2-10 The Effect of Group Reminiscence in Nostalgic Room for Mildly Demented Elderly—Evaluation with NIRS during Dementia Assessment Test—

Yoshiaki SONE[1], Tomoko HARADA[1], Masayo MIYAMOTO[1], Yukie FUKUMOTO[1], Naoki TANI[1),2)], Akio SHINTANI[2)], Miki SHINODA[1)], Aki NAKANISI[3)], Takami MIKI[4)] and Toyoko NOMURA[5)]

1) Faculty of Human Life Science, Osaka City University, 2) The Osaka Museum of Housing and Living, 3) Osaka Municipal Kousai-in Hospital, 4) School of Medicine, Osaka City University, 5) Faculty of Human Life Design, Toyo University

We evaluated the effectiveness of reminiscence group therapy in a nostalgic room for mildly demented elderly with Near-Infrared Spectroscopy (NIRS) during their dementia assessment test. The participants were 60–80 years-old demented elderly women and men (HDS-R, 20–25). They participated in one hour reminiscence group therapy ten times per cours, which were held once a week for 10 weeks. At the beginning and last day of a cours, we measured their brain activities during the dementia assessment tests using NIRS, and compared change in their hemodynamics. As a result, we observed hemodynamics change from that peculiar to dementia people to that common for normal people in some or any items of the test.

2-11 Contingent Negative Variation Associated with Backward Floor Translation and Pressure Center Positions in the Anteroposterior Direction in Standing

Katsuo FUJIWARA[1], Kaoru MAEDA[2], Yuka TAKAI[1], Hidehito TOMITA[1], Naoe FURUNE[1] and Zhibin LU[1]

1) Graduate School of Medical Science, Kanazawa University, 2) Morinomiya University of Medical Sciences

The purpose of this study was to investigate a relationship between necessities for predicting perturbation timing and motor preparation state. Subjects performed S1-S2 (warning and response stimuli) paradigm with a 2.0-sec inter-stimulus interval while maintaining three different standing positions, which are forward leaning, quiet standing, and backward leaning, on a force platform. S1 was a very small floor translation which did not cause a distinct postural perturbation. S2 was a transient backward floor translation with an amplitude equivalent to about 20% of foot length of subjects. Slope of CNV during 150-ms before S2 in forward and backward leaning were negative, and significantly differed from the positive slope in quiet standing. In backward leaning, the lowest CNV was shown in middle period of S1-S2. It is presumable that, in forward leaning, larger amount of attention was directed to postural control in response to backward floor translation, whereas, in backward leaning, attention directed to timing prediction of floor translation onset was decreased.

2-12 Effects of Rewarding and Punishing Stimuli on Task Performance, Mood and Autonomic Nervous Activity, and the Interaction with Personality

Sokichi SAKURAGI[1] and Yoshiki SUGIYAMA[2]

1) Department of School Nursing and Health Education, Aichi University of Education, 2) Department of Neurology, Kido-Hospital

Our purpose of this study was to investigate the effects of reward and punishment on task performance, mood and autonomic nervous activity when performing Wisconsin Card Sorting Test and the interaction with personality assessed by MMPI and Tokyo University Egogram (TEG). No significant interaction of condition (rewarding and punishing) ×time course on task performance was shown, while mood and autonomic nervous activity showed less stressed state under rewarding condition than punishing one. When repeated measures analysis of variance was applied to low- and high-groups divided by each score of MMPI clinical scale and TEG, the analysis revealed significant interactions of condition ×time course× Pt (psychasthenia) on the required time for the task and total errors. That is, the high Pt group, whose members tend to be sensitive, prone to worry and susceptible to stress, showed gradual improvement of the task performance under the punishing situation, while the low Pt group, whose members tend to be adaptive, efficient and self-confident, showed the gradual improvement under the rewarding situation.

2-13 The Relationship between Psychosocial Stress and Intraocular Pressure among Public School Workers

Kazuhiko YAMAMOTO[1], Yoko SAKAMOTO[1], Masahiro IRIE[1], Susumu OHMORI[2] and Mototaka YOSHINARI[2]

1) Institute of Health Science, Kyushu University, 2) Kyushu Central Hospital

The aim of this study was to examine the relationship between psychosocial stress and intraocular pressure among apparently healthy subjects. Psychosocial stress was measured using the inventory to measure psychosocial stress (IMPS), and intraocular pressure was measured with a non-contact tonometer (Topcon CT-90) among 1,461 public school workers (883 men and 578 women). Partial correlations and hierarchical multiple regression analysis were performed to test the hypothesis that psychosocial stress is associated with an increase in intraocular pressure after controlling for the effects of likely confounding variables such as age, body mass index (BMI), glycosylated hemoglobin, systolic blood pressure, alcohol consumption, smoking status, and exercise. The IMPS-measured stress score was positively correlated with intraocular pressure after controlling for the effects of confounding variables among women, whereas this relationship was not found among men. Hierarchical multiple regression analysis indicated that the IMPS-measured stress score was positively associated with intraocular pressure independent of confounding variables among women, but not

among men. Perturbations of the hypothalamic-pituitary-adrenal (HPA) axis associated with stress, which have been shown to reveal gender differences, may be part responsible for an increase in intraocular pressure among people suffering from psychosocial stress. The relationship between the stress-associated increase in intraocular pressure and open-angle glaucoma remains to be elucidated.

P-1 Relationship between States of Physical or Mental and Sleeping Habits among University Students in Thailand and Japan

Naohito KAWASAKI[1)], Sigeharu TANEI[1)], Siriporn BURAPADAJA[2)], Chaowalit LOETKHAM[3)], Fumihiko OGATA[1)] and Seiki TANADA[1)]

1) School of Pharmacy, Kinki University, 2) Faculty of Pharmacy, Chiang Mai University, 3) Faculty of Humanity, Chiang Mai University

We carried out a questionnaire survey on physical and mental conditions and sleeping habits in college students in Japan and Thailand to investigate their relationship. Results of actual and ideal height, body weight, percent body fat, and BMI in college students in Japan and Thailand revealed that there was a gap between actual build and ideal build and ideal body build tends to be slimmer than the build preferable for good health, and it was found necessary to give advice on healthy build. Percentages of college students that visited a clinic were almost comparable in Japan and Thailand, and rates of college students taking over-the-counter medicine were higher in Thailand than in Japan. Allergy was found at comparable ratios in college students in Japan and Thailand. College students in Japan exhibited a significant correlation between negative factors in mental conditions and time required for falling asleep. They required longer time to fall asleep due to more stress than college students in Thailand, and as a result there was a shortage of sleep.

P-2 A Comprehensive Study of Effect of Urbanization on Health of Children in East Asia—Part 4: Comparison between Japan and other cities in East Asia

Maki SATO[1)], Koji NAKAJIMA[2)], Mari KUBO[1)], Shintaro YOKOYAMA[1)], Kazumi SHIMAKURA[1)], Masaru ISHII[3)], Naoto ICHIMARU[3)], Taro YAMAUCHI[1)] and Kazumi NATSUHARA[4)]

1) Hokkaido University, 2) Taisei Corporation, 3) Fukuoka University of Education, 4) Fukuoka Prefectural University

We performed a comprehensive study about urban environment and health of children in East Asia. We investigated various measurement items, for example, local cold tolerance and questionnaire about a lifestyle in four cities of East Asia. We developed two questionnaire sheets for children and their parents. The main questionnaire for children asks 1) sleeping time and quality, 2) daily physical activity, 3) usage of information technology devices, 4) cramming for examination and 5) subjective score for health. The main questionnaire for parents asks 1) health of child, 2) indoor pet animal, 3) passive smoking, 4) heating, cooling, and ventilation system, 5) residential construction and 6) family structure. In this report, we describe the results of sleeping time and quality, subjective score for health, and daily physical activity. In addition, we discussed the characteristics among Japan and other cities in East Asia.

P-3 Study on The Relation between Physiological Responses and Numbers of Steps Per Day for the Female Students

Naomi ODA[1)] and Hideo OHNO[2)]

1) Graduate School of Life Studies Sugiyama Jogakuen University, 2) Sugiyama Jogakuen University

Recently, the inconsistent life styles of young adults in their 20's or 30's may cause their circadian rhythms to become less regular. This study surveys the health status of 17 female students during two weeks in the winter of 2005 employing physiological measurements, and questionnaires surveying their daily physical activity, (e.g., metabolic rate). Subjects can be classified into two groups, one is above the national average group and the other is below the national average group, and we analyze the interrelation between them. The former are number of steps is above the national average group of a day, the latter are above the national average group of a day. We gauged subjects' daily life styles based on the answers from the questionnaires. Analysis of findings provided the main results as follows: 1) Subjects number of steps were below the national average. 2) High relationship between health consciousness and scores resulting from self-diagnoses of health was shown for less than average group. 3) It is difficult to observe morning surge phenomena in the physiological measurements from the ordinary lifestyles surveyed here.

P-4 Association between the Physiological/ Psychological Evaluation of Swelling and Muscle Fatigue in Working Women

Motoki SUDO, Aya CHIBA, Yoshinao NAGASHIMA, Yukihiro YADA and Shuuichi TSUCHIYA

Personal Health Care Institute, Kao Co., Ltd.

We performed physiological/psychological analyses of swelling in 10 females engaged in standing-work (BA) and 9 females engaged in desk-work (DW). The parameters included the subjective evaluation of swelling of the left lower limb, volume calculated by measuring the circumference of an area below the knee, extracellular fluid ratio, muscle hardness, and muscle fatigue evaluated from electromyograms/muscle sounds. Measurement was performed twice (morning/ afternoon). The fluid ratio, volume, and muscle hardness in the afternoon were significantly higher than those in the morning. In the BA group, the rates of increase in the fluid ratio and volume were significantly higher than those in the DW group. There was no muscle fatigue in either group. Concerning subjective evaluation, scores of fatigue, swelling, malaise, heaviness, thickness, and pain in the afternoon were