. They completed the Japanese version of the AAQ-II (Kishita et al., 2008) and the Japanese version of the revised UCLA Loneliness Scale (Moroi, 1991). Sample B comprised 130 undergraduate students with a mean age of 20.22 ($SD = 1.28$) years. They completed the AAQ-II, AFQ-Y, Stress Response Scale-18 (Suzuki et al., 2007), and State-Trait Anxiety Inventory-Form JYZ (Hidano et al., 2000).

Exploratory and confirmatory factor analyses revealed that the 7-item AAQ-II had a one-factor structure with a Cronbach's α coefficient of .84, corresponding with the original version of the AAQ-II (Bond et al., 2011). The mean score was 23.32 (SD

= 7.07), which contrasts with Bond et al.'s (2011) finding of a mean score of 17.34 ($SD = 4.37$) in a sample of 433 undergraduate students. Japanese undergraduate students scored higher than their American counterparts. Scores on the 7-item AAQ-II correlated significantly in the expected directions with measures of loneliness ($r = .38$), psychological stress ($r = .49$), and anxiety ($r = .53$).

Another factor analysis revealed that the AFQ-Y had a one-factor structure with a Cronbach's α coefficient of .87. The mean score was 21.73 ($SD = 10.71$). Greco et al. (2008) found that the mean AFQ-Y score for students from grades 9 and 10 ($N = 277$) was 21.04 ($SD = 13.01$). Scores on the AFQ-Y correlated significantly in the expected directions with measures of psychological stress ($r = .49$) and anxiety ($r = .39$).

These results suggested that the Japanese versions of the 7-item AAQ-II and AFQ-Y are psychometrically sound measures of psychological inflexibility in Japanese adolescents.

A-P-042

Mediators of Cognitive Behavioral Prevention Program for Children in Depression

○Matsubara, Kohei¹, Takahashi, Takahito², Ishikawa, Shin-ichi³, Sato, Shoji²

¹Graduate School of Education, University of Miyazaki, Miyazaki, Japan, ²Faculty of Education and Culture, University of Miyazaki, Miyazaki, Japan, ³Faculty of Psychology, Doshisha University, Kyoto, Japan

Universal interventions for preventing depression typically have been conducted in schools.

Numerous studies have emphasized that mediation analysis is essential to identify specific therapeutic factors. However, mediators of prevention programs in school are still unclear, therefore, the present study conducted mediation analysis for school-based cognitive behavioral prevention program. Specifically, we tested whether social skills and cognition would account for depression reducing effects of the intervention.

One hundred and seventy elementary school children (aged 10-12 years) were assigned to either intervention group (n=82) or control group (n=88). The cognitive behavioral therapy (CBT) intervention was a group intervention that combines social skills training and cognitive restructuring aimed at the prevention of depressive symptoms.

Depression Self-Rating Scale for Children (: DSRS-C; Birlleson, 1981; Murata et al., 1996)

Children's Depression Inventory (CDI; Kovacs, 1985; Mashida et al., 2009)

Self-Report Checklist on Target Social Skills (Fujieda and Aikawa, 2001)

Children's Cognitive Error Scale-Revised (Ishikawa, 2012)

Automatic Thought Inventory for Children (Sato and Shimada, 2006)

Result: Children in intervention group reported significant reductions in depression (CDI) from

pre to post ($p<.01$) as well as from post to follow up ($p<.05$).

To test whether social skills and negative cognitions mediate preventive effects, we constructed structural equation modeling for each outcome measure.

The mediation analyses provided a larger framework that changes in social skills and negative cognitions mediate changes in depressive symptoms only in intervention group. On further the analyses, specifically, change in empathy skill influenced changes in depressive symptoms. In addition, cognitive error, negative view of self and hopeless thought influenced changes in depressive symptoms. All models showed satisfactory fit.

Discussion: Cognitive behavioral components in of the present school-based prevention program mediate improvement of depressive symptoms.

Especially, improvement of peer reinforcement skills and negative cognitions mediate reduction of depressive symptoms not only pre- to post-intervention but also until follow-up. These results support and expand the finding on CBT mediation reported by Stice et al. (2010), who showed that change in pleasant activities and negative cognition mediated change in depression.

The present study suggests that acquirement of empathy skill and improvement of negative cognition could be the primary mechanism through which the school based prevention program reduces depression.

A-P-043

Cases of Obsessive Compulsive Disorder with Unexpected Symptoms

○Okajima, Miyo¹, Harai, Hiroaki^{1,2}

¹Nagoya Mental Clinic, Medical Corporation Warakukai, Nagoya, Japan, ²Division of Clinical Research, National Kikuchi Hospital, Kumamoto, Japan

In the authors' experience, it is often the case that the treatment of panic disorder, social anxiety disorder or major depressive disorder is unexpectedly protracted and extends over a long term due to oversight of the presence of obsessive-compulsion. The obsessions seen in the patients with obsessive-compulsive disorder (OCD) are not limited to overt rituals such as taking excessive time for hand washing or door lock checking. Many patients are also obsessed with rumination called covert rituals, and the treatment in such cases is generally difficult. When the rumination is one having a sexuality-related content, patients may hesitate to ask for a consultation or the rumination may fail to be recognized as an obsessive-compulsive disorder. As a result, the patients may be left untreated. Obsessive-compulsion manifests as sensitivity to differences, which may or may not be considered a disorder depending on personal values. However, the authors consider it necessary to treat rumination as a thought addiction because depressiveness will increase as the rumination time becomes longer and the rumination is focused more on negative matters.

At our clinic specialized in the treatment of obsessive-compulsive disorder where 200 new OCD patients are treated annually, among 148 OCD patients (as of December 2012) who received the author's counseling, the coexistence of OCD with gender identity disorder problems was 4.0%, the coexistence of OCD with dental problems was 77%, and the experience of infertility treatment was 40 % (population parameter was the number of married, child bearable women). The incidences of these coexisting symptoms are higher than in the general population and, therefore, the existence of a certain relationship of such symptoms with the obsessive-compulsive disorder is suspected. In this presentation, with respect to OCD cases with coexisting symptoms, a report will be made on a protocol where a compulsion is regarded as a thought addiction and a treatment is performed using the concept of exposure and ritual prevention. Specifically, reports on 3 cases are presented, revealing their exposure targets and demonstrating the methods for ritual prevention using mindfulness training.

A-P-044

A Novel Attempt at Adapting Dialectical Behavioural Therapy for Adolescents (DBT-A) in Outpatient Group Treatment at a Singapore Psychiatric Hospital

○Kwan, Clare

Institute of Mental Health, Child Guidance Clinic, Singapore

The modified version of DBT for Adolescents (DBT-A) Skills Training Group from Rathus & Miller (2002) has been locally adapted for 8-session outpatient treatment at a child and adolescent psychiatric hospital in Singapore. The efficacy of treatment was measured by a pre-/post- comparison with the aid of standardized instruments (DASS, DERS). Adolescents with emotion dysregulation display severe mood fluctuations, threats or non-suicidal/ suicidal self-injurious behaviours are common. DBT-A for adolescents is a manualised, behavioural treatment that includes regular individual therapy, family therapy where needed, and a skills training group. Studies have found reduction of suicidal ideation, reduced behavioural incidents of self-harm, and reduction of general psychiatric symptoms (Rathus and Miller, 2002; Kat et al., 2004). All participants were in individual DBT and the participants were internally referred by their individual psychologists to the DBT-A Skills Training Group, as part of their outpatient treatment. The DBT-A Skills Training Group was facilitated by two Clinical Psychologists at the Child Guidance Clinic in an outpatient setting over a period of 12 weeks. The group treatment consisted of eight

sessions and the duration of each session was one and a half hours. The following skills were taught: Mindfulness Skills, Interpersonal Effectiveness Skills, Distress Tolerance Skills, Emotion Regulation Skills, and "Walking the Middle Path". Two participants completed eight sessions of treatment and two participants completed seven sessions of treatment. In the first and last sessions, the Depression, Anxiety, Stress Scales (DASS; Lovibond & Lovibond, 1993), Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004), and a brief self-report questionnaire on assessing borderline personality symptomology were administered. Four adolescents participated in DBT-A Skills Training Group. On the Depression and Stress scales in DASS, there was a reduction of 3 participants' scores and no depressive symptoms reported by a participant. There was a reduction of 2 participants' scores on the Anxiety scale in DASS and on the DERS. In conclusion, there is preliminary evidence that DBT skills reduce affective disturbances, improve stress tolerance and management of anxiety in adolescents. Its application warrants further evaluation. This study is currently being reviewed by the ethics board.

A-P-045

Withdrawn

A-P-046

Effectiveness of Social Problem-Solving Training for Junior High School Student: A Japanese Study

○Takahashi, Takahito¹, Ishikawa, Shin-ichi², Sato, Shoji¹

¹Faculty of Education and Culture, University of Miyazaki, Japan, ²Faculty of Psychology, Doshisha University, Japan

Introduction: We examine the effects of a school-based social problem-solving training for junior high school student. Previous research has consistently shown that stress symptoms in late childhood and early adolescence can be effectively treated using psychosocial interventions (Kraal et al., 2006). However, there is no research that examined the social problem-solving training and long-term effects as universal prevention program in Japan. This study aims to evaluate the universal prevention program included the social problem-solving training for junior high school student.

Method: Participants were 183, ranging in age from 13 to 14 years, who attended one of the 2 participating junior high schools in the Japan. We excluded 11 students as they had not attended all three sessions or had filled the questionnaire in a very inappropriate manner. In total, 172 students attended the program (Intervention group 106 children, Control group 66 children). The program took three group sessions (50 min) of social problem-solving training were implemented. The social problem-solving training has 5 components: Problem definition, Direction of solutions, Generation of alternative solutions, Decision making, and Solution implementation and verification. In order to assess the effects of the program, Children's Social Problem-Solving Scale C-SPSS; Miyata et al., 2010 (subscales: Problem definition and formulation, Generation of

alternative solutions, Decision making, and Solution implementation and Verification). Stress Responses Scale for junior high school student; Okayasu & Takayama., 1999 (subscales: Physical symptoms, Depressive-anxious feelings, Irritated-angry feeling, and Hopelessness). Children's Depression Inventory: CDI (Mashida et al., 2009) were measured pre-post program and follow-up.

Results: The results showed a significant time and group interaction whereby interaction group children reported significant reduction in stress response score (Physical symptoms, Depressive-anxious feelings, Irritated-angry feeling, and Hopelessness) and CDI scores from pre to post, from pre to follow-up compared with a control group ($p < 0.01$). Similarly the C-SPSS showed that intervention group resulted in social problem-solving scores increase compared with control group from pre to post, and from pre to follow-up ($p < 0.01$). Especially, significant improvements were found for Rational solutions, Behavioral solutions, Cognitive solutions, Generation of alternative solutions, and Decision making.

Discussion: These results suggest that the universal prevention program focused on social problem-solving skill may be an effective technique for junior high school student. Overall, these results appear to support the benefits of a school-based social problem-solving training.

A-P-047

Effects of the Environmental Risk Factors on Self-Efficacy of Adolescents: Mediating Effects of Executive Function

○Kim, Eun Yee¹

¹Humanities Korea Project Institute of Life and Death Studies, Hallym University, Korea, ²Department of Psychology, Yonsei University, Seoul, Korea

Introduction: Self-efficacy is an important factor that helps the individual adaptation. Therefore, the development of self-efficacy in adolescence is an important issue. Environmental risk factors such as single-parent families, dysfunctional parenting, economic hardship, have been known to have adverse effect on the developmental of self-efficacy (Elder & Ardel, 1992; Elder, Eccles, Ardel, & Lord, 1993). However, there are many adolescents who have developed well in spite of poor environment. Executive function is considered to be an important factor which is able to mitigate the effect of risk factors. The purpose of the present study was to investigate the mediating effect of executive functions on the influences of environmental risk factors on the self-efficacy of adolescents.

Method: Participants: A total of 799 adolescents (399 younger adolescents with the mean age of 13.91 years and 400 older adolescents with the mean age 16.97 years) were recruited from a 2 junior high schools and 2 high schools in Seoul, Korea. Measures: The participants completed a set of questionnaires assessing Environmental Risk (3 items concerning family problems, 2 items concerning parental psychopathology, 2 items concerning economic hardship), Executive Function (BRIEF-SR; Guy, Isquith, & Gioia, 2004), and self-efficacy (Self-Perception Profile for Adolescents; Harter, 1988).

Results: The results are as follows: First, the adverse effects of environmental risk factors on the self-efficacy of adolescents are largely mediated by executive function. That is, the adverse effects of environmental risk factors impede the development of executive function, which, in turn, leads to low self-efficacy of adolescents. Second, the extent of mediating effects of executive function differed depending upon the age of the group. That is, the path connecting environmental risk factors and executive function was stronger in the younger adolescents group compared to the older adolescents group. On the other hand, although not statistically significant, the path connecting of executive function and self-efficacy was stronger in the older adolescents group compared to the younger adolescents group.

Discussion: The results of the present study suggest that the environmental risk factors impede development of executive function, which results in low self-efficacy of adolescents. It also appears that different intervention strategies are needed for younger and older adolescents. For younger adolescents, intervention designed to mitigate the environmental risk factors may be more important, while intervention efforts to enhance the executive function may be more effective for the older adolescents.

A-P-048

Emotion Regulation Profiles and Emotional and Behavioral Problems in Korean Adolescents

○Yune, Hyunsoo, Oh, Kyung Ja

Department of Psychology, Yonsei University, Seoul, Korea

Objective: Studies examining emotion regulation (ER) have found that difficulties in ER and use of specific ER strategies are associated with emotional and behavioral problems of adolescents. However, most of the previous studies were based on variable-oriented approach which considers inter-individual differences as random. The purpose of the present study is to investigate whether distinct subgroups would emerge from several properties of ER, based on person-oriented approach that focuses on individuals, and to examine whether these ER profiles show differences in their associations with emotional and behavioral problems of adolescents.

Methods: Participants were 365 high school students (166 boys and 199 girls) from metropolitan area in Korea. They completed a series of self-report scales including Korean version of Difficulties in Emotion Regulation Scale (DERS), Emotion Regulation Questionnaire (ERQ) and Youth Self-Report (YSR). Latent profile analysis (LPA), a person-oriented approach that derives homogeneous groups based on the within-individual patterns across variables, was used to identify underlying clusters of adolescent ER.

Results: Groups based on seven measures of ER (five difficulties in ER: lack of emotional awareness, non-acceptance of emotional responses, limited access to ER strategies, impulse control difficulties, difficulties in engaging in goal-directed behavior; and two ER strategies: reappraisal and suppression)

were created through LPA. A five-group model was the best fit: (1) Adaptive ER group (low on ER difficulties and average level of ER strategies), (2) Excessive Strategies group (high on reappraisal and suppression), (3) Mild Dysregulation group (mild elevation on difficulties in ER), (4) Emotionally Impulsive group (high on impulse control difficulties and difficulties in goal-directed behavior), and (5) Limited Acceptance/Strategy group (high on non-acceptance and limited access to ER strategies). The five groups showed differences in adolescents' emotional and behavioral problems. Especially, the Limited Acceptance/Strategy group showed significantly higher scores on anxious/depressed and withdrawal/depressed subscales, whereas Emotionally Impulsive group had significantly higher scores on aggressive behavior and attention problem than other groups.

Discussion: Since distinct subgroups can be identified according to the pattern of ER, and these distinct ER profiles are associated with different pattern of emotional and behavioral problems, intervention focusing on specific ER deficits might be useful when treating adolescents with emotional and behavioral problems. However, only cross-sectional data were analyzed in the present study, and inclusion of longitudinal data in future would be necessary to see if these profiles and their associations with emotional and behavioral problems are stable over time.

A-P-049

Effects of Perceived Parental Control on the Psychological Adjustment of Adolescents; The Mediating Role of External Locus of Control

○Lee, Jiyeon, Oh, Kyung Ja

Department of Psychology , Yonsei University, Korea

Objectives: The research literature on the effects of parental control on the psychological adjustment of children and adolescents has reported inconsistent findings. Recently, it has been proposed that two types of parental control can be distinguished: Psychological control which refers to the parental style that intrudes into the psychological and emotional development of the child and behavioral control which refers to the parental practice that attempts to manage and monitor children's behavior. The main purpose of this study is to examine the effects of psychological and behavior control on internalized and externalized behaviors of adolescents. In addition, the role the external locus of control as a mediator between parental control and internalizing and externalizing behavior problems was tested.

Methods: Participants were 708(398 boys, 409 girls) 7th- and 12th-grade students in Korea. Participating adolescents completed a series of measures assessing perceived parental psychological control (Psychological Control Scale-Youth Self-Report; Barber, 1996), behavioral control (Daily activity scale; Kerr, Stattin, & Trost, 1999), locus of control(Multidimensional locus of control Inventory; Levenson, 1982), as well as internalized problems and externalized problems (Youth Self-Report;

Achenbach & Rescorla, 2001).

Results: The correlation between psychological control and behavioral control was significant ($r = -.19, <.001$). Perceived psychological control was positively correlated to both internalizing ($r = .28, <.001$) and externalizing behavior problems ($r = .37, <.001$). In contrast, behavioral control was negatively correlated to adolescent's internalizing ($r = -.13, <.001$) and externalizing behavior problems ($r = -.12, <.001$). Structural Equation Modeling Analysis supported the model in which external locus of control mediates the relationship between perceived parental control and adolescents' internalizing and externalizing problems.

Discussions: The results of this study provide empirical evidence in support of the hypothesis that two types of parental control (i.e., psychological and behavior control) have very different effects on the psychological adjustment of adolescents. Given the above finding, parent training programs for adolescents with behavior and emotional difficulties need emphasize the differential effects of the two types of parental control. Intervention program which addresses the issue of locus of control might also be beneficial for those adolescents adversely affected by psychological control of the parent.

A-P-050

Association between Increase in Coping Variation and Stress Responses in Elementary School Children

○Narukawa, Ryo¹, Yamano-Ikeda, Miki¹, Koseki, Shunsuke², Shimada, Hironori³

¹Graduate School of Human Sciences, Waseda University, Saitama, Japan, ²Department of School Education, Aichi University of Education, Japan, ³Faculty of Human Sciences, Waseda University, Japan

An increase in coping variation is necessary for stress response reduction. Children employ coping strategies such as positive coping, giving up, and avoiding thinking about the problem. Narukawa et al. (2012) examined the effect of stress management education with behavioral activation in children between the 3rd and 6th grades. However, they examined only stress response reduction and did not consider the increase in coping variation to influence the intervention effect. The present study reanalyzes previous data, considering coping variation. Participants were divided into three groups, receiving stress management education with group behavioral activation (SME+GBA; $N = 502$), stress management education with behavioral activation (SME+BA; $N = 42$), or stress management education alone (SME; $N = 89$). In SME+GBA, behavioral activation (group-based long rope jumping) was conducted to promote positive interaction after SME, 15 minutes per day for 5 days. In SME+BA, students practiced rope jump individually. The final group received only SME. Participants were asked to complete the Stress Response Scale (4 subscales: Physical

state, Depression-Anxiety, Irritability-Anger, and Helplessness) and Stress Coping Scale (3 subscales: Positive Coping, Giving Up, and Avoiding Thinking About the Problem) before SME (pre), 1 week (post) after behavioral activation, and about 1 month later (follow-up). Post-and follow-up Depression-Anxiety level scores were significantly lower than pre scores in all 3 groups. No other significant between-groups differences on other outcome measures were observed. The effect sizes (d ; Cohen, 1988) were as follows: SME+GBA $d_1 = .13$ (post), $d_2 = .14$ (follow-up); SME+BA $d_1 = .23$, $d_2 = .24$; SME $d_1 = .07$, $d_2 = .04$. Correlation analysis on the increase in coping variation and stress response reduction showed that in the SME+BA condition, Depression-Anxiety (pre-post, post-follow) was negatively correlated with Positive Coping (pre-post $r = -.51$; post-follow $r = -.38$). The present results suggest that SME is efficacious in reducing stress responses in children, and that the increase in Positive Coping predicts a decrease in Depression-Anxiety. In children, dealing with a stressor positively is effective in reducing stress responses.

A-P-051

Coping in Childhood Cancer Survivors: Relationships with Psychosocial Adjustment

○Takei, Yuko^{1,2}, Ozawa, Miwa³, Moritake, Hiroshi⁴, Manabe, Atsushi³, Suzuki, Shin-ichi⁵

¹Faculty of Medicine, University of Miyazaki Hospital, Miyazaki, Japan, ²Department of Research Management, St. Luke's International Hospital, Tokyo, Japan, ³Department of Pediatrics, St. Luke's International Hospital, Tokyo, Japan, ⁴Department of Pediatrics, Faculty of Medicine, University of Miyazaki, Miyazaki, Japan, ⁵Faculty of Human Sciences, Waseda University, Saitama, Japan

Introduction: Due to advances in cancer treatments, the 5-year survival rate for children diagnosed with cancer is exceeding 80% (Smith et al., 2010). With improved prognosis and increasing number of survivors, issues of survivors' adjustment have become a major focus of research in pediatric psycho-oncology. Childhood cancer survivors may experience various taxing events, including distressing memories of the illness and treatment, chronic medical or psychosocial effects, and living with the risk of relapse or secondary malignancy. These challenges may lead to their employment of various coping strategies (Kupst et al., 1995). However, only a few studies have examined the role that coping plays in long-term adaptation following childhood cancer. The aim of this study was to investigate the structure of coping strategies and the relationship between different methods of coping and the degree of psychosocial adjustment in childhood cancer survivors.

Methods: Participants were 47 childhood cancer survivors (25 male and 22 female; mean age at the time of the survey = 15.7 ± 5.1 years; mean age at diagnosis = 7.8 ± 5.0 years). Participants completed a coping inventory created by the authors. Items on the coping inventory were extracted from interviews

with childhood cancer survivors and health care professionals. Participants were also evaluated on their degree of distress as well as life satisfaction.

Results: A factor analysis revealed three elements that affected coping: acceptance of the current situation, looking for good things, putting off problems. U-test revealed that younger survivors used fewer coping strategies than older survivors ($p = .05$). It also showed that the length of disease duration resulted in a higher incidence of putting off problems ($p = .05$). When considering the relationship between coping methods and psychosocial adjustment, none of the factors of coping correlated with psychosocial distress. However, looking for good things was positively correlated with psychological satisfaction ($r = .53, p < .001$).

Conclusions: This study indicates that childhood cancer survivors confront their difficulties by using a number of coping strategies to manage their feelings rather than by solving their problems directly. We also found that their coping methods did not sufficiently improve their psychosocial distress. Therefore, we believe that for childhood cancer survivors to become better adjusted, it is necessary for them to improve their coping strategies and to be provided social support.

A-P-052

Moderating Effects of Cognitive Distortions on Disordered Eating in Korean Adolescents

○Bae, Dohee^{1,2}, Oh, Kyungja¹

¹Department of Psychology, Yonsei University, Seoul, Korea, ²Department of Neuropsychiatry, Seoul Paik Hospital, Inje University School of Medicine, Seoul, Korea

Objective: Body dissatisfaction is a well-replicated risk factor for disordered eating, yet not all individuals with body dissatisfaction exhibit disordered eating. Cognitive theories emphasize the importance of cognitive distortions such as dysfunctional assumptions about weight, shape and eating in eating disorders. Despite the theoretical importance of cognitive distortions, few studies have explored dysfunctional assumptions in disordered eating in Korea. This study examined the role of cognitive distortions on the relationship between body dissatisfaction and disordered eating in adolescents. Additionally, it investigated gender difference in this relationship.

Methods: A total of 423 high school students (228 female and 195 male) completed the following

measures: the short form of the Body Shape Questionnaire (BSQ-16; Cooper, Taylor, Cooper, & Fairburn, 1987), the Eating Attitude Test-28 (EAT-28; Garner & Garfinkel, 1979) and the Eating Disorder Belief Questionnaire (EDBQ ; Cooper, Cohen-Tovee, Todd, Wells, & Tovee, 1997).

Results: Both genders showed the predicted relations between body dissatisfaction and disordered eating. For girls, dysfunctional assumptions about weight, shape and eating moderated the relationship between body dissatisfaction and disordered eating. In contrast, it was not significant for boys,. The findings indicate that cognitive distortions represent useful factors to explanation of disordered eating and provide potential targets for future interventions based on gender.

A-P-053

The Effect of Temperament and Positive Parenting on Adolescent's Internalizing and Externalizing Problems: A 2-year Follow-Up Study in Korea

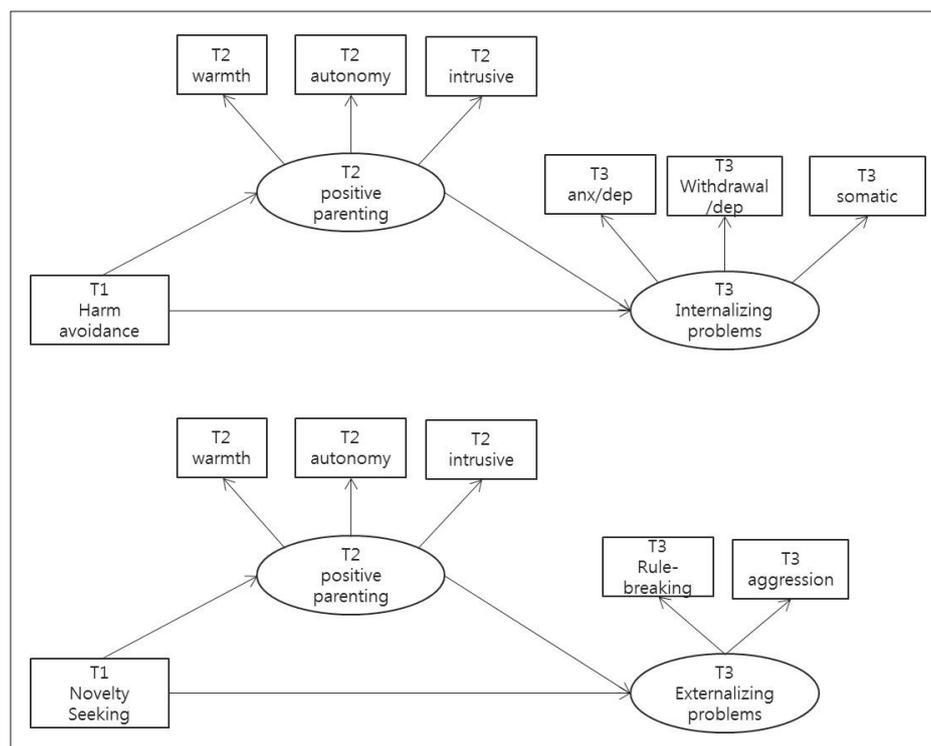
○Lee, Joo-Young¹, Oh, Kyung-Ja²

¹Department of Child Development and Education, Dongduk Women's University, Seoul, Korea, ²Department of Psychology, Yonsei University, Korea

Temperament and parenting are well-known risk factors for behavioral problems in adolescence. In this study, we focused on novelty seeking and harm avoidance temperaments proposed by Cloninger (1987) and investigated whether these temperaments are mediated by positive parenting in predicting later internalizing and externalizing problems in a 2-year follow-up data.

A total of 1,608 middle school students (799 boys and 809 girls) from metropolitan area in Korea were assessed 3 times (T1, T2, and T3) at 6-month intervals. Temperament was assessed using the Korean version of Junior Temperament and Character Inventory (Goth, 2000; Min, Oh, & Lee, 2007) at T1. At T2, participants completed the Korean version of Parental Bonding Instruments (Gamsa, 1987; Moon & Oh, 2002), and at T3 they completed the Korean version of Youth Self Report (Achenbach & Rescorla, 2001; Oh & Kim, 2010).

Two mediation models were constructed as figure 1 and figure 2. These models were tested separately in boys and girls and showed good fit. Higher harm avoidance and novelty seeking at T1 significantly predicted less positive parenting at T2 and positive parenting at T2 negatively predicted internalizing and externalizing problems respectively. Also, T1 temperaments had significant direct effects on T3 problems. The results of this study indicate that adolescent's temperament affects future parenting and this, in turn, significantly predicts increase in problem behaviors. Since each variable is assessed at different time points, a causal relationship is strongly suggested. It is noteworthy that harm avoidance relates to increases in future internalizing problems while novelty seeking relates to increases in future externalizing problems. Further research is required to test moderated mediation model across gender for these two models.



A-P-054

Exploratory Study of Latent Classes for Internalizing and Externalizing Problems in Early Childhood: A Latent Profile Analysis Applied Korean CBCL 1.5-5

○Kang, Ji Hyeon¹, Oh, Kyungja¹

¹Dept. of Child Education and Care, Dongduk Womens University, Seoul, Korea, ²Dept. of Psychology, Yonsei University, Seoul, Korea

Objectives: The purpose of this study was to identify latent classes of internalizing and externalizing problem group in early childhood and to explore the effect of temperament and gender for this group.

Methods: 383 preschoolers, ages 2-6 (217 males, 166 females), in Korean urban area were measured, using maternal reports on problem behavior (K-CBCL 1.5-5) and temperaments (K-JTCI). Latent Profile Analysis (LPA) was conducted.

Result: After LPA, model fit and parsimony were compared with Akaike Information Criteria (AIC), Adjusted Bayesian Information Criteria (Adj. BIC), entropy and Lo-Mendell-Rubin. The 4 classes solution best fitted the data in both problem behaviors. Latent Profile Analysis revealed 4 distinct latent classes in problem behaviors: 'normal class (56.7%)', 'subclinical-externalizing class#24.3%#', 'clinical-internalizing class#12.8%#' and 'co-occurring internalizing and externalizing class#6.2%#'. #table 1.

model fit of LPA# Through a multinomial logistic regression analysis, the 4 latent classes are explained by temperaments and gender didn't significantly explain that groups. #Table 2. result of multinomial logistic regression#

Discussion: The results of this study suggest that it is possible that classify the preschoolers applied internalizing and externalizing problems. Also, there are some children who experienced both high internalizing and high externalizing problems, and their high NS and HA temperaments predispose them to greater psychological maladjustments. Since all of the measurements depended on maternal report, it is important to make the measurements more reliable with experimental or observational data. It will also be necessary to conduct diagnostic interviews or to utilize standardized T scores to assess the risk level of the high risk preschoolers.

table 1. model fit of LPA

	Class=1	Class=2	Class=3	Class=4	Class=5
Log Likelyhood	-5438.72	-5329.43	-5252.04	-5219.35	-5189.34
AIC	10899.43	10692.86	10550.09	10496.70	10448.68
BIC	10942.86	10759.98	10640.89	10611.19	10568.86
Adj. BIC	10907.96	10706.04	10567.92	10519.18	10475.81
entropy	N/A	.79	.84	.84	.82
Lo-Mendell-Rubin	N/A	212.61**	150.56**	63.61[†]	59.90
N of class	1=383	1=253 2=130	1=237 2= 54 3= 92	1=217 2= 93 3= 49 4= 24	1= 75 2=163 3=100 4= 25 5= 20

Table 2. result of multinomial logistic regression

	Reference group: co-occurring internalizing and externalizing class		
	normal	Subclinical externalizing	Clinical-internalizing
Gender	-.73	-.23	-.21
Novelty Seeking	-.68***	-.33**	-.55***
Harm Avoidance	-.25***	-.21**	.07

A-P-055

Effectiveness of a School-Based Depression Prevention Program for Japanese Adolescents

○Ogata, Akiko¹, Togasaki, Yasuko², Ishikawa, Shin-ichi³, Sato, Hiroshi⁴, Sato, Yoko², Sato, Shoji²

¹Graduate School of Education, Hiroshima University, Hiroshima, Japan, ²Faculty of Education and Culture, University of Miyazaki, Japan, ³Faculty of Psychology, Doshisha University, Japan, ⁴Faculty of Sociology, Kansai University, Japan

Background: Studies repeatedly demonstrated the high prevalence and harmful effects of depression during adolescence. Adolescence is probably the important and optimal period in which universal prevention programs concerning depression can be implemented. The cognitive-behavior therapy has been shown to be effective in treating depression and it will also be effective in preventing its onset in adolescents. The present study evaluates the short- and long-term effects of a school-based depression prevention program for Japanese adolescents.

Methods: Participants were 176 students from the seventh to ninth grade. The eight-session cognitive-behavioral program comprised social-skill training, cognitive restructuring, and problem-solving skill training. This program is implemented by classroom teachers. Students completed Children's Depression Inventory (CDI; Kovacs, 1983), Social Skills Scale (Fujieda & Aikawa, 2001), and Children's Cognitive Error Scale (Ishikawa & Sakano, 1993) before and after intervention. The CDI scores of 578 students from the seventh to ninth grade were used to compare depression symptoms to that of the intervention group.

Results: The result showed that depression in the

intervention group decreased significantly from the pre- to post-intervention stage. Moreover, compared to the normative group, those in the intervention group showed fewer depression symptoms at post- intervention; however, this finding was not statistically significant. Cognitive error and social skills improved significantly from the pre- to post-intervention stage. Improvement of social skills and cognitive error had an effect of reducing in depression. Furthermore, as maintenance procedure, 24 students of the seventh grade from the intervention group participated in four booster sessions in each of the two years following intervention. Compared to the normative group, those in the intervention group showed significantly fewer depression symptoms one year after intervention.

Conclusion: Students participated this program improved their depression symptoms, cognitive error and social skills. And after 2 years, their level of depression was lower than that of no-intervention student group. Our study provides evidence for the short-term and long-term effectiveness of the school-based universal program designed to prevent depression in adolescence.

A-P-056

A Feasibility Study of Preventive Group Behavioral Parent Training for Mothers of Preschool Children IIA Comparison of Abuse Risks Across Parenting Styles and Stress Responses

○Tatsumoto, Shin¹, Furukawa, Misako², Fukushima, Hiroko¹, Shiiba, Emiko³, Saita, Kiyomi³

¹Faculty of Education and Culture, University of Miyazaki, Japan, ²Faculty of Medicine, University of Miyazaki, Japan,

³Graduate School of Education, University of Miyazaki, Japan

The effects of an intervention of Preventive Group Behavioral Parent Training for Preschool Children (PG-BPT-P) were examined and compared across mothers with different parenting styles and stress responses, to assess abuse risks.

Objectives and Methodology: The PG-BPT-P comprised five 90-min parenting skills sessions: (1) behavior classifying, (2) reinforcing, (3) ignoring misbehavior, (4) limit setting and time out, and (5) reviewing and application. Interventions were conducted by 14 trainers at 13 kindergartens or nurseries, who completed a 2.5-hr 10-session training program. Outcomes were measured using the Parenting Skills Scale Version 2 (Tatsumoto, 2005), completed by the mothers. This scale comprised five factors: instructive parenting, communication, interests and information about children, punishment, and incoherence. Trends in social behavior among children were measured using the Children's Social Behavior Rating Scale (Tatsumoto, Furukawa, Fukushima & Nagatomo, 2011). This measure was also completed by mothers and comprised five factors: irenic adaptation, self-control, impulsivity and hyperactivity, aggression, and isolation. Eighty mother-child dyads were assessed 30 days before the intervention (Time 0), just before the intervention (Time 1), 1 week post-intervention (Time 2), and 30 days post-intervention (Time 3). The research ethics committee at the Faculty of Education

and Culture, University of Miyazaki, approved the study.

Results and Discussion: Cluster analysis classified 46 mothers as positive parenting mothers, 42 as mildly stressed, and 4 as highly problematic. Intervention effects were examined by three criteria: (1) no significant fluctuation in scale scores at baseline, (2) significant improvement in scale scores from Time 1 to Times 2 or from Time 1 to Time 3, and (3) significant effect sizes. For mothers in the positive parenting group, the PG-BPT-P improved parenting skills (instructive parenting, communication, interests and information about children, punishment, and incoherence) and children's behavioral tendencies (irenic adaptation, self-control, aggression, and isolation). For mildly stressed mothers, the PG-BPT-P improved parenting skills (instructive parenting, communication, interests and information about children, punishment, and incoherence) and children's behavioral tendencies (irenic adaptation, and self-control). It also improved mother's stress responses (depression, anxiety, irritation, anger, loss of confidence, distrust, hopelessness, apprehension, low thinking power, unrealistic wishes, nerveless, and social withdrawal). Effects for highly problematic mothers did not reach significance. The PG-BPT-P helped improve mild abuse risks.

A-P-057

The Effect of Multidimensional Perfectionism on Parenting Stress in South Korean Mothers with Children from 15 to 36 Months

○Kim, Youngjoo, Oh, Kyungja

Department of Psychology, Yonsei University, Seoul Korea

Introduction: Parenting stress has been shown to be consistently related to improper parental behavior and have negative influence on children's pervasive development. Considerable research has concentrated on exploring the predictors of parenting stress. The present study aimed to investigate the adaptive and maladaptive effects of multidimensional perfectionism on parenting stress in mothers with children from 15 to 36 months, an age range when physical autonomy and external expression of emotion and behavior increase rapidly.

Method: A sample of 108 Korean mothers was recruited from several day care centers in Seoul and Gimhae. The participants' age range was from 21 to 42 years ($M = 32.61$, $SD = 4.18$) and their children included 56 girls and 52 boys. Fifty-five percent of mothers reported having only child and approximately fifty percent of mothers were employed. Each participant completed the Korean versions of the Parenting Stress Index-Short Form (K-PSI-SF; Lee, 2008), Multidimensional Perfectionism Scale (MPS; Han, 1993), Self-esteem Scale (Jeon, 1979), Parenting Sense of Competence Scale (PSOC; Shin, 1997), and Child Behavior Checklist 1.5-5 (CBCL; Oh, 2000). Descriptive statistics, correlation analysis, and hierarchical regression analysis were performed using PAWS 18.0.

Results: Parenting Stress showed a negative correlation with Socially-prescribed perfectionism (SPP) ($r = 0.23$, $p < 0.05$) but a non-significant negative correlation with Self-oriented perfectionism (SOP) ($r = 0.15$, $p = 0.10$). The variables were entered into four blocks for hierarchical regression analysis: socio-economic factors (block 1), child variables (block 2), maternal factors (block 3), and perfectionism (block 4). In Model 1, socio-economic factors explained 24% of variance in parenting stress. When child factors were added in Model 2, K-CBCL internalizing and externalizing problems were significant (10%). Next, parenting-efficacy and self-esteem were added and additional 16.0% of the variance was accounted for. Lastly, SOP and SPP were added (4%), and the model explained 54% of total variance in parenting stress. The final model identified mother's age, mother's employment status, child behavior problems, maternal self-esteem, SOP, SPP as significant predictors of parenting stress. In addition the findings of previous studies which demonstrated the association between child and maternal factors with parenting stress, these findings also support maternal perfectionism as a predictor of parenting stress. Especially, findings imply that SOP has a beneficial effect on parenting stress therefore fostering maternal SOP may be an effective intervention to help manage parenting stress.

A-P-058

What Kind of Social Supports Do Mothers Need?

○Kusakabe, Noriko

Department of Human Science, Fukuyama University, Hiroshima, Japan

It has been said that most mothers parenting infants feel strong stress, and social supports would be one of the factors which reduces their daily stress. The purpose of this study was to make clear what kind of social supports mothers need. The participants were 152 mothers who engaged parenting their children. One thirds of them were employed, and most were nuclear families. The age range of children was from 0-year-old to 6-years-old, and 51% were boys. The questionnaire consisted of face sheets and questions on stressors and social supports by husbands, their relevance, or specialists. The Social Support Scale (by husbands) included three factors: "talking", "caring infants", and "housekeeping", and Social Support Scale (by relatives) included two factors: "housekeeping" and "talking and looking after infants". Social Support Scale (by childcare workers) was consisted of three factors, "good care in nursery school", "consultation", and "advices". Social Support Scale (by doctors or public health nurses) has a single factor structure and the items include needs of information, advices about illness and developments of infants. The scores of each scale

showed no significant difference among infants' sex, age, and birth order. Some factors of Social Support Scales were related to maternal stress by correlative analysis. It was found that factors "good care in nursery school" and "consultation" of Social Support Scale (by childcare workers) reduced most stresses such as "difficulty of parenting" ($r=.24, .20, p<.01$), "isolation" ($r=.18, p<.05; r=.30, p<.01$), "ack of husbands' support" ($r=.19, .20, p<.05$), "busyness" ($r=.20, .21, p<.001$), and "stress of child problem behaviors" ($r=.30, .25, p<.01$). Social Support Scale (by doctors and public health nurses) seemed to reduce mothers stress of "isolation" ($r=.19, p<.05$) and "stress of child problem behaviors" ($r=.28, p<.01$). Social Support by husbands reduced only "stress of child problem behaviors" ($r=.20, p<.05; .29, p<.01; .19, p<.05$). Social Support by relatives showed no significant relation to mothers stresses. Although it had been said that husbands' support reduced mothers' stress in many previous studies, this result showed that supports by specialists were also important for reducing maternal stress.

A-P-059

A Study on the Reliability and Validity of the Children's Stress Response Test

○Matsuo, Risa^{1,2}, Ida, Misako², Ota, Maki², Takeda, Shinya²

¹Okinawa University, Okinawa, Japan, ²Graduate School of Medical Science, Tottori University, Tottori, Japan

Recently, many children have experienced physical and emotional problems, such that some of them refuse to go to school, have issues related to behavior, and even turn to juvenile delinquency. Moreover, the Children's Stress Response (CSR) test, which could conceivably be used to address such issues, does not have high validity, and it is therefore not broadly used. This study examined the reliability and validity of the CSR test. Additionally, the authors posited ways that this measure can be used in the prevention of depression in children. 429 junior high school students participated in the study. In the study, the authors examined the reliability of the correlations within the CSR by using Cronbach's α coefficient, The authors also looked at the validity of the CSR by studying the correlations between the CSR and the Public Health Research Foundation's Type Stress Inventory (PSI; Sakano et al., 2007). The total average score for the PSI was 11.98 ± 10.30 . Specifically, the physical response score was 4.25 ± 3.73 , the depression-anxiety score was 2.15 ± 3.25 , the irritation score was 2.31 ± 3.04 , and the helplessness score was 3.27 ± 2.78 . The CSR score was organized on the basis of our preliminary findings. The authors also calculated the standard deviations for the CSR

score averages. Furthermore, the authors conducted a factor analysis. In doing so, they found two factors. The first was named "helplessness- irritation." The following items loaded onto this factor: "I don't have motivation," "I can't concentrate," "I can't work hard," "I'm frustrated", "I'm quite pissed," "I'm irascible," and "My body feels sluggish." The second was named "physical response-depression." The following questionnaire items loaded onto this factor: "I feel like crying," "I'm depressed," "I have a headache," "I have a stomachache," and "I get nervous and excited." The Cronbach α for the first factor was 0.86, whereas the Cronbach α for the second factor was 0.73. When the domains were compared with established outcome measures, the correlations were moderate to strong (0.46 to 0.71). In addition, the participation domain was most strongly associated with PSI. There is therefore a high degree of reliability and validity for the CSR, which means that the CSR has a high degree of clinical usability. As to future research, it was suggested that the authors make use of this study of the CSR by formulating a stress management program for children.

A-P-060

Examining the Relationship between Positive and Negative Affect in a Singaporean Sample

○Wang, Penelope X., Tan, Gabriel

Department of Psychology, Faculty of Arts and Social Sciences, National University of Singapore, Singapore

The nature of the relationship between positive affect and negative affect has always been a source of contention in literature. There are some that argue for an inverse relationship between affects, whereby an increase in one will result in the decrease of the other. In contrast, others put forth that both affects are independent of each other. Amidst the debate, the Dynamic Affect Model was proposed to reconcile between the two sides by suggesting that under normal circumstances, positive and negative affects are independent of each other. However, when cognitive processing is constrained, the affects

have an inverse relationship. Using established self-report measures, this correlational study seeks to examine the applicability of the dynamic affect model in an Asian context as well as to look into trait factors that might influence the shifting nature of the relationship between affects. Contrary to expectations, findings do not indicate evidence for the dynamic affect model in an Asian context as positive and negative affects were consistently found to have an independent relationship. Cultural differences that might have led to these findings were discussed.

A-P-061

Investigating How People Show Four Classes of Self-Related Behaviors

○Yanagihara, Mamika¹, Kawai, Tomonori¹, Shima, Taiki¹, Kumano, Hiroaki²

¹Graduate School of Human Sciences, Waseda University, Saitama, Japan, ²Faculty of Human Sciences, Waseda University, Japan

Purpose: “Acceptance and commitment therapy” and “relational frame theory” advocate behaving on three senses of self that are “conceptualized self”, “self as process”, and “self as context”. This study investigates how people show these self-related behaviors.

Method: A questionnaire survey of 161 university students was conducted utilizing the “Three Selves Questionnaire” (Yanagihara, 2013). This questionnaire is composed of four subscales assumed to correspond to the self-related behavior classes: “Acting Actively and Flexibly on the World”, “Conceptualized Self”, “Distancing on One’s Private Events”, and “Feeling the Present Moment”.

Cluster analysis was conducted using standardized scores of the 4 subscales. Results were classified as either “Low Group” or “High Group” about the mean score. The “Low Group” indicates a score of lesser than 0 (mean), while the “High Group”

indicates a score greater than 0.

Result: We obtained four clusters illustrated by a dendrogram. According to the nature of each cluster, the first to fourth clusters were named “Conceptualized Self High Group”, “Self-related Behavior Classes High Group”, “Self-related Behavior Classes Low Group”, and “Conceptualized Self Low Group”, respectively (Table1).

Discussion: “Conceptualized self” is related to the suppression of effective action, while other three behavior classes are related to encouragement of effective action. Hence, we think those patterns that exhibited an extreme hold on “Conceptualized self”. However, “conceptualized self” exhibits not only the suppression of effective action but also benefit to the individual. Thus, we think that the patterns that are comparable to the four classes of self-related behaviors appeared in addition to extreme hold patterns.

Table1 Difference of four cluster

	Subscale of “Three Selves Questionnaire”			
	①	②	③	④
	Acting Actively and Flexibly on the World	Conceptualized Self	Distancing on One’s Private Events	Feeling the Present Moment
1st Cluster: Conceptualized Self High Group	Low	High	Low	Low
2nd Cluster: Self-related Behavior Classes High Group	High	High	High	High
3rd Cluster: Self-related Behavior Classes Low Group	Low	Low	Low	Low
4th Cluster: Conceptualized Self Low Group	High	Low	High	High

A-P-062

The Effect of Controllability of Lucid Dreaming on Mental Health

○Sunada, Yasuhide¹, Matsuoka, Kazuo², Ito, Yoshinori³

¹Graduate School of Education, University of the Ryukyus Okinawa, Japan, ²Faculty of Humanities & Social Science, Iwate University, Japan, ³Faculty of Education, University of the Ryukyus, Okinawa, Japan

Some researchers suggest that dreaming while sleeping have a function of mood regulation and would be adaptive coping with stress (Hartmann, 1998; Cartwright, 2004). Lucid dreaming, one of the forms of dreaming, is the controlled processing although one is still sleeping, he or she is aware of dreaming and able to act actively (Laberge, 1985). Although there are various coping strategies with stress, it is pointed out the effect differs depending on whether people have controllability with the strategy or not (Sugiura, 2006). In the current study, we ascribed lucid dreaming to one of the cognitive coping strategy, and aimed at investigating the relationship of controllability in lucid dreaming and mental health from the perspective of stress coping. First, we developed original lucid dreaming questionnaire using Laberge (1985), Matsuoka (1993), and Okada (2001) as references, and we asked 223 undergraduate students to complete it. The questionnaire included three different components such as, "controllability of lucid dreaming", "affect occurred in Lucid dreaming", and "application of lucid dreaming". Exploratory factor analysis was conducted on the items of "controllability of lucid dreaming". The analysis extracted two factors, which was named an "ability to act with free will" and an "ability of changing figures in dream". The

analysis about the items on "affect occurred in lucid dreaming" extracted two factors, which was named "positive mood" and "negative mood". The analysis about the items on "application of lucid dreaming" extracted two factors, which was named "improvement of attitude to others," and "enhancement of well-being by lucid dreaming," "To investigate the relationship between these factors, correlation analysis were performed. The results were as follows: (1) Controllability to lucid dreaming was positively related to positive mood, (2) "ability to act with free will" and "ability of changing figures in dream" are positively related to "enhancement of well-being by lucid dreaming". Then, to investigate the effect of controllability of Lucid dreaming on "enhancement of well-being by lucid dreaming", multiple regression analysis was conducted. In the result, "ability to act with free will" have positive impact on "enhancement of well-being by lucid dreaming" directly, and this effect was also mediated by positive mood. These result suggested even though dreaming was apparently automatic experience, by having the controllability, it may have a positive effect on mental health. In the future research, it will be necessary to explore the function of dreaming as cognitive coping strategies with stress multilaterally.

A-P-063

Study for Process of Anger Expression to Closely Related Person; The Effect of Familiarity of Relationship to Anger Expression Behavior

○Nakamine, Mihoko¹, Koda, Munenaga², Ito, Yoshinori³

¹Graduate School of Education, University of the Ryukyus, Japan, ²Graduate School of Medicine, University of the Ryukyus, Japan, ³Faculty of Education, University of the Ryukyus, Japan

Purpose: People express their anger easier to familiar person(Kino,2003). The current study examines the hypothesis that people have expectation to the closely related person, and when they feel this expectation is violated their feeling of anger arouse to that person. People consider the relationship when they express anger (Obuchi, 1986). Especially, the influence of each type of anger expression is focused.

Method: The cooperators were requested to bring their friends as the participants of the experiment. The participants were divided to high intimate group and middle intimate group, thereafter each group was divided to experiment condition and neutral condition. To induce the feeling of being violated the participants' expectation, the quiz task was conducted. The cooperators were asked to intentionally mistake the quiz which is related to the participants' characteristics such as their birthday or hobby. The participants expect that the cooperators are able to answer to the quiz very easily. After that, experimenter went out of the room to leave the cooperator and the participant alone. During their conversation, the participant's behavior was filmed to measure the expression of anger. Rating behavior was done by two ways, subjective behavioral rating and objective behavior rating by rater.

Results and Discussion: The factor analysis was performed to the score of ratings for behavior. The analysis was conducted both subjective and objective rating point separately. Principal axis factor analysis with promax rotation induced two factors. The first consisted of items reflecting express unpleasantness with joke, and express anger crisply (Factor 1; obvious expression). The other consisted of items representing have the sulks and keep silence (Factor 2; subtle expression). Three-ways ANOVA (intimate: high / middle)*(experimental condition: experiment / neutral)*(rating point: the time of checking the correct answer of quiz / one minute after the experimenter left the room / one minute before the experimenter returned the room) was conducted to each behavioral score. In obvious expression, three-ways ANOVA revealed significant second-order interaction ($F(2, 92) = 2.45, p > .10$). Turkey tests indicated that high experiment condition showed significantly higher score than middle intimate experimental condition on the rating point when the result of quiz assignment was showed. In subtle expression, we gained no significant interaction. These results suggested that a violation on the expectation to closely related person induced overt anger expression behavior.

A-P-064

Controllability Moderates the Effect of Depressive Status on Depression, Anxiety and Self-Blame: A Pilot Study

○Zainal, Nur Hani B., Tang, Catherine S.

Department of Psychology, National University of Singapore, Singapore, Singapore

Background: The current stage of research is such that appraisal theories of emotions in social psychology literature, and models of controllability in clinical literature such as the cognitive theory of depression and the self-blame hypothesis, have rarely been extended to depressive populations.

Aims: This study sought to fill a knowledge gap in current literature by investigating the effect of depressive status (operationalized as individuals with or without unipolar depression) on anxiety, depression, and self-blame, and how controllability moderates this relationship.

Method: 72 depressive patients and 73 non-depressive controls participated in a 2 (Condition: High Control versus Low Control) by 2 (Group: Depressive versus Controls) between-groups experimental design study. Depressives and Controls were randomly assigned into High Control and Low Control condition, and were instructed to perform a pseudo-memory actual task that manipulated levels of perceived controllability. Participants in the High Control and Low Control condition each memorized three 5-digit and 12-digit strings respectively. Questionnaires assessing subjective appraisals of the actual task, state depression and anxiety severity, automatic negative thoughts frequency, and level of dysfunctional attitudes, were subsequently administered.

Results: Controllability significantly moderated the effect of depressive status on anxiety (R^2 -change =

.025, $F(1, 137) = 5.55$, $p = .02$), and depression (R^2 -change = .029, $F(1, 137) = 7.50$, $p = .007$), and this moderation effect was of marginal significance for self-blame (R^2 -change = .017, $F(1, 137) = 2.85$, $p = .09$), after controlling for socio-demographic variables. Depression, anxiety, and self-blame were strongly and significantly correlated with one another. Automatic negative cognitions were significantly and positively correlated with anxiety, depression, and self-blame. Subjective appraisals of perceived control over task performance, goal-congruency, difficulty, effort, and certainty were associated with automatic negative cognitions, depression, anxiety, and self-blame. Depressive individuals' emotions and cognitions were significantly more negative than non-depressive individuals.

Discussion: The results largely supported the self-blame hypothesis derived from the cognitive theory of depression, in that depressive individuals reported higher levels of depression and anxiety in the High Control condition, instead of the Low Control condition. As such, the findings challenge the prevailing assertions in CBT models that depressive mood would be mitigated by increasing the perceived controllability of the depressive to assert influence over the environment. Treatment outcome studies are thus needed to critically determine whether raising the level of perceived control in depressives is truly beneficial, or even detrimental, to the depressive individual.

A-P-065

Assessing Characteristics Associated with Homework Compliance in Cognitive Behavioral Therapy (CBT) among Clients with Psychiatric Problems in Bangladesh'

○Khan, Sanjida, Khatun, Jobeda

Department of Clinical Psychology, University of Dhaka, Bangladesh

The aim of this study was conducted to assess characteristics associated with homework compliance in Cognitive Behavioral Therapy (CBT) among clients with psychiatric problems. A survey was designed using Bangla linguistic validated Homework Rating Scale (HRS; Kazantzis, et al.; 2004) which consists of 12 items to measure client, therapist, and task characteristics associated with client compliance with homework assignments. Demographic and personal information was collected using a structure questionnaire. A total of 53 clients with psychiatric problems who were receiving CBT from trained CBT therapist from psychotherapy institutes in Dhaka city were interviewed. Descriptive statistics was used to show the overall picture of the characteristics of homework compliance. The findings revealed that 62.2% clients agreement in above moderate level

of quantity and 41.5% clients in moderate level in quality in completion of homework. The findings of client factors presents that 56.6% clients feel below moderate level of obstacle in completing the work, 84.9% and 79.3% understand what to do and rational of doing homework in above moderate level respectively. In collaboration clients of 52.8% agreed in above moderate level and 58.4% reported above moderate level of pleasure in doing the work. In therapist factors, 75.4% and 84.9% clients reported above moderate level of specificity of doing the homework and found match with therapy goal respectively. In task factors, 47.1% found difficulty in completing the work in below moderate level, 41.5% and 54.7% reported gain control in problem and help in progress in therapy at above moderate level respectively.

A-P-066

Relationship between Cognitive Variables Such as Attention Control Function and Depression in University Students According to Sexes

○Nishi, Yuko¹, Imai, Shoji², Kumano, Hiroaki³

¹Graduate School of Human Sciences, Waseda University, Japan, ²Associate professor of Human Care, Nagoya Art and Sciences University, Japan, ³Faculty of Human Sciences, Waseda University, Japan

Purpose: One of maintenance factors of depression is rumination that is facilitated by metacognitive beliefs (Papageorgiou & Wells, 2001). As a control function of rumination, we can also focus on attentional dysfunction. It is “detached mindfulness (DM)” that was proposed to antagonize these maladaptive cognitive processing (Wells & Matthews, 1994). Women get depressed more easily than men, and the association between these variables may be different according to the sexes. The present study compared the relationship between cognitive variables such as attention control function and depression in university students according to the sexes.

Method: 127 university students (58males, mean age=20.28±1.12) completed the Attention Control Scale (Imai, Imai & Nedate, 2009), the Detached Mindfulness Mode Questionnaire (Imai & Kumano, 2011), the Beck Depression Inventory II (Kozima & Hurukawa, 2003), the Japanese version of Rumination-Reflection Questionnaire (Takano &

Tanno, 2008) and the Japanese version of Metacognitions Questionnaire-30 (Yamada & Tuji, 2007).

Results: Both male and female subjects showed positive correlation between metacognitive beliefs and depression and negative correlation between DM and depression. Only male subjects showed negative correlation between attention control function and depression and only female subjects showed positive correlation between rumination and depression (Table1).

Conclusion: Cognitive control factors such as attention control function may have stronger effects on depression than cognitive process factors such as rumination among men. On the other hand, other factors than attention control function may have stronger effects among women, and women may easily notice inner problems such as rumination. These observations suggest that an intervention customized by the sexes may be effective for the depression of university students.

Table1. Correlation coefficient of attention control function, meta cognitive beliefs, rumination and depression in university students. (N=127)

Measure	DM			meta cognitive beliefs			rumination			depression		
	m	f	m+f	m	f	m+f	m	f	m+f	m	f	m+f
attention control function	.494**	.668**	.583**	-.097	.051	-.034	.110	-.095	-.160	-.366**	-.137	-.245**
DM				-.117	-.012	-.070	-.165	-.174	-.493**	-.378**	-.246*	-.299**
metacognitive beliefs							.425**	.448**	.427**	.288**	.506**	.397**
rumination										.178	.403**	.353**

Note. m : male, f : female, ** $p < .01$, * $p < .05$
DM : detached mindfulness

A-P-067

The Mediating Effect of Acceptance on Self Compassion and Psychological Health

○Park, Se-Ran

Department of Psychology, Seoul Digital University, Korea

Objective: The degree to which people cope effectively with stressful life events is primary determinant of their psychological health. Recently, the concept of self compassion which means treating oneself with kindness and concern when experiencing negative event was suggested as predictor of psychological health. The current study was conducted to shed light on the specific mechanism by which self compassion influences psychological health. Based on previous studies and literatures, a mediating role of acceptance in the link between self compassion and psychological health was proposed.

Methods: Depression, subjective wellbeing and psychological wellbeing was selected as the index of psychological health. The Self Compassion Scale (SCS), Acceptance and Action Questionnaire (AAQ), Center for Epidemiologic Studies Depression scale (CESD), Satisfaction With Life Scale (SWLS),

Psychological Well-Being Scale (PWBS) were administered to 241 college students. The data was analyzed by hierarchical multiple regression for exploring mediating effects.

Results: The results indicated that self compassion was positively associated with acceptance ($r = -.63, p < 0.001$), subjective wellbeing ($r = -.48, p < 0.001$), psychological wellbeing ($r = -.52, p < 0.001$), and negatively associated with depression ($r = -.38, p < 0.001$). Acceptance fully mediated the relationship between self compassion and depression. The relationship between self compassion and subjective wellbeing as well as self compassion and psychological wellbeing was partially mediated by acceptance. This finding suggest that self compassion can promote psychological health through decreasing experiential avoidance and increasing acceptance.

A-P-068

Comparing the Role of Washing and Non-Washing Behaviour on the Reduction of Mental Contamination

○Ishikawa, Ryotaro¹, Kobori, Osamu², Komuro, Hisayoshi³, Shimizu, Eiji¹

¹Research Centre for Child Mental Development, Graduate School of Medicine, Chiba University, Chiba, Japan,

²Centre for Forensic Mental Health, Chiba University, Chiba, Japan, ³Department of Psychology, Faculty of Letters, Komazawa University, Tokyo, Japan

Background and Objectives: Mental contamination is the experience of contamination-related feelings of dirtiness despite the absence of direct physical contact with a contaminant. This paper investigated whether feelings of mental contamination are reduced by neutralisation behaviours such as hand washing.

Methods: 49 female participants were split into the experimental group (n = 24; asked to wash their hands and gargle with water after participating in the Dirty Kiss task, used to evoke mental contamination) and control group (n = 25; asked to wait without engaging in any behaviour after the Dirty Kiss task). Indices of mental contamination (feeling of dirtiness, urge to wash, and negative emotions) were measured before, immediately after, 5 min after, and 20 min after it was evoked.

Results: The indices of mental contamination did not significantly differ between the experimental and control groups at any point, even after controlling for anxiety, depression, and fear of physical contamination. However, in both group, the indices of mental contamination at immediately after Dirty Kiss task were significantly decreased at Post 1 (5 min after Dirty kiss task). The present study demonstrated that washing behaviours no more effective than waiting to reduce mental contamination in the short term. Limitations The long-term effects of neutralising behaviour on mental contamination did not clarify.

Conclusions: Mental contamination would decrease appreciably during the first 5 min post exposure to inducing mental contamination, regardless of whether participants engaged in washing behaviours or not.

A-P-069

A Tendency of External Misattribution of Internal Thought Predicts Proneness of Auditory Hallucination: The Emotional Valence Effect in the Deese-Roediger-McDermott Paradigm

○Kanemoto, Mari¹, Asai, Tomohisa², Sugimori, Eriko³, Tanno, Yoshihiko¹

¹Department of Cognitive and Behavioral Science, Graduate School of Arts and Science, University of Tokyo, Tokyo, Japan, ²Department of Psychology, Chiba University, Chiba, Japan, ³Department of Psychology, Yale University, U.S.A.

Auditory hallucination is known for one of the major symptoms of schizophrenia and dissociative disorder. Previous studies have suggested that a tendency to externalize internal information is related to auditory hallucination or even its proneness in general population (e.g. self-monitoring theory). However, only a few studies have investigated that the effect of emotional valence to this relationship though the auditory hallucination should also be linked to emotional features. In this study, we first replicated our previous study that suggested individual differences in auditory hallucination proneness (e.g., The Launay-Slade Hallucination Scale, LSHS) are highly related to the external misattribution of internal thought in terms of false memory by using the Deese-Roediger-McDermott (DRM) paradigm. Furthermore, when

we investigated the potential effect of its emotional valence in DRM paradigm, while participants with lower score of LSHS showed the increased discriminability index (d') for positive words but the decreased d' for negative words, these with higher score of LSHS did not show these emotional valence effects. We discuss this result from the perspective of the dual-process activation-monitoring framework in DRM paradigm, especially emotion-driven semantic network activation in false memory. This study indicates not only that a tendency of external misattribution of internal thought predicts auditory hallucination proneness, but also that auditory hallucination prone subjects makes less associations by emotional valence than subjects who don't have its proneness.

A-P-070

Associations between Psychosocial Factors, Psychological Flexibility and Depressive Symptoms: Mediation Analysis

○Tsuchiya, Masao¹, Kishita, Naoko², Izawa, Shuhei¹, Kurabayashi, Lumie¹, Haratani, Takashi¹

¹National Institute of Occupational Safety and Health, Japan, ²Postdoctoral Research Fellow of Japan Society for the Promotion of Science, Japan

Aim: When conducting workplace intervention as mental health promotion, several psychosocial factors are usually assessed in addition to job control. The aim of this study is to break down associations between psychosocial factors, depressive symptoms and psychological flexibility using mediational analysis.

Methods: Participants were 689 employees of a middle sized enterprise. Outcome was depressive symptoms measured by Patient Health Questionnaire 9 (PHQ-9). Psychosocial factors (quantitative workload, control, supervisor support, coworker support) were measured by The Brief Job Stress Questionnaire. Psychological flexibility, as a mediational factor, was measured by Acceptance and Action Questionnaire (AAQ) II. Higher score means nature of the concept for each scale except AAQ-II which indicates non-flexibility in higher score. Mediational analysis was used to break down total effect of psychosocial factors on depressive symptoms into direct effect and indirect effect mediated by psychological flexibility.

Results: Negative total effects were seen in all models between control (nonstandardized coefficient [coef]= -.78), supervisor support (coef= -.79), coworker support (coef= -.68) and depressive

symptoms except quantitative workload of which was positive association (coef= .59). AAQ-II was positively associated with depressive symptoms (coef= .36 to .37). Mediation analysis revealed that significant indirect effects of all psychosocial factors on depressive symptoms, coef were .23 for quantitative workload, -.40 for control, -.38 for supervisor support and -.42 for coworker support through psychological flexibility. Proportion of total effect mediated were 40% for quantitative workload, 51% for control, 49% for supervisor support and 62% for coworker support. Ratio of indirect to direct effect were 66% for quantitative workload, 105% for control, 94% for supervisor support and 164% for coworker support.

Conclusion: Psychological flexibility mediate considerable amount of associations between psychosocial factors and depressive symptoms. The indirect effect through psychological flexibility in coworker support on depressive symptoms was considerably higher than direct effect. This result may be suggestive for workplace intervention to augmentation the effect on improving mental health, although interpreting these results needs caution because of cross sectional design.

A-P-071

Perceived Parenting Authoritativeness and Career Anxiety, Mediated by Levels of Career Exploration

○Tan, Peck Hian, Tang, Catherine, Pang, Angelyn
National University of Singapore, Singapore

This study investigates the relationship among perceived parental authoritativeness, career anxiety and career exploration. As people go through this transition from school to the working sphere, the pressure and stress of having to decide and commit to a career may be overwhelming for individuals. It seemed that for most of the culture, career anxiety and stress have been relatively prominent and is existent among Greek college students, French high school students and in Asian context, among Malaysian and Korean college students who were about to graduate. In recent decades, the role of parenting styles and career exploration behaviors have been investigated and relationships have been found among all three factors. The purpose of this present study is to provide a fresh new perspective to the area of career counseling, investigating career exploration as a mediator rather than studied as an outcome variable, typical of most research literatures. The second purpose is to attempt to provide clearer patterns of the relationships among these three factors since existing literatures do not necessarily reflect similar patterns of results. It was hypothesized that perceived parental authoritativeness would have a negative relationship with career anxiety and this would be mediated by career exploration. For this study, to measure career anxiety, the anxiety

subscale of the Emotional and Personality related Career decision-making Difficulties scale was used (Gati et al., 2004). To measure career exploration, a revised version of the Career Exploration Survey was used (Stumpf, 1983). Lastly, perceived parental authoritativeness was measured using the Parental Authority Questionnaire (Buri, 1991). All three scales yielded good internal consistency. Data from a sample of 102 year 3 and 4 undergraduates in Singapore were collected. Bivariate correlation analysis showed significant correlations among all three factors. Regression analysis revealed significant F change when career exploration was added into the model. To test for significance of mediation effect, a Sobel test was run and a significant partial mediation effect of career exploration was found. Subsequently, an alternative hypothesis was proposed. It was hypothesized that perceived parental authoritativeness would have a positive relationship with career exploration and this would be mediated by career anxiety. Regression analysis revealed significant F change when career anxiety was added into the model. To test for significance of mediation effect, a Sobel test was run. The Sobel test showed no significant mediation effect of career anxiety. Limitations, theoretical and career counseling implications would be discussed.

A-P-072

Effects of Sociocultural Context in Cognitive Appraisal of Coping Flexibility and Psychological Distress

○Ayabe, Naoko^{1,2}, Morimoto, Hiroshi^{3,4}, Hashimoto, Rui⁵, Mine, Sayuri⁵, Shimada, Hironori⁶, Mishima, Kazuo¹

¹Department of Psychophysiology, National Institute of Mental Health, National Center of Neurology and Psychiatry, Tokyo, Japan, ²EAP care systems, Yoyogi Hospital, Tokyo, Japan, ³Faculty of Psychological Science, Hiroshima International University, Hiroshima, Japan, ⁴Advanced Research Center for Human Sciences, Waseda University, Saitama, Japan, ⁵Graduate School of Human Sciences, Waseda University, Saitama, Japan, ⁶Faculty of Human Sciences, Waseda University, Saitama, Japan

Studies about coping flexibility in a situation of coping failure -specifically on the decision of whether to continue to use the same coping strategy (Mino et al. 2006) or change it (Kato, 2001) if the chosen strategy is ineffective- have produced inconsistent results. The choice of coping methods that are suited to the sociocultural context improves the individual's adaptation to the sociocultural group (e.g., workplace) to which he or she belongs (Aldwin, 1994). This study aims to examine the effect of the sociocultural factor "appraisal of coping acceptability" (one's estimate of others' appraisals of one's coping [approval or disapproval]; Morimoto et al., 2013) in an experimental setting. In addition, this study examines the effects of different positions within the group, environment restrictions (differences in importance to the group), and individual variables such as coping strategies or sensitivity to punishment, which are suspected to moderate the influence of appraisal of coping acceptability on psychological distress. Participants were 30 Japanese undergraduate students (13 male and 17 female, mean age = 20.90 years, $SD = 1.52$) and 53 Japanese workers (28 male and 25 female, mean age = 34.90 years, $SD = 10.09$). Participants evaluated coping acceptability and identified

the coping strategies they might use in scenes of interpersonal stress in two video clips wherein protagonists have different positions in the group. In one, a supervisor requests a full-time employee or part-time student worker to work overtime. In the second, the protagonist is mocked by friends or coworkers. Subsequently, participants watched a video in which the protagonist received negative feedback from other group members after using a particular coping strategy, and evaluated coping acceptability and identified the coping strategies again. Participants whose appraisal of coping acceptability decreased were considered to have correctly evaluated coping acceptability after feedback. Hierarchical multiple regression analysis showed that for the workers, the appraisal of coping acceptability predicted psychological distress in the overtime scene. However, the appraisal of coping acceptability did not predict psychological distress in student participants for that scene. This suggests that when one is faced with strong environmental restrictions and has a low social position, choosing a coping strategy after understanding the type of coping that functions in the environment is more effective than changing coping strategies on the reduction of psychological distress.

A-P-073

Examination of Factors which Influences the Human Service Provider's Intention to Quit Jobs

○Ota, Maki, Takeda, Shinya

Tottori University Graduate School of Clinical Psychology, Tottori, Japan

It is indicated that the unemployment rate of the human service provider engaged in medical treatment and the welfare field is high. Aging society etc., while the demand of the medical treatment and the welfare fields is increasing, it exists the problem of various labor conditions, such as the low wages, a labor shortage and the difficulty of taking of a vacation (a foundation care-giving work center, 2011). Among the human service provider who work in such a situation, there are those who show a stress reaction (the symptoms of stress-related illness are shown etc.). Therefore, there are those who leave their job (Tateishi and Koyano, 2011). Although the measure against unemployment is performed for every institution, an improvement of the workplace environment for reducing the stress of work is not easy, and not only the measure by an organization but the measure by an individual is indispensable to the measure against stress and unemployment of the human service provider. Therefore, the importance of a self help is pointed out and development of the stress management program for the human service provider attracts attention. Although examination of the factor affecting about stress exists until now, the examination of the factor affecting to the intention to

quit jobs is not made. The present study investigated the relevance of each element (mental health status, participating experience to mental health study session, the consultation intention about a trouble to work, existence of social support, sex, and the status in work) and the intention to quit jobs.

Subject were 315 persons who work at the welfare service. In 2 of a group with the intention to quit jobs, and a nothing intention groups, when the t test was performed by age and years of service to the company, there was no significant difference. Monovariant analysis of the two different unemployment intention groups revealed significant differences regarding the mental health status ($\chi^2=29.7$, $p<.001$), the existence of social support (Inside of work: $\chi^2=13.2$, $p<.001$, Outside of work: $\chi^2=6.7$, $p<.05$). Logistic regression analysis revealed an association between the intention to quit jobs and the mental health status (OR=3.45, 95%CI=2.09-5.70) and the existence of social support (Inside of work: OR=3.11, 95%CI=1.47-6.58).

This finding suggests the need for the measures against intention to quit jobs which took social support into consideration in addition to approach which raises a mental health status.

A-P-074

Qualitative Effects of Mindfulness-Based Meditation Therapy and Shikan-Hou Therapy on Cancer Patients

○Hara, Setsuko¹, Koshikawa, Fusako²

¹Graduate School of Letters, Arts and Sciences, Waseda University, Tokyo, Japan, ²Faculty of Letters, Arts and Sciences, Waseda University, Tokyo, Japan

Purpose: The qualitative effects of mindfulness-based meditation therapy and Shikan-hou therapy on cancer patients were investigated.

Methods: Participants were women (N = 20) that had experienced breast cancer and surgery less than ten years previously, five participated in mindfulness-based meditation therapy and ten in Shikan-hou therapy for three weeks, with the other five participants in the control group. All participants except control group took part in a semi-structured interview with the tester in every session, in which they were instructed how to practice meditation and Shinkan-hou, asked to practice daily at home and describe their impressions in a record table for a week as homework. They visited the laboratory once a week on four occasions, including for the last introspection report. At these sessions, record table for the first session and the introspection report of the fourth interview were compared, and qualitative effects of mindfulness-based meditation therapy and Shikan-hou therapy were examined using KJ method.

Results: Analysis of the first record table indicated the following three large categories in both groups: "mental and physical pleasantness," "changes," and "not feeling any effects." Small categories in the mindfulness-based meditation therapy group were "emotional stabilization" and "attention

concentration," whereas in the Shikan-hou therapy group, they were a "decrease in persistence" and "fading of unpleasant images," among others, though some participants indicated "mental and physical unpleasantness," "emotional instability" and "lack of concentration." In contrast, the fourth final interview indicated the following four large categories in both groups: "mental and physical pleasantness," "adjusted emotions," "changes" and "expectations." Small categories in both group were "calming mind" and "sense of peacefulness." Small categories in the mindfulness-based group were "hopeful for the effects," whereas the Shikan-hou group indicated "switching of feelings."

Conclusion: Focusing on breathing in causes the relaxation that is experienced during mindfulness-based meditation therapy. Self-efficacy, which enables people to view their own feelings and thoughts calmly, increased after therapy. Moreover, hopefulness about the effects was generated. On the other hand, in Shikan-hou therapy, a switching of feelings was observed as a result of focusing on changes in perspectives, and due to stress relief effects, which are effective for controlling unpleasant feelings. It is suggested that non-evaluative awareness has a stress relief effect, as well as decreasing the unpleasantness of cancer patients' negative experiences.

A-P-075

Relationships between Rejection Sensitivity and Depressive Symptoms

○Suyama, Haruna¹, Kaiya, Hisanobu^{2,3}, Kaneko, Yui^{1,4}, Suzuki, Shin-ichi⁵

¹Graduate School of Human Sciences, Waseda University, Saitama, Japan, ²Panic Disorder Research Center, Warakukai Medical Corp., Tokyo, Japan, ³Akasaka Clinic for Psychiatry and Psychosomatic Medicine, Tokyo, Japan, ⁴Research Fellow of the Japan Society for the Promotion of Science, Tokyo, Japan, ⁵Faculty of Human Sciences, Waseda University, Saitama, Japan

Introduction: Rejection sensitivity, depressive-prone cognitive-behavioral trait, is defined as “undue and excessive awareness of, and sensitivity to, the behavior and feeling of others” (Boyce & Parker, 1989), and is adopted in diagnostic criteria of major depression episode with atypical features (American Psychiatric Association, 2000). Although rejection sensitivity is reported five factor structure in Australia (Boyce & Parker, 1989) and Japan (Suyama et al., 2011), relationships between each rejection sensitivity and depressive symptoms have not been examined. Hence, the present study investigates the effects of each factor of rejection sensitivity on depressive symptoms.

Method: Subjects were 107 Japanese patients (36men and 70women, mean age 37.70±11.87 years) with emotional disorders. They completed (1) the Interpersonal Sensitivity Measures (IPSM; Boyce & Parker, 1989), which has five subscales, (“fear of relationship failure,” “unassertive interpersonal behavior with fear of hurting others,” “fear of criticism by others,” “discrepancy between social self and poor self-image,” and “dependence on evaluation by others”). and (2) the Beck Depression Inventory-II (BDI-II; Beck et al., 1996). For the latter measure, total scores as well as scores for

melancholia (items 5, 11, 12, 16), and anhedonia (items 4, 11, 12, 13, 15) were calculated following in a finding of Pizzagalli et al. (2004). The final sample comprised patients scoring 13 points or more on the BDI-II (i.e., the cutoff for mild depressive symptoms).

Results: We conducted multiple regression analysis to examine whether rejection sensitivity affected depressive symptoms. Main effects of “discrepancy between social self and poor self-image” and “dependence on evaluation by others” were found for total BDI-II ($\beta = .46, p < .001$; $\beta = .33, p < .05$). Main effects of “discrepancy between social self and poor self-image” were found for the anhedonia subscale of BDI-II ($\beta = .35, p < .01$). Main effects of “discrepancy between social self and poor self-image” were found for total BDI-II ($\beta = .43, p < .001$).

Discussion: Two aspects of rejection sensitivity - “discrepancy between social self and poor self-image” and “dependence on evaluation by others” - can increase depressive symptoms. Depressive symptoms may be increased by putting on a “false” self in social situations to avoid rejection, because of low self-evaluation, and assigning high value to evaluation from others. These findings may inform the treatment of depression.

A-P-076

Effect of Living-Related Kidney Transplantation on Affective and Somatic Aspects of Depression Symptoms

○Kanazawa, Junichiro¹, Ando, Takeshi², Motoya, Ryo³, Takagaki, Koki⁴, Sekiguchi, Mayu², Sato, Masumi⁵, Harada, Hiroshi⁵, Sakano, Yuji¹, Hirano, Tetsuo⁵

¹School of Psychological Science, Health Sciences University of Hokkaido, Japan, ²Graduate School of Psychological Science, Health Sciences University of Hokkaido, Japan, ³Center for Medical Education and Career Development, Fukushima Medical University, Japan, ⁴Department of Psychiatry and Neurosciences, Hiroshima University, Japan, ⁵Sapporo City General Hospital, Japan

Background: Above 80 % of kidney transplantation in Japan is living-related kidney transplantation (LRKT). Depression is the most common psychological disorder in recipients with LRKT (Kimmel et al., 2007) and is likely to be related to treatment adherence (Akman et al., 2007). Although depression symptoms are consist of affective and somatic aspects, impact of LRKT on these two aspects of depression are still unclear. Current study aims to investigate effect of LRKT on affective and somatic aspects of depression symptoms.

Methods: Participants were total of 20 recipients with underwent LRKT (female=6, age: Mean=50.15, SD=10.82). Participants were asked to fulfill Beck Depression Inventory-II (BDI) which consists of two subscales (Affective and Somatic) and cutoff score were 13. Paired t test was used to compare two subscales of BDI scores before about 1 month from LRKT (Pre) and after about 6 months from LRKT (Post).

Results: Average BDI total scores were relatively low on both times (Pre: Mean= 10.55, SD= 8.34; Post: Mean= 7.45, SD= 10.62). Number of above cutoff

on Pre were 5 (25 %) and 2 (10%) on Post phase. BDI total scores ($t = 2.27, df = 19, p < .05$) and somatic factor of BDI ($t = 2.98, df = 19, p < .01$) were significantly decreased after LRKT, but not affective factor of BDI ($t = 0.33, df = 19, n.s.$).

Conclusion: These results revealed that LRKT improve depression symptoms mostly on somatic aspects even though LRKT recipients' depression symptoms are not severe before surgery. Depression generally may not be the treatment target before and after LRKT. Although it is not large number, some recipients showed above cutoff level depression symptoms. Therefore clinicians should set treatment target mainly on individual traits such as kidney transplant related coping styles for LRKT recipients. Depression commonly increases after LRKT because of failing transplant thus resulting in re-dialysis (Haruki, 1992). Also, average retention years of transplanted kidney are about 10 years. Therefore further longitudinal study would be helpful to investigate whether somatic symptoms or affective and cognitive symptoms of depression would deteriorate after LRKT.

A-P-077

Characteristics of Cancer Outpatients who Hesitate to Speak with Their Doctors during Medical Consultations

○Ogawa, Yuko¹, Takei, Yuko², Koga, Harumi¹, Shimada, Mai¹, Nagao, Ayami¹, Sasaki, Miho^{1,3}, Kunisato, Yoshihiko⁴, Tanigawa, Keishi⁵, Suzuki, Shinichi⁴

¹Department of Human Sciences, Waseda University, Saitama, Japan, ²Faculty of Medicine, University of Miyazaki Hospital, Japan, ³Health Care Center, Kibi International University, Japan, ⁴Faculty of Human Sciences, Waseda University, ⁵Biothera Clinique, Japan

Background: Although effective communication between cancer patients and their doctors is linked to increased compliance and better health outcomes (Rodin et al., 2009), cancer patients often hesitate to speak with their doctors (Parker et al., 2005). Previous interview studies of this hesitation (Koga, 2011) attributed it two factors: conflict in deciding which information to discuss with their doctors (Conflict) and a feeling of giving up on their doctors (Giving Up) (Ogawa, 2013). However, despite these advances, cancer patients of different sociodemographic backgrounds may differ in which factors they are more likely to have experienced. This study therefore investigates the relationship between hesitation factors and the sociodemographic characteristics of cancer outpatients.

Methods: Participants were 38 individuals (15 male and 23 female, mean age 61.42 ± 11.42 years) undergoing either outpatient immunotherapy or hyperthermia treatment, which do not typically cause any adverse effects. Participants were asked to recall the conversation during their most recent consultation with their primary doctor. They then completed questionnaires measuring anxiety and depression (HADS: Zigmond et al., 1993), quality of life (EORTC-QLQ-C30: Aaronson et al., 1993) and the degree of hesitation they felt when speaking with their primary doctor (Ogawa, 2013).

Results: Mann-Whitney *U* tests were conducted to examine the relationship between patients' sociodemographic characteristics and the hesitation factors, and Spearman's correlation coefficients were calculated for continuous variables. Nausea and vomiting were correlated with Giving Up ($r_s = -.45$, $p = .02$, 95%CI [-.67, -.15]), while marginally significant relationships were found between patients' anxiety and Conflict ($r_s = .36$, $p = .07$, 95%CI [.04, .61]), and between pain and Giving Up ($r_s = .37$, $p = .06$, 95%CI [.06, .62]). Hesitation did not differ across other sociodemographic characteristics.

Conclusions: Associations were found between patients' physical symptoms and Giving Up. An association between patients' anxiety level and Conflict was also implied. Patients experiencing nausea and vomiting were not giving up on their doctors, but those with pain seemed to be doing so. This suggests that patients might hesitate to consult with their doctors about pain but not about nausea and vomiting symptoms. Furthermore, this indicates that patients with higher anxiety were experiencing more conflicting feelings about asking questions of their doctors. Thus, psychological interventions to reduce these patients' feelings of conflict and anxiety might contribute to better communication during their medical consultations and therefore to improved outcomes, especially in those with pain.

A-P-078

Behavioral and Cognitive Coping Strategies in Daily Life among Japanese Dialysis Patients: A Content Analysis

○Nakamura-Taira, Nanako¹, Miwa, Masako², Hirai, Kei³

¹Center for Research on Human Development and Clinical Psychology, Hyogo University of Teacher Education, Jpan,

²Department of Psychosomatic Internal Medicine, Nihon University Itabashi Hospital, Japan, ³Support Office for Large-Scale Education and Research Projects, Osaka University, Japan

Purpose: Previous studies have shown a relationship between coping strategies and mental health status of patients. However, they used a general scale to measure the patients' coping status, and did not discuss the specific features of Japanese patients' coping strategies. Therefore, this qualitative study explored the cognitive and behavioral coping strategies for the daily self-care of Japanese patients undergoing dialysis.

Methods: The participants were patients receiving in-center hemodialysis (CHD) or continuous ambulatory peritoneal dialysis (CAPD). We conducted a cross-sectional survey using an Internet-based questionnaire. Of the eligible participants (n = 632), those who submitted incomplete forms or were outliers (n = 60) and those with prior history of renal transplantation (n = 22) were excluded from the analysis. A total of 550 dialysis patients [494 CHD, 28 CAPD, 28 concomitant CHD and CAPD; mean age = 56.3 (SD = 14.4); mean dialysis duration = 82.7 months (SD = 74.3); male: 73.1%; employed: 40.5%] answered an open-ended questionnaire on daily life coping and the Japanese version of Hospital Anxiety and Depression Scale (HADS).

Results: Content analysis showed the following coping strategies: "maintaining a healthy lifestyle

for good kidney health," "accepting dialysis as part of daily life," "keeping a positive frame of mind," "avoiding difficult work," "maintaining a grateful attitude," "developing hobbies and interests," "seeking support," "acceptance or having a feeling of resignation," "change in thinking," "seeking information," "trying to be patient," and "keeping life normal (similar to pre-dialysis or dialysis-free life)." Patients with more-severe psychological symptoms (total HADS score > 19) engaged in coping strategies less frequently and of fewer kinds.

Conclusions: In international surveys, Japanese patients showed lower relative risk of mortality than European and American patients (Goodkin et al., 2003). One of the determinants of low mortality risk among Japanese patients is the maintenance of a healthy lifestyle. The results of this study also indicate that the factors affecting the stressor-appraisal-coping process of Japanese dialysis patients are unique to Japanese culture, particularly the feelings of gratefulness, resignation, and acceptance, which aid them in achieving optimal self-care management and maintaining mental-health (This work was supported by a KAKENHI Grant-in-Aid for Young Scientists (B) 21730549).

A-P-079

Overtime Work is Associated with Higher Risk of Type 2 Diabetes in Urban Workers

○Tayama, Jun¹, Munakata, Masanori², Li, Jue³

¹Center for Health and Community Medicine, Nagasaki University, Nagasaki, Japan, ²Preventive Medical Center, Tohoku Rosai Hospital, Japan, ³Heart, Lung and Blood Vessel Center, Tongji University, Shanghai, China

Objective: To investigate the relationship between the quantity and quality of work stress and risk of diabetes among workers in a large Chinese city.

Research Design and Methods: This was a cross-sectional study. The fasting blood level and number of working hours per week of 2228 workers in Shanghai, China (mean age, 44 years; 64% men) were measured for categorization of subjects into diabetic and non-diabetic groups and into tertiles per the number of working hours. Qualitative employment data were collected by administration of the National Institute for Occupational Safety and Health job stress questionnaire and subjected to logistic regression analysis to investigate the relationship between risk of diabetes and work-related stress.

Results: A significantly higher percentage of men were found to have diabetes (15%; 4% for women;

$p < 0.01$). The odds ratio of developing diabetes was found to increase with an increase in working hours for men, but not women, and was significantly higher for only male workers who worked 55 hours or more compared with those who worked for fewer hours (2.20; 95% CI:1.38-3.45).

Conclusions: Although limited by a cross-sectional design and imprecise measurement of lifestyle factors, the study produced valid results because we revealed the relationship between overtime work and risk of diabetes. Since our results indicate that working a large number of hours per week may be a risk factor for diabetes in male workers in Shanghai, implementation of measures limiting working hours per week may help prevent diabetes in this population.

A-P-080

Intervention for a Sleep Health Program on the Basis of Cognitive Behavioral Therapy through E-mail Newsletters for Students: Quasi-Experimental Study

○Asano, Kenichi¹, Ishimura, Ikuo², Abe, Hironori²

¹Research Center for Child Mental Development, Chiba University, Chiba, Japan, ²Tokyo Seitoku University, Chiba, Japan

Objectives: Several reports suggest that college students have atypical sleep patterns and poor sleep quality. As such, it is very important to develop an effective intervention method to help improve the quality of sleep among these students. On the basis of cognitive behavioral therapy (CBT), we examined the effect of an intervention program to improve sleep quality and the overall mental health among these students.

Methods: Fifty three students participated in E-mail group and 50 students participated in the control group. E-mail group received the lecture on sleep hygiene, the once-weekly e-mail newsletters on sleep health (stimulus control and sleep restriction) and were ordered to maintain a sleep diary for 4 weeks. The Pittsburgh Sleep Quality Index (PSQI) and Kessler 6 were measured before the lecture (as the baseline measurement) and 16 weeks later (as the post measurement) in the both groups. Effect size

was calculated by the mean difference divided by the pooled standard deviation, the root mean square error estimated from the general linear model.

Results: In the E-mail group, the satisfaction in sleep in PSQI scores were not reduced by an estimated mean difference of 0.14 points (95%CI -0.23 to 0.53) compared with the control group ($p=0.44$, effect size=0.15, 95%CI -0.23 to -0.53). However the K6 scores in the group were reduced by an estimated mean difference of 2.78 (95%CI 0.99 to 4.56) points compared with the control group ($p=0.00$, effect size=0.60, 95%CI 0.21 to 1.00).

Conclusions: A sleep health program based on CBT, utilizing e-mail newsletters, may improve mental health and may be a cost effective way for Japanese a students to receive treatment for poor sleep. An important question remains on whether the program will substantially improve or maintain mental health.

A-P-081

Differential Effects of Cognitive Fusion and Experiential Avoidance on Behavioral Activation

○Shima, Taiki¹, Kawai, Tomonori¹, Yanagihara, Mamika¹, Kumano, Hiroaki²

¹Graduate School of Human Sciences, Waseda University, Saitama, Japan, ²Faculty of Human Sciences, Waseda University, Saitama, Japan

Purpose: The aim of Acceptance and Commitment Therapy is to attain behavioral activation consistent with one's values and increases action that is reinforced in the society to which one belongs. It is assumed that "cognitive fusion" and "experiential avoidance" inhibit behavioral activation. Cognitive fusion is a behavior in which one confuses a thought with a fact. Experiential avoidance is a behavior in which one tries to change the content and frequency of private events such as thoughts, feelings, and body sensations. This study examined the effects of these behaviors on behavioral activation. We hypothesized that cognitive fusion correlates positively with experiential avoidance and that these behaviors correlate negatively with behavioral activation. In addition, we hypothesized that, when multiple regression analysis is performed, experiential avoidance has a larger contribution to behavioral activation than cognitive fusion.

Methods: In total, 312 individuals participated in this study (114 males and 168 females, mean age = 20.11 ± 1.36). The following three scales were used: 1) Cognitive Fusion Questionnaire (CFQ: measuring cognitive fusion); 2) Acceptance and Action Questionnaire-II (AAQ-II: measuring experiential avoidance); and 3) Behavioral Activation for Depression Scale (BADs: measuring behavioral activation).

Results and Discussion: First, a correlation analysis was performed. A significant relationship was found between the total scores of CFQ and AAQ-II ($r = -.72^{**}$), between those of CFQ and BADs ($r = -.44^{**}$), and between those of AAQ-II and BADs ($r = .50^{**}$) ($p < .001$). These results suggest that there is a substantial overlap of function in cognitive fusion and experiential avoidance. To investigate the effect of cognitive fusion and experiential avoidance (as explanatory variables) to behavioral activation (as an objective variable), a multiple regression analysis was performed. The result was that cognitive fusion ($\beta = -.16, p < .05$) and experiential avoidance ($\beta = .38, p < .001$) were shown to significantly affect behavioral activation (adjusted $R^2 = .26, p < .001$). Because it has been shown that experiential avoidance has a larger contribution to behavioral activation than cognitive fusion, our hypothesis was supported. Furthermore, it was predicted that cognitive fusion affects behavioral activation via experiential avoidance, and then a mediation analysis was performed. A significant indirect effect of cognitive fusion was indicated as affecting behavioral activation via experiential avoidance ($\beta = -.28, p < .001$). These results suggest that cognitive fusion has a function that promotes experiential avoidance and that both cognitive fusion and experiential avoidance have functions that inhibit behavioral activation.

A-P-082

Relationship between Anxiety, Depression, and Self-Care Behaviors in Type 2 Diabetes Patients

○Sasaki, Miho^{1,2}, Miyao, Mariko³, Okuyama, Tomoko³, Nanao, Michiko³, Koshizaka, Masaya³, Ishikawa, Ko³, Sata, Akira³, Mizuno, Yuzo³, Kumano, Hiroaki⁴, Suzuki, Shin-ichi⁴

¹Graduate School of Human Sciences, Waseda University, Saitama, Japan, ²Health Care Center, Kibi International University, Okayama, Japan, ³Endocrinology and Metabolism, Kanto Central Hospital, Tokyo, Japan, ⁴Faculty of Human Sciences, Waseda University, Saitama, Japan

Introduction: Anxiety and depression is a risk factor that prevents self-care behaviors of diabetes patients. However, the care provided with regard to anxiety or depression to patients with diabetes is insufficient. The purpose of this study was to explore the association between anxiety, depression, and self-care behaviors in type 2 diabetes patients.

Method: Subjects were 72 outpatients with type 2 diabetes. The measurement index used in this study is as follows. 1) The Summary of Diabetes Self-Care Activities Measure (J-SDSCA), 2) Hospital Anxiety and Depression Scale (HADS). In order to identify factors that predict self-care behaviors, hierarchical multiple regression analyses were conducted.

Results: Demographic data of the patients as shown below: age=70.10±11.40 years old, illness duration=15.15±10.40 years, BMI=23.0±3.1, HbA1c

(NGSP)=6.9±0.7, men N=47, women N=25, insulin therapy patients N=28, oral drug therapy patients N=44. The results of hierarchical multiple regression analyses showed that anxiety affected the daily diet of self-care behaviors ($\beta=-.53$, $p<.01$, $R^2=.32$, $\Delta R^2=.22$, $p<.01$). And depression affected the foot-care of self-care behaviors ($\beta=-.28$, $p<.05$, $R^2=.29$, $\Delta R^2=.09$, $p<.05$).

Discussion: Emotion of anxiety was negatively correlated with daily diet, and emotion of depression was negatively correlated with foot-care. Anxiety disorder and major depression disorder are major psychopathological disorders seen in patients with diabetes, and these patients face a greater risk of disorder than the general population. The results of the present study showed that it would be important to treat anxiety and depression.

A-P-083

Proactive Interference in Episodic Memory: Neuropsychopharmacology and Computational Cognitive Modeling Study

○Fu, Zhongfang¹, Liang, Peipeng²

¹School of Psychology, Beijing Normal University, Beijing, China, ²XuanwuHospital, Capital Medical University, Beijing, China

Increased sensitivity to proactive interference (PI) has been observed in patients with memory impairment. However, the underlying mechanism is still unclear. The present study focused on this issue by using neuropsychopharmacological experiment and computational cognitive modeling technique together. Based on the recent findings from amnesic mild cognitive impairments (aMCI) that encoding impairment and susceptible PI effects coexisted in aMCI, and susceptible PI effects still remains without response competition, we hypothesized that the susceptible PI effects in amnesic patients are primarily due to encoding deficits.

20 adults (11 females) voluntarily participated in a double-blind, between-subject, placebo-controlled experiment, with a 2 (drug: midazolam, saline) \times 3 (list: list1, list2, list3) \times 3 (word pairs: control, interference, practice) factorial design. Healthy adults were required to participate the experiment twice, one week apart, under midazolam (0.03mg/kg) or saline. In each day, subjects went through 3 lists of word-pair associative learning and a final cued-recall test. Each list involved the same procedure, and subjects were asked to remember 45 word pairs firstly, and then tested twice for each pair. Three kinds of word pairs were designed, with

control pairs studied on only on list, practice pairs practiced on all three lists, and interference pairs involved recombining cue and response terms from one list to the next. An ANOVA statistical analysis was run on behavioral data and SAC (Source of Action Confusion) models were constructed accordingly.

It was found that, episodic memory was significantly reduced after midazolam injection, as contrast to saline. The PI effect was detected both under midazolam and saline, but the PI magnitude under midazolam was significantly higher than that under saline in list2, the list directly followed the injection. The same pattern also worked for list3, but not to be significant. Furthermore, the output of the SAC model was fitted well with the experimental data (accuracy).

By using drug studies, we replicated and further demonstrated the susceptible PI effect in amnesic subjects. Moreover, with SAC, the present findings suggested that the increased sensitivity of PI under midazolam, as compared with saline, may be due to the encoding impairment under midazolam. The present finding may be helpful for the diagnosis and cognitive training of the patients with aMCI and AD (Alzheimer's Disease).

A-P-084

The Effects of “Depressogenic Schemata” on Inflammatory Bowel Disease Patients

○Furumura, Kaori, Shiraki, Manabu, Nakamura, Yoshitaka, Yamamoto, Takayuki, Matsumoto, Kouichi
Yokkaichi Social Insurance Hospital, Mie, Japan

Background: Inflammatory bowel disease (IBD), a chronic illness encompassing ulcerative colitis and Crohn's disease, is characterized by long-term inflammation of the gastrointestinal tract. The Japanese Ministry of Health, Labour and Welfare has designated IBD as an intractable disease. In the present study, we report the effects of “depressogenic schemata” on IBD patients.

Methods: A total of 103 IBD outpatients (>20 years old) completed the questionnaire about demographic factors, the IBD questionnaire (IBDQ) to assess IBD status, the dysfunctional attitude scale (DAS-24) to assess depressogenic schemata and the hospital anxiety and depression scale (HADS). Based on the total IBDQ score, the patients were divided into two groups: a remission group and a non-remission group. Based on the total DAS-24 score, we also divided patients into two groups: the “high-” and “low-scoring group.”

Results: The mean patient age was 40.3 (SD = 14.0) years, 64% were male, and 65% were in remission. The remission group had lower DAS-24 and HADS scores compared with the non-remission group. Although the DAS-24 score showed a

correlation with the HADS score, there were no significant differences between the high- and low-scoring groups. In the remission group, there were significant differences in the anxiety and depression scores between the high- and low-scoring groups. In the non-remission group, there were no significant differences among the anxiety and depression scores between the high- and low-scoring groups.

Conclusions: We found anxiety and depression in the remission group were influenced by depressogenic schemata; whereas anxiety and depression in the non-remission group may have been influenced by other factors other than depressogenic schemata. The findings suggest the cognitive behavioral therapy could be applicable for anxiety and depression treatment in remission patients. Further research is necessary to clarify the mental health status of non-remission patients. The results of the present study clarified the function of depressogenic schemata in IBD patients. In other chronic diseases, the depressogenic schemata are likely to have different effects on remission and non-remission patients.

A-P-085

Reliability and Validity of the Japanese Version of Criminal Sentiments Scale Modified

○Kikuchi, Akiko¹, Ozaki, Shiro², Kuniyoshi, Miyako², Ando, Kumiko¹, Okada, Takayuki¹

¹Department of Forensic Psychiatry, National Institute of Mental Health, National Center of Neurology and Psychiatry, Tokyo, Japan, ²Harima Rehabilitation Program Center, Hyogo, Japan

Background: Criminal thinking is established to be one of the attributes associated with criminal behaviors and recidivism. It has been the target of correctional programs. The Criminal Sentiments Scale-Modified (CSS-M) is a self-report measure of antisocial attitudes, values, and beliefs related to criminal activity. Research has established validity and reliability of CSS-M for adult and juvenile populations. However, to date, CSS-M has not been validated for the use with Japanese inmates.

Method: 599 male inmates in a prison in Japan completed a questionnaire including the translated CSS-M (hereafter, CSS-MJ), Social Desirability Scale (SDS), and items related to past affiliation with Japanese gangs and basic demographic variables. The CSS-MJ was again completed two weeks later.

Sixty six adult non-offenders completed the CSS-MJ as a comparison group.

Results: The CSS-MJ showed good internal consistency (cronbach's alpha $>.80$), test-retest reliability (Pearson Correlation efficient $r >.70$, $p <.01$). There was negative correlation with the SDS ($r = .32$, $p <.001$). Inmates with past affiliation with Japanese gangs showed significantly higher scores than those without such experience ($t(597) = 4.05$, $p <.001$). CSS-MJ showed good discriminative validity for distinguishing offenders and non-offenders.

Conclusion: CSS-MJ showed good reliability and validity when completed by Japanese male offenders. It will be a useful assessment tool to be used in correctional Cognitive Behavior Therapy programs.

A-P-086

The Cognitive Process of the Effects of Posture on Emotions

○Tahara, Taro¹, Takeda, Masaya¹, Fukuda, Mayuko¹, Takahashi, Fumito², Takase, Hiroki³, Imai, Akira³

¹Graduate School of Education, Shinshu University, Nagano, Japan, ²Faculty of Education, Shinshu University, Nagano, Japan, ³Faculty of Arts, Shinshu University, Nagano, Japan

Introduction: In researches of effects of posture on emotion, researchers usually analyze self-report (Flack, 2006). For example, a slumped-down posture induces depressive feeling than an upright posture (Stepper & Strack, 1993). However, such researches are limited because they cannot control experimenter effects and social desirabilities even they made cover stories well. Moreover, self-reports include inferences of participant. That why, results of self-reports cannot suggest how attention and bias are working in our cognitive processes when postures elicit specific emotions. Although researchers of embodiment have examined emotional cognitive process by experiments with reaction time, there is no experiment of posture using reaction time. Therefore, it remains unclear whether the effects of posture on emotion occur automatically or need to be mediated by the process that an individual attributes emotional state to his/her posture. Thus, present study aims to clear the process that posture induces emotional experience.

Method: Participants A total of 26 undergraduate students participated in this experiment (17 female; $M = 19.50$, $SD = 1.07$). *Procedure* We conducted the task based on Taniguchi (1991), which required participants to judge whether the emotional word stimulus presented on screen is positive or negative by pushing keyboard as fast and accurately as possible. In a half of experiment, participant

expressed slumped-down posture. And in another half, they expressed upright posture. For this, in one experiment, all participants were asked to perform the task twice. And the order of posture is counterbalanced. Participants also answered self-reports by saying their mood three times at the base line and two postures. It consisted of nine questions of the visual analogue scale about their mood.

Results: Result shows that it takes longer reaction time in milliseconds to judge words when participants express slumped-down posture than upright posture (slumped-down, $M=596.0$, $SD=73.1$; upright, $M=574.5$, $SD=73.1$; $F[1, 25]=4.88$, $p<.05$). Also, self-reports in shows slumped-down posture ($M=3.27$, $SD=1.12$) made participants more negative than upright posture ($M=4.12$, $SD=1.12$) and base line ($M=3.96$, $SD=1.29$; $F[2,50] =4.12$, $p<.05$; $Mse=1.28$, $p<.05$). However, the interaction of posture and emotional valance were not observed ($F [1,25] =.10$, *n.s.*).

Discussion: Present study suggests when posture affects emotion, controlled and mediated process is working in the bodily feedback not automatic. In detail, participants related their feeling with their posture, and it may explain that automatic attentional bias is not observed. In conclusion, present study suggest importance of self-perception of posture for controlled emotional processing.

A-P-087

Relationships between Social Support and Functional Impairment in Adult Female to Male Gender Identity Disorder Patients in Japan

○Ando, Takeshi^{1,2}, Harima, Katsuki⁵, Ikeda, Hiroshi^{2,3}, Tateno, Masaru², Sasaki, Ryuji², Hashimoto, Eri², Saito, Toshikazu², Nakano, Norihito^{2,4}, Sakano, Yuji⁴

¹Graduate School of Psychological Science, Health Sciences University of Hokkaido, Japan, ²Department of Neuropsychiatry, School of Medicine, Sapporo Medical University, Japan, ³Department of Occupational Therapy, Faculty of Human Sciences, Hokkaido Bunkyo University, Japan, ⁴School of Psychological Science, Health Sciences University of Hokkaido, Japan, ⁵Harima Mental Clinic, Japan

Introduction: Gender Identity Disorder (GID) patients exhibit functional impairments in social, occupational, and/or other important domains, high rates of comorbidity psychiatric disorder and lower levels of QOL. Although some research have indicated that social support moderately correlated with depression and QOL (Ando et al., 2012; Nuttbrock et al., 2002), no study has investigated relationships between social support and functional impairments. The purpose of this study was to examine relationships between social support and functional impairment among adult GID patients.

Method: Participants were sixty-four adults diagnosed with GID (Mean age = 27.35, SD = 6.21). Thirty-eight participants received physical intervention. Sixteen were prescribed cross-hormone, and 22 received physical surgery. Two underwent a mastectomy without cross-hormone treatment. Four participants were diagnosed with comorbidity psychiatric disorder and prescribed psychiatric medications. All participants were asked to complete the following questionnaires: 1) Demographic data including age, age of onset of gender dysphoria, previous medical history without GID, 2) Visual Analog Scale to assess functional impairment (three domains: work/school, social life, family life), 3) Duke Social Support Index Japanese edition (Iwase et al., 2008), 4) Utrecht Gender Dysphoria Scale

Japanese edition (Ishimaru et al., 2011). Missing data analysis procedures used multiple imputation in SPSS. The number of cases with missing value was 9 (13.43%).

Results and Discussion: Analyses of variances showed that the scores of functional impairments significantly differed across the treatments conditions in work/school ($F(2, 61) = 5.08, p < .01$) and in social life domains ($F(2, 61) = 3.25, p < .05$). Relationships of social support and gender dysphoria to functional impairments were analyzed using partial correlation analyses controlling for treatment conditions as control variable. There was a negative and significant correlation between social support and social life domain of functional impairment ($r = -.35, p < .05$). No such a correlation was found between gender dysphoria and all functional impairment domains ($r = .06-.20, n.s.$). These results imply that social support improves impairment in interpersonal function and domestic relation, not work/school, and suggest that it is necessary to assess whether FTM patients have resource of social support. Additionally the result that gender dysphoria did not directly relate with functional impairment might suggest the need for focusing on how to get comfortable environment with educating family members, employers, and institutions about GID and support they need (Byne et al., 2012).

A-P-088

Cognitive Distortions and Mental Health Status among Clinical and Non-clinical Sample

○Hossain, MD. Shahanur, Begum, Dr. Roquia

Department of Clinical Psychology, University of Dhaka, Bangladesh

Cognitive Distortion (CD) is logical but not rational thinking that plays a fundamental role in the development and maintenance psychological dysfunction (Beck,2004). The current study was designed to explore different patterns of cognitive distortions in various problem scenarios among different psychiatric patients, to know the impact of CD from patients perspective and to see the relationship between CD and mental health status among clinical and non clinical sample of Bangladesh. Pursuing these objectives a total of 20 (10 psychiatric/clinical and 10 non-clinical) sample were purposively selected. In-depth clinical interview along with thought dairy, thought listing and GHQ-28 were administered as the instrument. During clinical interview with every clinical sample four most problematic current scenarios were identified collaboratively and their automatic thoughts in those situations were explored using thought listing techniques. In case of every non-clinical sample matched with clinical sample, the problem scenarios of that clinical sample were used in thought listing technique. Within and cross case approach of qualitative data analysis were used where content and relational analysis were adopted. It was found that among all clinical sample a number

of different CD were present that were not among non-clinical control sample. It was also found by content analysis that overgeneralization, jumping to conclusion, magnification and minimization, emotional reasoning and labeling-mislabeling types of CD had been present among most (80-90%) of the clinical sample. On the other hand should statement, emotional reasoning and jumping to conclusion were found among most (40-50%) of the non-clinical sample but the rate was significantly lower than clinical sample. Considering the impact all clinical sample evaluated CD as damaging but they could not control it. Relational analysis indicates that level of both mental health problems and CD among clinical sample had been higher than non-clinical sample which indicates an underlying relationship among cognitive distortions and General mental health status. Personalization and Jumping to conclusion were found as the most prevalent CD among depression. Magnification- minimization was found most among GAD, panic and somatoform disorder. Overgeneralization was found most among OCD and drug addiction. Quantitative confirmatory study is recommended to establish relationship between different types CD and different types of disorder.

A-P-089

The Relationship between Effortful Control and Internet Addiction

○Honma, Yoshiko, Kawaguchi, Jun

Nagoya University, Aichi, Japan

In recent years, it's true that our lives become convenient with the popularization of internet. However, while people can communicate with internet anytime and anywhere, a problem with addiction to internet have become a serious social issue. Internet Addiction Disorder is defined as belong to an impulse-control disorder by the DSM-IV, and person having this disorder comes to devote all of her or his time to internet, feel like failing to stop to use internet. It is also known that internet addiction is closely related to a feeling of loneliness, a loss of close relationship, and personality trait such as depression and impulsiveness. Moreover, frequent use of text message with mobile phone is related to extroversion and neuroticism (Yoshida et al., 2005). In addition, the recent development of ubiquitous internet access seems to make people addictive to internet. This may cause people to have problems of distractedness even though they aren't diagnosed as Internet Addictive Disorder. It has been known that there are individual differences in inhibitory control function. One of these individual

differences is effortful control. Effortful control is defined as "the ability to inhibit a dominant response to perform a subdominant response" (Rothbart & Bates, 1998, p. 137). Rothbart et al. (2000) made Adult Temperament Questionnaire, which included 35 questionnaires to measure effortful control. They consist of three subscales: inhibitory control, activation control, and attention regulation. Previous studies showed that EC score was correlated with scores of psychopathologic symptom (e.g., the Screen for Child Anxiety Related Emotional Disorders) and negative emotionality (e.g., STAI-S), but the relation of subscales of EC score with internet addiction has not been examined. Therefore, we investigated the relationship between each subscale of EC and Internet Addiction Test (IAT) score. In the results, only activation control had a negative influence on IAT score, but inhibitory and attentional control didn't show any effect on IAT score. Thus, it was suggested that low attentional control in EC caused addictive behavior.

A-P-090

The Effect of Self-Esteem and the Direction of Self-Related Information on Recall Accuracy

○Sato, Hideki¹, Tanaka, Tomoe², Suzuki, Shin-ichi³

¹Graduate school of Human Science, Waseda University, Japan, ²Meijigakuin University, Japan, ³Faculty of Human Science, Waseda University, Japan

Purpose: Some studies showed that individuals with low self-esteem remember self-related information more accurately than those with high self-esteem do. However, others showed that accurate recall of self-related information is a function of the congruency between self-esteem and how favorable this self-related information is. To resolve this discrepancy, it would be useful to compare recall accuracy of self-related information in two situations: (1) participants personally answer a personality test and (2) participants read a given personality profile. However, this has not yet been done. This study tries to fill this gap, examining the effect of self-esteem and the direction of self-related information on recall accuracy.

Methods: In phase 1, 31 undergraduate students (7 male and 24 female, mean age = 20.97 years; SD = 0.77) completed the Japanese version of the Rosenberg Self-Esteem Scale and a personality test. In phase 2, 24 of them (4 male and 20 female, mean age = 20.97 years; SD = 0.77) received written feedback about their personality profile consisting of self-related information that was either more or less favorable than their answers in the previous phase. After retrieving the sheets with the profile information, the experimenter administered an incidental recall task in which participants were required to recall their

profile.

Results: Recall accuracy scores were obtained by subtracting the actual feedback value participants received from the value they recalled (0 = perfect accuracy). Signed recall accuracy scores were submitted to a 2 (self-esteem: high/low) × 2 (direction of self-related information: favorable/unfavorable) ANOVA with the direction of self-related information serving as a within-subject factor. The main effect of the direction of self-related information was significant [$F(1, 22) = 4.43, p < .05$]. Participants recalled unfavorable self-related information more correctly than favorable self-related information. Factor analysis of self-related information revealed the following factors: "sociability," "individualism," "neuroticism," and "cooperativeness." Each factor was submitted to a 2 × 2 repeated-measures ANOVA. The scores of "sociability" and "cooperativeness" tended to follow a centralized distribution and those of "individualism" and "neuroticism" tended to follow a polarized one.

Discussion: Regardless of self-esteem levels, participants recalled unfavorable self-related information more correctly than favorable self-related information. Further, different kinds of self-related information were recalled in different ways.

A-P-091

Are the Neural Correlates for Inferring Symmetry Independent on Stimulus Modality?

○Miyake, Yuka¹, Sato, Yutaka², Kumano, Hiroaki^{1,3}

¹Institute of Applied Brain Sciences, Waseda University, Saitama, Japan, ²RIKEN Brain Science Institute Laboratory for Language Development, Saitama, Japan, ³The Faculty of Human Sciences, Waseda University, Japan

Introduction: When we learn the conditional relationship, “if A then B,” we can often infer the inverse, “if B then A,” without directly learning this relationship. This type of inference is known as symmetry. Symmetry can be established through learning, regardless of the modality through which the stimulus is presented. The prefrontal cortex (PFC) and the inferior parietal lobule (IPL) are both active bilaterally when we process information with symmetrical relationships. Previous studies that examine symmetry, however, only use visual stimuli that are presented in figures. Consequently, it is unclear whether the brain demonstrates similar activity patterns when symmetrical stimuli are auditory, rather than visual. The purpose of this study was to examine whether stimulus modality affects brain activity in adult subjects who infer symmetry.

Methods: We used near infrared spectroscopy (NIRS) to examine the brain activity in 12 subjects that performed symmetry inferences between different figures (visual-visual condition), and between a figure and a sound (visual-auditory condition). Participants began the task by learning the relationship “if A then B” until their accuracy was greater than 90%. Once subjects learned this

relationship, we recorded their brain activity by using NIRS as they began performing a second task. In the second task, participants were presented with either A or B. When A appeared, participants imagined B (control condition), and when B appeared, they imagined A (task condition). We subtracted data in control condition from that in task condition for obtaining a measure of brain activity.

Result: In visual-visual condition, the brain activation was seen in the bilateral PFC and IPL when participants imaged A (task condition) as compared with when participants imaged B (control condition). This result supports the findings in the previous studies. But in visual-auditory condition, we failed to find, the brain activation in the PFC and IPL.

Discussion: Therefore, we are unable to prove or disprove the existence of a common neural basis for inferring symmetry. However, while the control condition stimuli were identical to the task condition stimuli in visual-visual condition, the control condition stimuli were different from the task condition stimuli in visual-auditory condition. We suspect these differences might have affected our findings and hence warrant further investigation.

A-P-092

A Thai Assessment Instrument for Emotion Regulation: An Initial Study

○Pisitsungkagarn, Kullaya, Taephant, Nattasuda, Jarukasemthawee, Somboon

Faculty of Psychology, Chulalongkorn University, Bangkok, Thailand

With the increased recognition of the significance of emotion regulation, research studies on the topic have spurred recently. Findings emerged illustrating potential cross-cultural variations of the construct. The necessity becomes evident in developing a culturally-appropriate assessment instrument for emotion regulation. Therefore, the current study aimed to develop such an instrument. The well-recognized empirical approach to scale construction was selected due to variations in conceptual frameworks and assessment approaches of emotion regulation as well as emerging cross-cultural

variations. A total of 540 Thai undergraduates from a large public university in Bangkok responded to a compilation of items from existing measures of emotion regulation. Factor analyses yielded a 36-item inventory of emotion regulation consisting of seven factors. These factors accounted for 53.35% of the variance. Psychometric properties of this initial instrument were satisfactory. In addition to providing a Thai assessment instrument for emotion regulation, this empirically-driven scale helps portray some of the key issues relevant to emotion regulation within the Thai culture.

A-P-093

Withdrawn

A-P-094

Reliability and Validity of the Japanese Version of the Evaluative Beliefs Scale

○Furumura, Takeshi^{1,2}, Takano, Keisuke³, Ishigaki, Takuma²

¹Higashi Owari National Hospital, Nagoya, Japan, ²Graduate School of Art and Science, University of Tokyo, Tokyo, Japan, ³College of Humanities and Sciences, Nihon University Research Fellow, Japan

Ellis (1962) has argued that disturbances in emotion and behavior are a consequence not of inferences, as is commonly thought, but of irrational evaluative beliefs. Within Rational Emotive Behavior Therapy there are four types of evaluative, or irrational, belief - awfulizing, demanding, self- and other rating (person evaluations), and low frustration tolerance. To assess the person evaluations the Evaluative Beliefs Scale (EBS), self-report questionnaire, was developed by Chadwick et al. (1999). The EBS comprises 18 negative person evaluations, defined as stable, global, and total condemnations of an entire person, either one self or another. Negative person evaluations may be expressed in three directions, depending on who is evaluating whom - that is, as other - self, self - self, or self - other. The EBS measures six evaluative themes characteristic of either of two central psychological motivations, attachment to others or self-definition (Blatt & Zuroff, 1992) - those themes are a sense of worthlessness, unlovability, weakness, badness, failure, and inferiority. This scale has been used emotional and psychotic disorders to understand the psychological mechanism (Jones and Trower, 2004; Chadwick & Trower, 2005). The purpose of this study was to develop the Japanese version of the Evaluative Beliefs Scale (JEBS). Four hundred and three undergraduates completed a packet of questionnaires including the JEBS, the Hospital

Anxiety and Depression Scale, the State-Trait Anger Expression Inventory, and the Rosenberg Self-Esteem Scale (RSES). Exploratory factor analysis revealed that the JEBS had a two-factor structure: self-oriented and other-oriented evaluations. For a further analysis, we divided the first factor into two subscales in the light of the directions of evaluation (Self-Self and Other-Self evaluations) following the recommendation of the original version of the EBS. Each subscale of the JEBS (Self-Self, Other-Self, and Self-Other evaluative beliefs) showed sufficient internal consistency and test-retest reliability. As expected, the Self-Self and Other-Self subscales had negative correlations with the RSES. Analysis of structural equation modeling indicated that the Other-Self was associated with the increased Self-Self and Self-Other evaluations. Furthermore, the Self-Self evaluation showed significant associations with depression and anxiety, whereas the Self-Other evaluation had a specific association with trait anger. These results suggested that the JEBS had high reliability and validity as a measure of negative person evaluation. Further research is required to assess the clinical utility of the JEBS. We are planning to apply the JEBS to understand the relationships between the individual and his persecutor, in particular the personified auditory hallucination or voice.

A-P-095

Factor Structure and Internal Consistency of Japanese Version of the Disgust Propensity and Sensitivity Scale-Revised

○Iwasa, Kazunori^{1,2}, Tanaka, Tsunehiko²

¹Department of Educational Psychology, Faculty of Education, Shujitsu University, Okayama, Japan, ²Department of Psychiatry, Shiga Medical University, Shiga, Japan

Disgust Propensity and Sensitivity Scale-Revised (DPSS-R: Olatunji et al., 2007) was designed to assess how readily people respond with disgust (disgust propensity: DP), and how unpleasant people consider experiencing disgust (disgust sensitivity: DS). Recent studies revealed that disgust propensity and sensitivity associates with psychopathologies include contamination fear, animal phobia, health anxiety, and so on (Berle et al., 2012; Hood et al., 2012; Brady et al., 2013); however there are no standardized measurement of DP and DS in Japan. The purpose of this study is to take the first step of standardization of Japanese version of the DPSS-R. First, we translated the original DPSS-R includes 16 items into Japanese, and conducted a back translation procedure with native English speaker who understands Japanese to secure an accuracy of translation. 161 Japanese participants (mean

age = 26.7, SD = 12.9, range = 18-64 years) include 46 males and 115 females completed the DPSS-R. We conducted an exploratory factor analysis with the principle factor method and the direct oblimin rotation. In a result, we adopted two-factor structure according to eigenvalue. This two-factor structure was consistent with the original DPSS-R. The complete results were shown in Table 1. Results indicated that 9 items loaded on the first factor, and 6 items loaded on the second factor. On both factors, loaded items were relatively similar to the original DPSS-R, however there were some difference, thus we adopted factor names equate to the original DPSS-R. Namely, we regarded the first factor as DS, and the second factor as DP. Furthermore, both DS subscale ($\alpha = .83$) and DP subscale ($\alpha = .87$) showed good internal consistency.

Table 1. Factor structure, descriptive statistics, and internal consistency of Japanese version of DPSS-R.

DPSS-R item	factor loading		h^2	M	SD
	DS	DP			
16 I think feeling disgust is bad for me	.67	.15	.33	2.29	1.21
3 It scares me when I feel nauseous	.64	-.06	.46	2.19	1.21
15 It embarrasses me when I feel disgusted	.59	.04	.47	2.02	1.07
4 I think disgusting items could cause me illness/infection	.59	-.13	.32	1.89	1.05
8 When I notice that I feel nauseous, I worry about vomiting	.54	-.01	.30	2.60	1.30
6 Disgusting things make my stomach turn	.50	-.17	.40	2.23	1.07
2 When I feel disgusted, I worry that I might pass out	.48	.14	.34	1.49	.90
13 I worry that I might swallow a disgusting thing	.46	-.22	.39	1.64	.93
11 It scares me when I faint	.41	-.17	.29	2.11	1.20
10 I experience disgust	-.14	-.97	.79	2.63	1.09
5 I feel repulsed	.00	-.76	.58	2.11	.97
9 When I experience disgust, it is an intense feeling	.10	-.69	.58	2.54	1.08
14 I find something disgusting	.15	-.56	.44	2.40	1.10
7 I screw up my face in disgust	.23	-.52	.48	2.81	1.15
12 I become disgusted more easily than other people	.28	-.45	.45	2.03	1.08
Eigenvalue	6.56	1.33			
Percent of variance explained	39.08	5.57			
Cronbach's alpha	.83	.87			

Note. Items loaded on a factor if their loading was $>.40$. DS = Disgust Sensitivity, DP = Disgust Propensity, h^2 = communalities, M = Mean, SD = Standard Deviation. Original item 1 was discarded because its factor loadings were falling below .40.

A-P-096

The Search for Functions of Defusion

○Kawai, Tomonori¹, Shima, Taiki¹, Yanagihara, Mamika¹, Kumano, Hiroaki²

¹Graduate School of Human Sciences, Waseda University, Jpan, ²Faculty of Human Sciences, Waseda University, Japan

Purpose: The aim of Acceptance and Commitment Therapy is attaining behavioral activation that is consistent with the one's value and increases the action that is reinforced in the society to which one belongs (Kumano, 2011). Defusion is one of such behavior as promotes the behavioral activation (Hayes, Barnes-Holmes, & Roche, 2001). The present study is a part of our ongoing studies to develop the process questionnaires of ACT and investigates what behavior classes (a group of behaviors having the same function) are included in the defusion.

Methods: At first, the descriptions of defusion written in Hayes, Strosahl, & Wilson (2012), Torneke (2010), Blackledge (2007) & Luciano (2011) et al. were listed up. Then, the KJ method (affinity diagram) was used for searching the behavioral functions of defusion.

Results: As a result of the KJ method, three behavioral classes were disclosed in the defusion and each class included 7 to 13 behavioral topographies

and 1 to 2 behavioral sub-functions. Three behavioral classes were as follows. 1) The promotion of discriminating between thought, fact, and oneself: this function decreases the excessive influence of thought and promotes the awareness of the permanence of self transcending time and space. 2) The promotion of non-judgmental contact to the present moment: this function promotes the awareness of the transient nature of thoughts and feelings crossing one's mind. 3) The expansion of behavior based on one's values: this function promotes taking actions toward an important direction for oneself by acknowledging the presence of self independent of one's thoughts and feelings.

Conclusion: These results indicated a close relationship between behavioral topographies and functions included in the defusion. In the future, it is necessary to carry out more empirical research to show the reliability and validity of the specified functions in the present study.

A-P-097

A Holistic Approach to the Adaptation of CBT in Non-Western Environments

○De Jong, Dennis

Department of Arts and Social Sciences, School of Psychology, University of Waikato, Hamilton, New Zealand

In recent decades cognitive behaviour therapy (CBT) has become one of the most frequently used types of psychotherapy around the world for treating a wide variety of disorders. However, the evidence base for CBT and its effectiveness is still largely based on research undertaken in Western countries. This can create a challenge when practicing CBT based on empirical evidence in non-Western environments. Although several authors have written about practicing psychotherapy with people from different cultural backgrounds, few have looked at the process of psychotherapy in a wider cultural perspective. In other words, looking at how clients interact with the therapeutic process in a holistic sense. This paper

introduces a framework that addresses some of the challenges to consider when adapting CBT or other types of psychotherapy in non-Western societies or areas where there are large ethnic minority groups. The framework considers the impact of both cultural norms and individual differences at different stages of therapy and makes suggestions as to how to both conceptualise and manage these challenges, including use of community participation via participatory design. The different stages of therapy include awareness and accessibility of therapeutic services, the therapeutic environment, participation in therapy, and the conclusion of treatment.

A-P-098

Developing Programs for Enhancing Empathy in Japanese Vocational College Students for Elderly Care

○Nishimura, Takuma¹, Murakami, Tatsuya², Sakurai, Shigeo¹

¹Faculty of Human Sciences, University of Tsukuba, Japan, ²Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan

Many psychological researches have suggested that empathy is an important factor in human communication (Eisenberg & Strayer, 1990). For example, person with high empathic ability could respond properly to other's attitude since he or she is able to understand other's feeling and thinking. Such ability is thought as an essential for nurses and care workers. In general, empathy is constructed two components. The one is affective component which focus on a sharing of another person's feelings. The other is cognitive component which focus on accurate reading another person's feelings. Regarding empathetic affective component, over the decades, although theorists and researchers have focused on negative affection, they have paid little attention to positive affection in this field. Thus, we focused on cognitive component and emotional component for negative and positive emotions in empathy training. In this study, we tried to develop specialized training for each empathic component. The training program was developed by reference to anger management programs and social skill training. Purpose of this study was to examine the changes in empathy using the interventional study on pretest-posttest design for Japanese vocational college students for elderly care. Fifty five Japanese vocational college

students were divided into an interventional group (N = 20; 8 males and 12 females, mean age was 22.30) and control group (N = 35; 17 males and 18 females, mean age was 19.49). The interventional group participated in a two-hour training held in three times. The training comprised three sessions: cognitive parts (e.g., an exercise for understanding things from other's point of view), negative emotions parts (e.g., sharing of other's negative emotional experiences), and positive emotions parts (e.g., sharing of other's positive emotional experiences). Participants also responded to questionnaire surveys measured empathy, self-esteem, and social skills before, just after, and four weeks after the intervention (pre, post, and follow-up). The results of two-way repeated measures analysis of variance showed significant effect of intervention for all parts of empathy. Interventional group showed higher score compared to control group just after and four weeks after their participation. No interventional effects were found for self-esteem and social skills. The findings imply that our program is specialized in enhancing the empathy. The suggestions for the future researches and its application in clinical field will be discussed.

A-P-099

Effects of Attention Training on Angry Students

○Imai, Shoji^{1,2}, Imai, Chizuko³

¹School of Human Care Studies, Nagoya University of Arts and Sciences, Aichi, Japan, ²Institute of Applied Brain Sciences, Waseda University, Saitama, Japan, ³Advanced Research Center for Human Sciences, Waseda University, Saitama, Japan

Background and Aim: Trait anger is a factor in exacerbating psychosocial problems. Traditional methods of cognitive behavioral therapy for trait anger have included cognitive techniques that promote modification of beliefs related to the occurrence and persistence of anger and behavioral techniques that employ relaxation methods to calm anger. The aim of the present study was to test a cognitive intervention for trait anger and related factors based on a method that does not involve modification of beliefs related to anger or direct calming of angry emotions, once provoked. Specifically, we conducted a preliminary investigation of the effects of attention training (ATT), one of the detached mindfulness techniques (DMT; Wells, 2009), on trait anger and related factors.

Methods: A screening survey using the State-Trait Anger Expression Inventory (STAXI; factor of Trait-Anger, Spielberger, 1988) was conducted on university students, and those with a high score (above average+1SD: above 30) were selected as participants. Participants were allocated to the following three groups: a group that practiced ATT (ATT group, n=10), a group that practiced relaxation training (RLX group, n=8), and a group that did not practice any form of training (NT group; n=8).

Training was conducted for 20 days in the ATT and RLX groups. Before and after the training period and 20 days after the completion of training (follow-up), assessments were made using the following anger-related psychological scale (STAXI, Anger Rumination Scale, BDI-II).

Results and Discussion: In order to compare changes in the psychological index of the groups, we conducted a two-way repeated measures analysis of variance (ANOVA) using group (ATT, RLX, NT) and time point (pre, post, follow-up) as factors. The results showed a significant reduction in trait anger in the ATT and RLX groups (Score: ATT [ave.=15] > RLX [ave.=20]). At follow-up, this reduction was maintained in the ATT group, which unlike the RLX group also showed reductions in anger ruminations and depression at follow-up. The above findings indicate the effectiveness of DMT on trait anger and related factors. The weaker efficacy of relaxation on anger ruminations and depression was attributed to the fact that relaxation was used as a means for avoiding thoughts and emotions. Investigation of the relationship between metacognitive functions regarding anger and attentional control may be expected to enable more effective intervention methods in the future.

A-P-100

The Exercise of Your Mind -Low Intensity CBT for Citizens-

○Tajima, Miyuki, Kobayashi, Yuki, Tamura, Noriko, Kato, Noriko, Horikoshi, Masaru, Ono, Yutaka
National Center for Cognitive Behavior Therapy and Research, Tokyo, Japan

Introduction: There is an increasing awareness of cognitive behavior therapy (CBT) in Japan, and many people have been interested in CBT. However, there are few training seminar of CBT allowing nonprofessionals to study the skills and the systematic knowledge of CBT. We report the CBT program for citizens.

Method: Structure: The program consisted of six sessions each lasting about 90-minutes, held once a week. Subjects: Citizens interested in CBT. Purpose: To give citizens an opportunity to study the basic skills of CBT for stress coping. Staff: 2-3 psychologists. Payment: 2,000/ a session. Contents: Lectures, work (i.e. a monitoring sheet for Automatic Thoughts and a problem solving plan sheet), discussions, and role-playing.

Results: We conducted 3 cycles of this program from July 2012 to February 2013. The total number of

participants was 362. Gender; 95 were male (26.2%), 267 were female (73.8%). Age groups; There were 117 participants in their 40s (32.5%), 115 in their 50s (31.8%) and 47 in their 60s (13.1%). Employment type; 94 participants were office workers (26.3%), 76 were housewives (21.3%), and 64 held part-time jobs (17.9%). 85.8% of participants said that the degree of difficulty was 'just right', 92.7% said 'I can utilize these skills', and 68.5% said 'I want to recommend this program to other people'.

Discussion: We used easy-to-understand expressions without technical terms as much as possible in the program. We included plenty of practical activities as well as lectures. Also, we allocated sufficient time for questions and answers. This preliminary program suggested that low intensity CBT for citizens can be effective to improve their stress coping ability.

A-P-101

The Effects of Staff Training Program for Individuals with Severe Behavioral Disorders (1) : Development of Staff Training Program Based on the Functional Analysis

○Katou, Momoe, Ida, Misako, Ota, Maki, Okamoto, Kazuko, Fujii, Tomoe, Inoue, Masahiko
 Graduate School of Medical Sciences, Tottori University, Tottori, Japan

This study was designed for developing the staff training program based on functional analysis for severe behavioral disorder. 17 participants, who experienced supporting behavioral disorders more than 1 year. All participants have supported people with behavioral disorders. This staff training program is constructed with 5 sessions, all participants were required to attend more than two third of the program. Each participant was taking care of more than an individual with severe behavioral disorders during the program. From first to fourth session consists of lecture and exercise about functional analysis. In the exercise, each participant made their own intervention plan. Between the

sessions, participants practiced the intervention plan for their cases and recorded problem behavior. Fifth session was for their presentation to report their cases. KBPAC (Knowledge of Behavioral Principle as Applied to Children), ABC-J (Aberrant Behavior Checklist-Japanese version), the criterion for severe behavioral disorder, PARS-SF (Pervasive Developmental Disorders Autism Society Japan Rating Scale Short Form) were measured at pre- and post- staff training program. There were significant differences for all measures (Table1). The result was indicated that this staff training program was effective. The effects of exercises and feedbacks were discussed.

	pre		post		t
	M	(SD)	M	(SD)	
KBPAC	13.14	(3.91)	15.82	(2.73)	-3.60**
ABC-J	76.19	(40.2)	48.56	(34.37)	3.80**
Irritability, agitation, crying	24.44	(11.14)	16.50	(10.62)	2.97**
Stereotypic behavior	9.13	(7.75)	6.62	(6.52)	2.85*
Lethargy, social withdrawal	17.56	(13.94)	11.25	(11.1)	2.77*
Hyperactivity, non-compliance	19.62	(12.34)	10.93	(10.04)	3.47**
Inappropriate speech	5.25	(4.25)	3.25	(3.38)	2.51*
The criterion for severe behavioral disorders	13.82	(8.63)	8.88	(8.47)	3.46**
PARS-SF	13.92	(5.18)	10.00	(3.46)	2.68*

* $p < .05$, ** $p < .01$

A-P-102

The Effects of Staff Training Program for Individual with Severe Behavioral Disorders (2) : Analysis of the Factors about Improvement of Behavioral Problems

○Ida, Misako, Kato, Momoe, Ota, Maki, Okamoto, Kazuko, Fujii, Tomoe, Inoue, Masahiko
Graduate School of Medical Sciences, Tottori University, Tottori, Japan

Purpose: About the result of the program in presentation (1), we analyzed of the factors about improvement, compared with improvement cases and less improvement cases.

Methods: 12 out of 18 cases which were over 10 score on the criterion for severe behavioral disorders at pre-test were selected and analyzed. 12 cases were divided to two groups by the score of criterion for severe behavioral disorders. The improvement groups (N=7) were defined as improving criterion grade for severe behavioral disorders. The less improvement group (N=5) was defined as not improving the criterion grade. The difference of scores between two groups are compared: scores of KBPAC, ABC-J, PARS-SF at pre-test, score of KBPAC at post-test, and rating score of correspondence

between intervention plan and practice.

Result and discussion: There were no differences between scores at pre-test of both groups. Additionally, there was no difference between scores of KBPAC at post-test. However, there was significant difference between the rating score of correspondence between intervention plan and practice. The results suggested that how much participants carry out the intervention effects the improvement of behavioral problems, rather than how much they understand applied behavior analysis or the characteristics of individuals who have behavioral disorders. It is needed to develop this program that participant can put what they have learned into practice.

A-P-103

Effects of a Dating Violence Prevention Program for Junior High School Students in Japan

○Suga, Tomoko¹, Morita, Nobuaki², Saitou, Tamaki²

¹Graduated School of Comprehensive Human Sciences, University of Tsukuba, Japan, ²Social Psychiatry and Mental Health, Faculty of Medicine, Japan

Purpose: This study examined the effects of the Dating Violence prevention program that we had made as an original program for Junior high school students in Japan. We named the program Educational program to respect each other to have a good relationship. How do we prevent Dating Violence ?

Method: The participants comprised of 342 students, 7th to 9th grade, consist of 61 girls and 51 boys in 7th grade, 62 girls and 57 boys in 8th grade, 60 girls and 51 boys in 9th grade. The intervention group were 232 students, and the control group were 110 students from the total of 7th, 8th and 9th grades. The intervention group was using Questionnaire of thinking to link DV with an experimental design of repeated the baseline - 1week posttest - 1month posttest. Questionnaire of thinking to link DV originally made by ourselves based on some DV check lists, and it comprises of 10 questions. The control group was repeating this questionnaire

twice (the baseline and at 1 week after enrollment in the study) to be compared with the effect of an intervention group.

Result: No significant baseline differences were found between the participants in the intervention group (n=232) and the control group (n=110). At 1 week after the prevention program in the study, the intervention group confirmed significantly effective score among all grades (7th-9th, girls and boys) compared to the baselines. No significant score was found in the control group between the baseline and 1week after. At 1 month after the prevention program in the study, the intervention group confirmed effective score among all grades (7th -9th, girls and boys) compared to the baselines.

Conclusions: Based on the statistical analysis, the DV prevention program supposed to be effective the Junior high school students who participated in the program.

A-P-104

Perceptions of Beginning Filipino Mental Health Trainees on Cognitive Behavioral Therapy

○Alberto S. Reyes, Jose, Addy S. Garcia, John
De La Salle University, Manila

The practice of Cognitive Behavioral Therapy (CBT) in the Philippines is still in its germinal stage. There are still only very few mental health professionals who claim that they are competent in the delivery of CBT as a psychotherapeutic approach. There is however some awareness of CBT as this is usually included as a topic in graduate school courses offered to trainees in the mental health professions. This exploratory study aimed to describe the current perceptions of beginning trainees enrolled in counseling and clinical psychology graduate

programs in the Philippines. We sent 120 semi-structured questionnaires to graduate students in their beginning stages of training (i.e. pre-practicum) from the various accredited graduate programs in counseling and clinical psychology. Results showed that perceptions were focused on CBT as a therapy approach, the CBT therapist, the proponents of CBT, and quality of CBT training received. Implications of the findings on design and implementation of CBT training for Filipino mental health trainees are discussed.

A-P-105

An Exploration of Flourishing In Singaporean Undergraduates

○Ng, Darren Z. H., Tan, Gabriel

National University of Singapore, Singapore

The current state of mental health, operationalized by Keyes (2002) as flourishing, is investigated in a sample of 296 Singaporean undergraduates. Flourishing can also be defined in terms of the presence of three indicators of well-being - emotional, psychological and social well-being. Previous research has supported significant associations between flourishing and three domains; namely symptoms of psychopathology, academic performance, and the positivity ratio (ratio of positive feelings to negative feelings). Hence, this study takes on an exploratory approach in investigating flourishing mental health from these three perspectives in a student population. Using an online survey method, questionnaires were administered assessing the students' current state of mental health, psychological distress, and affect.

Results reveal that the prevalence of mental illness (assessed by Global Severity Scores of the SCL-90-R and Total Severity Scores of the PCL-C) decreased as mental health increased. An overall measure of mental health correlated significantly with student academic performance; however, mean scores of student academic performance did not differ significantly across different levels of mental health. The hypothesized critical positivity ratio of 2.9 (assessed by PANAS scores) in predicting flourishing students was not supported in the current sample. Findings reveal the importance of flourishing mental health in students, and implications for future cognitive-behavioral therapy (CBT) practitioners to pay more attention to the mental health of students will be discussed.

A-P-106

Attributional Retraining Group Therapy versus Selective Serotonin Reuptake Inhibitors: Neurobiological Effects

○Wang, Chun¹, Zhang, Ning¹, Zhang, Yalin², Yang, Hua¹, Li, Jijun¹

¹Medical Psychology Department, Nanjing Brain Hospital Affiliated to Nanjing Medical University, Nanjing, China,

²Mental Health Institute, Second Xiangya Hospital, Central South University, Changsha, China

Objective: The aim of this study was to compare the effectiveness of attribution retraining group therapy (ARGT) versus selective serotonin reuptake inhibitors (SSRI) in the treatment of major depressive disorder (MDD), generalized anxiety disorder (GAD) and obsessive-compulsive disorder (OCD).

Methods: 109 patients with MDD, GAD and OCD were recruited from the outpatient department of a tertiary referral hospital between 2007 and 2008. Subjects were sequentially recruited and randomized into ARGT group (n=63) and SSRI group (n=66) for an 8-week treatment period. 54 outpatients in ARGT group and 55 outpatients in SSRI group completed the study. All subjects were assessed using the Hamilton Depression Scale, Hamilton Anxiety Scale before and after treatment. The 10-item Yale-Brown Obsessive Compulsive Scale was employed only for

OCD subjects. Plasma hormone levels of serotonin, norepinephrine, cortisol, and adrenocorticotrophic hormone were measured at baseline and at 8 weeks.

Results: Symptom scores were reduced significantly in both ARGT and SSRI treatment groups ($p < 0.001$) at the end of the treatment course. However the patients in the ARGT group had significantly lower plasma cortisol concentrations compared to baseline ($p < 0.05$). On the other hand, patients receiving the SSRIs showed significantly increased plasma levels of serotonin ($p < 0.05$).

Conclusions: Our findings suggest that ARGT may modulate plasma cortisol levels and take effect to the HPA axis as opposed to SSRIs which may up-regulate serotonin via a different pathway to produce an overall improvement in the clinical condition of patients.

A-P-107

The Preliminary Data on the Acceptance and Commitment Group Therapy for the Psychiatric Outpatients

○Yokomitsu, Kengo^{1,3}, Irie, Tomonari², Kawamura, Asaka³, Fujita, Masahiko³, Sakano, Yuji⁴

¹Graduate School of Psychological Science, Health Sciences University of Hokkaido, Japan, ²Nakae Hospital, Japan,

³Wellness Boyo Hospital, Japan, ⁴School of Psychological Science, Health Sciences University of Hokkaido, Japan

Introduction: There is a growing body of literature to support a group treatment protocol based on Acceptance and Commitment Therapy (G-ACT) (e.g. McCracken & Gutierrez-Martinez, 2011). The purpose of the present study was to examine the effectiveness of G-ACT for psychiatric outpatients in Japan.

Method: Participants included 20 individuals who received outpatient treatment in Hokkaido between March 2012 and January 2013. All patients reported negative emotion and depressive rumination, and inability to do what they wanted in their life. Following questionnaires were used in pre-treatment, post-treatment, and 1-month follow-up assessments: The Acceptance and Action Questionnaire-II (AAQ; Kisita et al., 2008), Cognitive Control Scale (CCS; Sugiura & Umaoka., 2003), Personal Value Questionnaire (PVQ; Doi et al., 2012), Self-rating Depression Scale (SDS; Fukuda & Kobayashi, 1973), and State-Trait Anxiety Inventory (STAI; Mizuguchi et al., 1991). Our group intervention included 8 weekly outpatient sessions lasting 100 minutes each. All participants provided written informed consent prior to their data being used in the study.

Results: Of the initial 20 participants who completed the pre-treatment assessment, 9 dropped out at varying points in treatment or follow-up assessment, leaving 11 completers (5 males, 7 females, mean age = 35.75 ± 6.25 years). In order to determine treatment

effects, repeated-measures ANOVAs were conducted on assessment scores. Results indicated that participants evidenced significant changes on AAQ ($\eta_c^2 = .18$), CCS ($\eta_c^2 = .17$), SDS ($\eta_c^2 = .09$), STAI-S ($\eta_c^2 = .09$), and STAI-T ($\eta_c^2 = .14$). In addition, in order to determine the clinical significance of the treatment effects, the proportions of the participants who changed severity level on SDS, STAI-S, and STAI-T were examined. In the result, each 27% reported the improvement on post-treatment. Also, 9% (STAI-S) and 36% (STAI-T) reported the improvement from post-treatment to 1-month follow-up. On the other hand, 9% (STAI-S) and 9% (STAI-T) reported the exacerbation on post-treatment, 18% (STAI-S) and 18% (STAI-T) reported the exacerbation from post-treatment to 1-month follow-up.

Discussion: The results of this study revealed that G-ACT was the effective treatment for psychological flexibility, cognitive control, depressive symptoms, and anxiety. However, in relation to the clinical significance of the treatment effects, only some participants reported the clinical improvement on outcome measures, but others reported the exacerbation. Therefore, we have to modify the G-ACT program to achieve the further treatment effect. Further research is also needed to address the generalizability of these results in a larger-scale controlled study.

The Efficacy of the “Cutting-Art” in Controlling Self-Focused Attention

○Ishikawa, Haruyuki¹, Koshikawa, Fusako²

¹Graduate School of Letters, Arts and Sciences, Waseda University, Japan, ²Faculty of Letters, Arts and Sciences, Waseda University, Japan

Aim: This study examines the effects of tasks requiring attention on self-focused attention and negative emotion by comparing cutting-art condition and reading condition.

Method: Twenty-two students engaged in both cutting-art and reading, were measured for self-focused attention, depression/anxiety, and external-focused attention before and after each task. The order of two conditions was counterbalanced, and each condition included from 2 to 4 participants.

In the cutting-art condition, participants engaged in cutting-art for 20 minutes. They then provided their impression of the design, self-evaluation of achievement, and explained what they were thinking during the task. In the reading condition, participants received an excerpt from “The Brothers Karamazov” and required to read it silently for 20 minutes. They then gave their impression of the story and explained what they were thinking about.

Results and Discussion: In repeated measures ANOVA, the time-by-condition interaction was significant for self-focused attention, $F(1,21)=5.35$, $p<.05$; decreased in cutting-art condition and increased in reading condition. The interaction of self-reported depression/anxiety was non-significant and the main effect of time was marginally significant, $F(1,21)=3.81$, $p=.06$; decreasing in both conditions. For external-focused attention, the interaction was non-significant, increasing significantly in both conditions, $F(1,21)=21.27$, $p<.001$. Further, subjects were divided into two groups by pre-task scores of

depression/anxiety in each condition, and mixed-design ANOVAs were performed on each score. For self-focused attention, the group-by-time interaction was marginally significant in cutting-art condition, $F(1,20)=3.24$, $p=.09$; the high-score group decreased and the low-score group increased. For external-focused attention, the interactions were significant in both conditions, $F(1,20)=5.08$, $p<.05$ (cutting art); $F(1,20)=8.53$, $p<.01$ (reading); increasing more in the high-score groups.

Positive correlation between impression of a design and self-evaluated level of achievement was shown, $r=.65$, $p<.01$; particularly in high depression/anxiety group in cutting-art condition, $r=.75$, $p<.01$. Across two conditions, pre-task score of depression/anxiety and the pre-score minus the post-score of depression/anxiety were positively correlated with the post-score minus the pre-score of external-focused attention, $r=.47$, $p<.01$; $r=.39$, $p<.05$; and pre-task score of self-focused attention and pre-task score of depression/anxiety positively correlated in high depression/anxiety group, $r=.67$, $p<.001$.

These results suggest that engaging in tasks is helpful for depressed individuals in improving their negative moods, and particularly, tasks like cutting-art which requiring attention are expected to provide further helpfulness by decreasing one's self-focused attention.

Conclusion: The cutting-art is superior to reading in shifting self-focused attention to external-focused attention and in decreasing depression and anxiety.

A-P-109

Executive Function and Chronic Intrusive Thoughts

○Kobayashi, Masanori^{1,2}, Tanno, Yoshihiko¹

¹The University of Tokyo, Tokyo, Japan, ²Nagoya University, Aichi, Japan

Intrusive thoughts are associated with psychological disorders, including depression, anxiety and obsessive-compulsive disorder (Lucciano et al., 2006). The previous evidence showed that intrusive thoughts in the laboratory, which is measured by thought suppression paradigm, are negatively correlated with working memory capacity that might reflect executive function (Brewin & Smart, 2005). This finding suggests that the ability to inhibit goal-irrelevant thought, which is one of features of executive function, and global executive function are associated with the reduction of intrusive thoughts in the laboratory. However, the relationship between intrusive thoughts in daily life and such traits (dyphoric states, anxiety, executive function, the ability to inhibition) remains unclear. White bear suppression inventory (WBSI), which Wagner and Zanakos (1994) developed, is 15-item inventory that measure the chronic tendency to suppress unwanted thoughts. Although originally the WBSI has one-factor structure, previous study pointed out that the WBSI has two-factor structures: the WBSI consist of two sub-scales including *intrusion of unwanted thoughts* and *attempt to suppress unwanted thoughts* (Rassin, 2003). The former might represent chronic intrusive thoughts. Against this background, we examined whether such factors, including working memory capacity, inhibitory control, attention control, activation control, dyphoric state, and

anxiety, are associated with chronic intrusion of unwanted thoughts. We used automated version of operation span task (AOSPAN; Unsworth et al., 2005) as measure of working memory capacity. The score of the AOSPAN task (range: 0-75) reflect working memory capacity. Participants took the AOSPAN task, followed by the questionnaire that measure dyphoric state, trait anxiety, chronic intrusive thoughts, inhibitory control, activation control and attention control. We conducted multiple linear regression analysis. The analysis demonstrated that working memory capacity was negatively associated with intrusive thoughts ($\beta = -.37, p < .01$). Accordingly, people with high working memory capacity might not frequently experience intrusive unwanted thoughts in daily life, relative to people with low working memory capacity. The result is consistent with previous study showing that working memory capacity is negatively associated with intrusive thoughts in the laboratory (Brewin & Smart, 2005). Given these findings, successful suppression of unwanted thoughts might be accomplished by global executive function that working memory capacity reflects. As working memory training can reduce intrusive thoughts in the laboratory (Bomyea & Amir, 2011), further study is needed in order to investigate whether working memory training can reduce chronic intrusive thoughts.

A-P-110

Cognitive Behavioral Group Therapy for Employees on Sick Leave due to Depression

○Tanoue, Asuka¹, Ito, Daisuke^{1,2}, Shimizu, Kaori⁴, Ohno, Mayuko⁴, Shirai, Mari⁴, Shimada, Hironori⁵, Suzuki, Shin-ichi⁵

¹Sompo Japan Nipponkoa Healthcare Services Inc., Tokyo, Japan, ²Health Service Center, Kanazawa University, Japan,

³Graduate School of Education, Kanazawa University, Japan, ⁴Koishikawa Mental Clinic, Japan, ⁵Faculty of Human Sciences, Waseda University, Japan

Introduction: Cognitive behavioral group therapy (CBGT) has been shown to be effective in treating Japanese workers on sick leave due to depression. However, even if depression improves, there are some individuals who are unable to return to the workplace. In order to return to the workplace, an employee is required to demonstrate improvements in depression, social function, and difficulty in returning to work (Tanoue et al., 2011). The purpose of the present study was to explore the effect of CBGT on depression, social function, and the difficulties that employees face when returning to work after sick leave taken to obtain treatment for depression.

Method: Participants (N=22) were individuals diagnosed with unipolar depressive disorder, who were on sick leave to treat their depression. Therapy consisted of one 90-minute session per week for a total of ten weeks. Patients were facilitated to set a goal and to develop cognitive restructuring and problem-solving techniques to address problems of daily life and problems in the workplace. Before and after the treatment, participants completed the Beck Depression Inventory-II (BDI-II), the Social

Adaptation Self-evaluation Scale (SASS), and the Difficulty in Returning to Work Inventory (DRW).

Results: Overall, participants demonstrated mild depression. A repeated measures ANOVA was used to examine the effect of CBGT on depressive symptoms, social functioning, and difficulty in returning to work. The results revealed that depression and social functioning scores improved significantly after CBGT. However, employees still had difficulties in returning to work.

Discussion/Conclusion: Our findings suggest that CBGT is effective in treating individuals' depression and social function. However, this program did not improve employees' difficulty in returning to work. Therefore, it is necessary to develop and implement additional treatment, or to change the timing of treatment, in order to reduce difficulties faced by employees when returning to work. Currently our teams are developing a rework program (RWP) to focus on problems in the workplace. Future research should investigate the effects of CBGT combined with a rework program to specifically address difficulties in returning to work.

A-P-111

Effects of Positive and Negative Automatic Thoughts on Depressive Symptoms in Undergraduate Students

○Aoki, Shuntaro¹, Iwano, Suguru^{1,2}, Takagaki, Koki³, Horiuchi, Satoshi^{4,5}, Kawasaki, Tomoya⁶, Monden, Ryunosuke¹, Deng, Ke⁷, Tsuda, Akira⁸, Sakano, Yuji⁴

¹Graduate School of Psychological Science, Health Sciences University of Hokkaido, Japan, ²Asahiyama Hospital, ³Department of Psychiatry and Neurosciences, Hiroshima University, Japan, ⁴School of Psychological Science, Health Sciences University of Hokkaido, Japan, ⁵Japan Society for the Promotion of Science, Japan, ⁶Japan Ground Self-Defence Force Obihiro Ground Service, Japan, ⁷Institute of Comparative Studies of International Cultures and Societies, Kurume University, Japan, ⁸Department of Psychology, Kurume University, Japan

Purpose: Depressive symptoms are a serious problem in undergraduate students (Hysenbegasi et al., 2013). Therefore, it is important to identify intervention targets for decreasing depressive symptoms. One of such targets is automatic thoughts (AT: the stream of cognitions that arise in our day-to-day lives) (Beck et al., 1979). AT includes both positive and negative thoughts (PAT and NAT, respectively), which consists of several factors respectively (Ingram & Wisnicki, 1988). However, there are few studies which factors of PAT are related to depressive symptoms in undergraduate students. The purpose of this study is to examine the effects the factors of PAT and NAT on depressive symptoms in undergraduate students.

Methods:

1. Participants

Participants were 300 undergraduate students (mean age = 20.52 years).

2. Questionnaires

(1) The Japanese version of Beck Depression Inventory-II (BDI-II; Kojima & Furukawa, 2003). The level of depressive symptoms was measured using BDI-II.

(2) Positive Automatic Thought Scale (PATS; Fukui, 2005), which includes for six subscales (Reliance on positive evaluation, Positive evaluation of life, Reliance on others, Having much spare time, High motivation, Positive inclination). PAT were measured

using PATS.

(3) Automatic Thoughts Questionnaire-Revised (ATQ-R; Kodama et al., 1994), which includes two NAT subscales (Negative thoughts toward the self and Negative expectation for future). NAT were measured using ATQ-R.

Results: A multiple regression analysis was performed with six PAT and two NAT subscales as predictors of the depressive symptoms. The results of the analysis revealed that two of six PAT (Having much spare time: $\beta=-0.17$, $p < .01$; High motivation: $\beta=-0.16$, $p < .01$) and both NAT (Negative thoughts toward the self: $\beta=0.24$, $p < .01$; Negative expectation for future: $\beta=0.43$, $p < .05$) significantly predicted depressive symptoms ($R^2=0.59$, $p < .01$).

Conclusion: While all factors of NAT predict depressive symptoms, only two of six factors of PAT does depressive symptoms. Most of cognitive behavioral interventions for depressive symptoms in undergraduate students have focused on modifying NAT (e.g., Seligman et al., 1999). However, this study indicate that it is important not only to decrease NAT, but also to increase PAT which are associated to availability of time for getting relaxed and high level of motivation for improving depressive symptoms. Therefore, targeting these factors of PAT may enhance efficacy of cognitive behavioral interventions for depressive symptoms in undergraduate students.

A-P-112

Indicated Prevention for Depression in At-Risk Japanese College Students: A Randomized Controlled Trial

○Sato, Hiroshi¹, Inoue, Misa¹, Takaoka, Shino², Noguchi-Sato, Miyuki³

¹Faculty of Sociology, Kansai University, Osaka, Japan, ²Department of Psychological Sciences, Kwansei Gakuin University, Japan, ³Faculty of Education, Kyoto University of Education, Japan

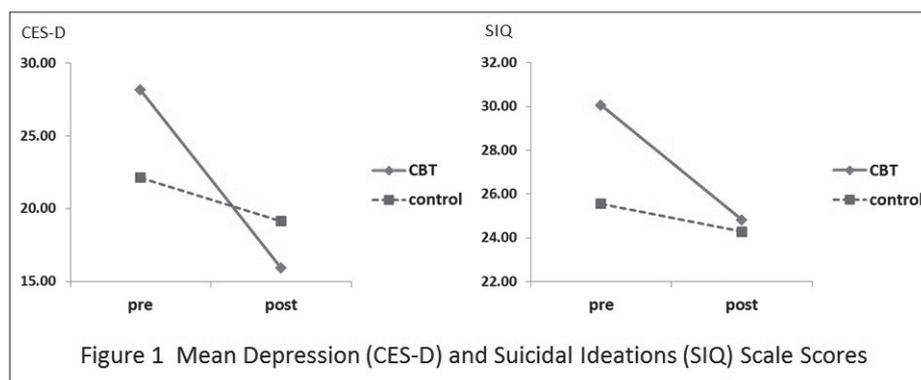
Objectives: Depression in Japanese college students is a significant mental health problem that impairs academic and social functioning and increases suicide risk (Uchida et al., 2004). The present study evaluated the efficacy of an indicated prevention program in reducing depression and suicidal ideation in a sample of Japanese college students at risk for depression.

Methods: A randomized controlled trial was conducted including at-risk Japanese college students as participants. To be eligible for participation, students need to have sub-diagnostic depressive symptom insufficient for meeting DSM-IV-TR criteria for major depressive disorder, dysthymic disorder, or bipolar disorder. Participants were randomly allocated to either a group depression prevention program (n = 20) based on cognitive behavior therapy (CBT) or a usual care control condition (n = 22). The prevention program consisted

of five weekly 90-minute sessions derived from the Adolescent Coping with Depression Course (Clarke et al., 1990).

Results: Participants who received CBT showed significantly decreased depressive symptoms and suicidal ideation than did those in the control condition at post-intervention. Negative automatic thoughts had also significantly decreased in participants who received CBT. Neither group exhibited any depressive disorders at post-intervention.

Conclusion: These findings suggest that the indicated depression prevention program based on CBT is efficacious in decreasing depressive symptoms and suicidal ideation in Japanese college students. We are currently collecting follow-up data to evaluate the long-term outcomes of the prevention program.



A-P-113

A Randomized Pilot Trial of an Indicated Depression Prevention Program with Japanese College Students: Five Month Follow-Up

○Takaoka, Shino¹, Inoue, Misa², Noguchi-Sato, Miyuki³, Sato, Hiroshi²

¹Department of Psychological Sciences, Kwansai Gakuin University, Hyogo, Japan, ²Faculty of Sociology, Kansai University, Osaka, Japan, ³Faculty of Education, Kyoto University of Education, Kyoto, Japan

Depression has been linked to academic difficulties, social problems in college, and suicide risk (Heiligenstein et al., 1996; Uchida et al., 2004). We recently conducted a study to develop and test a psychological prevention program for Japanese college students at risk for future depression and found that they exhibited significantly greater reductions in depressive symptoms and suicidal ideations than did usual care participants at the posttest (Sato et al., 2013). The present study investigated the long-term efficacy of this program as assessed using data collected 5 months post-intervention.

High-risk Japanese college students were selected using a two-stage case finding procedure based on a study by Clarke et al. (1995). Thirty-three participants with elevated depressive symptoms were interviewed with the Japanese version of the Mini-International Neuropsychiatric Interview, based on the diagnostic criteria of the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR). Participants with current mood disorders (i.e. major depressive disorder, dysthymic disorder, and bipolar disorder) or with a severe suicide risk were excluded from the study. The remaining 27 participants were randomly assigned to either a group depression prevention program based on cognitive behavior therapy (CBT) or a usual care control condition.

Thirteen participants completed the 5 weekly, 90-minute sessions derived from the Adolescent Coping with Depression Course (Clarke et al., 1990). Eleven of those assigned to the depression intervention program group and 5 of those assigned to the control group completed the assessments for DSM-IV-TR diagnostic status, depressive symptoms, suicidal ideations, and automatic thoughts before, immediately after, and 5 months after the completion of the intervention program.

Depressive symptoms and suicidal ideations of the CBT participants were significantly reduced at the posttest; these effects were maintained at the 5-month follow-up time point. With regard to the negative automatic thoughts of CBT participants, mixed results were observed. Specifically, a significant reduction in the negative automatic thoughts of CBT participants was observed from the pretest to posttest. A significant increase in the negative automatic thoughts of CBT participants was observed from the posttest to the 5-month follow-up time point.

The prevention program, based on CBT, significantly reduced the risks of depression and suicide of the Japanese college students; this effect was maintained for at least 5 months post-intervention. However, the results suggested the necessity of conducting a booster session to reduce the negative automatic thoughts of participants.

A-P-114

The Relationship between Periods of Sick Leave and Automatic Thoughts among Employees with Depression

○Yada, Sayuri¹, Machida, Yuko², Son, Sonmi³, Shimizu, Kaori⁴, Kunisato, Yoshihiko⁵, Kaneko, Yui¹, Suyama, Haruna¹, Shirai, Mari⁴, Suzuki, Shin-ichi⁶

¹Graduate School of Human Sciences, Waseda University, Japan, ²Astellas Pharma Inc. Japan, ³Kamata Mental Clinic, Japan, ⁴Koishikawa Mental Clinic, Japan, ⁵Department of Psychology, Senshu University, Japan, ⁶Faculty of Human Sciences, Waseda University Japan

Purpose: Employee sick leave due to depression can be rather protracted. The major cognitive and behavioral patterns among patients with depression are negative automatic thoughts and behavioral avoidance. However, the relationship between periods of sick leave and such cognitive and behavioral patterns is still poorly understood. The current study investigated the relationships between periods of sick leave and automatic thoughts and behavioral avoidance among employees with depression.

Methods: Forty-seven employees on sick leave due to depression (34 males, 13 females, mean age 38.11 ± 7.70) participated in this study. Participants completed (1) the Japanese version of the Beck Depression Inventory (BDI-II), (2) the Automatic Thoughts Questionnaire (ATQ-R), and (3) the Cognitive Behavioral Avoidance Scale (CBAS). Participants were classified into the following two

groups on the basis of their BDI-II scores which indicate severity of depressive symptoms: the “minimal-depressive group” (score < 14) and the “depressive group.”

Result: Multiple regression analysis revealed that only the “positive automatic thoughts” subscale of the ATQ-R was significantly associated with periods of sick leave ($\beta = .49, p < .01$). This subscale was moderately associated with periods of sick leave among the minimal-depressive group ($r = .49, p < .01$).

Conclusion: Our results suggest that employees on long-term sick leave due to depression some of whom were in remission or recovery tended to display positive automatic thoughts related to their health status. Therefore, positive automatic thoughts should be considered as a risk factor for long-term sick leave after recovery/remission.

A-P-115

The Effect of Cognitive Behavior Group Therapy on Return to Work

○Kaneko, Yui^{1,2,3}, Suyama, Haruna^{1,3}, Ito, Risa^{1,3}, Ito, Daisuke^{4,5}, Kaiya, Hisanobu^{3,7}, Kumano, Hiroaki⁶, Suzuki, Shin-ichi⁶

¹Graduate School of Human Sciences, Waseda University, Japan, ²Research Fellow of the Japan Society for the Promotion of Science, Japan, ³Warakukai Incorporated Medical Institution Akasaka Clinic, Japan, ⁴Health Service Center, Kanazawa University, Japan, ⁵Graduate School of Education, Kanazawa, Japan, ⁶Faculty of Human Sciences, Waseda University, Japan, ⁷Research Center for Panic Disorder, Warakukai Incorporated Medical Institution, Japan

Introduction: Major depressive disorder, a chronic disorder typically characterized by relapses and recurrences, is a frequent cause of sick leave. Although it can be effectively treated with cognitive behavioral group therapy (CBGT), few studies have examined the effect of CBGT on actual return to work and additional leave in employees who have taken leave of absence due to depression. To fill this gap, we examine the effect of CBGT on actual return to work and also compare the degree of improvement after CBGT between those who needed additional sick leave post-therapy and those who did not.

Method: Participants were 19 outpatients (9 women and 10 men, mean age 35.63 years; SD = 6.54). They completed three questionnaires before and after the CBGT: the Beck Depression Inventory 2 (BDI 2), Dysfunctional Attitude Scale (DAS), and Cognitive behavioral Avoidance Scale (CBAS). Their employment status at 4 time points was assessed: before and 6, 12, and 24 months after CBGT (2 = full time job, 1 = temporary or part-time job, 0 = not working). CBGT consisted of 4 to 12 sessions that were developed by psychologists and consisted of Beck's cognitive therapy and problem-solving

therapy. Employment status before and 6 months after CBGT were compared using the Wilcoxon rank sum test. Student's t-tests were used to compare improvements in BDI-II, DAS, and CBAS scores between those who needed additional sick leave and those who did not.

Result: Before CBGT, 17 (81.0%) patients did not work, but 6 months later, this number reduced to 6 (28.6%). This improvement was significant ($p < .001$). However, 7 (36.8%) patients had to take further leave within 2 years. Those who needed additional time off showed more improvements in DAS scores than did those who continued working ($t(16) = -1.74, p = 0.10, d = 0.84$).

Discussion: These results suggest that CBGT is effective not only in reducing depressive symptoms but also in facilitating return to work. However, many patients took additional leave post CBGT. Further, those exhibiting substantial improvements in dysfunctional attitude might be those whose attitudes generally change easily (and are hence prone to further attitude changes in a negative direction after therapy ends). Therefore, therapists might need to pay special attention to such individuals.

A-P-116

Does Having Positive Thoughts and Being in Control of Your Thoughts Them Help Reduce Depression?: A Replication Study on Group CBT for Major Depressive Disorders

○Low, Jia Liang¹, Mukhtar, Firdaus², Ibrahim, Normala³, Sidek, Sherina M.⁴, Oei, Tian P.S.⁵

¹Department of Psychiatry, Faculty of Medicine and Health Sciences, University Putra Malaysia, ²Department of Psychiatry, Faculty of Medicine and Health Sciences, University Putra Malaysia, ³Department of Psychiatry, Faculty of Medicine and Health Sciences, University Putra Malaysia, ⁴Department of Psychiatry, Faculty of Medicine and Health Sciences, University Putra Malaysia, ⁵School of Psychology, University of Queensland, Brisbane, Queensland, Australia

Studies have shown that Group Cognitive Behaviour Therapy (GCBT) is an effective treatment for patients with unipolar depression. Further to that, individuals suffering from depression have been found to have a low frequency of positive automatic thoughts. Similar to negative automatic thoughts, CBT elicits significant change to positive automatic thoughts, where the treatment of CBT significantly increases positive automatic thoughts. This would suggest then that an awareness of one's thoughts and one's ability to manipulate said thoughts would be a vital in the management of depression. A pilot study was conducted on any Malaysian suffering from depression, an extension from a previous study whom focused only individuals who had Malay ethnicity. However, the changes in positive automatic thoughts and one's awareness and ability to control one's thoughts during treatment have not examined within a group setting. The current pilot study aims to examine these two factors on seven patients diagnosed with Major Depressive Disorder by filling up three measures namely Beck Depression Inventory-Malay, Automatic Thoughts

Questionnaire and Metacognitive Questionnaire-30. Patients underwent GCBT for eight, three hours sessions, weekly by using established local treatment manual conducted by experience clinical psychologist. Results show that participants who underwent GCBT experienced significant increase in positive automatic thoughts at mid and post-assessment. In terms of metacognitive beliefs, GCBT was significant in reducing the perceived benefits of engaging in negative thoughts. It is suggested then that individuals who are less aware and who are unable to control their thoughts would experience higher levels of depression than those who are more aware and better able to control their thoughts. Taken together, results from the pilot study would suggest that both positive automatic thoughts and metacognition may play a significant role in the progression of depression. Thus it would be beneficial to replicate the current research into a full-scale study to further determine the contributions of both positive automatic thoughts and metacognitions.

A-P-117

The Effective Types of Disproof and Balanced Thoughts during Cognitive Reconstruction Method on Mood Improvement

○Nishiduka, Takumi¹, Shinkawa, Hiroki¹, Tayama, Jun², Hamaguchi, Toyohiro³, Asahi, Mana⁴

¹Graduate School of Psychological Science, Health Sciences University of Hokkaido, Sapporo, Japan, ²Center for Health & Community Medicine, Nagasaki University, Japan, ³School of Health and Social Services, Saitama Prefectural University, Japan, ⁴Ohtani Gakuen School, Japan

Aim: It is well-known that the dysfunctional thought record (DTR) is a typical cognitive restructuring technique for yielding “balanced thoughts (BT)” based on “disproof (DP)” which is evidence that does not support the negative automatic thoughts. While it has been assumed that there are individual differences to be reflected in DP and BT, classification of these thoughts is still unclear compared with the automatic thoughts. The aim of this study is to classify the several groups of DP and BT throughout the DTR, and to reveal the effective types of these thoughts to improve the mood.

Method: 679 college students who gave written informed consent were recruited. All participants completed the DTR (Greenberger et al., 1995) consist of as follows: “situation”, “mood”, “automatic thoughts”, “evidence that support the hot thought”, “evidence that does not support the hot thought”, “balanced thoughts”, and “rate how you feel now”. The KJ method that is a technique for analyzing data derived from Japanese ethnology was conducted to classify the pattern of DP and BT by six trained technicians. Chi-square tests were used to evaluate differences in frequency of the mood improvement on each categorized BT among 418 students with no missing data.

Results: 61% of the participants who tried to the DTR were successfully yielding DP, and 62% of the participants got BT. 54% of the participants improved their mood while 7% did not improve their mood throughout the DTR. 20 categories of DP and 24 categories of BT were extracted from each column's data by using the KJ method. Additional analysis showed that 24 BT could be classified into three higher-order categories, such as “Affirmative Thought”, “Analytic Thought”, and “Constructive Thought”. Inter-rater agreement in the mood improvement was substantial ($\kappa = .73$, $p < .01$). Chi-square tests revealed non-significant differences of the mood improvement rate within DP categories and within BT categories ($\chi^2 = 16.74$, *n.s.*; $\chi^2 = 19.68$, *n.s.*). Appearance of mood improvement was the most frequent in case of the combination of Affirmative Thought and 7 DPs.

Conclusion: We obtained the new perspectives that DP and BT could be classified several categories. While DP and BT categories did not contribute the mood improvement effects individually, our results suggest that it is important to focus on a combination of DP and BT for successfully cognitive reconstruction.

A-P-118

Assertiveness as a Mediator for the Relationship between Actual-Ideal Self-Discrepancy and Depressive Symptoms in a Non-Clinical Sample of Adults Aged 21-30 Years Old

○Swee, Genevieve , Aw, Su, Tang, Catherine

Psychology Department, National University of Singapore (NUS), Singapore

This study examined whether assertiveness acts as a mediator for the actual-ideal self-discrepancy and depressive symptoms relationship in a non-clinical sample. A total of 214 adults aged 21 -30 years old in Singapore participated, completing a series of self-report questionnaires either online or via pen and paper. Out of the 214 participants, 10 reported prior clinical diagnosis of depression (4.67%) and 39 could be classified as clinically depressed (18.22%) based on the Center of Epidemiological Studies Depression Scale (CES-D) cutoff score by Zich, Attkisson & Greenfield (1990) of > 27 out of 60. Only actual-ideal self-discrepancy correlated with depressive symptoms where participants with a larger discrepancy reported more depressive

symptoms. Many of the participants yielded an actual-ideal self-discrepancy score near the median so a tertiary split was done to compare the top 1/3rd and bottom 1/3rd discrepancy scorers for further analysis (N=133). This yielded the same correlation result above and in addition, a correlation was found between actual-ideal self-discrepancy and assertiveness. No mediation analyses were run due to lack of correlation of assertiveness and depressive symptoms. The competing hypothesis of assertiveness as a moderator was also tested but not found to be significant in both cases. Implications, limitations and future directions will be discussed regarding future re-investigation of assertiveness as a mediator.

A-P-119

Attenuated Emotional Reactivity in Depressed Individuals

○Kim, Hyunsik, Oh, Kyung Ja

Department of Psychology, Yonsei University, Seoul, Korea

Emotion context insensitivity (ECI) theory assumes that blunted mood of depressive individuals will lead to diminished emotional reactivity to emotional stimuli. Many researchers have investigated how depressed individuals react to emotional stimuli; however, relatively few studies examined how their emotional reactivity varies depending on state mood. Using mood induction procedure (MIP), the current study aimed to examine how depressed individuals process emotional stimuli under the influence of MIP.

A total of 101 university students participated in the study. Participants were randomly assigned to either happy or sad MIP condition. The participants were divided into high (top 33 percent: $N=31$) or low (bottom 33 percent: $N=31$) depression group based on their depression level measured by CES-D. The experiment procedure was as follows: step 1) self-report baseline mood, step 2) MIP (happy or sad), step 3) report of subjective emotional state in reaction to MIP, and step 4) emotional Stroop task. The Stroop task was comprised of 3 word valence (i.e., positive, negative, and neutral), and reaction time to each word category was measured.

A 2(MIP) X 2(depression level) X 3(Stroop) repeated measure mixed ANOVA revealed a significant three way interaction ($F(4,60)=3.31, p<.05$). In order to decompose the 3-way interaction, a 2(MIP) X 3(Stroop) ANOVA was performed for the high

and low depression group. The results showed a significant interaction only in the low depression group ($F(4,60)=3.31, p<.05$). Planned paired t-tests revealed that, in the happy condition, the reaction time to positive words ($M=1237\text{ms}, SD=331\text{ms}$) was faster than that to negative words ($M=1304\text{ms}, SD=371\text{ms}$), ($t(30)=-2.43, p<.05$). In the sad condition, there was no difference in reaction time to negative ($M=1165\text{ms}, SD=264\text{ms}$) and positive words ($M=1162\text{ms}, SD=271$), ($t(30)=1.05, ns$). Overall, in the happy condition, mood-congruent stimuli in the Stroop task were facilitated. However, such mood-congruent effect was not found in the high depression group. Also, individuals with high depression ($M=5.67, SD=1.45$) reported lower happiness than individuals with low depression ($M=7.13, SD=1.03$) after happy MIP, ($t(30)=-3.41, p<.05$).

The overall results supported ECI theory in that depressed individuals were not influenced by induced mood and as a result, their reactivity to emotional stimuli did not differ depending on the valence of stimuli. Also, subjective emotional expression of highly depressed individuals after happy MIP was attenuated compared to individuals with low depression. The current study suggested the possibility that depressed individuals are less influenced by emotional context and thus display attenuated reactivity to emotional stimuli.

A-P-120

The Relationship between Fear of Emotion and Depressive Symptoms: Comparison between a Clinical and a Non Clinical Sample

○Koda, Munenaga¹, Ito, Yoshinori², Yamamoto, Kazuyoshi³, Kondo, Tsuyoshi¹

¹Department of Neuropsychiatry, Graduate School of Medicine, University of the Ryukyus, Okinawa, Japan, ²Faculty of Education, University of the Ryukyus, Japan, ³Yamamoto Clinic, Japan

Introduction: Difficulty with regulating emotions is a promising candidate to be a common mechanism across affective disorders. Previous study have suggested that fear of emotion is associated with the maintenance and development of mood and anxiety disorders, such as major depressive disorder (MDD), social anxiety disorder (SAD), generalized anxiety disorder (GAD) (e.g., Mennin et al., 2007; Turk et al., 2005). However, it has been reported that fear of emotion in affective disorders patients is higher than non-clinical group, but the relationship between fear of emotion and depressive symptoms is unknown in both group. The purpose of this study was to compare the relationship between fear of emotion and depressive symptoms in a clinical and a non-clinical samples.

Method: The participants of this study include 92 patients with MDD (mood disorder group), 30 SAD (anxiety disorder group) diagnosed according to DSM-IV-TR (APA, 2000) from a mental health clinic in Japan, and 221 undergraduate students as the non-clinical samples (control group). Participants completed Japanese-version of Affective Control Scale (ACS: Kanetsuki et al., 2010) which measures fear of emotion involving anger, positive emotion, depression, and anxiety and Japanese-version of Self-rating Depression Scale (SDS: Fukuda & Kobayashi,

1973) which measures depressive symptoms. The study protocol was approved by the Ethics Committee of the University of the Ryukyus (ID: 122).

Results: To investigate the relationship between fear of emotion and depressive symptoms, correlation analysis was conducted with respect to each group. In mood disorder group, fear of emotion score was significantly positive correlated with SDS ($r = .64, p < .0001$). Anxiety disorder and control groups also gained significantly positive correlation between fear of emotion and SDS scores (respectively, $r = .40, p < .05$; $r = .59, p < .0001$). In order to compare the power of the relationship between fear of emotion and depressive symptoms in each groups, differences of coefficient of correlation values were analyzed. The results showed that there were not significantly differences of the values of correlation in all between-group (control vs. MDD, $z = .64$; control vs. SAD, $z = 1.25$; MDD vs. SAD, $z = 1.52, p_s > .10$).

Discussion: These results suggested that fear of emotion was exacerbation factor of depressive symptoms in all groups. There was no differences of correlation between mood and anxiety disorders. One potential explanation for that result is that fear of emotion would be a transdiagnostic vulnerability for depressive symptoms.

A-P-121

Predictive Powers of Brooding and Reflection Subscales of Japanese Ruminative Responses Scale for Depression

○Hasegawa, Akira¹, Koda, Munenaga², Hattori, Yosuke³, Kondo, Tsuyoshi², Kawaguchi, Jun⁴

¹Faculty of Human Relations, Tokai Gakuin University, Gifu, Japan, ²Graduate School of Medicine, University of the Ryukyus, Okinawa, Japan, ³Graduate School of Arts and Sciences, University of Tokyo, Tokyo, Japan, ⁴Department of Psychology, Graduate School of Environmental Studies, Nagoya University, Aichi, Japan

Introduction: The Ruminative Responses Scale (RRS) is a measure of depressive rumination that is composed of brooding and reflection subscales. Using the RRS, Treynor et al. (2003) conducted a longitudinal study of one year. They demonstrated that brooding was associated with more depression at follow-up, whereas reflection was associated with less depression, a pattern suggesting that brooding represents a maladaptive aspect of rumination and reflection represents an adaptive aspect. The present study examined the predictive powers of the brooding and reflection subscales for depression in a Japanese population.

Method: Japanese university students ($N=378$) participated in a longitudinal study. They completed the Japanese RRS (Hasegawa, in press) and the Center for Epidemiologic Studies Depression Scale (CES-D; Shima et al., 1985) at T1 and at T2, 8 weeks after T1. Participants also responded to the Inventory to Diagnose Depression, Lifetime Version (IDDL; Uehara et al., 1995), which was modified to assess symptoms experienced in the follow-up period, at T2.

Results: A multiple regression analysis was conducted on brooding, reflection, and CES-D scores at T1 as independent variables and CES-D at T2 as the dependent variable. Results indicated that only CES-D at T1 predicted CES-D at T2 ($\beta=.64$, $p<.001$; $R^2=46.5$). Next, a regression analysis with

the same independent variables and IDDL as the dependent variable was conducted. This indicated that all variables predicted IDDL (brooding: $\beta=.18$, $p<.001$; reflection: $\beta=.14$, $p=.003$; CES-D: $\beta=.41$, $p<.001$; $R^2=36.2$). The regression analyses also showed that both the total RRS score and CES-D at T1 predicted CES-D at T2 ($\beta=.10$, $p=.02$, $\beta=.62$, $p<.001$, respectively; $R^2=46.8$) and IDDL ($\beta=.31$ and $.37$, respectively, both $p<.001$; $R^2=36.8$).

Discussion: Brooding predicted IDDL score but did not predict the CES-D score at T2. Treynor et al. (2003) utilized the Beck Depression Inventory, which is composed of items representing the symptoms of clinical depression, and IDDL also assessed a similar construct. On the other hand, the CES-D does not cover all symptoms of major depression and includes four reversed items, which represent positive emotions and cognitions. Therefore, it is plausible that brooding predicts symptoms of clinical depression. Reflection also had similar predictive powers to brooding. The predictive value of reflection on IDDL score was positive. The inconsistent findings between the present study and the previous study may have been caused by cultural differences. It is possible that reflective thought patterns in Japanese seldom lead to active problem solving, and cause negative and repetitive cognitive processes.

A-P-122

Controllability as a Moderating Factor between Depression and Negative Emotions

○Yeo, Si Ning¹, Zainal, Nur Hani¹, Tang, Prof Catherine¹, Tong, Dr Eddie¹, Ho, Dr Roger²

¹National University of Singapore, Psychology Department, Singapore, ²National University Hospital

The theory of cognitive appraisals in emotions and attributional theory are well studied in the field of Social and Clinical Psychology. The theory of Cognitive appraisal explains that in an adverse situation that is appraised to be high in personal agency results in negative emotions. In the reformulated theory of learned helplessness, attribution of personal control to negative situations is associated with guilt and shame. Studies in the literature are mostly conducted on the college population and there is lack of studies comparing clinical and normal samples, leaving gaps in the literature. The present study attempts to examine the effect of task controllability on the relationship between Mental Health Status (depressive or normal) and reported negative emotions, in particular, guilt and shame. We hypothesized that task controllability would moderate the effect of depression on the reported level of negative emotions. In situations of high controllability, we expected lower reported negative emotions. Participants were randomly assigned into High control (HC) or Low control (LC) task conditions. In each condition was a digit-span memory task that was designed according to Miller's (1956) theory that people can hold 7 ± 2 objects in the working memory. In the HC Condition, participants were given 3 practices and 5 digits to

memorize in each practice. In the LC condition, participants were given 3 practices and 12 digits to memorize in each practice. They were then asked to report levels of negative emotions and perceived sense of controllability over the task. Significant moderation effect of controllability was found in the reported guilt and shame in depressive participants but not in overall negative emotions. Contrary to what was predicted, depressive samples reported significantly higher levels of guilt and shame in the HC condition. The results have implications on Cognitive Behavioral Therapy (CBT). CBT works on helping clients find control over situations. However, sense of control may not necessarily contribute to less negative emotionality. Attributional Retraining (AR) can be integrated into CBT. AR works on reattributing causes of adverse situations—reattributing cause of failure in a task from personal inadequacy to lack of effort. Clients are thus motivated to find control over the effort they put into tasks and increase their persistence. This can help alleviate learned helplessness and possibly decrease negative emotionality in situations across high and low controllability. Further research needs to be conducted to ascertain this suggestion of integrating the two therapies.

A-P-123

Understanding the Quality of Life of Depression Patients in Singapore through a Multiple Mediation Framework

○Tan, Shu Hui¹, Tang, Catherine S.K.¹, Ho, Roger C.M.²

¹Department of Psychology, National University of Singapore, Singapore, ²National University Hospital Singapore, Singapore

Introduction: Effective interventions are paramount in promoting the Quality of Life (QOL) of depression patients. Built based on Beck's (1967) Cognitive Theory, this paper first proposes that the QOL perceived by depression patients is dependent on the severity of dysfunctional attitudes endorsed. Going further, this paper posits the presence of a mediating effect conferred by psychosocial resource factors, thereby weakening the relationship between the above-mentioned variables. The growing popularity of QOL research has led to the rapid expansion in types of psychosocial resource factors investigated. However, little work has been done to determine the relative mediating strength of these various mediators on different QOL domains via a multiple mediation framework. Henceforth, four psychosocial resource factors: depressive symptom management ability, self-efficacy, social support and problem-focused coping, were extracted from the literature. The use of a multiple mediation framework where all four psychosocial resource factors are simultaneously evaluated allows for the determination of their unique contribution.

Method: 80 depression adult outpatients were recruited from the National University Hospital Singapore between the period of August 2012 to January 2013. Participants completed a series of self-report questionnaires comprising of the Short-Form Dysfunctional Attitude Scale (DAS-SF), Short Form (SF)-12 Health Status questionnaire, Depression

Anxiety Stress Scale (DASS-21), Self-Mastery Scale (SMS) and a measure of social support and problem-focused coping tendency.

Results: Instead of regarding QOL as a unitary construct, a prevalent practice within the literature, this paper chose to investigate the mediating effects of the resource variables on physical and mental QOL separately. Results demonstrated a differential pattern of association between psychosocial resource factors and various QOL domains. In particular, depressive symptom management ability was the most vital resource in mediating both QOL domains, while better problem-focused coping abilities allowed for a further promotion of the physical domain only. Comparatively, self-efficacy and social support were non-significant mediators when investigated in a multiple mediation framework.

Discussion: Findings from this study implicates onto the future investigation of QOL as a unitary construct. Findings also advise against the development of multi-faceted programmes featuring multiple protective resource factors, such as self-efficacy and social support, as they are no more effective than solely focusing on problem-focused coping skills. Instead, results suggest the need for future interventions to channel their attention towards a primary focus on the promotion of symptom management ability and problem-focused coping skills.

A-P-124

Brooding as a Mediator in the Relationship between Sense of Mastery and Depressive Symptoms

○Aw, Su, Ying, Genevieve Swee Feng

National University of Singapore, Singapore

Lower sense of mastery is associated with greater risk of experiencing depressive symptoms within individuals. Similarly, rumination, a response style to stress, has been found to predict the onset and intensity of depression among non-depressed individuals, and linked to the many cognitive deficits found in depression (Cowden, & Amir, 2012; Nolen-Hoeksema, 2000). It is proposed that brooding - the maladaptive component of rumination, in response to one's stressors, mediates the relationship between low sense of mastery and depression- whereby low mastery only contributes to depression in the presence of brooding to one's distress. A cross-sectional study was carried out on 214 students and young adults in the National University of Singapore, using the Pearlin's Mastery Scale, Response to Stress questionnaire (RSQ), Centre of Epidemiological studies Depression scale. 13.7% of participants scored in mild to depression symptomology range on the CES-D using cut-offs of 27 for clinical depression, and 16 for mild depression. A mediational model of mastery, brooding and depressive symptoms was tested using regression analysis and the Sobel test. The result showed that

sense of mastery had both direct and indirect effects on depressive symptoms. The indirect effect of brooding was significant ($z = -3.13, p < .01$), whereby participants who had lower mastery, and engaged in higher levels of brooding in response to their distress, reported more depressive symptoms in the past week. However, the direct effect of mastery on depressive symptoms remained significant, after entering brooding into the model ($\beta = -.34, SE = .14, t = 5.41, p < .01$). Test of alternate hypothesis also revealed that sense of mastery was also a significant partial mediator between brooding and depressive symptoms, whereby higher levels of brooding and lower trait mastery associates with more depressive symptoms ($z = -3.09, p < .01$). It is suggested that brooding lead to lower mastery, and thus increasing risk for depression. However brooding also had a direct effect on depressive symptoms ($\beta = .33, SE = .14, t = 5.14, p < .01$). A bi-directional relationship between sense of mastery and brooding is likely to exist between sense of mastery and brooding. No gender or age effect was found. Theoretical and practical implications of both findings, as well as study limitations are discussed.

A-P-125

Preliminary Evaluation of Behavioral Activation in the Context of Non-Social Avoidance in Moderately Depressed University Students

○Takagaki, Koki¹, Sakano, Yuji², Okamoto, Yasumasa¹, Yamawaki, Shigeto¹

¹Department of Psychiatry and Neurosciences, Hiroshima University, Japan, ²Health Sciences University of Hokkaido, Japan

Introduction: It was suggested that non-social avoidance might treat from relatively difficult task from our previous study (Takagaki et al., 2011). However, no study has attempted to start with relatively difficult task of non-social avoidance. Therefore, the purpose of the current study was to determine behavioral activation intervention starting with a relatively difficult non-social avoidance would show significant decreases in depressive symptoms than comparison group.

Methods:

Participants

Participants were consisted of 6 participants (4 women and 2 men; 20.33 ± 2.34 years) in the experimental group and 6 participants (5 women and 1 man; 20.33 ± 1.75 years) in the comparison group.

Questionnaires

(1) CBAS-J (Takagaki et al., 2012), which includes four subscales. For this study, we used only the behavioral nonsocial and cognitive nonsocial (CBAS-NS). (2) BDI-II (Kojima & Furukawa, 2003).

Procedure

Participants who scored 14 or higher on the BDI-II-J and 35 or higher on CBAS-NS that were not undergoing psychopharmacological, or psychological treatment were included. Participants were randomly assigned to either the experimental group, or the comparison group. The target of the intervention for experimental group was difficult task. There were significant differences between the two groups on the degrees of difficulty of

the avoidant behavior ($F_{(10)} = 11.35$, $p < 0.01$). Each participant had a single session in which they were exposed to 90 min of behavioral activation therapy. In homework task, the experimental group was assigned homework of behavioral modification starting with avoidances that are difficult, whereas comparison group was assigned homework that are relatively easy. A post-treatment session was scheduled for one-week later.

Results: The intervention outcome variables were examined with a 2 (group; experimental, comparison) \times 2 (Time; before intervention, one-week later) repeated-measures analysis. Clinical significant of pre-post differences and between-group difference in pre-post change was assessed using Cohen's d statistic (Cohen, 1988). In the BDI-J, there was a significant main effect of Time ($F_{(1,10)} = 20.42$, $p < 0.01$). There was not significant interaction between Time and Group. The effect size of experimental group from before intervention to one-week later was 1.21. The effect size for between-group difference for pre-post change was 0.67.

Discussion: The single-session behavioral activation intervention in the context of non-social avoidance resulted in significant pre-post reductions in depressive symptoms. The effect size for between-group differences in pre-post change was medium. The results of this study suggest that treatment starting with relatively difficult non-social avoidance may have some utility toward effectively and efficiently reducing depressive symptoms.

A-P-126

Potential Mediators and Moderators of the Effect of Cognitive Behavioral Therapy for Depression Prevention in Japanese College Students

○Noguchi-Sato, Miyuki¹, Inoue, Misa², Takaoka, Shino³, Sato, Hiroshi²

¹Kyoto University of Education, Kyoto, Japan, ²Kansai University, ³Kwansei Gakuin University, Japan

Objective: We recently conducted a psychological prevention program for Japanese college students at risk for future depression. The students were randomly assigned to either a group depression prevention program based on cognitive behavior therapy (CBT) or a usual care control condition (Sato et al., 2013). The program was found to be effective in reducing depressive symptoms and suicidal ideation. The purpose of this study was to identify the mediators and moderators of response to the depression prevention program.

Method: Sixteen participants (4 male and 12 female) completed the five weekly- 90-minute sessions. Five variables specific to CBT were examined: social skills, positive automatic thoughts, negative automatic thoughts, frequency of fun activities, degree of

pleasantness of fun activities, and repertoire of fun activities. The outcome measures were assessed by the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) and Suicidal Ideation Questionnaire-Junior (SIQ-JR; Reynolds, 1987).

Results: Gender appeared to be a moderating factor in that males were more likely to respond better to the intervention exhibiting reduced suicidal ideation and negative automatic thoughts. In addition, change in positive automatic thoughts and degree of pleasantness of fun activities appeared to mediate the intervention effects on depressive symptoms (Table 1). Our findings suggest that increasing positive thinking and pleasantness of fun activities is the primary mechanism through which our intervention reduces depression.

Table 1 Correlations between outcome measures and mediators

	CES-D	SIQ-JR
Social skills	-.22	-.05
Stressor	.44	.09
Negative automatic thoughts	-.28	-.01
Positive automatic thoughts	-.66 **	.35
Frequency of fun activities	-.21	.06
Degree of pleasantness of fun activities	-.57 *	.14
Repertoire of fun activities	-.37	.02

* p<.05, ** p<.01

A-P-127

Cognitive Behavior Therapy for Usual Depression Treatment Non-Responders: A Preliminary Report

○Mitsuda, Dai^{1,3}, Nakagawa, Atsuo^{2,3}, Nakagawa, Yuko³, Sado, Mitsuhiro³, Fujisawa, Daisuke⁴, Kikuchi, Toshiaki⁵, Iwashita, Satoru¹, Mimura, Masaru³, Ono, Yutaka⁶

¹Sakuragaoka Memorial Hospital, Japan, ²Keio Center for Clinical Research, Japan, ³Department of Neuropsychiatry, Keio University School of Medicine, Japan, ⁴Department of Palliative Medicine and Psycho-Oncology, National Cancer Center Hospital East, Japan, ⁵Department of Psychiatry, Kyorin University School of Medicine, Japan, ⁶Center for Cognitive Behavior Therapy and Research, National Center of Neurology and Psychiatry, Japan

Background: The aim of this study was to assess whether cognitive behavior therapy (CBT) as an adjunct to usual care for depressed patients who did not respond to usual depression treatment is beneficial in Japanese setting.

Methods: Fifteen patients (male: 73.3%) with Major Depressive Disorder confirmed by Structured Clinical Interview for DSM-IV Axis-I disorders (SCID) and a HAMD-17 total score of ≥ 16 despite at least 8-weeks of usual depression treatment including antidepressant therapy received 16-weeks of CBT with treatment as usual. Comorbid psychiatric disorders, comorbid personality disorders, demographical data, and relevant clinical factors were also evaluated at baseline. Response was defined as 50% or greater reduction in Quick

Inventory of Depressive Symptomatology-SR (QIDS-SR) total score from baseline. Remission was defined as QIDS-SR total score 5 or less. The study was approved by ethical review committee.

Results: Of the 15 participants, mean age was 40.1(SD 7.4) years, the median of current depressive episode was 23.0 month, and the mean QIDS-SR total score was 12.2 (SD4.4). At study end point, 8 participants (53.3%) were responders and of the responders 6 (40.0%) achieved remission. Non-responders were associated with comorbid anxiety disorder. ($p=0.03$).

Conclusions: CBT as an adjunct to usual care may be effective in Japanese settings. Further, putative poor prognostic factors such as comorbid anxiety may predict unfavorable outcomes.

A-P-128

Exploring the Relationship between Early Peer Rejection and Depression Among Singaporean Full-Time University Undergraduates and Use of Wishful Thinking as a Mediator

○Tay, Yi Fen, Chen , Eugene, Tang, Catherine

Psychology Department, National University of Singapore, Singapore

The aim of the current study was to examine the relationship between early peer rejection and depression in a sample of Singaporean full-time university undergraduates. Wishful thinking, which has been found to be correlated to both peer rejection and depression, was also explored as a mediator in the relationship. The competing hypothesis, that depression predicts peer rejection in accordance with the interpersonal theory of depression, with wishful thinking as a mediator, was also examined. A total of 200 participants (96 males, 104 females) completed an online questionnaire consisting of three scales. Peer rejection was found to be significantly positively correlated to depression, suggesting a cyclical process between the two variables that predict each other. Wishful thinking was only a significant mediator when peer rejection predicts depression but not when depression predicts peer rejection. Gender was found to be correlated to peer rejection with males experiencing higher levels of peer rejection, but wishful thinking did not act as a mediator in any of the proposed

relationships for either gender. Males are also more likely to experience depression in lower university year of study. 66 participants are classified as having depressive symptoms ranging from mild to severe in accordance to the Major Depression Inventory cut-off score of above 20 by the Psychiatric Research Unit Hiller (2003). The results concur with current literature in suggesting that female undergraduates perceive peer rejection as a stronger stressor than male undergraduates and support the proposition that women invest more in dyadic relationships than men. Males may perceive other non-interpersonal problems, such as studies, as stronger stressors. These have various clinical implications such as the need to ensure that vulnerable individuals at risk of peer rejection are given appropriate counselling early in life and trained in the usage of more effective coping styles, and that those clinically depressed are given appropriate therapy that enhances their social skills. Limitations and future directions were also discussed.

A-P-129

CBT in the Treatment of Depression in Acid Burn Victims

○Tahir, Khadija, Tahir, Khadija

Acid Survivors Foundation, Pakistan

Acid Violence is a form of premediated violence, which involves throwing of corrosive acid on the face of the victims. Acid violence rarely kills but always destroys lives. It occurs in the context of domestic and land disputes, most often targeting the face of the women. Acid violence causes horrendous disfigurement, loss of limbs, loss of eyesight and sometimes even death. This paper will examine the role of CBT in the treatment of depression, which is predominant in all acid burn survivors, along

with critical discussion as to how CBT was used in building the self-esteem of the survivor in order to reintegrate them in the mainstream of the society. This presentation describes the use of CBT in the treatment of 23 acid burn survivors, 21 females and 2 males. Activity scheduling, thought recording and behavioral experiments were performed. The subjects became more hopeful about their future, their self-esteem improved and they had better relationships with their friends and relatives.

A-P-130

Gender Differences in the Effect of Emotion Regulation Difficulties on Depressive Symptoms

○Park, Jeong Hoon, Oh, Kyung Ja

Department of Psychology, Yonsei University, Seoul, Korea

Introduction: Emotion dysregulation is known to be a key contributor to the development of depression (Aldao, Nolen-Hoeksema, & Schweizer, 2010). Previous research has shown gender differences in prevalence of depression and emotion regulation style (Garnefski, Teerds, Kraaij, Legerstee, & van den Kommer, 2004; Kessler, Merikangas, & Wang, 2007). The present study aimed to explore the role of gender in the relationship between emotion regulation difficulties and depressive symptoms.

Method: 365 undergraduates (154 males and 211 females) at a university in Seoul, Korea were recruited. The age range was 17 to 33 years ($M=21.17$, $SD=2.33$). Participants completed the Korean version of the Difficulties in Emotion Regulation Scale (K-DERS; Jo, 2007) and the Center for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977). Descriptive statistics, correlation analysis, independent samples t-test, and step-wise multiple regression analysis were conducted using SPSS 18.0.

Results: Step-wise multiple regression analysis revealed that emotion regulation difficulties were significant predictors of depressive symptoms for both genders. Specifically, lack of emotional clarity (CLARITY), limited access to emotion regulation strategies (STRATEGIES), and difficulties engaging in

goal directed behavior when experiencing negative emotion (GOALS) explained 41.1% of total variance in depression for men. For women, lack of emotional clarity and awareness (CLARITY and AWARENESS), limited access to emotion regulation strategies (STRATEGIES), and difficulties in maintaining controllability when experiencing negative emotion (IMPULSE) accounted for 39.8% of the variance in depression. Overall, CLARITY and STRATEGIES emerged as common significant predictors of depression for both genders. Interestingly, engaging in goal directed behavior revealed to be a significant predictor only for men, suggesting that problem focused intervention could be effective for reducing depression for men. For women, individuals with deficiency in emotional awareness and difficulty in maintaining controllability were more likely to show a higher level of depression. In other words, the tendencies to be overwhelmed with negative emotion and the difficulties in attending to and acknowledging emotions are positively correlated with depression. These results suggest that educating the ability to disengage oneself from experienced negative emotions in order to sustain controllability and to focus on the emotion itself might be a useful intervention strategy for mitigating depression, especially for women.

A-P-131

The Effect of Gender, Implicit Dependency, and Explicit Dependency on Depression

○Park, Sunhee, Oh, Kyungja

Psychology Department, Yonsei University, Seoul, Korea

Introduction: Dependency is known to be a personal vulnerability to depression (Blatt & Zuroff, 1992). Although dependency has been known to be affected by social desirability, previous studies assessed only explicit dependency by self-report methods (Beck, 1983; Blatt & Zuroff, 1992; Nietzel & Harris, 1990). The present study aimed to assess dependency through self-report as well as SC-IAT (Single Category-Implicit Association Test) which is expected to be relatively free from social desirability. Since dependency in men is considered more undesirable than dependency in women in most cultures, it was hypothesized that implicit dependency plays an important role to predict depression in men than in women.

Method: The subjects were 117 undergraduate students at a University in Seoul, Korea. The sample was 56% female, with a mean age of 21.36 ($SD=2.74$). SC-IAT (Karpinski & Steinman, 2006) was conducted by a computer to assess implicit dependency. SC-IAT assesses participants' association of self with independent versus dependent words using response times and has shown relative immunity from self-presentational biases or faking (Karpinski & Steinman, 2006). Participants also completed the Interpersonal dependency Inventory (IDI; Hirschfeld, 1977) and Beck Depression Inventory

(BDI; Beck, 1967). Descriptive statistics, independent samples t-test, and multiple regression analysis were conducted using SPSS 18.0.

Results: Compared to men, women showed higher scores on explicit dependency ($M=56.57$, $SD=12.38$), $t(115)=-2.34$, $p<.05$, implicit dependency ($M=-0.08$, $SD=0.31$), $t(115)=-2.68$, $p<.01$, and depression ($M=6.65$, $SD=5.35$), $t(115)=-3.68$, $p<.001$. Multiple regression revealed a three way interaction amongst explicit dependency, implicit dependency, and gender on depression, $\beta=.673$, $t(115)=2.34$, $p<.05$. Specifically, for women, analysis of simple slopes confirmed that implicit dependency was unrelated to depression in the low-explicit dependency group, $\beta=-1.442$, $t(62)=-.57$, ns , but was positively and significantly predictive of depression in the high-explicit dependency group, $\beta=7.970$, $t(62)=2.41$, $p<.05$. For men, implicit dependency was unrelated to depression in both low, $\beta=1.044$, $t(49)=0.520$, ns , and high, $\beta=-2.519$, $t(49)=-1.044$, ns , explicit dependency groups. Interestingly, implicit dependency was a significant predictor only for women with high-explicit dependency. These results indicate the need for consideration of both explicit and implicit dependency as well as gender in order to predict depression.

A-P-132

Influence of Upward Comparison Orientation on Depression, Mediated by Non-Judgment of Inner Experience

○Goh, Hwee Hwee, Tang, Catherine, Chee, Melissa

The Department of Psychology, National University of Singapore, Singapore

Depression hampers one's psychological, social, as well as physical functioning. Upward social comparison, which is to gauge one's abilities with a perceived better individual, has been found to maintain and exacerbate the negative self-view and mood in depressed individuals. Although numerous studies have investigated the relationship between upward comparison and depression, few of them concentrated on upward comparison as the predictor of depression. In order to investigate how upward comparison can influence depression, a cycle relationship incorporating upward social comparison orientation (USCO), state depression and non-judgment of inner experience was proposed. In particular, it was proposed that higher USCO would predict higher depression, and this relationship would be mediated by non-judgment of inner experience. Data from 202 Singapore University students were collected. Participants completed self-report questionnaires measuring USCO, state depression and non-judgment of inner experience either through online or in paper-and-pen format. In line with existing literature, higher USCO predicted higher state depression. According to Sobel test, non-judgment of inner experience was also found to be a significant partial mediator

of the influence of USCO on state depression. Alternative hypothesis investigating the influence of state depression on USCO, mediated by non-judgment of inner experience was also supported. Incorporating the results of both hypotheses, a bidirectional reciprocal relationship among the psychological variables was proposed. Significant gender effect was also found for non-judgment of inner experience. Males significantly scored higher than females in this facet. Gender also affected the type of mediation. Males had full mediation pattern for both main and alternative hypothesis whereas females had partial mediation pattern for both main and alternative hypothesis. It was proposed that non-judgment might play a larger and more salient mediating role for males than for females. On the whole, a reciprocal bi-directional relationship among the three variables was proposed. Higher USCO predicted higher state depression and vice versa. Non-judgment of inner experience was also found to mediate the relationship between USCO and state depression. Results support clinical interventions for depressed individuals that focus on tackling negative impacts of upward comparisons through cultivating a non-judgmental stance.

A-P-133

Effects of Rumination on Attentional Bias and Attentional Functioning

○Yamamoto, Tatsuya¹, Sakai, Makoto²

¹Graduate School of Psychology, Chukyo University, Aichi, Japan, ²School of Psychology, Chukyo University, Aichi, Japan

Introduction: Rumination is a mode of responding to distress that involves repetitively and passively focusing on symptoms of distress, as well as on possible causes and consequences of these symptoms (Nolen-Hoeksema et al., 2008). A number of previous studies have shown that rumination is related to attention, and attentional bias. Attentional functioning impairments have also been observed in depression, and therefore it is important to investigate attentional features of ruminations in the development and maintenance of depression. The purpose of this study was to determine the effects of rumination on attentional bias and attentional functioning.

Method:

Participants

Participants were Japanese undergraduate students ($N = 244$: 76 men and 166 women, mean age 19.69 years, $SD = 1.07$).

Measures

Sensitivity to Punishment and Sensitivity to Reward Questionnaire - Japanese Version (SPSRQ-J; Takahashi et al., 2007). SPSRQ-J is a self-report, 24-item measure, which consists of two subscales: sensitivity to punishment scale and the sensitivity to reward scale. We used the score on this scale as an indicator of attentional orientation to punishment, or reward.

Attention Control (AC) in Effortful Control Scale - Japanese Version (Yamagata et al., 2005). AC is a 10-item, self-report measure of attention, which consists of four subscales: attentional shifting from reward,

attentional shifting from punishment, attentional focusing, and attentional shifting.

Ruminative Responses Scale - Japanese Version (RRS-J; Hasegawa, 2011). RRS-J is a 22-item, self-report measure of rumination, which consists of two subscales: brooding and reflection. We used the brooding subscale in this study.

Beck Depression Inventory - Japanese Version (BDI-J; Hayashi & Takimoto, 1991). BDI-J is a 21-item, self-report measure of depressive symptoms.

Results: An Analysis of Variance indicated that the main effect of rumination was significant in sensitivity to punishment ($F=29.65$, $p<.001$, $\eta^2=.10$), attentional shifting from punishment ($F=16.12$, $p<.001$, $\eta^2=.07$), and sensitivity to reward ($F=5.14$, $p<.05$, $\eta^2=.02$). Moreover, the main effect of depressive symptoms was significant only in sensitivity to punishment ($F=9.69$, $p<.01$, $\eta^2=.03$). Furthermore, the main effect of rumination was significant in focusing ($F=9.07$, $p<.01$, $\eta^2=.04$). However, the main effect of depressive symptoms was not significant.

Conclusion: Rumination had a medium influence on attentional orientation to and attentional shifting from punishment in attentional bias and a small influence on attentional focusing in attentional functioning. It is suggested that the effects of rumination should be considered with regard to attentional bias and attentional functioning impairments, rather than in connection to depressive symptoms.

A-P-134

Cognitive-Behavioral Therapy in Reinstatement Assistance Programs for People with Depression: A Review

○Nagano, Kyoko¹, Chiba, Hiroaki², Zhao, Zhiyong¹, Shimada, Hironori³

¹Graduate School of Human Sciences, Waseda University, Saitama, Japan, ²Saitama Neuropsychiatric Institute, Saitama, Japan, ³Faculty of Human Sciences, Waseda University, Saitama, Japan

Reinstatement assistance programs (RAPs) for people with depression have been standardized in Japan. The efficacy of cognitive-behavioral therapy (CBT) for ameliorating depressive symptoms in RAPs is well established; however, CBT does not improve social functioning, including occupational functioning, to the extent desired. Therefore, it is worth exploring how CBT can be utilized to improve social functioning in order to foster more sustainable social living in this population. In addition, since people who leave work due to depression may tend to do so repeatedly, further attention must be paid to the applicability of CBT in the context of RAPs. In this article, studies on the existing RAPs were reviewed to investigate the impact of CBT on social functioning. Studies from 2004 to May 31, 2012, were chosen, because the guidelines for reinstatement assistance were issued in 2004 (Japanese Ministry of Health, Labour and Welfare, 2004). The literature search was conducted as follows: (1) 29 studies were identified using Japanese electronic search engines with Japanese keywords that have a meaning similar to “rework” or “return to work” with “depression” AND “cognitive behavior (u) r (al) therapy.” (2) Six additional papers were found after electronic

databases like PubMed and SciVerse Scopus were searched for the same period with the keyword “depressive” instead of “depression,” and non-English studies were excluded. The abstracts of all 35 studies were reviewed and searched manually for the keyword “social functioning.” Finally, five studies remained. The literature search showed that studies on RAPs could be classified into three types with respect to the individuals' states: (1) those not paying attention to individuals' mental states, (2) those conducted with the presumption that assessment of individuals' level of cognitive dysfunction could be useful in the intervention, and (3) those paying attention to subjective difficulties in returning to work. This shows that CBT in the existing RAPs contributed to improve symptom management but CBT targeted to improve social functioning did not pay attention to participants' mental states. Thus, CBT should be tailored to address cognitive dysfunction, subjective difficulty in returning to work, etc., to improve and maintain social functioning. Future studies should explore how group CBT can be utilized to improve the efficacy of CBT in RAPs, along with individual assessments.

A-P-135

Examining the Mechanisms of Overgeneral Autobiographical Memory in Nonclinical Sample: Using a Sentence Completion Test with Optional Instructions

○Matsumoto, Noboru¹, Mochizuki, Satoshi²

¹Graduate School of Comprehensive Human Sciences, University of Tsukuba, Tsukuba, Japan, ²Faculty of Human Sciences, University of Tsukuba, Tsukuba, Japan

Purpose: Overgeneral autobiographical memory and reduced autobiographical memory specificity (rAMS) are characteristic cognitive biases in depressive patients; overgeneral autobiographical memory predicts the depression course. Recently, Williams et al. (2007) proposed the CaRFAX model, which assumes three key factors of nonspecific autobiographical memory retrieval: Capture and Rumination, Functional Avoidance, Executive capacity and control. We investigated rAMS in a nonclinical sample, as our previous research indicated that a dysphoric student group had less specific memories than a control group on an autobiographical memory test (AMT) with optional instructions. The participants were instructed “specific episode is better, but in case of difficulty in recall, an ambiguous memory is permissible”. In this study, the CaRFAX model was examined using a sentence completion test.

Methods: A sentence completion test--modified from the Sentence Completion for Events from the Past Test (SCEPT; Raes et al., 2007)--was given to 120 nonclinical undergraduate students. Participants were asked to fill in the blanks in 10 sentences (“When I feel X...” where X describes an emotion) within 8 min. They completed verbal fluency and category fluency tasks that measured executive function, Beck Depression Inventory II (BDI-II), Leuven Adaptation of the Rumination on Sadness Scale (LARSS) and

Cognitive-Behavioral Avoidance Scale (CBAS).

Results: Multiple regression analysis was performed with the proportion of specific autobiographical memory as the dependent variable. The BDI-II, LARSS, CBAS and category fluency task scores were entered as four independent variables. The overall model was significant, $R^2 = .16$, $F(4,115) = 5.24$, $p = .001$, and there were significant partial effects of both BDI-II scores, $t(115) = -2.61$, $p = .01$, $\beta = -.30$ and category fluency scores, $t(115) = 2.19$, $p = .03$, $\beta = .19$. Mediation analysis examined whether the category fluency and CBAS scores mediated the relationship between depression and the proportion of specific memory. However, no significant mediating or moderating effects were observed. Correlation analysis revealed no significant correlation of the LARSS with the proportion of specific autobiographical memory; other variables significantly correlated with the proportion of specific autobiographical memory.

Conclusions: Results indicate that high depressive mood and low executive function are related to rAMS. Although executive function and cognitive behavioral avoidance correlated with autobiographical memory specificity, depressive mood was related to low executive function and high cognitive behavioral avoidance that did not relate to rAMS in the nonclinical sample.

A-P-136

The Distinctive Relationships among Two Subtypes of Self-Focus, Problem-Solving Ability, and Depressive Symptoms

○Mori, Masaki, Tanno, Yoshihiko

Graduate School of Arts and Sciences, The University of Tokyo, Japan

Self-focused attention has maladaptive and adaptive aspects: self-rumination and self-reflection (Trapnell & Campbell, 1999). Self-rumination is a negative, chronic, and persistent form of self-focus that is motivated by perceived threats, losses, or injustices to the self. This maladaptive form of self-focus has shown to be associated with neuroticism and depression. Self-reflection is an adaptive form of self-focus that is motivated by curiosity or epistemic interest in the self and is associated with openness to experience. Contrary to self-rumination, self-reflection is considered to be associated with decreased depression. As a reason for that different association, recent studies have suggested that these two subtypes of self-focus have distinct functions regarding problem solving. Previous researches reported that self-rumination or ruminative repetitive thought impaired problem solving. In contrast, some theorists have regarded self-focused attention as a necessary step in problem-solving process. Self-reflection is thought to play this adaptive role in problem-solving process. However, because few studies have explicitly examined the relationship between self-reflection and problem solving, that relationship remains unclear. Thus, we tested whether self-reflection is actually associated with enhanced problem-solving ability. We conducted a cross-sectional survey on undergraduates ($N =$

206) to examine the associations among self-focus, problem-solving ability, and depressive symptoms. Supporting the theoretical prediction, path analysis showed that self-rumination is associated with low problem-solving ability ($\beta = -.46, p < .01$), whereas self-reflection is significantly associated with high problem-solving ability ($\beta = .27, p < .01$). Furthermore, high problem-solving ability was associated with decreased levels of depressive symptoms ($\beta = -.33, p < .01$). These results suggest that self-rumination exacerbates depressive symptoms through impaired problem-solving ability, whereas self-reflection indirectly suppresses depressive symptoms through enhancing problem solving. Because previous researchers suggested that self-reflection promotes self-knowledge and self-regulation, self-reflection is thought to facilitate generating the solutions suitable for individuals' abilities and the problems, and contribute to proper implementation of the solutions. There are several limitations such as need for the test of causal relationships. However, although previous researchers have emphasized the suppression of self-rumination to regulate depression, the current study suggests the promotion of self-reflection is also important. Future researches need to test whether self-reflection can be promoted by intervention (e.g. attentional training) and whether promoted self-reflection actually contributes to problem solving.

A-P-137

The Clinical Applications of Cognitive and Behavioral Therapies to People Who Stutter

○Haitani, Tomosumi¹, Kumano, Hiroaki^{2,3}

¹The graduate school of Human Sciences, Waseda University, Saitama, Japan, ²Faculty of Human Sciences, Waseda University, Japan, ³Institute of Applied Brain Sciences, Waseda University, Japan

Stuttering is a communication disorder characterized by repetition, prolongation and blocking of spoken words, and the subjective distress associated with these symptoms. People who stutter require not only speech therapy but also psychological treatments such as cognitive and behavioral therapies. This study briefly reviews previous research that applied cognitive and behavioral therapies to people with this disorder. The history of cognitive and behavioral therapies began with behavior therapy, based on the principles of learning theories. Such therapies are very effective in reducing the severity of stuttering; however, whether they also alleviate the subjective distress associated with stuttering is unclear. For example, habit reversal therapy, which is largely based on the principles of respondent conditioning, and the famously effective Lidcombe program, is based on the principles of operant conditioning. Behavioral approaches that aim to reduce the severity of stuttering are used widely in stuttering treatment. Next, cognitive or cognitive behavioral therapy, which includes cognitive approaches such as cognitive restructuring in addition to behavioral approaches, has emerged. These approaches are effective in reducing subjective distress, but their effectiveness for reducing stuttering severity is unclear. For example, an experimental clinical trial by Menzies et al. (2008) indicated that while

cognitive behavioral therapy for social anxiety alone could reduce only social anxiety and not stuttering, the combination of therapy and speech-restructuring treatment could reduce both. The effectiveness of cognitive or cognitive behavioral approaches needs further consideration. Finally, the third generation of cognitive and behavioral therapies, which include mindfulness and acceptance as therapeutic strategies, has emerged and recently applied in stuttering treatment. For example, De Veer et al. (2009) applied a mindfulness-based stress reduction program to people who stutter and Yaruss et al. (2012) applied acceptance and commitment therapy to those who stutter. The effectiveness of these approaches needs further consideration; however, they may be effective for reducing both subjective distress and stuttering. Additional target-specific interventions, more precise assessments of stuttering severity, as well as further research, are required to explore the effectiveness of these approaches. In conclusion, although it is claimed that stuttering and mental disorders are interrelated, the interventions that aim to reduce stuttering do not necessarily seem to improve mental health, and vice versa. Although it seems necessary to treat stuttering and mental health problems separately, further research on cognitive and behavioral approaches may elucidate how to improve both of these issues.

A-P-138

Effect of Interactions between Sensitivity to Reward and Punishment and Cognitive Bias on Social Anxiety

○Ito, Risa¹, Kobayashi, Natsuki², Yokoyama, Satoshi³, Sato, Takanobu¹, Suyama, Haruna¹, Kaneko, Yui¹, Suzuki, Shin-ichi⁴

¹Graduate School of Human Sciences, Waseda University, Japan, ²Ministry of Defense, ³Independent, ⁴Faculty of Human Sciences, Waseda University, Japan

Introduction: Social anxiety disorder (SAD) symptoms are considered to be maintained by overestimation of the cost and probability of negative social events, and by sensitivity to reward and punishment, such as the behavioral inhibition system/behavioral activation system (BIS/BAS). The previous studies have been proposed that the BIS underlie anxiety and neuroticism, and the BAS underlie reward-seeking behavior and impulsivity (Gray, 1970). High BIS and low BAS have been shown to increase SAD symptoms. The characteristics of BIS/BAS have also been shown to influence the effects of cognitive bias on SAD symptoms. However, the interaction of BIS/BAS and cost/probability biases in risk for SAD has not been examined. Hence, the present study investigates the effects of interactions between the BIS/BAS and cost/probability biases on SAD symptoms.

Method: Seventy-six undergraduate students (39 women and 35 men, mean age 21.91±5.03) completed (1) the Japanese version of the Liebowitz Social Anxiety Scale (LSAS), which has two subscales, Fear and Avoidance; (2) the Behavioral Inhibition System/Behavioral Activation System Scale; and (3) Social Cost Probability Scale.

Results: We conducted multiple regression analysis to examine whether cost/probability bias, BIS/BAS,

and these interactions affected social anxiety. As the result, main effects of cost bias and BIS were found for LSAS-Fear ($\beta = .64, p < .001$; $\beta = .33, p < .01$) and LSAS-Avoidance ($\beta = .49, p < .001$; $\beta = .35, p < .01$). The significant interactions between cost bias and BAS indicated that high BAS individuals with lower cost bias have higher LSAS-Avoidance than do high BAS individuals with higher cost bias ($\beta = -.32, p < .05$). The significant interactions between probability bias and BAS indicated that low BAS individuals with lower probability bias have higher LSAS-Avoidance than do low BAS individuals with higher probability bias ($\beta = .40, p < .01$).

Discussion: The results show that cost bias and probability bias can increase social anxiety for high-BAS and low-BAS individuals, respectively. Therefore, the results suggest that overestimation of the cost of negative social events may increase social anxiety for individuals engaging in reward-seeking behaviors, and overestimation of the probability of negative social events may increase social anxiety for individuals not engaging in such behaviors. The present study revealed that sensitivity to reward and punishment influenced the effects of cognitive biases on social anxiety. These findings may inform the development of SAD therapy tailored to individual characteristics.

A-P-139

Relationship between the Prefrontal Function during Verbal Fluency Task and the Symptoms in Patients with Social Anxiety Disorder: A Multi-Channel Near-Infrared Spectroscopy

○Yokoyama, Chika¹, Kaiya, Hisanobu¹, Nishimura, Yukika², Tanii, Hisashi³, Hara, Naomi³, Inoue, Ken⁴, Kneko, Yui^{1,5}, Suzuki, Shinichi^{1,6}, Kumano, Hiroaki^{1,6,7}, Okazaki, Yuji⁸

¹Akasaka Clinic for Psychosomatic Medicine and Psychiatry, Medical Corporation Warakukai, Tokyo, Japan,

²Department of Neuropsychiatry, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan, ³Department of Psychiatry, Division of Neuroscience, Graduate School of Medicine, Mie University, Mie, Japan, ⁴Department of Public Health, Fujita Health University School of Medicine, Aichi, Japan, ⁵Graduate School of Human Science, Waseda University, Saitama, Japan, ⁶Faculty of Human Sciences, Waseda University, Saitama, Japan, ⁷Institute of Applied Brain Sciences, Waseda University, Saitama, Japan, ⁸Tokyo Metropolitan Matsuzawa Hospital, Tokyo, Japan

Objective: The purpose of this study is to investigate whether prefrontal function during a cognitive task reflects the symptoms of social anxiety disorder (SAD).

Materials and Methods: Twenty-four drug-free patients with SAD (mean age, 36.3 ± 12.8 years) and thirty - five age - and gender-matched healthy control subjects (mean age, 37.3 ± 10.9 years) participated in this study. All participants administrated the Japanese versions of Liebowitz Social Anxiety Scale (LSAS), State - Trait Anxiety Inventory (STAI) and Self - rating Depression Scale (SDS). We measured hemoglobin concentration changes in the prefrontal and superior temporal cortical surface area during verbal fluency task using 52 - channel near - infrared spectroscopy (NIRS), which enables real - time monitoring of cerebral blood volumes in the cortical surface area.

Results: The number of generated words during the VFT showed no significant differences between SAD group and HC group. The task performance was equivalent among two groups. We tested the differences of the mean [oxy - Hb] changes during the task period between SAD group and HC group using a 2 Group (SAD, HC) × Time (pre - task, task) repeated measures ANOVA. The interaction

of "Group" and "Time" was significant in 9 of 52 channels (CH5, 7, 8, 23, 30, 34, 45, 50, 51, uncorrected $p < .05$). Compared to HC group, SAD group showed greater activation of mean [oxy - Hb] changes during the task period in 3 channels (CH5, 7, 8; dorsomedial and dorsolateral prefrontal cortexes) and smaller activation of [oxy - Hb] changes in 6 channels (CH23, 30, 34, 45, 50, 51; bilateral inferior prefrontal cortex). Next, Spearman's correlation coefficients were calculated for relationship between the mean [oxy - Hb] changes during the task period and the LSAS, STAI and SDS scores for significant channels as determined by ANOVA. In the SAD group, the mean [oxy - Hb] changes had significantly negative correlations with LSAS - avoidance scores in CH23, 34, 45, 51 ($r = -.414 \sim -.641$, uncorrected $p < .05$). Although there were not significantly correlations, negative correlations with LSAS - fear scores were found in these channels. In the HC group, the mean [oxy - Hb] changes had significantly positive correlations with LSAS - fear scores in CH34, 45, 50, 51 ($r = .404 \sim .442$, uncorrected $p < .05$).

Conclusions: These results suggest that reduced bilateral inferior prefrontal cortical activation is associated with functional impairment in patients with SAD.

A-P-140

The Specific Mechanism of How Intolerance of Uncertainty Leads to Emotional Distress: The Mediating Role of Response Style

○Lee, Joo-Eun, Oh, Kyung-Ja

Department of Psychology, Yonsei University, Seoul, Republic of Korea

Worry is a common mental activity, but when worry is excessive and uncontrollable to the point of causing significant distress and impairments in diverse areas of functioning for at least six months, accompanied by other physical symptoms, it may warrant a diagnosis of generalized anxiety disorder. Meanwhile, many psychological theories have emphasized the roles of the experience of uncertainty and the motivation to avoid uncertainty in psychopathologies, especially in the research of GAD as well as other emotional disorders. However, the ways in which intolerance of uncertainty (IU) leads to emotional distress, such as worry and anxiety, are yet to be examined and clarified.

The present study sought to investigate the specific mechanisms of the relationship between IU and emotional distress by examining 1) if increased IU is associated with a particular style of response to uncertainty, and 2) if the particular style of response mediates the relationship between IU and emotional distress, such as worry or anxiety. Consistent with extant literature, the results showed that IU was significantly associated with symptoms of worry and anxiety. More importantly, although both emotional response to uncertainty and cognitive response to uncertainty were significantly correlated with IU,

emotional response to uncertainty was substantially related both to worry and anxiety, while the cognitive response to uncertainty was less strongly related to both worry and anxiety. As anticipated, the hierarchical regression analysis revealed that IU was a strong predictor of worry or anxiety, but the relation between IU and symptoms of worry or anxiety was partially mediated by emotional response style to uncertainty.

The present findings suggest that individuals with higher level of IU have a strong tendency to respond more emotionally to uncertainty and at the same time may experience difficulties with responding less emotionally or adopting a different response style. This study is the first, to the best of authors' knowledge, to examine the hypotheses that the emotional response style is highly associated with increased IU and emotional distress, and that particular response style mediates the relation between IU and worry/anxiety. Clinically, the current study suggests a possibility that one's response style to uncertainty may be a target of examination and intervention in working with symptoms of worry or anxiety. Future studies may employ more universal measure of coping style as a mediator, in order to broaden the application of the findings.

A-P-141

The Effect of Combining Cognitive Appraisals Upon Traumatic Stress Responses

○Kimura, Satoshi¹, Sakai, Makato²

¹Division of Human Life and Environmental Sciences, Nara Women's University, Nara, Japan, ²School of Psychology, Chukyo University, Japan

Introduction: Traumatic stress responses (TSR) are peculiar responses occurring after exposure to traumatic event, such as PTSD symptoms. In recent years, the study about psychological trauma have increased in Japan. Of these, coping with traumatic memory has been studied. According to the Transactional model of Stress and Coping (Lazarus& Folkman, 1984), not only copings but cognitive appraisals are performed. Kimura (2012) showed appraisal of controllability negatively predicted TSR, appraisal of threat positively predicted TSR. Sakano et al. (1994) showed that multiple cognitive appraisals were performed in a stressful event. In light of this result, it is necessary to focus on combination effects of cognitive appraisals. The aim of the present study were to investigate that combination patterns of each cognitive appraisals impacts of TSR.

Methods: Participants: trauma-exposed college students (n=314). Measures: (1) Cognitive Appraisals Rating Scale (CARS; Suzuki& Sakano, 1998). The CARS is 8-item and consists of four subscale: appraisal of Commitment, Threat, Influence, and Controllability. (2) Japanese-Language Version of the Impact of Event Scale-Revised (IES-R-J; Asukai et al., 2002). The IES-R-J is 22-item. It consists of three subscale: Intrusion, Avoidance, Hyperarousal. (3) Beck Depression Inventory (BDI; Hayashi& Takimoto, 1991). The BDI is 20-item (one item about suicide was excluded because of ethical considerations). (4) Event Check List (ECL; c.f. Kim,

2001). 8-item of the ECL 15-item was used because of ethical considerations. (5) Months elapsed after trauma experience.

Results: 1. Cluster analysis Cluster analysis was used to identify four cognitive appraisal patterns among trauma-exposed students. Extracted five cluster patterns were the following: "control-dominance type", only high controllability; "non-invasion/control type", high controllability and low others; "non-relation type" low factor of all; "invasion/non-control type", low controllability and high others; and "involvement types", commitment and influence. 2. MANCOVA To examine the relationship between cognitive appraisal type and TSR, we conducted a one-way MANCOVA with cognitive appraisal type as a between-subjects factor, IES-R-J subscale score and total score as dependent variables, BDI score and Months elapsed trauma experience as control covariates. The levels of TSR differed among the types of cognitive appraisals. The "non-invasion/control type" showed the lowest TSR levels. No significant relationship was obtained between "control-dominance type" and "non-relation type".

Conclusions: The result of no relationship between "control-dominance" and "non-relation" types suggested that cognitive appraisals related either positively or negatively TSR have not more influence on TSR but the sum of individual cognitive appraisals effects on it.

A-P-142

Rethinking the Dimensional Approach with Simulated Obsessions and Association Splitting in the Obsessive-Compulsive-relevant Semantic Network in Singaporean Undergraduate Students

○Ching, Terence H. W., Goh, Winston D., Tan, Gabriel

Psychology Department, National University of Singapore, Singapore

The present study intended primarily to extend evidence of the existence of an obsessive-compulsive-relevant (OC-relevant) associative semantic network in individuals with obsessive-compulsive disorder (OCD) to an analogous undergraduate student sample, as predicted by the dimensional approach to OC symptomatology (e.g. Abramowitz et al., 2010). OC-relevant, negatively valenced, and neutral Deese/Roediger-McDermott (DRM; Deese, 1959; Roediger & McDermott, 1995) word lists were presented, accompanied by either relational or item-specific semantic processing simulations of obsessions or association splitting (Moritz & Jelinek, 2009), respectively (73 subjects in the former processing condition, 69 subjects in the latter). Good veridical recognition performance across list types was observed in both processing conditions, although item-specific semantic processing produced significantly higher veridical recognition rates. While relational semantic processing produced substantial false recognition rates across critical lure types, item-specific semantic processing significantly reduced such rates. Network-based accounts of the OC-relevant findings from above validated the existence of an OC-relevant associative semantic network in a non-clinical sample. Where OC-relevant information is concerned, item-specific semantic processing also improved veridical memory confidence and reduced the tendency for confident but inaccurate rejection of previously presented items, thereby introducing a metamemorial pathway through which association

splitting might establish its efficacy in OC symptom reduction. Importantly, the absence of predicted positive correlations between OC-relevant veridical and false recognition rates and OC symptom severity after relational semantic processing culminated in a novel empirically-supported hypothesis of a possible qualitative disjunction in OC-relevant network elaboration between non-clinical individuals and individuals with OCD. Specifically, in non-clinical individuals, OC symptoms range on a continuum independently of their low and non-meaningfully fluctuant degree of OC-relevant network elaboration. Perhaps only with above-threshold (i.e. clinically significant) OC symptom severity can we expect obsessions, and by functional linkage in a mutually reinforcing cycle, compulsions, to take over as salient interactive factors in driving OC-relevant network elaboration in a positively correlated manner. Therefore, there is utility in this hypothesis for cautioning against the theoretical application of the dimensional approach to each and every aspect of the OC phenomenon. At a pragmatic level, the considerable prevalence of OCD in Singapore (e.g. one-year and lifetime prevalence rates of 1.1% and 3%, respectively; Chong et al., 2012) makes it a condition of significant public health priority. Association splitting, the theoretical basis of which was validated here with a Singaporean subject sample, presents as a ready answer to the call for suitable means to address the OC phenomenon in Singapore.

A-P-143

CBT for Social Anxiety Disorder: Changes in Positive and Negative Thought

○Lee, Hannah, Ahn, Jung-Kwang, Kwon, Jung-Hye

Department of Psychology, Korea University, Seoul, Republic of Korea

Social anxiety disorder (SAD) can be characterized by problematic self-views. It was suggested that Cognitive Behavioral Therapy (CBT) should modify these maladaptive self-views (Rapee & Heimberg, 1997). Some researchers reported that increased positive (but not reduced negative) self-views mediated the effect of CBT in social anxiety reduction (Goldin, Jazaieri, Ziv, Kraemer, Heimberg, & Gross, 2013). However, it is still a controversial issue whether clinical interventions for SAD could modify negative and positive self-views and how such changes might be related to treatment outcome. The goals of this study were to investigate whether (a) CBT for SAD could improve social anxiety symptoms, and increase positive self-views and decrease negative self-views compared to wait-list controls (WL), (b) changes in positive or negative self-views would be related to social anxiety symptoms. Participants consisted of 46 patients diagnosed with SAD according to their responses on the SCID-I. 32 patients participated in 12 sessions of Cognitive Behavioral Group Therapy (CBGT), and 14 patients assigned to the control group. Participants completed the social anxiety measures (i.e., SADS, B-FNE, SIAS, & SPS), other emotional measures (i.e., BDI, BAI), and positive and negative self-views (i.e., SISST) at pre- and post-treatment. At the post-treatment

assessment, patients who received CBGT had improved significantly more than control group patients on all of social anxiety and emotional measures. A 2 x 2 repeated-measures ANOVA of positive self-view revealed that group (CBGT, WL) x time (pre-treatment, post-treatment) interaction effect was significant ($F(1,44) = 4.129, p < .05$). A 2 x 2 repeated-measures ANOVA of negative self-views also resulted in significant group (CBGT, WL) x time (pre-treatment, post-treatment) interaction effect ($F(1,44) = 26.548, p < .01$). We also examined whether pre- to post-CBGT changes in self-views were related to changes in social anxiety and other emotional symptoms. Decreased negative self-views were significantly related to decreased social anxiety symptoms - specifically to SADS ($r = .445, p < .05$) and SIAS ($r = .418, p < .05$) - and depressed mood symptoms assessed by BDI ($r = .424, p < .05$), but increased positive self-views were not related to decreased severity of any social anxiety and other emotional symptoms. The results of this study indicated that CBT could change positive and negative self-views, but only changes of negative self-views were related to treatment outcomes. These results suggest that it is more important to modify negative self-views of SAD patients than to enhance positive self-views of SAD patients during CBT.

A-P-144

Attentional Biases in PTSD: Are They Influenced by Comorbid Depression or Successful Treatment?

○Kubota, Rie¹, Nixon, Reginald D.V.¹, Resick, Patricia A.², Griffin, Michael G.³

¹School of Psychology, Flinders University, Australia, ²National Center for PTSD, VA Boston Healthcare System, and Boston University, ³Center for Trauma Recovery and Department of Psychology, University of Missouri-St. Louis

Attentional bias for trauma-associated cues in the environment is believed to play a key part in the formation and expression of symptoms of posttraumatic stress disorder (PTSD). However, despite the fact that PTSD is often comorbid with clinical depression, and despite that comorbid depression is associated with increased PTSD symptom severity and can impede treatment success, no research has explicitly examined the potential influence of depression on attentional bias in PTSD. Furthermore, it has not been established whether attentional bias reduces following successful treatment. Accordingly, employing the emotional Stroop colour naming paradigm, this study examined how attentional biases in PTSD were influenced by comorbid depression, and whether biases reduced after successful treatment of PTSD. The study tested specific predictions for levels of processing bias and specificity and generalisability of attentional bias in PTSD with and without depression. Participants included treatment-seeking individuals with PTSD alone or with PTSD and comorbid major depressive disorder following physical or sexual assault, and healthy controls. Participants performed the Stroop task with interpersonal threat, general threat, depression and neutral words presented supraliminally (i.e.,

>1.5s) and subliminally (i.e., 13.3ms) on two separate occasions of an interval of 2 to 3 months apart. Between the occasions, PTSD participants received cognitive behavioural therapy. The response latency (i.e., Stroop interference), as an index of attentional bias, was calculated by subtracting mean colour naming response times for neutral words from mean response times for each experimental word (i.e., interpersonal threat, general threat, and depression words). At pretreatment Stroop, PTSD participants with and without depression did not differ in their patterns of Stroop interference (nor in comparison to control participants). At posttreatment, treatment responders did not show decreased Stroop interference. Therefore, the study found no evidence for the predicted effects of comorbid depression and successful treatment. Furthermore, it was surprising that the study failed to observe heightened attentional bias in PTSD. So long as the Stroop task is capable of assessing attentional bias in PTSD, the present findings would imply that attentional bias might not be a critical component of cognitive abnormalities associated with PTSD. However, the Stroop task may not be able to discriminate between individuals with PTSD and healthy individuals, and may not be sensitive to symptom change that occurs following successful treatment.

A-P-145

The Effect of Positive Beliefs about Worry in Daily Life

○Iijima, Yudai¹, Takano, Keisuke², Tanno, Yoshihiko¹

¹Graduate School of Arts and Sciences, The University of Tokyo, Tokyo, Japan, ²College of Humanities and Sciences, Nihon University, Tokyo, Japan

Some theorists suggest that worry is elevated by positive beliefs about worry, such as 'worry prevents bad things happening', when stressful events occur (Borkovec, Alcaine, & Behar, 2004; Wells, 1995). Although several cross-sectional studies have revealed an association between positive beliefs and worry, the assessment of worry via questionnaires is susceptible to retrospective recall bias. Furthermore, these approaches are unable to capture moment-to-moment fluctuations in worrisome thought in daily life. In order to overcome these limitations, the experience sampling method (ESM; Csikszentmihalyi & Larson, 1987) has employed in the recent studies. In the ESM paradigm, participants carry a portable device at all times during the sampling period and record subjective states as they occur at various times during the day, responding to randomly emitted signals on their device. The ESM is less vulnerable to recall bias, it improves ecological validity, and its longitudinal nature allows investigating variation over time (Hektner, Schmidt, & Csikszentmihalyi, 2007). Thus, the present study investigated the effects of positive beliefs about worry using ESM paradigm. Forty-four undergraduates participated in the survey. The participants received ten e-mails on their

own mobile phones at semi-random intervals. Each e-mail contained a URL to a questionnaire form that comprised questions concerning the participants' current thinking. When participants received the e-mail, they had to access the supplied URL and complete the questionnaire. Data were collected over six cumulative days. The multilevel modelings predicting duration and intensity of worry showed the significant interactions between positive beliefs and stressful event. Subsequent analyses indicated that the experiences of stressful events in individuals with higher levels of positive beliefs predicted both duration and intensity of worry ($B = 0.45$, $SE = 0.08$, $t = 5.95$, $p < .001$, for duration; $B = 0.33$, $SE = 0.04$, $t = 7.50$, $p < .001$, for intensity) better than in individuals with lower levels of positive beliefs ($B = 0.21$, $SE = 0.08$, $t = 2.75$, $p < .001$, for duration; $B = 0.17$, $SE = 0.04$, $t = 3.82$, $p < .001$, for intensity). This suggests that people with positive beliefs about worry promote the strategic use of worry. These results, as is the case with Study 1, are consistent with some theoretical models of worry and GAD (Borkovec et al., 2004; Wells, 1995). The implications of these data and several problems are discussed.

A-P-146

Attentional Control Function and Interpretation Bias in Social Anxiety

○Tomita, Nozomi¹, Nishi, Yuko¹, Imai, Syoji², Kumano, Hiroaki³

¹Graduate School of Human Sciences, Waseda University, Japan, ²Associate professor of Human Care, Nagoya Art and Sciences University, Japan, ³Faculty of Human Sciences, Waseda University, Japan

Purpose: Studies have demonstrated that patients with social anxiety disorders (SAD) show interpretation bias defined as the tendency to interpret ambiguous situations as negative (Stopa & Clark, 2000). Abe et al. (2008) showed that socially anxious individuals have impaired attentional control. However, relatively few studies have examined the impact of the clinical features of SAD on cognitive function disorders. Studies have shown that both anxiety and depression influence the different processes of information processing. Some studies have reported that socially anxious individuals have a repetitive thinking style, such as worry and rumination (Edward et al., 2003; Igarashi, 2009). Because worry and rumination are related to anxiety and depression, there may be an association between anxiety and depression accompanying SAD and its cognitive dysfunction. This study examines whether depression and trait anxiety influence the association between social anxiety and attentional control dysfunction or interpretation biases.

Method: A total of 265 undergraduate students (127 males, 138 females, mean age = 20.26, $SD = 1.33$) completed the Japanese version of the Liebowitz Social Anxiety Scale (LSAS; Asakura et al., 2002) for measuring social anxiety, the State-Trait Anxiety

Inventory (STAI; Shimizu & Imasaka, 1981) for measuring trait anxiety, the Beck Depression Inventory-II (BDI-II; Kojima et al., 2003) for measuring depression, the Attentional Control Scale (ACS; Imai et al., 2009) for measuring attentional control, and a self-focused assumed situation interpretation questionnaire (Moriya et al., 2007) for measuring positive and negative interpretation biases.

Results: LSAS-J was weakly correlated with ACS ($r = -.383, p < .01$). This correlation became non-significant after controlling for STAI ($r = -.142, p < .05$), while it slightly varied after controlling for BDI-II. On the other hand, LSAS-J was weakly and moderately correlated with positive and negative interpretation ($r = -.257, p < .01$; $r = .414, p < .01$). The former correlation became weaker after controlling for STAI and BDI-II, while the latter correlation slightly varied after controlling each of them.

Conclusion: The results showed that trait anxiety has a significant impact on the association between social anxiety and attentional control dysfunction. However, it was suggested that both trait anxiety and depression in socially anxious individuals are related to positive interpretation bias and are not related to negative interpretation bias.

A-P-147

Testing on the Effectiveness of Group Cognitive-behavioural Therapy (GCBT) for Patients with Anxiety Disorder: A Pilot Study

○Abdul Khaiyom, Jamilah Hanum^{1,2}, Mukhtar, Firdaus², Ibrahim, Normala², Mohd Sidik, Sherina², Oei, Tian P.³

¹Faculty of Human Sciences, International Islamic University Malaysia, Selangor, Malaysia, ²Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Selangor, Malaysia, ³School of Psychology, The University of Queensland, Brisbane, Australia

The present study investigates the feasibility, acceptability, and therapeutic effectiveness of group cognitive-behavioural therapy (GCBT) for anxiety disorders. This format of therapy has been practiced worldwide and the treatment manual was validated in 2007 for CBT therapist to use in Malaysia (Mukhtar, 2008). Therefore, larger study is important to be carried out in order to replicate the earlier study in order to determine its feasibility and patients' acceptability towards the treatment. On top of that, the main objective of this study is to investigate the effectiveness of GCBT in reducing anxiety symptoms, negative cognitions related to anxiety, and increase their quality of life.

Eight patients (age range between 24 to 54 years old) were recruited from teaching hospital based psychiatric outpatient clinic with several types of diagnosis range from Generalized Anxiety Disorder, Panic Disorder with or without Agoraphobia, Specific or Social Phobia. Several assessments that include symptoms, cognitions and quality of life were conducted at pre-treatment, mid-treatment (after 4th session), and post-treatment (after 8th session) such as Beck Anxiety Inventory (BAI), Panic Agoraphobia Scale (PAS), Fear Questionnaire (FQ), Catastrophic Cognitions Questionnaire-Modified (CCQ-M), Agoraphobic Cognitions Questionnaire (ACQ), and WHO Quality of Life-BREF (WHOQOL-

BREF). The treatment involved a 3 hours therapist contact per session, weekly for over eight weeks. The feasibility study was conducted based on the observations made on the availability of the infrastructure used for the therapy and the number of drops-out rate. Acceptability study was conducted by using a short and simple face-to-face interview with the patients, before and immediately after each session.

A one-way repeated measure ANOVA was conducted to compare score of BAI, PAS, FQ, CCQM, ACQ, and WHOQOL-BREF with Evaluation Time. There was a significant effect for time for BAI, PAS, CCQM, ACQ and WHOQOL-BREF, $p < 0.05$, and with high effect sizes (multivariate partial eta squared : BAI = .779, PAS = .708, CCQM = .937, ACQ = .70, and WHOQOL-BREF = .843). Results show that the therapy is feasible to be conducted due to basic facilities needed and has a very low drop-out rate (12.5%). In terms of acceptability on the therapy provided, all of the patients agreed that the group therapy benefited them in terms of more support systems, they understand the materials discussed and able to do all the homeworks related to behavioural component. However, consistent to either western or eastern populations, the cognitive related homeworks were considered a challenge for them.

A-P-148

Withdrawn

A-P-149

Influence of Role Playing on the Effectiveness of Fixed-Role Therapy for Social Anxiety

○Abe, Hitomi, Nedate, Kaneo

Faculty of Human Sciences, Waseda University, Saitama, Japan

Introduction: Fixed-role therapy (FRT) is a psychological intervention technique based on personal construct theory (PCT; Kelly, 1955). Previous research suggests that FRT has positive effect for various mental disorders or maladjusted behaviors, but the mechanism of action of FRT has yet to be elucidated fully. According to PCT, it is assumed that the client's experience of enacting the role of another person during the enactment period has beneficial effects. This study examined the influence of the extent of one's performance of a role on the effectiveness of FRT for social anxiety.

Method: Participants were 21 university students with a high social anxiety tendency. They were randomly assigned to either a Groundwork (GW) + FRT group which joined a training program to make it easy for individuals to play their role during the enactment period before receiving FRT for two weeks (Abe & Nedate, 2011), or an FRT group which received a standard FRT for two weeks. Before and after the intervention, all participants answered the Japanese version of the Liebowitz Social Anxiety Scale (LSAS-J; Asakura et al., 2002). During the enactment period, they evaluated every day to what extent they played their role on a scale of 0 to 100 %.

Results: First, a t-test was performed with the extent of the performance of the role as the dependent variable and the group as the independent variables. Results showed that the GW + FRT group had performed their role to a significantly greater extent than the FRT group. Then, an analysis of variance was performed with the LSAS-J scores as the dependent variable and the group and time as the independent variables. After the intervention, the GW + FRT group scored significantly lower on the scale than the FRT group. An analysis of covariance was also performed with the LSAS-J scores as the dependent variable, the group and time as the independent variables, and the amount of the performance of the role as the covariate; After the intervention, both groups showed no significant differences on the scale.

Conclusions: Unlike the results of ANOVA, controlling the extent of role playing by ANCOVA showed no significant differences between the GW + FRT group and the FRT group. The findings of this study suggest that the extent to which a client plays his/her role is greatly related to the effectiveness of FRT. This study elucidated some of the mechanism of action of FRT.

A-P-150

Imagery Rescripting Processes of Early Memories in Japanese Patients with Social Anxiety Disorder: A preliminary Study

○Takanashi, Rieko¹, Yoshinaga, Naoki¹, Shimizu, Eiji²

¹Department of Cognitive Behavioral Physiology, Chiba University Graduate School of Medicine, Chiba, Japan, ²Chiba University, Japan

Introduction: Negative self-images play an important role in social anxiety disorder (SAD) as a maintaining factor, and they are often linked to earlier memories of socially traumatic events. Recent researches suggest that rescripting unpleasant memories linked to negative self-images may be a useful adjunct in the treatment of SAD (Wild, Hackmann, and Clark, 2008). In this study, we tried to examine 1. the relationships of recurrent self-images, traumatic memories and the beliefs summarizing the meanings of those images and memories (encapsulated beliefs), 2. the treatment effectiveness of this rescripting session for SAD.

Methods: Participants were Japanese patients with SAD who entered into a randomized controlled trial comparing CBT (n=21) and treatment as usual (n=21). The session of rescripting traumatic memories were offered in CBT. In this session, there were 3 phases; phase 1, identifying the recurrent image, the linked memory and the encapsulated belief, phase 2, cognitive restructuring of the encapsulated belief, phase 3, imagery rescripting of memories. Before and after the session, all participants completed

the Brief Fear of Negative Evaluation scale (BFNE: Leary, 1983) and were asked to scale 0 "not at all" to 100 "extremely" to the followings; 1. vividness and distress of the images, 2. vividness and distress of the memories, 3. the extent of conviction for encapsulated beliefs.

Results: Compared pre-and post rescripting sessions FNE scores, significant reductions of the fears of negative evaluations were found. Compared pre-and post rescripting interventions scores, there were significant reductions of the vividness and distress of self-images, the vividness and distress of memories, and the extents of conviction for encapsulated beliefs. The relationships of recurrent self-images, traumatic memories and the encapsulated beliefs will be shown in the coming congress.

Discussion: These results are preliminary and need to be confirmed by larger sample numbers. The imagery rescripting sessions of early traumatic memories should be addressed by the therapists to develop better effectiveness of CBT protocol for SAD.

A-P-151

Mediating Effect of Nonjudging of Inner Experience on the Relationship between Negative Problem Orientation and Anxiety

○Chee, Melissa C. L., Goh, Hwee Hwee, Tang, Catherine

Department of Psychology, National University of Singapore, Singapore

University undergraduates are often susceptible to anxiety that could negatively affect their social life and academic performance in the process of attending school as they face a variety of stressors related to life transitions or management of social, financial or academic responsibilities. In order to decipher one of the mechanisms that may contribute to the anxiety undergraduates experience, a cycle integrating Negative Problem Orientation (NPO), state anxiety and Nonjudging of Inner Experience (nonjudge) was proposed. This study also seeks to understand the reciprocal relationship the three variables have with each other that could influence the outcome level of anxiety. It was hypothesized that higher levels of NPO would be associated with lower levels of nonjudge, and that influence of NPO on anxiety would be mediated by nonjudge. These hypotheses were tested using data collected from 202 university undergraduates in Singapore. Participants completed either online or paper-and-pen self-report measures of NPO, anxiety and nonjudge. The results found correspond to existing literature - NPO and anxiety were found to have significant bi-directional predictive relationship with each other ($\beta=.61$, $p<.01$), and nonjudge and anxiety

were negatively associated. A significant negative predictive relationship between nonjudge and NPO and anxiety were also found. The Sobel test was used to test the mediation hypothesis and nonjudge was found to have significant partial mediating effects on the relationship between NPO and anxiety. Significant gender differences in nonjudge scores were found, but they did not affect the mediating ability on the overall model. Partial mediating effects of nonjudge were also significant when results for each gender were examined separately, except for that of men when anxiety was regressed on NPO (Sobel test for mediation, $p=.27$, two-tailed). On the whole, the proposed reciprocal relationship among NPO, state anxiety and nonjudge was supported, reinforcing the possibility of a bidirectional relationship between NPO and anxiety, as well as the role nonjudge may have in influencing the levels of state anxiety and degree of NPO one has, in a nonclinical, undergraduate sample. This suggests NPO and nonjudge as possible avenues for cognitive behavioral interventions for anxiety disorders and also supports the continued use and development of mindfulness-based interventions.

A-P-152

The Effect of Conflict Over Emotional Expression on Social Interaction Anxiety; The Mediating Effect of Interpersonal Competence

○Kim, Dajung, Oh, Kyung Ja

Department of Psychology, Yonsei University, Seoul, South Korea

Introduction: The growing number of researches have reported that one of the core components of social anxiety is an approach-avoidance conflict between wanting to make a good impression and form relationships with other people yet wanting to avoid exposure to negative evaluation (Clark & Wells, 1995; Gilbert, 2001; Kashdan, 2007). However, we still understand relatively little about the specific pathway between the emotional ambivalence and social anxiety. The purpose of this study was to investigate the mediating effect of Interpersonal Competence in the relationship between the conflict over emotional expression and social interaction anxiety.

Method: The participants for this study were 142 undergraduate students in South Korea (54 male and 88 female; age=18-26 years, $M=21.37$, $SD=1.94$). They were asked to complete the Ambivalence over Emotional Expressiveness Questionnaire-Korean (AEQ-K; Choi et al., 2007), the Social Interaction Anxiety Scale-Korean (SIAS-K; Kim, 2003), and the Interpersonal Communication Inventory (ICI; Bienvenu, 1971). The present study carried out analyses of mediating effects following the methods outlined by Baron and Kenny (1986) and McKinnon, Fairchild, and Fritz (2007). The analysis was conducted with SPSS 18.0.

Result and Discussion: Results revealed that AEQ-K significantly predicted SIAS-K ($\beta=.54$, $p=.00$), while AEQ-K significantly predicted ICI ($\beta=-.47$, $p=.00$).

When both AEQ-K and ICI were entered into the regression equation together, the effect of AEQ-K on SIAS-K was reduced while remaining significant, from $\beta=.54$, $p<.05$ to $\beta=.28$, $p<.05$. Thus how well participants communicated with others partially mediated the association between AEQ-K and SIAS-K. In detail, there are five sub-factors in ICI; (a) clarity of expression, (b) self-disclosure, (c) self-concept, (d) difficulties in coping with angry feelings, and (e) listening. Supplementary analyses revealed that all sub-factors except (e) had partial mediating effects.

These results suggest that conflict over emotional expression not only directly affected social anxiety positively, but also indirectly associated with reduced interpersonal competence, which in turn, leads to expansion of social interaction anxiety. In addition, it can be postulated that concrete perspective of interpersonal competence exists, which is supposed to be insufficient for people who feel anxious in social interactions.

Overall, the current findings support that socially anxious people with high emotional ambivalence are likely to be deficient in interpersonal competence, which functions as a protective factor that protect individuals from becoming anxious in social contexts. Further research on the role of beneficial effects of interpersonal competence will be necessary in order to design an intervention program for socially anxious individuals.

A-P-153

The Mediating Effect of Emotional Suppression on the Relationship between Independent Self-Construal and Social Anxiety

○Cho, Soo Hyun, Oh, Kyung Ja

Psychology Department, Yonsei University, Seoul, Korea

Introduction: Research has revealed two distinguishable types of social anxiety: social phobia (SP) and social interaction anxiety (SIA) (Mattick & Clarke, 1998). Particularly, SIA is derived from 'contingent interactions' (Leary, 1983), suggesting that an individual's response is contingent upon the responses of others. Thus these individuals may suppress their emotions and respond according to others' reactions. On the other hand, SP is based on 'non-contingent encounters', which are derived from one's own actions rather than the responses of others. Therefore emotional suppression may have less effect on individuals who experience fear in situations of perceived scrutiny. Based on previous research that low independent self-construal is a strong predictor of social anxiety (Cross et al., 2011), this study aimed to investigate emotional suppression as a potential mediator that lead individuals with low independent self-construal to develop SIA but not SP.

Method: 191 undergraduate students from a university in Seoul, Korea were recruited (74 males and 117 females). Age range was from 18 to 27 ($M = 20.03$, $SD = 2.02$). Participants completed the Korean versions of the Self-Construal Scale (SCS; Moon & Oh, 2006), Ambivalence over Emotional Expressiveness Questionnaire (AEQ; Choi & Min,

2007), Social Interaction Anxiety Scale (SIAS; Kim, 2001), and Social Phobia Scale (SPS; Kim, 2001). Hierarchical regression analysis was conducted using SPSS 18.0. To examine the mediating effects of suppression, Baron and Kenny's method (1986) was used and significance was verified through the Sobel (1982) test.

Results and Discussion: As hypothesized, emotional suppression partially mediated the relationship between independent self-construal and SIA but not SP. When independent self-construal and emotional suppression were put into the equation together in order to predict SIA, the regression coefficient was reduced from $\beta = -.691$, $p < .01$ to $\beta = -.504$, $p < .01$. Sobel test confirmed the significance of mediation, $z = -4.07$, $p < .01$. For SP, despite a reduction in regression coefficient from $\beta = -.258$, $p < .01$ to $\beta = -.135$, $p < .01$, Sobel test failed to confirm the significance of mediation, $z = -1.24$, $p > .05$. Results suggest that individuals who lack autonomy and are incapable of promoting personal attributes suppress instead of actively express their emotions. This in turn will lead to anxiety, particularly within social interactions. Educating the ability to actively articulate emotions may be an important intervention strategy for alleviating SIA symptoms.

A-P-154

Nursing Intervention for Inpatient Obsessive-Compulsive Disorder Receiving Cognitive Behavioral Treatment: Development of Nursing Guideline at Chiba University Hospital

○Yoshinaga, Naoki¹, Hayashi, Yuta², Shimada, Megumi², Yamamoto, Misae², Yamazaki, Yuka², Moriuchi, Kanae², Doi, Mikiko², Zhou, Minmin², Asano, Kae², Iyo, Masaomi³, Nakagawa, Akiko⁴

¹Department of Cognitive Behavioral Physiology, Chiba University Graduate School of Medicine, Chiba, Japan,

²Department of Psychiatry, Chiba University Hospital, Chiba, Japan, ³Department of Psychiatry, Chiba University Graduate School of Medicine, Chiba, Japan, ⁴Research Center for Child Mental Development, Chiba University Graduate School of Medicine, Chiba, Japan

Background: Cognitive behavioral therapy (CBT) is widely regarded as an effective treatment for obsessive-compulsive disorder (OCD) and is usually given on an outpatient basis. A minority of cases needs more intensive care, but there are few facilities for this or descriptions of their mode of operation, nor guides to routine audit of outcome. Inpatient treatment is mostly provided by a multidisciplinary team consisting of psychiatrists, psychiatric nurses, psychologists, and psychiatric social workers. Previous research suggested that even for severe, chronic, resistant OCD, intensive CBT treatment provided by a multidisciplinary team were effective in reducing OCD symptoms in inpatient section (Boschen, 2008). However, the detailed role of each specialist was described unclearly (especially for co-therapist). It is necessary to clarify the role that each specialist plays in multidisciplinary team. We report the structure and function of inpatient treatment for obsessive-compulsive disorder and the guideline of developed nursing care from our clinical experiences at Chiba university hospital.

Results: Our inpatient CBT program includes following steps; (1) Introduction (e.g. orientation) [day 1]. (2) Assessment (e.g. psycho education,

behavioral observation, goal setting, adjustment for medication [dosage or type], making anxiety hierarchy) [2 - 3 weeks]. (3) Exposure/response prevention in hospital [4 - 8 weeks]. (4) Exposure/response prevention generalized to home (e.g. visit home on weekends) [2 - 4 weeks]. When appropriate, additional techniques are added in the program (e.g. behavioral experiment, social skills training and modeling will be performed). We outlined daily nursing care at each step for inpatient OCD from our clinical experiences and nursing records. The details of the developed guideline will be presented on the day of the conference. We will now start to study about the feasibility of our nursing care guideline for not only nurses but also other specialists using qualitative research methodology (e.g. can build deeper cooperation?). Also, further clinical studies will be required to report treatment outcome provided by our multidisciplinary team.

Ref. Boschen MJ, Drummond LM, Pillay A. (2008) Treatment of severe, treatment-refractory obsessive-compulsive disorder: a study of inpatient and community treatment. *CNS Spectr.* 2008 Dec;13(12):1056-65.

A-P-155

Prolonged Exposure Therapy for Japanese Patients with PTSD

○Motomura, Naoyasu, Kawabata, Yasuo, Wakabayashi, Akiko

Department of Psychiatry, Osaka Medical College, Japan

We conducted PE therapy for Japanese PTSD patients and examined the effect. Subjects were 13 patients with PTSD, which was diagnosed by DSM-IV-TR. Subjects were between 18 years old and 66 years old (4 male, 9 female). We assessed PTSD symptoms and depression by IES-R and BDI-II before and after PE therapy. Out of 13 patients 3 female subjects have dropped out. Ten patients accomplished 10 week program of PE. Two patients conducted PE therapy without SSRI and 8 patients conducted PE with SSRI.

All these 10 patients improved PTSD symptoms after PE and 6 patients could not diagnose PTSD after treatment. The scores of IES-R and BDI-II were reduced after the PE trial. These results suggest that PE therapy is effective both PTSD symptoms and depressive state and PE therapy is also effective for Japanese PTSD patients. As the number of subjects is limited in the present study, further examinations are critical in the near future.

A-P-156

Differences between the Factors Correlated With Post-Traumatic Stress Symptoms and the Social Disability of Post-Traumatic Stress Disorder Patients: Cognitive Appraisal of Trauma, Symptoms, and Coping

○Ito, Daisuke¹, Nakazawa, Kanako², Kamo, Toshiko³, Ujiie, Yuri³, Suzuki, Shin-ichi⁴, Kim, Yoshiharu²

¹Health Service Center, Kanazawa University, Japan, ²National Institute of Mental Health, National Center of Neurology and Psychiatry, Japan, ³Institute of Women's Health, Tokyo Women's Medical University, Japan, ⁴Faculty of Human Sciences, Waseda University, Japan

Introduction: The current literature provides robust evidence that cognitive behavioral therapy (CBT) is a safe and effective intervention for post-traumatic stress disorder (PTSD), which occurs in response to a variety of traumatic experiences in adults (Foa et al., 2000). However, there is a lack of consistent information about whether CBT helps patients improve in other domains of impairment and associated disabilities, even though these problems are often of the greatest concern to patients (Robertson et al., 2004). The present study aimed to investigate the differences between the factors correlated with the post-traumatic stress symptoms (PTSS) and the social disability of PTSD patients.

Method: Forty-one PTSD patients (41 female, mean age = 46.05, SD = 8.25) were recruited from a mental health care clinic. They were assessed using the Event Check List (ECL; Blake et al., 1995), Impact of Event Scale-Revised (IES-R; Weiss & Marmar, 1998), Sheehan Disability Scale (SDISS; Sheehan, 1983), Cognitive Appraisal Rating Scale (CARS; Suzuki & Sakano, 1998), Negative Appraisal for PTSS (NAP; Ito et al., 2011), and Tri-Axial Coping Scale-24 (TAC; Kamimura et al., 1995).

Results: Patients experienced severe PTSS (mean IES-R score = 45.29, SD = 22.12) and moderate social disability (mean SDISS score = 15.62, SD = 8.55). A partial correlation analysis, performed to determine whether PTSD symptoms were related to social disability, revealed a weak association between the IES-R and SDISS scores ($r=.27, p<.10$). Moreover, hierarchical multiple regression analysis revealed that the appraisal of threat ($\beta=.34, p<.05$), negative prediction and implication to PTSS ($\beta=.48, p<.05$), and avoidance-like thinking ($\beta=.30, p<.05$) positively influenced PTSS. However, appraisal of threat ($\beta=.38, p<.05$) and giving-up ($\beta=.64, p<.05$) positively influenced social disability, and positive interpretation ($\beta=-.51, p<.05$) and evading one's responsibility ($\beta=-.48, p<.05$) negatively influenced the same.

Discussion and Conclusion: The results suggest that even if the condition of PTSD improves, the degree of social disability may not. Furthermore, the relationship between a cognitive behavioral variable, PTSS, and social disability differs. Therefore, interventions may be required that positively influence social disability in addition to the conventional treatment of PTSD, such as CBT.

A-P-157

Cognitive, Affective, and Behavioral Changes Following Prolonged Exposure Therapy

○Tang, Catherine, Ho, Roger, Mak, Anslem

Department of Psychology, National University of Singapore, Singapore

There is increasingly high worldwide incidence of crimes, accidents, natural and human-made disasters, interpersonal violence, wars, and terrorism. Current research has documented that individuals who have experienced trauma and life adversities are at increased risks for physical and mental health disorders, post-traumatic stress disorder (PTSD) in particular. Hence, there is a need to develop psychological treatments for posttraumatic stress disorder (PTSD) that are both efficacious and applicable to the broadest range of trauma survivors. Although existing trauma-focused cognitive behavior therapy (CBT) has proven efficacious in reducing PTSD symptoms, this approach is limited by treatment drop-out and non-compliance. The potential distressing component of trauma-focused CBT is exposure to traumatic memories and feared situations, which may be responsible for premature termination, non-compliance, and sometimes symptom exacerbation prior to improvement. Furthermore, the majority of life adversity research was conducted in Western nations. There are also challenges to prevailing psychological theories and intervention approaches, which seldom examine the role of culture on adjustment following critical life events. This study marks a major step required in the

field of psychological treatment of PTSD in Asia. In accord with international trends to increase treatment effectiveness in techniques that have proven efficacy, this study will evaluate the most promising avenue that overcomes the potential distressing aspects of exposure and at the same time maintains the effective ingredients of this proven CBT intervention. It adopts strict methodological rigor to evaluate the effectiveness of modifications to traditional exposure-based therapy that strategically address major causes for treatment intolerance and drop-out. This presentation will summarize cognitive, affective, and behavioral changes of Singaporeans who reported traumatic stress symptoms and who had been provided with 8 to 12 weeks of prolonged exposure therapy. Comprehensive assessments on neuro-cognitive, emotional, and behavioral changes were conducted at pre-treatment, post-treatment, and 6-month follow-up. Preliminary data indicated that the participants reported significant improvement in their trauma symptoms and cognitions, moderate improvement in anxiety and depression symptoms as well as specific areas of cognitive functioning. Limitations of the study and difficulties in providing CBT and conducting therapy outcome studies in the Asian contexts will also be discussed.

A-P-158

Hippocampal Volume Increased After Cognitive Behavioral Therapy in a Patient with Social Anxiety Disorder: A Case Report

○Kawaguchi, Akiko¹, Nakaaki, Shuatro², Ogawa, Sei¹, Suzuki, Masako¹, Hashimoto, Nobuhiko¹, Kawaguchi, Takatsune³, Akechi, Tatsuo¹

¹Department of Psychiatry and Cognitive-Behavioral Medicine, Nagoya City University Graduate School of Medical Sciences, Japan, ²Laboratory of Aging, Behavior and Cognition, Department of Neuropsychiatry, Keio University School of Medicine, Japan, ³Department of Radiology, Nagoya City University Graduate School of Medical Sciences, Japan

Introduction: Functional brain imaging studies have revealed that patients with social anxiety disorder (SAD) have hyperactivity of the amygdala and surrounding areas, including the hippocampus. On the other hand, structural brain imaging studies in SAD is limited. Irle et al. [1] compared the volume of hippocampus and amygdala between 24 SAD patients and 24 healthy controls. This study showed that SAD patients had significantly reduced amygdala (13%, reduced among only male patients) and hippocampal (8%) size and smaller right hippocampal volume was significantly related to stronger disorder severity.

Although some previous studies have detected that reduced hippocampal and amygdala volume increased after effective treatments in patients with depression or other anxiety disorders, there are no morphological studies in patients with social anxiety disorder.

Here we experienced a case whose hippocampal volume increased after CBT.

Method: Thirty six years old woman who had been suffering from SAD for 8 years received 12 weeks group cognitive behavioral therapy (CBT). We followed the CBT manual written by Andrews et al and modified according to Clark and Wells' model. Liebowitz Social Anxiety Scale (LSAS), Social Phobia Scale/Social Interaction Anxiety Scale (SPS/SIAS) were obtained at the point of before, post and 3

month after CBT.

We acquired magnetic resonance imaging (MRI) data before and 3 months after CBT. The images were generated on a 1.5-T Philips MRI scanner. Hippocampal volume was traced manually using dedicated software, Analyze (Mayo Clinic). Hippocampus and amygdala were traced according to the previous studies. [2, 3] One operator who was blind to subject treatment status traced.

Patient gave written informed consent and this study was approved by the Ethics Committee of Nagoya City University Graduate School of Medical Sciences.

Results: Left/Right hippocampal volume increased from 3165/3267 mm³ at baseline to 3240/4001mm³ at 3 months after CBT while LSAS reduced from 109 to 70 and SIAS/SPS reduced from 72/43 to 42/19. Amygdala volume did not change.

Conclusion: We have experienced a SAD patient whoes hippocampal volume increased 3 months after CBT. Our finding suggests that lager sample studies are needed.

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A-P-159

Cross-Cultural Comparison of Taijin Kyofusho Symptoms in Japan and England: A Two-Generation Study

○Sasagawa, Satoko¹, Ishikawa, Shin-ichi², Okajima, Isa^{3,4}, Sato, Hiroshi⁵, Otsui, Kanako⁶, Essau, Cecilia A.⁷

¹Faculty of Human Sciences, Mejiro University, Tokyo, Japan, ²Faculty of Psychology, Doshisha University, Kyoto, Japan, ³Department of Somnology, Tokyo Medical University, Tokyo, Japan, ⁴Japan Somnology Center, Neuropsychiatric Research Institute, Tokyo, Japan, ⁵Faculty of Sociology, Kansai University, Osaka, Japan, ⁶Faculty of Applied Sociology, Kinki University, Osaka, Japan, ⁷Department of Psychology, Roehampton University, London, U.K.

Taijin Kyofusho (TK) is a culture-bound syndrome similar to the DSM-IV-TR diagnosis of social anxiety disorder (SAD). Literally translated as the “phobia of interpersonal relations”, this condition includes a wider array of symptoms than the traditional SAD. Typical fears include being evaluated negatively by others, making others uncomfortable by one's presence, and a strong discomfort or embarrassment over one's body parts. In our previous report (Essau et al., 2012; Sasagawa et al., 2011), the frequency and correlates of TK symptoms in Japanese adolescents and their parents were examined. The present study aims to take this study a step further by comparing the data cross-culturally with adolescent-parent dyads from England.

Participants were 351 Japanese and 338 English adolescents aged 12 to 17 years, and their parent or guardian. Each pair completed a set of questionnaire consisting of measures on TK symptoms, DSM-IV anxiety disorder symptoms, self-construal, and social support. The main aims and method of the study were explained to adolescents and parents through public secondary schools which acted as site of recruitment. School approval and parental written informed consent were obtained for all participants before inclusion in the study.

TK scores were higher for adolescents than parents

in both countries, and interaction effect between generation and country was significant. Specifically, no significant score differences were found between Japanese and English parents, but adolescents from England had higher levels of TK than adolescents from Japan. The correlation between parent-child dyads for TK symptoms were $r=.11$ ($p<.05$) and $.35$ ($p<.001$) for Japan and England, respectively. Overall, parent-child correlations for DSM-IV anxiety symptoms were stronger for England than Japan. Curiously, very little correlation was found in both countries for social anxiety disorder ($r=.05$ for Japan and $r=.10$ for England).

Multi-population path analysis was utilized to examine the influence of self-construal and social support on TK symptoms. Model fit was satisfactory, with a GFI of .96, CFI of .89, and RMSEA of .07. Social support resulted in significantly lower TK scores in all samples with the exception of English parents. Interdependent self-construal generally predicted higher TK scores, but the relationship was inversed in Japanese parents. Independent self-construal was associated with lower TK scores only in the adolescent sample for both countries. Implications for future cross-cultural studies were discussed.

A-P-160

Alexithymia Mediates the Relationship between Social Anxiety and Attentional Bias

○Maeda, Shunta¹, Nomura, Michio², Kanai, Yoshihiro³, Shimada, Hironori⁴

¹Graduate School of Human Sciences, Waseda University, Japan, ²Graduate School of Education, Kyoto University, Japan, ³Faculty of Liberal Arts, Tohoku Gakuin University, Japan, ⁴Faculty of Human Sciences, Waseda University, Japan

Researchers have found that individuals with social anxiety tend to exhibit attentional bias (Vassilopoulos, 2005) and signs of alexithymia (Turk et al., 2005). However, alexithymic individuals show less attentional bias than do non-alexithymic individuals (Mueller, Alpers, and Reim, 2006). Previous findings are thus contradictory, perhaps because the verbal stimuli used in previous research might not be threatening enough for alexithymic individuals; they have difficulty verbally labeling emotional contents. Alexithymic individuals may exhibit attentional bias when exposed to other threatening stimuli. Therefore, we examined whether alexithymia causes attentional bias toward or away from threatening facial stimuli and mediates the relationship between social anxiety and attentional bias. We also examined the effect of cognitive load on the relationship between alexithymia and attentional bias because previous research has shown that these biases tend to disappear when anxious individuals are deprived of processing resources in dual tasks (Fujihara & Iwanaga, 2008). Fifty-nine Japanese undergraduates (31 women; mean age = 20.0 years, SD = 1.03) completed the modified dot-probe task

using facial stimuli, Japanese version of Social Interaction Anxiety Scale (SIAS; Kanai et al., 2004), Social Phobia Scale (SPS; Kanai et al., 2004), and Japanese version of the 20-item Toronto Alexithymia Scale (TAS-20; Komaki et al., 2003). To examine the vigilance-avoidance hypothesis (e.g., Mogg et al., 1997), the modified dot-probe task was conducted with three stimuli exposure durations: 100, 250, and 500 ms. The level of cognitive load (low vs. high) was manipulated by varying correspondence between directions and locations of probes. Consistent with previous studies, social anxiety positively correlated with both alexithymic tendencies and avoidance of angry facial stimuli in the 500-ms low-load condition. Further, difficulty in identifying feelings, a component of alexithymia, mediated the effect of social anxiety on attentional bias in this condition. However, attentional biases and mediation effects were not observed in conditions with shorter durations. These findings imply that alexithymia plays a role in the generation of attentional bias in individuals with social anxiety. Their clinical implications and limitations are discussed.

A-P-161

Development of the Metacognitive Belief Questionnaire for Cognitive Attention Syndrome in Trauma

○Yamaguchi, Maya¹, Kumano, Hiroaki²

¹Graduate School of Human Sciences, Waseda University, Japan, ²Faculty of Human Sciences, Waseda University, Japan

Introduction: People who have experienced trauma show posttraumatic stress responses, which are characteristic of posttraumatic stress disorder (PTSD). According to the metacognitive model of PTSD, Cognitive Attention Syndrome (CAS)-comprising rumination, useless coping behavior, and other maladaptive cognitive strategies-after having experienced stress, promotes symptom maintenance. CAS is sustained by metacognitive beliefs. Few empirical studies have been conducted on this topic, and there is no measure of metacognitive beliefs for PTSD. Thus, this study develops the Metacognitive Belief Questionnaire for CAS in Trauma and tests its psychometric properties.

Method: University students (103 male, 99 female, mean age = 20.60, SD = 1.44) were asked to answer the following measures regarding the most painful event that they had ever experienced and recall even now.: (1) The Metacognitive Belief Questionnaire for CAS in Trauma; (2) The Metacognitive Questionnaire-30 (MCQ-30); and (3) The Impact of Event Scale-Revised (IES-R).

Results: A factor analysis revealed a 4-factor structure: "Negative metacognitive belief concerning Rumination and Thought suppression" (NRT; 8 items), "Positive metacognitive belief concerning Thought Suppression" (PTS; 4 items), "Positive metacognitive belief concerning Threat Monitoring" (PTM; 4 items), and "Positive metacognitive belief

concerning Gap Filling" (PGF; 3 items). Cronbach's α coefficients ranged from 0.75 to 0.90. Moderate correlation was found between negative belief of MCQ-30 and NRT ($r = 0.51$), and weak correlations were found between negative belief of MCQ-30 and PTS, PTM, and PGF, respectively ($r = 0.22-0.28$). While no correlation was found between positive belief of MCQ-30 and NRT ($r = 0.14$, n.s.), weak correlations were found between positive belief of MCQ-30 and PTS, PTM, and PGF, respectively ($r = 0.20-0.31$). IES-R and NRT was strongly correlated ($r = 0.70$), and IES-R and each of PTS, PTM, and PGF were also weakly or moderately correlated ($r = 0.22-0.42$).

Conclusions: The metacognitive beliefs for each component of CAS were clarified. The subscales and the total scale showed high reliability. The concurrent validity of the NRT was confirmed by the correlation between the NRT and MCQ-30, but those of PTS, PTM, and PGF were not, because the CAS components targeted could be different from repetitive thinking style called "worry" targeted in MCQ-30. IES-R was strongly related with only NRT, which is compatible with the metacognitive model of PTSD and confirmed construct validity. The metacognitive therapy aims to weaken metacognitive beliefs; hence, this scale will be useful as an operation check of the intervention.

A-P-162

Anxiety Reduction and Functional Changes in the Dorsomedial Prefrontal Cortex by Attention Dividing Training

○Kawashima, Issaku¹, Miyake, Yuka¹, Kumano, Hiroaki²

¹Graduate School of Human Science, Waseda University, Saitama, Japan, ²Faculty of Human Sciences, Waseda University, Saitama, Japan

Introduction: Adrian Wells (1990) developed a type of attention control training known as “Attention Training Technique” (ATT), which comprises three components for improving selective attention, attention switching, and divided attention. Imai et al. (2011) showed that each of these three attention control functions correlate with specific psychological symptoms. Further, the divided attention function correlates with trait anxiety after controlling for the other two functions. Furthermore, the dorsomedial prefrontal cortex (DMPFC) was reported to be involved in anxiety reduction and in functionally connecting to the amygdala (Kim, 2011). This study was performed to investigate the effectiveness of divided attention training for anxiety reduction and DMPFC function enhancement and to determine the correlation between DMPFC activity and trait anxiety.

Methods: Sixteen healthy right-handed university students (6 men and 10 women, average age: 20.52; SD=1.78) participated in this study and were randomly assigned to respective training groups either for three attention functions or for only selective attention and attention switching. The experiment was conducted twice. All participants answered the State-Trait Anxiety Inventory (STAI-T; Shimizu & Imae, 1981), and the total hemoglobin concentration (total-Hb) in the right DMPFC and

left dorsolateral prefrontal cortex (DLPFC) for each participant was measured by two-channel near-infrared spectroscopy (NIRS) during the paced auditory serial addition task in the first experiment (Gronwall, 1997). Subsequently, a private ATT tutoring was conducted and the participants were instructed to complete the two-component or three-component ATTs at home. Two weeks subsequent, the second experiment was conducted in a similar manner.

Results: First, we conducted two-way mixed-design analysis of variance on each of the STAI-T scores and also on the total-Hb in order to examine the effectiveness of divided attention training; however, no interaction effect was found. Secondly, a Spearman rank-order correlation was calculated, which revealed a significant correlation between the STAI-T score and the right DMPFC total-Hb in the second experiment ($\rho = .50, p < .05$).

Discussion: This study could not reveal the effectiveness of divided attention training. However, the correlation between STAI-T and total-Hb scores was significant in the second experiment, which suggested that both forms of ATT might enhance the anxiety reduction function of the DMPFC. In addition, training may have reduced anxiety in highly anxious participants if it had continued for longer than two weeks.

A-P-163

Effects of Others' Gaze Direction on Facial Information Processing in Social Anxiety Disorder

○Yamashita, Ayumi¹, Sato, Tomoya¹, Tamada, Ayaka², Matsumoto, Hiromu¹, Shimada, Hironori³

¹Graduate School of Human Sciences, Waseda University, Japan, ²Meguro ward adjunct, Japan, ³Faculty of Human Sciences, Waseda University, Japan

Individuals with social anxiety show avoidance tendencies in response to angry faces displaying a direct gaze. However, happy faces elicit avoidance tendencies when faces are displaying both direct and averted gaze (Roelofs et al., 2010). Furthermore, facial stimuli displaying the same expression can elicit different forms of information processing depending on gaze directions (Adams & Kleck, 2005). The main aim of our study was to clarify information processing of happy facial expressions when displaying different gaze directions. Fourteen Japanese undergraduates (7 women; mean age = 22, SD = 0.63) completed the Japanese versions of the Liebowitz Social Anxiety Scale (Asakura et al., 2002), the Approach-Avoidance Task (AAT; Roelofs et al., 2010), and the Visual Analogue Scale (VAS) to measure the evaluation of participants from a person of the facial stimuli. We used the AAT to measure avoidance behavioral tendencies to facial stimuli by calculating reaction times when participants pulled (approach tendency) or pushed (avoidance tendency) a joystick. We conducted a 3-way repeated measures analysis of variance (ANOVA) for the AAT effect scores with Social Anxiety Level (low and high) as a

between-subjects factor and Emotion (happy, angry) and Gaze (direct, averted) as within-subjects factors. A significant main effect of Gaze emerged ($p < .01$); averted gaze elicited more approach tendencies, regardless of social anxiety level and facial expression. We also conducted a similar ANOVA on the VAS scores. Results revealed a significant main effect of Emotion ($p < .01$) and a trend toward a significant Emotion and Gaze interaction ($p < .10$). These findings revealed that happy faces with an averted gaze elicited higher negative evaluations than did happy faces with a direct gaze. Angry faces with an averted gaze elicited positive evaluations more than did those with a direct gaze. These effects emerged regardless social anxiety level. These results suggest that facial expression evaluation is affected by gaze direction and emotion. However, avoidance tendencies might be affected by gaze direction more than by emotion. In other words, individuals higher in social anxiety might have been avoiding these facial expressions, and it is possible that gaze direction only elicited approach-avoidance behavior rather than mediating the evaluation of how emotion affected these facial expressions.

A-P-164

Relearning Associations Using the Implicit Association Test to Improve Social Anxiety

○Sato, Tomoya¹, Nomura, Kazutaka¹, Tamada, Ayaka², Yamano, Miki¹, Chahara, Hitomi¹, Shimada, Hironori³

¹Graduate School of Human Sciences, Waseda University, Japan, ²Meguro ward adjunct, Japan, ³Faculty of Human Sciences, Waseda University, Japan

The purpose of this study was to investigate the effect of the Implicit Association Test (IAT; Greenwald et al., 1998) on relearning associations between the self and emotional concepts and improving social anxiety. Exposure therapy for anxiety disorders helps people relearn a stimulus-response (S-R) association by using respondent conditioning. However, approximately 30-50% of individuals relapse after treatment (Choy et al., 2007). Thus, relearning S-R associations may be difficult. Evaluative conditioning (EC) has also been used to change S-R associations (e.g., Ebert et al., 2009), but results have been inconsistent. In this study, we used the IAT as a new procedure to facilitate the relearning of S-R associations. The IAT may be more effective than the EC in changing S-R associations because the IAT targets a concept instead of a stimulus and includes feedback for responses. Twenty undergraduate students (mean age = 21.7 years, SD = 1.22) were randomly assigned to an IAT group (n = 10) or a EC group (n = 10) and completed the Short Fear of Negative Evaluation Scale for Japanese (SFNE; Sasagawa et al., 2004) to measure social anxiety symptoms, and the Go/No-go Association Task (GNAT; Nozok & Banaji, 2001) to

measure associations between the self and emotional concepts. During a typical IAT, participants view stimuli belonging to one of four categories (concepts) and are asked to categorize each stimulus by pressing one of two keys (De Houwer et al., 2009). In the IAT group, participants completed only one of two conditions in which the self and positive concepts were assigned to the same key. In the EC group, participants viewed self-related pictures paired with positive pictures. GNAT scores (calculated from response times on the GNAT) and SFNE scores were subjected to a 2 (group: IAT, EC) by 3 (time: pre, post, follow-up) analysis of variance. We observed no significant group differences across all assessment times. However, there was a large effect size from the pre-test to the follow-up period in the IAT group ($d = 0.91$), which suggests that the IAT may be an effective procedure for helping people relearn S-R associations. In future studies, we must investigate the effect of multiple interventions on changes in S-R associations because it may be difficult to change particularly robust associations. Nevertheless, our findings suggested the efficacy of targeting and manipulating implicit concepts by using the IAT to change anxious S-R associations.

A-P-165

An Investigation of the Moderators of the Relationship between Implicit and Explicit Evaluations

○Uemura, Midori¹, Ohtsuki, Tomu²

¹Graduate School of Human Sciences, Waseda University, Tokorozawa, Japan, ²Faculty of Human Sciences, Waseda University, Tokorozawa, Japan

Introduction: Egloff et al., (2008) showed that cognitive elaboration (i.e., thinking about anxiety-related situations) enhances the implicit-explicit relationship. They used the Implicit Association Test (IAT) to measure implicit representation. The IAT measures the relative preference of two categories. However, the IAT does not measure the relationship between the two categories. In contrast, the Implicit Relational Assessment Procedure (IRAP) can assess the relationships between the relevant stimuli. Therefore, the IRAP can be used to assess a more complex structure of implicit associations than the IAT can. In current study, we used the IRAP to measure implicit representation and to reexamine whether cognitive elaboration results in implicit-explicit associations.

Method: Twenty-nine undergraduate and graduate students were randomly assigned to one of two experimental conditions. In the elaboration

condition, the participants answered some written questions regarding thinking about anxiety. In the control condition, the procedure was identical with the exception that questions were not anxiety-related. Subsequently, participants responded to the IRAP and answered the State-Trait Anxiety Inventory.

Results and Discussion: The D_{IRAP} score was used as a measure of the implicit associations. Both state and trait anxiety scores were strongly correlated with each of the D_{IRAP} scores in the elaboration condition but not in the control condition (Table 1). This finding supports the hypothesis that cognitive elaboration results in implicit-explicit associations. Specifically, the correlation between self-related association (D1 and D2 scores) and the anxiety measure was also higher in the elaboration condition than in the control condition. We thus conclude that the IRAP is suitable for assessing a more complex structure of implicit associations than the IAT is.

Table 1 Correlation coefficient between anxiety score and D_{IRAP} score

	Trait anxiety					State anxiety				
	D	D1	D2	D3	D4	D	D1	D2	D3	D4
Elaboration	.63 *	.55	.60 *	.75 **	.13	.30 *	.43	.34 *	.06	.12
Control	.39	.29	.16	.40	.32	-.02	.24	-.02	-.27	-.12

$p^* < 0.05$ $p^{**} < 0.01$

note. D=all D_{IRAP} score, D1=I-anxiety score, D2=I-safe score, D3=other-anxiety, D4=other-safe score

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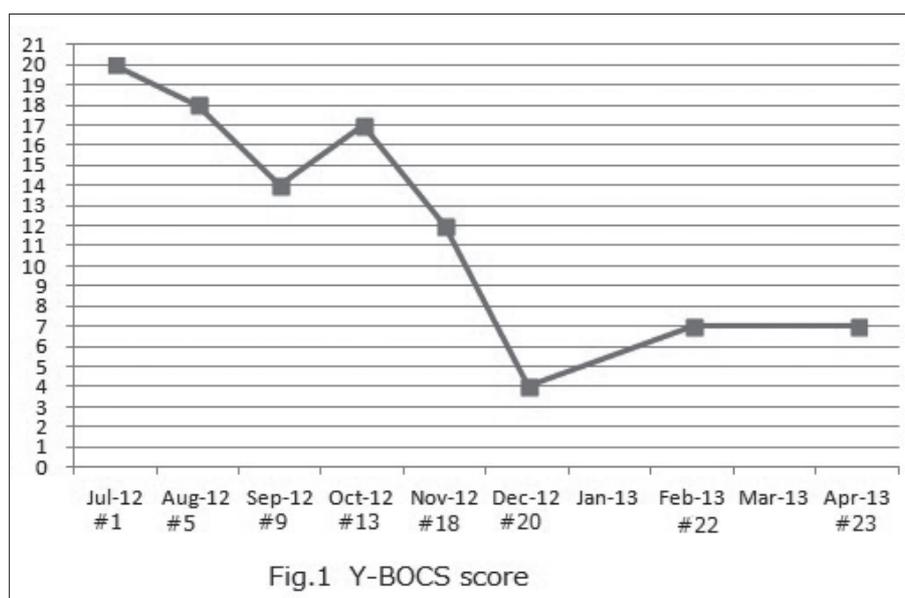
Treatment of Compulsive Cleaning with Exposure and Response Prevention: A Case Study

○Miyamura, Tadanobu

Psychology Consultation Office, Akatsuki Institute, Japan

Client (CI) was 28-year-old woman. Diagnosis by a doctor was OCD. Fluvoxamine 200mg/day was prescribed as medication. Since CI was drying sensitive skin at infancy, she has not been to wash it too much. In X-7 year, dirt began to be worrisome at job-hunting-activities time. The medication by a doctor and the CBT by a clinical psychologist (Th) were started in July X year. The symptom at the time of a therapy start was as follows. Since she could not judge whether the hands became clean or not by herself after excretion, she can not to stop washing. Therefore, she can not to go out without her husband. The anxiety to the infection which arises from dirt had not arisen. Y-BOCS score was 20. After performing psychoeducation about anxiety, anxiety hierarchy was created. Exposure and

response prevention (ERP) was performed from the item of the lower rank of SUD. In advance of ERP, CI considered rationally about her behavior and cognition, with Th. ERP was carried out in session such as to urinate in a toilet, to wash her hands with considered method, not to rewash, not to check even if dirty was worrisome. Or ERP such as to go out alone and to use a toilet was imposed as homework. In parallel, practices which accepts anxiety as it is, and practices of relaxation were performed. Finally, the therapy ended in Apr. X+1 year in the situation that the symptom decreased to soaking a hand in an excess about once in 5 days and checking dirt at a glance after a restroom. Final Y-BOCS score was 20.



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Treatment Effects of Motivational Interviewing Group Therapy and DARK Meeting on Repeated Drug-Related Offenders

○Yokotani, Kenji

Graduate School of Clinical Psychology, Niigata Seiryō University, Niigata, Japan

Drug-related offence is a crime with a high rate of re-offenders. To reduce their repeated offences, Japanese prisons offered them several treatment programs, such as Drug Addiction Rehabilitation Center (DARK) meeting and cognitive-behavior group therapy. Still, the effects of these programs were not validated. Hence, I aim to examine the treatment effects of these programs. As a cognitive-behavior group therapy, I used motivational interviewing methods. Motivational interviewing method focused on participants' competence, rather than deficits, and had treatment effects (Miller, 1993). I hypothesized that motivational interviewing group therapy (MIGT) and DARK meeting would show higher treatment effects than control groups. Participants were 48 drug-related offenders in a prison. They aged around 43 years old and obtained only 10 years of education. They started thinner and stimulants around age 15 and 23, respectively. They were also jailed around 2.1 times before age 20 and 5.5 times after age 20. One third of them were former or current members of mafia (Yakuza). The 10 participants voluntarily received MIGT involving 8 sessions. The 18 participants voluntarily received DARK meeting involving 12 sessions. The 22 participants received textbook sessions (TEXT) involving 6 sessions. The 9 participants were control

groups who wanted to receive the MIGT, but cannot. Because I analyzed those who participated over 75 % of sessions, 4 and 7 participants were excluded from MIGT and DARK, respectively. Before and after the treatment, participants voluntarily answered Stimulant Relapse Risk Scale [SRRS] (Ogai et al, 2007). Subscales of SRRS include positive expectancies and lack of control over drug (PL), Lack of negative expectancy (NE), and emotionality problems. PL and NE significantly predicted drug-related re-offence after 3 months (Ogai et al, 2007). Results showed that after the treatment, MIGT, DARK, TEXT, and control groups were significantly different in terms of emotional problems in ascending order, even though these groups were not significantly different in terms of basic traits, SRRS and CES-D before the treatment. MIGT and DARK after the treatment also offered significantly lower PL and NE than they did before the treatment (paired- $t = 3.2$, $df = 5$, $p < .05$; paired- $t = 2.4$, $df = 10$, $p < .05$), respectively. Motivational interviewing might remind participants how useless drug is, whereas DARK meeting might remind them how dangerous drug is. Interactive effects of both treatments could be examined in future study. Predictability of repeated offence rates also needs to be examined near the future.

A-P-168

Relationships between Readiness to Change, the Levels of Coping Skills, and Moods among Japanese Alcoholic Patients

○Iwano, Suguru^{1,2}, Horiuchi, Satoshi^{3,4}, Sakano, Yuji⁴

¹Graduate School of Psychology, Health Sciences University of Hokkaido, Sapporo, Japan, ²Asahiyama Hospital, Japan, ³Japan Society for the Promotion of Science, Japan, ⁴Graduate School of Psychology, Health Sciences University of Hokkaido, Sapporo, Japan

Purpose: When considering the treatment of alcoholic patients, the most important outcome is abstinence. However, the one-year abstinence rate is not high. It is important to enhance an individual's readiness to change his/her drinking problem for achieving abstinence. Readiness to change, stress coping skills (a series of skills that people can learn and use to cope with stressful situations), and mood states have been reported to correlate with alcohol abstinence. The relationships between readiness to change, the levels of stress coping skills, and mood states among Japanese alcoholic patients are not well understood. This study examined these relationships among Japanese alcoholic patients.

Method: Fifty-five patients with alcoholism participated in this study (mean age = 49.3 years). Motivation was measured using the Japanese version of the Stage of Change Readiness and Treatment Eagerness Scale (Kobayashi et al., 2010). Each subject's state of mood was measured using the Japanese version of the Profile of Mood States (Yokoyama & Araki, 1990). Coping skills were

measured using the Stress Coping Skill Scale (SCSS, Kijima, 2008), which consists of 14 factors.

Results: Sixteen alcoholic patients were classified to be in the "contemplation stage" (getting ready), and 39 alcoholic patients were classified to be in the "preparation and action stage" (ready for or initiating change). Levels of anxiety, depressive mood, anger, fatigue, and confusion were significantly higher in these patients. On the other hand, concerning coping skills, the levels of 6 stress coping skills were significantly higher in the patients in the preparation and action stage.

Discussion: Patients in the contemplation stage were more likely to be emotionally disturbed than those in the preparation and action stage. Regarding coping skills, SCSS scores of seven patients were lower among those in the contemplation stage. These results suggest that alcoholics in the contemplation stage demonstrate low motivation, might require careful management of negative moods, and enhancement of some methods of coping skills to enhance their readiness to change.

A-P-169

Emotional Schemas and Metacognition in Patients with Alcohol and the Other Substance Dependence

○Ulusoy, Sevinc, Ipek, Okan U., Yavuz, K.Fatih

Bakirkoy Research and Training Hospital for Psychiatry and Neurology, Istanbul, Turkey

Objective: Individual's attitudes towards their thoughts and emotions can influence the process of dependence and its treatment. The aims of this study are to research the emotional schemas and metacognitions of patients with alcohol and other substance dependence and to compare each other with control group.

Method: The study consists of 45 patients diagnosed with alcohol dependence, 44 patients diagnosed with substance dependence according to DSM-4 TR criteria who applied to BRSHH Alcohol and Substance Addiction Treatment Center and 43 healthy volunteers who didn't have alcohol and substance dependence. Socio-demographic data form, Leahy Emotional Schemas Questionnaire (LESQ), Distress Tolerance Scale (DTS) and Metacognitive Questionnaire (MCQ-30) were administered to the participants.

Results: Mann-Whitney U test and Kruskal-Wallis test was used to compare differences between three groups. The results showed that alcohol group's DTS total scores and tolerance subscale scores were significantly lower than substance and control groups. Substance group's self- efficacy subscale scores were significantly higher than control group. Substance and control groups' comprehensibility subscale of LESQ scores were significantly higher

and discrepancy subscale scores were significantly lower than alcohol group. In perception as harmful subscale of LESQ; alcohol and substance group took higher scores than control group. Alcohol and substance group's positive beliefs subscale scores in MCQ-30 were significantly higher than control group. No significant statistical difference was found between alcohol and substance group in MCQ-30 subscale and MCQ-30 total scores.

Conclusion: We found that both of the alcohol and substance group have higher scores in perception as harmful subscale. This makes us think that alcohol and substance may be used for coping with negative emotions rather than cognitions. And also alcohol group's DTS total scores and tolerance subscale scores were significantly lower than substance group. This result is pointing out that alcohol dependent individuals have more catastrophic appraisals about distress and its consequences and so their distress intolerance is higher than substance abusers. Another finding of our study is the higher scores of positive beliefs subscale scores in MCQ-30 in alcohol and substance group. Positive beliefs may be related to the motivation for using alcohol and substance, and this can explain the treatment resistance. This research may contribute to our understandings about psychopathology and therapy process of addiction.

A-P-170

Differences of Levels of Stress Coping Skills between Patients with Alcohol Dependence and Healthy Volunteers

○Horiuchi, Satoshi^{1,2}, Iwano, Suguru³, Sakano, Yuji¹

¹School of Psychological Science, Health Sciences University of Hokkaido, Sapporo, Japan, ²Japan Society for the Promotion of Science, Tokyo, Japan, ³Graduate School of Psychology, Health Sciences University of Hokkaido, Sapporo, Japan

Alcohol dependence has been reported to be associated with increased risks for mental and physical health. Some Japanese patients with alcohol dependence tend to drink to cope with stressful situations. Thus, it is important to understand the levels of stress coping skills which have been defined as a series of skills which people can learn and use to cope with stressful situations. However, little is known about stress coping skills among Japanese patients with alcohol dependence. The purpose of this study is to examine differences of levels of stress coping skills between Japanese patients with alcohol dependence and healthy volunteers. Sixty-six inpatients and 5 outpatients (mean age=51.3 years), as well as 73 college students (mean age=23.9) volunteered for this study. The portion of women was significantly higher in the healthy volunteers (9.9% vs. 46.6%, $p<.01$). Stress coping skills were measured using Stress Coping Skill Scale (Kijima, 2008) which consists of 14 subscales. Preliminary

analyses were conducted to examine effects of age and gender on the scores of 14 subscales. A series of t-tests or analyses of covariance with age or gender as covariate when appropriate were conducted. Among 14 subscales, the scores of the two subscales were significantly higher in the health volunteers than in the patients. One was Positive thinking ($p<.01$) which refers to skills to focus on positive aspects of stressful situations one encounter. The other was Distraction ($p<.01$) which refers to one's skills to distract one from such situations by engaging in favorable things such as hobby. These results provided evidence to characterize stress coping skills of Japanese patients with alcohol dependence. It is suggested from the results of this study that they are less likely to focus on positive aspects of, and to engage in favorable activities such as hobby to distract them from stressful situations. It may be important for them to enhance such coping skills to avoid drinking to cope with stress.

A-P-171

The Effectiveness of Skill Training for Dialectical Behavior Therapy -From an Interview with a Patient with Difficulty in Controlling Emotions: First Report-

○Koyano, Yasuko¹, Mori, Makiko², Tateishi, Ayami¹

¹Department of Mental Health and Psychiatric Nursing, Graduate School, Juntendo University, Tokyo Japan, ²Kitasato University, Japan

Purpose: The authors have been conducting an Emotional Literacy Program since 2009, held once a week for 90 minutes per session targeting patients of the day treatment center of an outpatient psychiatric unit. The program adopts an open group style with the maximum number of 10 participants per group, and any patient who wishes to participate can do so. At the beginning, the program was based on the Emotional Intelligence theory by Salovey and Mayer, but currently, it also introduces skill training with dialectic approach. The purpose of the present study was to elucidate the efficacy of the program conducted by the authors.

Methods: Sessions were continuously undertaken according to the dialectical behavior therapy practice training book by McKay, and an interview was conducted with a patient with gender identity disorder who had impulse control problems and had attended almost all the sessions over a period of one year. Changes after participation in the program were mainly analyzed qualitatively and inductively using a grounded theory approach. Analytical procedures Personal interview data were transcribed

verbatim, and all transcripts were read carefully and fragmented. Next, properties and dimensions were extracted from the fragmented data, and label names were assigned. Furthermore, a storyline was created based on the correlation chart of categories derived by integrating the label names.

Results: About the effect of the skill training in the program, the following six categories were extracted from sixty nine labels. *A change to give significance to behavior by having consciousness. Emotion regulation based on distress tolerance skills. The task of connecting the theory to practice after understanding it. Actually felt the effects of some skills, Expected to introduce specific practice methods. Action toward future goals.*

Conclusion: The skill training influenced the consciousness of the patient and contributed to the control of feelings, correction of thoughts, and change of actions. As a result, the patient adopted a new role in society and a new outlook of life to lead a healthy and realistic life. After this, we aimed at theoretical saturation by repeating the interview on the case and conducting a continual comparison analysis.

A-P-172

Development and Preliminary Validation of Metacognitive Beliefs about Anger Rumination Questionnaire (MBARQ)

○Kim, Nurpurunsol¹, Yamaguchi, Maya¹, Imai, Shoji^{2,3}, Kumano, Hiroaki^{3,4}, Nomura, Shinobu⁴

¹Graduate School of Human Sciences, Waseda University, Tokyo, Japan, ²Nagoya University of Arts and Sciences, Japan, ³Institute of Applied Brain Sciences, Waseda University, Japan, ⁴Faculty of Human Sciences, Waseda University, Japan,

Persistently and repeatedly thinking about anger is called Anger Rumination (AR, Sukhodolsky, Golub & Cromwell, 2001). Wells and Matthews (1994) indicated that metacognitive beliefs cause preservative thinking style such as rumination and worry. To date, many studies has examined about the relationships between metacognitive beliefs and psychological disorders (Papageorgiou & Wells, 2001a, Hasegawa, Kanetsuki & Nedate, 2009). However, no studies have examined the relationship between metacognitive beliefs and AR (Simpson & Papageorgiou, 2003).

Therefore, this study was conducted to assess the presence of metacognitive beliefs about AR, and we developed Metacognitive Beliefs About Anger Rumination Questionnaire (MBARQ). In addition, we built a metacognitive model to examine the relationship between metacognitive beliefs, AR and trait anger.

Method: Participants: 317 undergraduate students (160 females, mean age 20.12±1.43)

Measures: I MBARQ, II The Anger Rumination Questionnaire (Nakai, Masuda & Nedate, 2003), III The Metacognitive Questionnaire 30 (Yamada & Tsuji, 2007), IV State Trait Anger Inventory (Suzuki & Haruki, 1994).

Result: Factor analysis yielded two factor solutions. The first factor, which is composed of 6 items,

labeled Negative Metacognitive beliefs about AR (NMBAR). The second factor, which is composed of 3 items, labeled Positive Metacognitive beliefs about AR (PMBAR). Internal consistency was scrutinized using Cronbach's alpha. Cronbach's alpha of the each factors and the total questionnaire ranged from .72 to .79. Moderate to weak correlations were found between the MBARQ factors and the other measures ($r = .20$ to $.62$) indicating the concurrent validity of MBARQ.

In addition, our metacognitive model provided a good fit to the data (GFI = .94, RMSEA = .07, AGFI = .91). PMBAR was positively related to AR ($\beta = .56, p < .001$), AR was positively related to NMBAR ($\beta = .73, p < .001$). NMBAR ($\beta = .29, p < .001$) and AR ($\beta = .33, p < .001$) was positively related to Trait Anger.

Discussion: This study revealed the presence of two-dimensional metacognitive beliefs about AR. In addition, we investigated the relationships among AR, positive and negative metacognitive beliefs and trait anger. From the result of path analysis, this study suggested that having PMBAR could provoke an increase in AR and also, the increased AR could enhance NMBAR. Moreover, NMBAR and AR both could strengthen Trait Anger. Future studies should be placed to intervene metacognitive beliefs about AR.

A-P-173

Understanding Sleep-Onset Insomnia Using the S-REF Model

○Yamada, Kanako¹, Miyazaki, Kyuichi², Nedate, Kaneo³

¹Department of Psychiatry and Neurology, Hamamatsu University School of Medicine, Japan, ²Graduate School of Human Sciences, Waseda University, Japan, ³Faculty of Human Sciences, Waseda University, Japan

Introduction: Wain et al. (2009) have proposed to use the Self-Regulatory Executive Function (S-REF) model (Wells, 2000; Wells & Matthews, 1994, 1996) to explain the cognitive mechanism of sleep-onset insomnia. Sleep-onset insomnia comes as a consequence of pre-sleep activity (PCA). The S-REF model is a cognitive-behavioral model adopting metacognition, and consists of metacognition, cognitive style, and low-level processing (Wells, 2009). Multiple attention control functions - selective attention, attention allocation, and attention switching - are also important in the S-REF model (Imai & Imai, 2011). In the present study, the authors examined the relationships between pre-sleep metacognition, PCA, sleep-onset insomnia, and attention control function to understand sleep-onset insomnia using the S-REF model.

Method: A questionnaire survey was administered to 367 university students (male:175, female:192; mean age=20.32; SD=1.42). The following scales were used: 1) the Pre-Sleep Metacognitions Scale (Yamada et al., 2012), 2) the Pre-Sleep Cognitive Activity Scale (Munezawa et al., 2007), 3) the Japanese version of the Pittsburgh Sleep Quality Index (Doi et al., 1998),

and 4) the Attention Control Scale (Imai et al., 2008).

Results: The results of structural equation modeling showed that metacognitive knowledge directly influenced metacognitive activity ($\beta=.70, p<.001$). Both metacognitive knowledge and metacognitive activity had direct positive effects on PCA (metacognitive knowledge : $\beta=.15, p<.05$; metacognitive activity: $\beta=.67, p<.001$), and PCA had a direct positive effect on sleep-onset insomnia ($\beta=.75, p<.001$). Meanwhile, selective attention had a direct negative effect on PCA ($\beta=-.16, p<.01$). The goodness of fit of the model was as follows: $GFI=.937$; $AGFI=.892$; $CFI=.918$; $RMSEA=.089$.

Discussion: This study established a model to describe the cognitive mechanism of sleep-onset insomnia and influence of pre-sleep metacognition and attention control function upon PCA. The findings suggested that by increasing PCA, pre-sleep metacognition has a positive effect on sleep-onset insomnia, and that selective attention has a negative effect on PCA. It may be important to first focus on reducing pre-sleep metacognition, and then enhancing the function of selective attention to decrease PCA and improve sleep-onset insomnia.

A-P-174

Cognitive Impairments and Awareness of Social Behavior Dysfunction in Patients with Traumatic Brain Injury

○Ikeda, Miki Y.^{1,2}, Nakaya, Makoto^{1,3}, Takeda, Mihoko¹, Kikuchi, Yoko¹, Okuzumi, Shouko¹, Tone, Osamu⁴, Hara, Mutsuya⁴, Chiba, Hiroaki⁵, Tabei, Miki², Shimada, Hironori⁶

¹Department of Psychiatry, Musashino Red Cross Hospital, Tokyo, Japan, ²Graduate School of Human Sciences, Waseda University, Saitama, Japan, ³Faculty of Medicine, Tokyo Medical and Dental University, Tokyo, Japan, ⁴Department of Neurosurgery, Musashino Red Cross Hospital, Tokyo, Japan, ⁵Saitama Neuropsychiatric Institute, Saitama, Japan, ⁶Faculty of Human Science, Waseda University, Saitama, Japan

Cognitive deficits in various domains have been found in most traumatic brain injury (TBI) survivors, regardless of injury severity (de Guise et al., 2005). Neuropsychological evaluation provides an indirect link to everyday functioning and can be used to identify the underlying substrates involved in completing daily activities (Lillie et al., 2010). Direct observation of everyday tasks can be useful for tailoring individual treatment. Impairment in self-awareness following TBI also influences rehabilitation-related variables (e.g. compliance; Lam et al., 1998), duration of rehabilitation (Malee et al., 2000), and employability (Shere et al., 1998). However, it is unclear whether awareness deficits are related to other neuropsychological deficits (Prigatano, 2005). Hence, the first purpose of this study was to examine the relationship between cognitive impairments and social behaviour dysfunction in daily life in patients with TBI. Second, regarding awareness of deficits, we sought to investigate the relationship between self-rated and observer-rated (e.g. TBI patient's family and/or significant other) dysfunction and social behaviour. Twenty-six adult patients with TBI (18 - 65 years old; 19 male, 7 female; injury severity, Glasgow Coma Scale = 12.1 ± 2.9 ; days since injury = 705.5 ± 613.2 ; age at injury = 34.4 ± 14.7 years) who

received neurosurgical treatment were assessed on neuropsychological tests and a questionnaire. Social behaviour dysfunction in daily life was assessed by patients themselves and their observers using a cognitive-behaviour scale for TBI (TBI-31; Kubo et al., 2007). Multiple regression analysis was used to determine the independent contribution of cognitive deficits and injury-related variables (age at injury, injury severity, and days since the injury) to TBI-31 scores. The verbal comprehension index of WAIS-III ($\beta = -.60, p < .01$) and injury severity ($\beta = .38, p < .05$) were significant contributors to total self-rated TBI-31 scores ($R^2 = .49, p < .01$). The working memory index of WAIS-III was a significant contributor to total observer-rated TBI-31 scores ($\beta = .51, R^2 = .26, p < .01$). The *Spearman's* coefficients between all self-rated and observer-rated TBI-31 factor scores were significant ($r_s = .41 - .77, p < .05$), with the exception of the relationship between self-rated "feasible consideration difficulty" and all observed-rating social behaviour dysfunction scores. These results suggest that working memory is most related to social behaviour dysfunction, and cognitive rehabilitation that focuses on working memory and awareness deficits could be effective for improving social adjustment.

A-P-175

Reliability and Validity of the Japanese Version of the Eating Disorder Diagnostic Scale: A Pilot Study

○Inoue, Misa¹, Stice, Eric², Sato, Hiroshi¹

¹Faculty of Sociology, Kansai University, Osaka, Japan, ²Oregon Research Institute

Objectives: There is a need for an easily administered self-report scale in Japanese that measures symptoms of eating disorders based on the DSM criteria. The Eating Disorder Diagnostic Scale (EDDS; Stice et al., 2000) is a self-report scale that can generate possible diagnoses for anorexia nervosa, bulimia nervosa, and binge eating disorder. Hence, the present study sought to develop the Japanese version of the EDDS and to provide a preliminary evidence of its psychometric properties in a Japanese community sample.

Methods: All EDDS items were translated in Japanese by a Japanese-English bilingual translator and blindly back-translated by another bilingual translator. Some items were modified to resolve discrepancies between the original and back-translated versions. Participants were 58 female

college students from the community (mean age = 18.7 ± 0.8 years).

Results: Cronbach's alpha for the Japanese EDDS symptom composite was .85, which indicates satisfactory internal consistency. To test convergent validity, correlations between the Japanese EDDS symptom composite, the Eating Attitudes Test (EAT-26; Garner et al., 1982), and the Three-Factor Eating Questionnaire (TFEQ; Stunkard & Messick, 1985) were calculated. The Japanese EDDS showed significant positive correlations with the EAT-26 ($r = .67$), the Cognitive restraint subscale of the TFEQ ($r = .48$), the Hunger subscale of the TFEQ ($r = .40$), and the Disinhibition subscale of the same ($r = .73$).

Conclusion: The Japanese version of the EDDS has promising psychometric properties in terms of internal consistency and convergent validity.

A-P-176

Effectiveness of Cognitive Behavioral Therapy for Insomnia in Patients with Parkinson Disease: A Pilot Study

○Nozaki, Kentaro^{1,2}, Kamei, Yuichi^{2,3}, Furusawa, Yoshihiko³, Murata, Miho³

¹Counseling Room Higashimatsuyama, Saitama, Japan, ²Department of Psychophysiology, National Institute of Mental Health, National Center of Neurology and Psychiatry, Tokyo, Japan, ³National Center Hospital, National Center of Neurology and Psychiatry, Tokyo, Japan

Sleep disturbances, in particular insomnia are among the most common disabling nonmotor symptom of Parkinson disease (PD). The physical findings of PD, such as tremor, rigidity, and postural imbalance, have traditionally been regarded as the most important features of the disease and have understandably received the most attention in both research and clinical practice. Recently, awareness of insomnia related to PD has increased, reflecting their significant negative impact on the quality of life of the patient. For example, Gjerstad et al. (2007) found that insomnia in PD was associated with depressive symptoms. Further, Many PD patients show improvement of motor function after sleep (sleep benefit), which indicates that sleep affects motor control in PD. Thus it is important to focus on co-morbid insomnia in PD. Better treatment for insomnia in PD could produce improved outcomes and an important reduction in suffering. And, The American Academy of Neurology (2010) recommended the pharmacotherapy for insomnia in PD, but mentioned it had insufficient evidence. An Algorithm for the management of insomnia in central neurological disorder indicates that insomnia

treatment is purposed in non-pharmacological intervention, yet evaluation of non-pharmacological treatment is limited. This present study aimed to investigate the beneficial effect of cognitive behavioral therapy for insomnia (CBT-I) on co-morbid insomnia in PD patients. 3 PD patients with co-morbid insomnia participated in this study. CBT-I was carried out 2 weekly individual approximately 60-min sessions. Session 1 included introduction of the behavioral model of insomnia, sleep hygiene education and relaxation training. Session2 included sleep schedules methods (sleep restriction and stimulus control). Subjective sleep parameters (TST, SE, SOL, WASO) and self-rating (ISI, PDSS, SDS) scales were completed by the patients at pre-treatment, 4 and 8 weeks after treatment. The findings showed that CBT-I produced subjective benefits in the severity of insomnia and subjective sleep parameters. The results of our pilot study suggest that CBT-I is a promising treatment option for PD patients with co-morbid insomnia. Further study will need to be tested in controlled clinical trials with long-term follow-up.

A-P-177

The Role of Visceral Sensation and Possibility of Psychological Clinical Intervention for Eating Disorder

○Tashiro, Kyoko¹, Shimada, Hironori²

¹Graduate School of Human Sciences, Waseda University, Japan, ²Faculty of Human Sciences, Waseda University, Japan

Cognitive behavior therapy (CBT) is considered the first-line treatment for Bulimia Nervosa (BN) (Wilson, 1999; Wilson & Fairburn, 2002). There is some indication that CBT is preferred over standard behavioral treatment and is associated with significant symptom reduction in Anorexia Nervosa (AN) (Channon et al., 1989; Serfaty et al., 1999). However, the clinical efficacy of CBT in the treatment of eating disorders is not ideal. Although CBT is clearly a beneficial treatment for BN, the degree of symptom improvement is limited, with about 50% of patients achieving symptom remission (Wilson, 1999). Poor interoceptive awareness is often cited as a key feature of eating disorders, yet the precise nature of the deficits and their relationship to eating pathology remains unclear, and individual differences in the experience of arousal have also been related to disordered eating, although less comprehensively incorporated into current models of AN and BN. Additionally, in traditional CBT, for the recovery of visceral sensation, approach associated focus in

particular the establishment other than the regular diet can not be found. Therefore, in this paper, it is intended to organize the knowledge of visceral sensation, we examine possibility of psychological clinical intervention and the role of visceral sensation for eating disorder. First in this paper, neural control mechanisms of feeding of are reviewed, referring to the classical concept of hypothalamic feeding and satiety centers, and to recently identified hormones such as leptin and ghrelin. Then, I discussed the environmental impact on the eating behavior. The review of intervention techniques that focus on the improvement of visceral sensation, such as Mindfulness based-Eating awareness training and Eating rate control, to the internal stimulus, we discussed the effectiveness against eating disorders. Finally, in the treatment of eating disorders, by addition to behavioral intervention and cognitive interventions by CBT, to strengthen the input sensory system, about the need to repair the signal system central to regulate eating behavior was discussed.

A-P-178

Association between Attitudes and Offender Type in Singapore

○Kok, Chun Li, Tan, Gabriel

National University of Singapore, Singapore

Negative attitudes towards criminal offenders is a potential obstacle to their acceptance by society, affecting rehabilitation and reintegration efforts, and perhaps even recidivism rates. In view of the Singapore Prison Service's emphasis on community involvement in the rehabilitation of offenders, this research examines public attitudes towards offenders in Singapore as well as assess differential attitudes towards sex offenders and non-sex offenders. A sample of 163 undergraduate students completed questionnaires assessing attitudes towards offenders (both sex and non-sex offenders). Results indicated that attitudes towards sex offenders were significantly more negative than attitudes towards

non-sex offenders. The findings also indicated that as a group, the Singaporean student sample displayed significantly more negative attitudes towards offenders when compared to available data from western countries, confirming an inherent "get tough" attitude of Singaporeans towards offenders. Finally, having had previous personal contact with offenders was associated with decreased negative attitudes towards this group of people. The results of the study have potential implications for the rehabilitation process in the local context, especially for clinicians counselling or dealing with offenders and reintegration programmes.

A-P-179

The Effects of Injury Severity and Site of Lesion on Executive Function, Everyday Memory Following Severe Traumatic Brain Injury

○Kwak, Eun-Hee^{1,2}, Oh, Kyung-Ja¹, Cho, Sung-Rae²

¹The Department of Psychology, Yonsei University, Seoul, Korea, ²The Department of Rehabilitation Medicine, Yonsei University Medical Center, Seoul, Korea

The purpose of this study was to explore the effects of injury severity and lesion location on executive function and everyday memory following traumatic brain injury (TBI) while controlling for the effects of time postinjury and demographic variables. Patient demographics, injury severity, lesion location, time postinjury and neuropsychological assessment results were retrospectively collected from 80 patients aged between 16 and 65 with the diagnosis of severe closed head injury. The patients with MRI or PET findings were grouped according to lateralization of lesion (i.e. left, right or bilateral) and existence of frontal lobe injury (i.e. frontal only, frontal+nonfrontal and nonfrontal injury). The frontal lobe injury groups were further divided into subgroups with Left frontal, Right frontal and bifrontal lesion. Executive function was assessed with Wisconsin Card Sorting Test (WCST), Color Trail Test (CTT), Controlled Oral Word Association Test (COWAT); everyday memory was assessed with Everyday Memory Questionnaire (EMQ).

The main results were as follows. 1) Injury severity had strong prognostic value especially for everyday memory: 2) Lesion location had a significant impact

on executive function even after controlling for the differences in injury severity, time postinjury and demographic variables. Specifically, the frontal groups performed worse on the executive functioning (mental flexibility and problem solving) tasks. However, no significant differences in everyday memory were found between the frontal and nonfrontal lesion groups. The bifrontal lesion group scored worse than the unifrontal lesion groups on executive function and the Rt. frontal group showed greater deficits in executive function in comparison with the Lt. frontal group.

In conclusion, there are reliable relationship between injury severity and lesion location and neuropsychological outcomes following severe TBI, and the prognostic value of these predictors may differ depending on specific domains of cognitive functions. The present findings suggest that injury severity and lesion location need to be considered when individual rehabilitation plans for TBI patients are implemented.

Key words: TBI, injury severity, lesion location, executive function, everyday memory

A-P-180

The Effect of the Group Cognitive Behavior Therapy in a Nurse's Burnout and Intention to Resign - Examination Which Focuses on Nurse's Irrational Belief -

○Ohue, Takashi¹, Moriyama, Michiko², Nakaya, Takashi³

¹Department of Nursing Science, Faculty of Health Science, Hyogo University, Japan, ²Division of Nursing Science Graduate School of Health Sciences Hiroshima University, Japan, ³Faculty of Health and Welfare, Prefectural University of Hiroshima, Japan

Purpose: The purpose of this research is to reduce a burnout and intention of resigning by developing the program of group cognitive behavior therapy which focused on the intervention in a belief and automatic thoughts with an nurse's irrational belief for the clinical years-of-experience 3 year nurse, and performing group cognitive behavior therapy.

Methods: The object was requested from 110 clinical years-of-experience 3 year nurses who work in an acute hospital. The enforcement procedure divided the contents of the program into 3 times so that it might be easy to carry out in clinical service organization, and it carried them out using the workbook in which the researcher created 1 time and a total of 3 times of group sessions at one week. The program included three 60-minute sessions, separated by 1 week. The program was created and carried out for a nurse's burnout with reference to cognitive behavior therapy. Evaluation of intervention were asked to complete a questionnaire that measured burnout (Maslach Burnout Inventory: MBI), automatic thoughts (the shorter version of Japanese version Automatic Thoughts Questionnaire-Revised: ATQ-R), Irrational Belief Test for Nurses (IBTN), coping measure and whether or not they had an intention to resign. Measurement was performed

3 times of a baseline, after the end of session and follow-up. Analysis of covariance which adjusted the baseline level was performed. Ethical considerations: The protocol of this study was approved by the Hyogo University Ethics Committee, Japan. The objectives and procedures were explained in writing to the participants.

Results: The subjects included the nurses (n=64 3 male 61 females) who were able to participate in all sessions. According to the results, the primary effect of problem avoidance was significant in the group with irrational belief immediately after intervention. With regard to subscales of burnout, the primary effect of Personal accomplishment in MBI was significant in the group with irrational belief after intervention. Moreover, with the helplessness of an irrational belief, negative evaluation of the future and Positive thinking of automatic thoughts and the intention to resign Wants to switch hospitals or departments the change only with a significant main effect was affirmed.

Conclusion: It was suggested that cognitive behavioral approach appears to be effective for reducing nurse's burnout or intention of resigning from the job in nurses with 3 year of clinical experience.

A-P-181

The Examination of Stress Management in Nurses: How Does Dimensional Stress Coping Mediate among Self-Reported Individual Job Stressors, Psychological Stress Responses, and Quality of Life?

○Kakuta, Jun¹, Himachi, Mika²

¹Mutsu General Hospital, Japan, ²Tokaigakuen University, Japan

Introduction: Many studies have discussed the relationship among job stressors, stress coping, and stress responses. It has been suggested that stress coping is constructed from dimensional components (e.g., problem solving or avoidance, behavioral or cognitive). Only a few studies of job stressors among nurses have represented the influences of stress coping on their psychological stress responses. The purpose of this study was to clarify how dimensional stress coping mediated among nurses on the basis of the NIOSH model of job stress; the relationship among job stressors, stress coping, psychological stress responses, and quality of life.

Method: Participants were 213 nurses who were employed at a public general hospital in north Japan. Participants completed the Occupational Stress Questionnaire 12 items, SRS-18, TAC-24, and WHOQOL26. Participants completed SRS-18 at two time points separated by a 3-week interval. This study examined the average of both SRS-18 scores to investigate the variance in psychological stress responses in order to mitigate the effects of daily events on SRS-18 scores. Data analysis was conducted via SEM.

Results: The fit indices of this model were comparatively good (GFI=.928, AGFI=.885, NFI=.882, CFI=.935, RMSEA=.070). Regarding influence characteristics, Job control of job stressors had a positive influence on TAC-24 (.33, $p<.05$), and job quantities of job stressors had a negative influence on TAC-24 (-.28, $p<.05$); TAC-24 had a negative influence on SRS-18 (-.96, $p<.05$), and SRS-18 had a negative influence on WHOQOL26 (-.64, $p<.001$). Problem Avoidance of TAC-24 had a negative coefficient of determinant; however cognitive coping of TAC-24 had a positive coefficient of determinant.

Conclusion: The current study revealed that dimensional stress coping mediated between job stressors and psychological stress responses. Psychological stress responses increase or decrease according to the coping types. Further, it was useful to provide guidance regarding stress management how to defeat personal daily stress events or reduce individual psychological stress responses to nurses. We have some questions that this study did not measure cognitive appraisal. Cognitive appraisal is important factor, it influence independent stress coping. We should try to exam next study including cognitive appraisal factor.

A-P-182

Effects of Mindful Breathing on Depression in Japanese University Students

○Maekawa, Manami¹, Koshikawa, Fusako²

¹Graduate School of Letters, Arts and Sciences, Waseda University, Tokyo, Japan, ²Faculty of Letters, Arts and Sciences, Waseda University, Tokyo, Japan

Objective: Recently mindfulness has drawn attention as an intervention to depression. The purpose of this study was to examine effects of mindful breathing on depression and related psychological factors, such as negative rumination and self-acceptance, in Japanese university students.

Method: Forty-four undergraduates (mean age = 20.9 ± 1.2 years, 63.6% female) were randomly assigned to mindful breathing or control group, and participated three sessions for a two-week period: pre (first session), mid (after the first week), and post (after the second week). Both groups completed measures of depression (Self-rating Depression Scale; Fukuda & Kobayashi, 1973), negative rumination trait (Negative Rumination Scale; Ito & Agari, 2001), and self-acceptance (Self-Acceptance Scale; Ito, 1991; this scale consists of two dimensions: one is evaluative dimension 'good-bad' (SA-E), and the other is affective one 'like-dislike' (SA-A)) in every session. Additionally, at the first session, participants in the mindful breathing group were instructed how to practice it with guided CD and asked to do for about ten minutes every day.

Results: Two-way (Group*Time) repeated measures analysis of variance was conducted. The analysis of depression showed significant main effect of Time ($F(2, 84) = 4.25, p < .05$), but interaction of Time

by Group was non-significant. In contrast, the analysis of negative rumination ($F(2, 84) = 7.74, p < .01$) and self-acceptance (SA-E $F(2, 84) = 4.42, p < .05$; SA-A $F(2, 84) = 8.17, p < .01$) demonstrated significant interactions of Time by Group. Follow-up Shaffer multiple comparisons revealed that negative rumination trait scores in the mindful breathing group got significantly lower with each session ($p < .05$), and also the scores at mid and post were significantly lower than those in control group ($p < .05$). Furthermore, in the mindful breathing group, SA-E score at post was significantly higher than at pre and mid ($p < .05$). Also SA-A scores in the mindful breathing group significantly higher with each session ($p < .05$). As for negative rumination trait, in the control group, post score was significantly lower than pre and mid one ($p < .05$).

Conclusions: It wasn't supported that mindful breathing for two weeks would relieve depression. However, the result indicated that the mindful breathing reduced the level of negative rumination, which was related to depression, and increased self-acceptance, which was closely associated with depression. Therefore, it is concluded that continuous mindful breathing is likely to prevent from depression aggravated.

A-P-183

Development and Evaluation of a Self-Coaching Intervention Program Based on the Solution Focused Coaching (SFC)

○Tokuyoshi, Yoga, Iwasaki, Syoichi

Cognitive Psychology Lab, Graduate School of Information Sciences, Tohoku University, Japan

This study was conducted to assess effects of intervention using interview sheets and self-report questionnaires. We developed a new Self-coaching interview sheet based on the SFC. There were two conditions for the intervention of the SFC; Self-coach and Control. For verification, we used the Personal Growth Initiative Scale-II (PGIS-II) developed by Robitschek et al. (2012) as the self-report assessment tool based on Counseling Psychology and Positive Psychology. Participants ($N=26$) were randomly assigned to one of two conditions; Self-coach and Control. In the intervention, Self-Coachee filled out the sheet based on the SFC by themselves, while

Control did not do anything during the intervention. The effect of the intervention was assessed with PGIS-II by comparing pre- and post-intervention scores. The total score of the PGIS-II suggested a marginally significant interaction. It indicated the improvement of the total scores from the post-test relative to the pre-test for Self-Coach. Control showed no significant differences between the pre- and post-scores. Planfulness of the PGIS-II subscales suggested a significant interaction and indicated the significantly improved scores in Self-Coach. Therefore, the results suggested that the intervention was effective in promoting Personal Growth.

A-P-184

Structure of Anger Rumination

○Nakai, Azumi

Meiji Gakuin University, Japan

Introduction: Negative rumination is pointed to have layer structure in previous studies. The first layer is called meta-rumination, which is discussed as a positive thought to exacerbate rumination. While the roles of meta-rumination in depression and anxiety have been investigated from factor structure, the role of meta-rumination in anger has not been researched as same as structure of anger rumination. Then this study investigates structure of anger rumination and relationship with the other anger related factors investigate in this study.

Method: Participants were 1768 Japanese undergraduate students (1027 male, 741 female, mean age=20.46, $SD=1.95$). They were administered the Anger Rumination Questionnaire (Nakai, Masuda, & Nedate, 2004; ARQ), Anger Arousal and Lengthiness Scale (Watanabe & Kodama, 2001; AALS) and the State Trait Anger Expression Inventory (Suzuki, Hashimoto, Nedate, & Haruki, 2001; STAXI) from October 2005 to October 2006.

Results: A SEM model was developed after confirming co-relations between factors of scales we used. Covariance structure analysis was executed and the best fitted model, which paths were reached

from the second factor "Positive Rumination" of ARQ to the first factor "Sustained Thoughts of Revenge", the third factor "Uncontrollability", and the fourth factor "Counterfactual Thinking" through a latent variable, was finally adopted. The fit indices were $\chi^2(2)=12.84$, $p<.00$, $CFI=.97$, $AGFI=.98$, $RMSEA=.05$, and $AIC=28.84$.

Discussion: A structure model of anger rumination and related factors was investigated. It was showed that anger rumination has trilaminar structure, i.e., "Positive Rumination" for the first layer, a latent variable for the second layer, and the other three factors for the last layer. "Positive Rumination" has bipolar roles to promote both anger arousal and anger duration, and anger reduction. A latent variable were thought as aggravating part of positively ruminating. The factors of anger trait and anger expression were related with the first layer and the third layer. This result was supported previous studies which showed depressive rumination had the two-layer structure (Papageorgiou & Wells 2003). Further research for elaborated model involving other angry thoughts will be required.

A-P-185

Effects of Mindfulness Meditation from the Perspective of Changes in Cognitive Style

○Saito, Shinichiro¹, Koshikawa, Fusako²

¹Graduate School of Letters, Arts and Sciences, Waseda University, Tokyo, Japan, ²Faculty of Letters, Arts and Sciences, Waseda University, Tokyo, Japan

Purpose: According to the “mood congruence effect” described by Bower, when a specific mood occurs, a cognitive bias that is congruent with the mood state also arises. If this unpleasant mood state is improved through breathing meditation leading to a mindful state of “non-judgment,” it will also affect the cognitive style. This study investigated anxiety and changes in the mood state resulting from mindfulness meditation, from the perspective of cognitive style.

Method: Participants in the study (N = 44) were divided into an experimental (n = 22) and control group (n = 22). In order to induce an unpleasant mood state, the anagram task was conducted and fake feedback was provided to the participants. After that, participants completed the Selective Recognition Tendency Test (SRTT; Itoya, 2001), Self Rating of Mood Scale and STAI-S (Spielberger, 2000). Breathing mindfulness meditation was conducted for 5 minutes with the experimental group. Participants in the control group thought about how to solve an anagram task for 5 minutes instead of mindfulness meditation. After that, both groups responded to the same questionnaires.

Result: An analysis of variance (ANOVA) was conducted with SRTT scores of the control and

experimental groups at experiment and post experiment periods. Results indicated a significant interaction ($F(1, 42) = 9.694, p < .01$). The simple main effect indicated significantly more positive words in the experimental group, compared to the control group at post-test ($p < .01$). ANCOVA results for STAI-S showed no significant differences between the groups ($F(1, 41) = 2.355, n.s.$). An ANOVA was also conducted on the Self Rating of Mood Scale Score between control and experiment groups at experiment and post experiment periods. Results indicated a significant interaction ($F(1, 42) = 7.288, p < .05$). The simple main effect showed that the scores of the experimental group were significantly higher at post-test in comparison to pre-test ($p < .01$).

Conclusions: The results indicated that the cognitive style changed positively. Moreover, the feeling state scores also increased significantly in a positive direction. However, a significant difference was not observed between the STAI-S score in the experimental and control groups, in spite of the single practice of mindfulness meditation using breathing techniques. It is suggested that these effects should be investigated after long term meditation training.

A-P-186

Can Inner Peace Be Improved by Mindfulness Training: A Randomized Controlled Trial

○Liu, Xinghua¹, Xu, Wei¹, Wang, Yuzheng¹, Williams, Mark²

¹Department of Psychology, College of Education, Capital Normal University, Beijing, China, ² University of Oxford, Oxford, United Kingdom

Background: Maintaining inner peacefulness is seen as very important in Buddhist theory and practice. However, whether mindfulness training, as “the heart” of Buddhist meditation, can increase inner peace has not been studied. This article reports a proof-of-principle randomized controlled trial to investigate whether mindfulness training (MT) can successfully improve inner peace in participants.

Method: 57 participants were randomized to either MT (n=29) or wait-list control (n=28). The Experience Sampling Method (ESM) was used to measure the fleeting momentary experience of inner peace. In addition, we used an experimental approach to assessing ability to focus attention: the Meditation Breath Attention Score (MBAS), as well as self-report

Five-Facet Mindfulness Questionnaire (FFMQ).

Results: The measurement of inner peace had good reliability and validity. Compared to wait-list control group, MT led to increase in scores of inner peace, MBAS and FFMQ using analysis of repeated measures ANOVA. Change in inner peace were not, however, mediated by changes in self-rated mindfulness (FFMQ) nor by increased attentional focus (MBAS).

Conclusions: The findings provide first evidence suggesting that using mindfulness meditation improves inner peace. The focus here was on immediate effects and future studies need to use follow-up.

A-P-187

Stress and Self-Efficacy: Effects on Students' Health-Related Quality of Life and Health Behaviours in Singapore

○Looi, Pei Shan, Tan, Gabriel

Department of Psychology, National University of Singapore, Singapore

Pressures of academia, coupled with a greater degree of freedom often lead university students to engage in risky health behaviours and to adopt an unhealthy lifestyle. This has implications on their health-related quality of life (HRQOL) and increases their risk of developing illnesses in the future. It has been posited that the cognitive-perceptual factor of self-efficacy plays an important role in reducing distress and helps to facilitate the adoption of health-promoting behaviours. Although similar research has been carried out, most studies have focused on student populations in Western societies. Much is left unknown about the health practices of Asian students. Hence, this paper explore

whether self-efficacy buffers the impact of stress on health behaviours and HRQOL among Asian undergraduates. Participants were asked to complete a battery of self-report questionnaires regarding stress, self-efficacy, health behaviours and HRQOL. Results showed that stress affects mental health of the students and is associated with a lower sense of self-efficacy. Furthermore, self-efficacy was found to positively reinforce health behaviours among students. Together, these findings suggest the need to implement effective health programs targeted at stress management and fostering self-efficacy to encourage better health practices among university students.

A-P-188

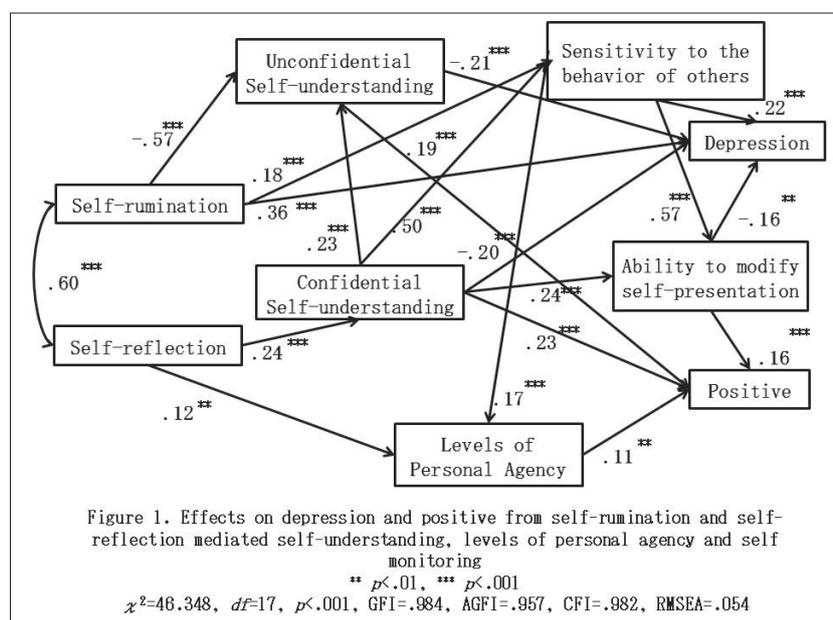
Confidential and Unconfidential Self-Understanding: The Mediators of Self-Rumination and Self-Reflection

○Nakajima, Miho¹, Oguchi, Takashi², Takano, Keisuke¹, Tanno, Yoshihiko¹

¹Graduate School of Arts and Sciences, University of Tokyo, Japan, ²College of Contemporary Psychology, Rikkyo University, Japan

Self-rumination is dispositional self-focused attention motivated by fear and self-doubts, whereas self-reflection is motivated by epistemic interest. Previous studies have shown that self-rumination increases depressive symptoms while, self-reflection reduces depressive symptoms. However, only a few previous studies have examined the process how self-rumination and self-reflection affect depression from the aspects of self-understanding and interpersonal traits. The present study examined about the process with two mediating variables: Self-understanding and self-monitoring. Self-monitoring refers to the abilities and the desires to control one's expressive behaviors. A total of 600 participants (300 females; mean age =39.92 years old,) answered questionnaires on the Internet. Analysis of structural equation modeling showed that unconfidential self-understanding mediated the positive association between self-rumination and depression, whereas confidential self-understanding mediated negative association between self-reflection and depression. Furthermore, self-reflection was associated with

increased level of self-monitoring by mediating confidential self-understanding. These results suggested that self-reflection could effectively facilitate a good inter-personal relationship which might result in preventing interpersonal problems that are closely associated with depression. On the other hand, self-rumination was positively associated with only sensitivity to the behavior of others, which was associated with increased depression. These findings suggest that self-rumination is associated with depression which is mediated by a conflict between increased desire to control one's expressive behavior and insufficient ability to do so. In conclusion, the present study revealed that self-rumination and self-reflection had specific association with different types of self-understanding: confidential and unconfidential. In future studies, these concepts might help to examine the advantages and disadvantages of self-focused attention in the contexts of mental health and interpersonal relationships.



A-P-189

Characteristics of Stress Life Events on Hard-of-Hearing People

○Katsuya, Noriko

School of Social Informatics, Aoyama Gakuin University, Kanagawa, Japan

This study investigated characteristics of stress life events on hard-of-hearing people. Hard-of-hearing people experienced different kinds of stress life events because of their hearing loss. Twenty one hard-of-hearing people participated in an interview research. They answered questions about their state of hearing, tinnitus, stress life events related to hearing loss, coping behaviors and demographic variables such as age, sex, and job. In an interview,

participants answered their stress experiments that they experienced in everyday life. Results mainly showed that they experienced stressful event when they communicated with other people. Also, they felt stress when they had problems getting information because of hearing loss. The author discussed possibilities of stress coping strategies for hard-of-hearing people.

A-P-190

The Effects of a Brief Mindfulness Program on the Mental Health of Hospital Nurses in Japan

○Tateishi, Ayami¹, Kitayama, Kiyoko², Terunuma, Noriko³, Tojima, Ikuko³, Sakai, Kyoko³, Koyano, Yasuko¹, Yonekura, Yuki⁴

¹Faculty of Health Care and Nursing, Juntendo University, Japan, ²Nonprofit organization Human Nature Exploration Institute, Japan, ³Juntendo University Hospital, Japan, ⁴Institute of Social Science, The University of Tokyo, Japan

Object: Measuring nurses' mental health is important both for assessing their work performance and for preventing medical accidents and improving health care quality. A review of mindfulness training interventions for human service professionals previously showed that mindfulness is useful for reducing burnout and stress, increasing work satisfaction, improving relationships between health care consumers and clinical staff, and improving the quality of care (Tateishi, 2011). Because it is difficult for nurses to attend long, continuous trainings, we explored whether a brief mindfulness program could affect nurses' mental health in Japan.

Methods: After compiling information about mindfulness from the literature and seminars, we developed a one-hour mindfulness program that was based on Kabat-Zinn's mindfulness-based stress reduction approach and included meditation exercises involving eating, breathing, body scanning, and walking. The first author, who had received mindfulness leader training, conducted the program. The chief nurses at the hospital cooperated with the administration of the study. We divided the nurses into two groups (an intervention group of 44 nurses and a control group of 51 nurses) and administered the questionnaire-based survey prior to and after completion of the program. The survey included an assessment of demographic characteristic and

the Japanese versions of the Profile of Mood States, the K6, the Burnout Inventory General Survey, and the Occupational Stress Brief Questionnaire. Data from 75 nurses (33 from the intervention group and 42 from the control group) who answered the questionnaire at both time points were included. We used analysis of covariance to examine the data, treating all scale points one month after the intervention as the dependent variable and all scale points prior to the intervention and the demographic characteristic as covariates.

Results: Only quantitative psychological burden of work was significantly affected by the intervention ($F=8.79$, $p=0.004$). Thus, continuous trainings might be necessary for increasing mindfulness, and a one-hour program is insufficient for influencing nurses' mental health. Additionally, this program did not significantly affect stress reaction but did affect the stressfulness of the nurses' work.

Conclusion: Our one-hour mindfulness program did not improve the mental health of nurses but did possibly ameliorate their sense of the quantitative burdensomeness of their work. This study was supported by 2011 and 2012 Grants-in-Aid for Young Scientists (B) awarded by the Japanese Society for the Promotion of Science.

A-P-191

Effects of Rejection Sensitivity on Interpersonal Aggression: The Moderating Role of Emotion Regulation Difficulties

○Rhim, Jung Min, Oh, Kyung Ja

Psychology Department, Yonsei University, Seoul, Korea

Introduction: Previous researches have shown a positive association between rejection sensitivity (RS) and interpersonal aggression (IA) (Downey et al, 1998; Downey, Feldman, & Ayduk, 2000). The present study aimed to explore the moderating role of emotion regulation difficulties in the relationship between RS and IA. In particular, this study explored the role of a) impulse control abilities and b) access level to emotion regulation strategies.

Method: 42 undergraduates in Seoul, Korea were recruited. Participants completed the Rejection Sensitivity Questionnaire (RSQ; Downey & Feldman, 1996) and the Korean version of Difficulties in Emotion Regulation Scale (K-DERS; Jo, 2007) which encompasses the following two subscales: Impulse Control Difficulties (ICD) and Limited Access to Emotion Regulation Strategies (LAERS). IA was operationally defined as reduced positivity of participants' evaluations of a partner following a bogus rejection feedback. Rejection was manipulated by a feedback of an anonymous partner saying that 'I don't want to have an online chat with you.' Descriptive statistics, correlation analysis, multiple regression analysis, slope analysis were conducted

using SPSS 18.0.

Results and Discussion: First, there was an interaction between RS and ICD, $\beta = .313$, $t = 2.151$, $p < .05$. For the high ICD group with high level of difficulties in impulse control, the relationship between RS and IA approached significance, $\beta = 1.799$, $p = .055$. However, RS was unrelated to IA in the low ICD group, $\beta = -.995$, $p > .05$. Second, there was an interaction between RS and LAERS, $\beta = .562$, $t = 2.543$, $p < .05$. Specifically, there was a positive and significant prediction of RS on IA in the high LAERS group ($\beta = 2.002$, $p < .05$), who has high degree of limited access to emotion regulation strategies, but not for low LAERS group ($\beta = -1.538$, $p > .05$). These results indicate that among those people with high levels of RS, those with high levels of impulse control difficulties or high levels of limited access to emotion regulation strategies are particularly likely to show more interpersonal aggression. This suggests that future intervention for people with high RS should target impulse control abilities and access to emotion regulation strategies in order to help them lower the expression of interpersonal aggression.

A-P-192

Problem Definition Procedure Enhances Solution Generation in People with Executive Dysfunction: A Pilot Study

○Takahashi, Fumito

Faculty of Education, Shinshu University, Nagano, Japan

Problem definition and clarification is a crucial cognitive process to cope with problems in daily life (Nezu, 2004). Concrete and clear understanding of the problem leads to generating many solutions (Brown et al., 2012). In this term, an individual's neurobehavioral functioning may take a very important role. Executive dysfunction impairs concrete problem definition (Ibarra et al., 2011), so that problem definition procedure is thought to be necessary especially for those with low executive function. However, limited researches examined whether the benefit from problem definition differs according to individual's executive functions.

In the present study, the effects of brief problem definition procedure on solution generation among people with high executive function and those with low executive function were compared.

Participants were 19 undergraduate students. Individual participants were asked to generate coping options on two interpersonal problems they actually experienced. In one problem situation, problem definition procedure was done. They were asked some questions clarifying the situation actually was. In the other problem situation, problem definition was not done. The number of generated coping options was counted. The difference of the number of generated solutions between the

conditions was used as the problem definition effect score. For example, if a participant generated 5 solutions when he/she gave no problem definition and 10 solutions when he/she did give problem definition, the problem definition effect score was 5.

Participants' executive function was measured using Wisconsin Card Sorting Test (WCST) computer software. The following four scores were used: (a) CA (categories achieved) as the whole score of executive function; (b) NUCA (numbers of response cards used until the first category achieved) as the inefficiency of learning through trial and error; (c) PEM (perseverative errors of Milner) as coping inflexibility; (d) PEN (perseverative errors of Nelson) as the response inhibition difficulty.

The ANOVAs revealed that interaction effects between problem definition and NUCA ($F [1,17]=3.68, p<.10$) and PEM ($F [1,17]=3.68, p<.10$) on the problem definition effect score were tend to be significant. Results of simple main effect analyses showed that problem definition may increase the number of generated solutions in those with high NUCA ($p<.10$) and in those with high PEM ($p<.10$).

Those results might suggest the importance of concrete and specific problem description especially for the people with low executive function.

A-P-193

The Effect of Assertiveness Training Program for Middle-aged and Elderly Persons

○Sekiguchi, Yuka¹, Suganuma, Kenji¹, Osada, Yukiko¹, Shirasaki, Keiko¹, Inami, Kazue²

¹Department of Psychology, Faculty of Psychology and Welfare, Seitoku University, Chiba, Japan, ²Department of Business Administration, Tokyo Fuji University, Tokyo, Japan

This study examined the effects of the assertiveness training program for middle-aged and elderly persons. The participants in the study consisted of 5 males and 14 females. The mean age was 58.5 years (range 40-75), $SD = 10.6$. Participants were divided into an experimental group ($n = 11$) and a control group ($n = 8$). The assertiveness training was conducted by five qualified clinical psychologists. The program consisted of 10 sessions of 90 minutes each, focusing on educational phase, assertiveness and daily life, a way of listening, awareness of feelings, cognitive restructuring, awareness of behavior and role-playing. No special training was given to control group. Members of both the experimental and control groups were assigned the assertiveness checklist (Suganuma, 1989) and the assertiveness cognition scale developed for this study at pre and post training. Results showed that the

“acceptability” sub-scale score in Suganuma (1989)’s assertiveness checklist, increased significantly in the experimental group. Furthermore, the total score of the assertiveness checklist and the “self-disclosure” sub-scale in the experimental group tended to increase compared with the control group. In addition, cognition in the “assertiveness rights” sub-scale in the assertiveness cognition scale significantly improved in the experimental group. There seems to be no other empirical studies that examined the effects of assertiveness training for middle-aged and older people. The results of this study show that our program is effective to improve the assertiveness of middle-aged and elderly persons. Further research will be required to improve the program, and also to develop assessment tools to measure assertiveness specialized in middle-aged and elderly person.

A-P-194

The Effects of the Behavior Modification Program to Reduce Risk Factors of Dementia in the Community

○Takeda, Shinya

Tottori University Graduate School of Medical Sciences , Tottori, Japan

The purpose of the present study was to examine the effects of a behavior modification program to reduce the risk factors of dementia in the community. The subjects were 75 elderly persons consisting of some groups based on their community. The program was carried out for seven months by group work to perform once a month and personal activity to perform every day. Group work consisted of confirmation of the daily activity to prevent dementia, relaxation exercises, reading aloud, a game, and a meeting to decide a game. The personal activity consisted of ten activities to reduce risk

factors of the dementia. To evaluate the program, we performed the Category Fluency Task (CFT; Cerhan et al., 2002) and the Emotion and Activity Scale for Dementia (EASD; Takeda et al., 2010) before and after the completion of program. After the program, statistically significant difference was found between pre and post program on the scores of the CFT ($t=-2.5$, $p<0.05$). On the other hand, it revealed no significant difference regarding the EASD. These results suggest that this program activates the cognitive function for elderly persons.

A-P-195

Effects of Sociotropy and Autonomy on Depression in Older Adults

○Cho, Ara, Oh, Kyung Ja

Department of Psychology, Yonsei University, Seoul, Korea

Objective: Sociotropy and autonomy are known as personality styles that make individuals vulnerable to depression by making them sensitive to related stress events. However, most of the research has been carried out with young adults, and not much is known about their effects on depression in older adults. The purpose of the present study was to find out how sociotropy and autonomy affects depression in older adults and whether their effects differ from those in younger adults.

Methods: 210 undergraduate students (19-24 years), 183 middle-aged adults (35-45 years) and 205 older adults (65-96 years) were recruited from a metropolitan area in Korea to participate in the study. All participants from three age groups completed the Korean version of Sociotropy-Autonomy Scale (SAS; Beck, 1983). In addition, the older adults group completed Geriatric Depression Scale (GDS; Yesavage, 1983) and Elders Life Stress Inventory (ELSI; Aldwin, 1990), while the middle-aged adults and undergraduate students completed Beck Depression Inventory (BDI; Beck, 1961) and Life Experience Survey (LES; Sarason et al., 1978). Two subfactors from the Sociotropy scale (Neediness and Connectedness) and another two subfactors from the Autonomy Scale (Independent Goal Attainment and Distancing) were derived using factor analyses and used in the ANOVA and regression analysis.

Results: In the older adults group, the mean levels of Neediness and Connectedness subfactor of the Sociotropy Scale were significantly lower compared to the undergraduate students group. The older adults group also showed a significantly lower level of Distancing subfactor of the Autonomy Scale compared to the middle-aged group. Multiple regression analysis of the older adults group data revealed that among the life stress events (interpersonal, achievement), congruency between stress and personality style, and the two subfactors of sociotropy and two subfactors of autonomy, only the two subfactors of sociotropy had significant effects on depression. Specifically, while neediness increased the level of depression, connectedness had a protective effect against depression.

Discussion: The present study suggests that while the levels of neediness and connectedness decreases in the old age, their effects on depression remain significant. It is also noteworthy that the two aspects of Sociotropy showed opposite effects on depression in older adults, with Neediness as a risk factor and Connectedness as a protective factor. Thus dealing with the issue of Neediness while promoting Connectedness would be a worthwhile strategy in prevention and treatment of depression in older adults.

A-P-196

To Express or Not to Express? The Relationship between Ambivalence over Emotional Expression, Satisfaction with Life and Social Relationships

○Lim, Jia Li, Tan, Gabriel

National University of Singapore, Singapore

Emotional expressions constitute an intricate part of everyday life. Emotions and the ways they are expressed are central to social interactions and reciprocity. Yet, how emotions are expressed differ widely among individuals and across cultures. The concept of ambivalence over emotional expression (AEE) has been developed to refer to “the desire to express one’s emotions, yet fear the consequences of doing so” (Lumley, 2011). Prior research has provided substantial evidence on the detrimental effects of emotional suppression (e.g. Gross & Levenson, 1993; Richards & Gross, 1999), a form of emotional avoidance often targeted by cognitive behavioural therapies (Barlow and colleagues (2004). The current study seeks to investigate how ambivalence over emotional expression (AEE) affects social relationships and satisfaction with life. Participants were 166 psychology undergraduates enrolled at the National University of Singapore who voluntarily completed a set of questionnaires measuring AEE, social relations (in terms of relationship quality, social isolation and social

support) and life satisfaction. Pearson product-moment correlations were obtained to examine the associations between the three variables. To test for mediation, bootstrapping method, a non-parametric resampling procedure that involves repetitive sampling of data set and estimation of indirect effect in each resampled data set (Preacher & Hayes, 2008) was used to test the indirect effects of AEE (Independent Variable) via social relationships (mediator) on satisfaction with life. Results showed that AEE is associated with poorer social relations (i.e. social isolation, social support etc.) and perceived lower satisfaction with life. Quality of social relationship, AEE and life satisfaction varied across type of relationships (i.e. family, friends and intimate partners). Lastly, social isolation was found to mediate the relationship between AEE and life satisfaction where high AEE resulted in greater social isolation which in turn led to lower life satisfaction. An implication of the findings of this study is that cognitive behaviour therapy should consider targeting AEE, especially among Asians.

A-P-197

Treating Depression: A Modification of Cognitive Behavioural Therapy and Meaning Therapy Based on Islamic Perspective

○Khan, Rahmattullah A, Khan, Shams Ur Rehman, Salami, Mutiu O

Department of Psychology, Universiti Pendidikan Sultan Idris, Perak, Malaysia

Despite a substantial number of researches on depression recognizing the list of symptoms within some categories, it is quite obvious that there are differences in how people express and experience depression especially on culture-related factors. Basically, most Western-developed therapeutic interventions like Cognitive Behaviour Therapy (CBT), Rational Emotive Behaviour Therapy (REBT) are based on the premise that human behaviour and emotions are basically the function of how an individual perceives and interprets his internal self and his environment. Moreover, there are growing concerns that therapeutic interventions should be adapted to suit cultural and religious

orientation of the client because culture interplay with psychotherapy on three spheres which include, conception dilemma, approach to problem-solving, and treatment goal. Thus, this analytical paper examines the religio-cultural conception of depression among Muslims, and adopts CBT and Meaning therapy based on Islamic concept of hope and gratitude to God. This is as a result of how Islamic teachings serve as an intervention towards relieving people with cognitive and emotional abyss. The purpose of this paper is to help Muslim clients learn and adopt healthy ways of rational thinking and attaining inner meaning fulfillment in treating depressive symptoms and other challenges in life.

A-P-198

Effects of a Mindfulness Program on Awareness and Decentering

○Kondo, Ikuyo¹, Shimazu, Naomi², Koshikawa, Fusako³, Soma, Hanae³, Ishii, Yasutomo³

¹Faculty of Education and Integrated Arts and Sciences, Waseda University, Tokyo, Japan, ²Faculty of Health and Medical Science, Teikyo Heisei University, Tokyo, Japan, ³Faculty of Letters, Arts and Sciences, Waseda University, Tokyo, Japan

Recently, Mindfulness-Based Cognitive Therapy (MBCT) has been focused as an effective method for preventing the relapse of depression. Traditional Cognitive-Behavioral Therapy aimed to correct “distortions of cognition”, which is a characteristic of depression. MBCT aims to develop the “decentering”, or “the ability to observe one's thoughts and feelings as temporary, objective events in the mind, as opposed to reflections of the self that are necessarily true (Fresco, Moore, van Dulmen, Segal, Ma, Teasdale, & Williams, 2007)”, and thereby tries to reduce the symptoms of depression. Mindfulness meditation can be considered to be attention-training techniques to acquire decentering. Previous studies on the effect of mindfulness meditation including MBCT have been conducted mainly with clinical groups and few studies have been conducted from the perspective of prevention in healthy people. Based on the interacting cognitive subsystems (ICS) model, an information-processing model for explaining the theoretical background of MBCT, Teasdale (1999) has suggested that being awareness of the current mind-body condition experienced through mindfulness meditation promotes decentering and suppresses the activation of cognitions that cause depression. We developed an 8-week program of several kinds of mindfulness meditation, and examined whether the program would facilitate awareness and acceptance of one's

own mind-body states and decentering.

The program was conducted with university students (n = 52). Participants were randomly divided into a mindfulness (MF) group (n = 25) and a control (CT) group (n = 27). The MF group participated once a week and practiced different meditation each week. Participants were explained about effects and mechanisms of mindfulness meditation, and homework was assigned to them. PHLMS (the Philadelphia Mindfulness Scale), and the Decentering Scale were administered before and after the intervention, and at 1-month follow-up after the intervention to evaluate the degree of awareness, acceptance, and decentering developed by the program.

A two-way analysis of variance was conducted using the time of groups (2) and assessment (3) to examine changes in awareness, acceptance and decentering resulting from the program. Results indicated that the Awareness score in PHLMS and the Decentering Scale in the MF group increased after the program and that those scores at the 1-month follow-up were higher than before the program. The above results indicate that the mindfulness program promoted awareness and decentering and maintained the effects until 1-month follow-up.

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A-P-199

Is Meditation Necessary to Mindfulness Training? -Focus on the Immediate Effect of the Sessions-

○Tamaki, Minami¹, Sunada, Yasuhide¹, Ito, Sayoko², Koda, Munenaga³, Ito, Yoshinori⁴

¹Graduate School of Education, University of the Ryukyus, Okinawa, Japan, ²Department of Child Education, Okinawa Women's Junior College, Okinawa, Japan, ³Graduate School of Medicine, University of the Ryukyus, Okinawa, Japan, ⁴Faculty of Education, University of the Ryukyus, Okinawa, Japan

Introduction: Recently, in a new wave of the cognitive behavioral therapy (CBT), meditation and mindfulness have gathered attention as a central component of the third generation CBT (Katukura, Ito, Nedate & Kanetsuki., 2009). However, at least in Japan, some people may have impressions such as “old-fashioned” and “doubtful” to the meditation. Thus, even if the effect of the mindfulness meditation has been demonstrated, there will be the person having difficulty to participate in the continuous training due to feeling awkward. However, it is not necessary to be stuck in the rule like “mindfulness training need to include meditation”. Recent studies have shown the active ingredient of mindfulness is “decentering” and to cultivate the abilities of attention and awareness. Thus, it is considered that the training which includes the component to enhance these abilities will be effective equally to the traditional MT. In the current study, we aimed at comparing the effect of three training groups (traditional meditation group, Yoga group, and Recreation group) sharing the same object multi-dimensionally.

Method: Twenty-eight undergraduate students ($M=19.68$, $SD=1.22$) were screened by the Japanese version of the General Health Questionnaire-28 (GHQ28: Nakagawa & Daibo, 1985) as moderately unhealthy person. They agreed an informed consent and were assigned to one of three groups randomly. Intervention was constructed by the 4 times group styles sessions for every week. Participants answered to the Depression and Anxiety Mood Scale (DAMS: Fukui, 1997) before and after each session.

Results and Discussion: We conducted 3 (group: Meditation vs Yoga vs Recreation) * 2 (time: before vs after) analysis of variance. This analysis revealed main effects for time on the “positive feeling” score in all sessions. Furthermore, there was interaction in the session 2 and the session 4 that improvement in the score of a meditation group and a recreation group was found. The other, in the change score of DAMS, reduction of the “depressive feeling” score by the main effect of a time was seen in all sessions. These results suggested that each groups equally effective to the amelioration of feeling in the sessions.

A-P-200

The Impact of Cognitive Function on Pleasant Activity and Reward Observation within the Intervention Process of Behavioral Activation

○Yokoyama, Takahiro¹, Sato, Tomoya¹, Matsumoto, Hiromu¹, Sensaki, Jun¹, Shimada, Hironori²

¹Graduate School of Human Sciences, Waseda University, Japan., ²Faculty of Human Sciences, Waseda University, Japan

Behavioral activation (BA) is a technique that enhances the perception of contingencies through positive reinforcement (Gawrysiak et al., 2009). The BA intervention process can include devising and executing a pleasant activity divided devising and executing a pleasant activity (Addis, 2004). A reduction in cognitive function is one possible individual difference factor that can inhibit the BA intervention process (Yamamoto et al., 2010). The purpose of this study was to examine how cognitive function is related to the BA intervention process among healthy college students. Subjects: 24 healthy undergraduates (male; n = 13, female; n = 11, mean age = 21.46±1.25 years). Measures: Cognitive function was assessed through the following domains: memory function (Rey's auditory verbal learning test; Wakamatsu et al., 2003), distributive attentional function (Paced Auditory Serial Addition Test; Toyokura, 2009), selective attentional function (Trail-making Test; Takaoka, 2009), executive function (Behavioral Assessment of Dysexecutive Syndrome BADS; Ogata, 2009), and word fluency (Word Fluency Test WFT; Suto et al., 2009). Subjects were asked to devise pleasant activities in an open-

ended fashion. Subjects were also administered the Center for Epidemiologic Studies Depression Scale (CES-D; Shima et al., 1985) and the Environmental Reward Observation Scale (EROS; Kunisato et al., 2011). Positive correlations were found between the number of devised pleasant activities and the RAVLT and WFT scores ($r = .44, p < .05, r = .55, p < .01$, respectively), as well as between BADS scores executive functioning of pre-treatment, and change in EROS scores and CES-D scores ($r = .41, p < .05, r = .41, p < .05$, respectively). These results suggest that memorization, holding information in memory, and word fluency are associated with the process of devising pleasant activities. One component of executive function, the "ability to clarify a goal" (Lezak, 1982), functions as an established operation to increase the reinforcing situation associated with the process of devising pleasant activities. This is an important aspect of BA. Even among cognitively healthy individuals, reductions in cognitive function are associated with the BA process. Future research is needed with clinical samples to assess the replicability of the present results.

A-P-201

Effects of the Self-affirmative Task for Self-compassion on Automatic Thoughts, Perfectionism Cognition and Worry

○Ishimura, Ikuo¹, Hatori, Kenji², Asano, Kenichi³, Yamaguchi, Masahiro¹, Nomura, Toshiaki⁴, Sukigara, Nozomi⁴

¹Department of Clinical Psychology, Tokyo Seitoku University, Chiba, Japan, ²Faculty of Humanity, Saitama Gakuen University, Saitama, Japan, ³Research Center for Child Mental Development, Graduate School of Medicine, Chiba University, Chiba, Japan, ⁴Nippon Medical School, Tokyo, Japan

In recent years, self-compassion has been seen as a powerful factor in predicting mental health. For example, there are indications that self-compassion increases brain and immune functions, alleviates symptoms such as shame, self-criticism, depression, anxiety, rumination and thought suppression, and has a positive correlation with feelings of satisfaction with life and social support. Thus, this research aims to develop new self-affirmation tasks that can increase one's sense of self-compassion and to investigate the ways in which the effects of self-compassion can be characteristically seen through a method of intervention based on the perspectives of automatic thoughts, perfectionism cognition and worry. Following a brief overview of the method of intervention, 18 university students agreed to take part in this research. Over a period of four weeks, these students performed self-affirmation tasks daily at bedtime, where they were asked to write down five self-affirmative things each day. Measurements were then carried out using the Self-Compassion Scale, Automatic Thoughts Questionnaire, Multidimensional Perfectionism Cognition Inventory, Penn State Worry Questionnaire, both before and after intervention, as well as Forms of Self-Criticism and Self-Reassuring Scale every week.

Furthermore, 35 university students were selected at random as a control group and asked to answer the same questionnaire during the same one-month period as for the other students. Repeated analysis of variance of the two factors showed significant interaction in their self-criticising and self-reassuring thoughts, indicating that they attained their self-compassionate ideas during the first week and succeeded in decreasing their self-criticising ideas over a period of four weeks. Also, repeated analysis of variance of the two factors showed significant interaction only in their positive automatic thoughts, with the F value being 7.78 ($p < .10$). However, there are not significant interactions in self-compassion, perfectionism cognition and worry, which indicated the procedure in the task needed to be confirmed whether it functions well. From the above, the self-affirmation tasks for self-compassion in this research became one of the positive psychological interventions for students to reduce their self-attacking ideas and to develop their self-reassuring ideas. In addition to being effective in improving positive automatic thoughts, the self-affirmation tasks enabled students to develop positive automatic thoughts and indicated the possibility of tendency to set high personal standards.

A-P-202

The Effect of the Self Compassion Training on a Sense of “IBASHO”

○Akamine, Yuki¹, Nakamine, Mihoko¹, Koda, Munenaga², Ito, Yoshinori³

¹Graduate School of education, University of the Ryukyus, Okinawa, Japan, ²Graduate School of medicine, University of the Ryukyus, Okinawa, Japan, ³Faculty of Education, University of the Ryukyus, Okinawa, Japan

Introduction: Japanese term of “Ibasho” generally means “Place” and “Space”. When we cannot feel be accepted by the people in a social situation, we also use expressions such as “I don’t have Ibasho” or “I cannot feel a sense of Ibasho frequently.” The fluctuation of Sense of Ibasho is related to mind health. Some researchers have indicated that low sense of Ibasho (SoI) is related to mental health. It is suggested that low SoI is more closely-linked to critical evaluation on oneself than tactual rejection by others. Self Compassion (SC) which reflects a gentle manner to oneself is getting a lot more attention lately. It is indicated that the training for SC is effective on shame or self-criticism (e.g., Gilbert & Procter, 2006). The aim of the present study was to examine the effect of SC training on SoI with undergraduate students.

Method: Nine undergraduate students with score less than $-0.5SD$ of average on SoI participated in the training sessions (four women, $M=19.89$ age, $SD = 1.37$). SoI was measured by single-item VAS scale and SC was measured by apanese version of Self Compassion Scale Short Form (Tomimura et

al., 2012). Two-week training period including three sessions were followed by the four-week control period. The training program focused on the basic component of SC; (1) mindfulness, (2) a sense of common humanity, (3) self-kindness and exercise adopted in each sessions were brought to the previous study (e.g., Gilbert, 2010).

Result: Finally, six participants completed all assessments trials and their date was used for analyses. Result of ANOVA failed to show the SC training enhance SoI ($F(2, 5)=1.33$, n.s.). ($F(2, 5)=8.63$, $p<.05$). On the other hand, ANOVA revealed significant main effect ($F(2, 5)=8.63$, $p<.05$) about SC general score. Turkey tests indicated that the score of posttest and follow up are higher than the score of pretest.

Discussion: In the current study, it was indicated that SC training for undergraduates improved the tendency of SC significantly. However, such a improvement of SC does not influenced to SoI. It was considered that SoI may reflect more persistent interpersonal schema, thus long-term follow-up study was needed.