P131 Survey Research of Convenience Store Usage for Lunch Among College Students and Nutritional Examination of Convenience Store Box Lunches

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Objective: Convenience stores are popular for quick food such as box lunch and rice ball in Japan. In order to obtain the lunch habit of college students, we conducted questionnaire survey for convenience store usages. Additionally we examined the nutritional values of convenience store box lunches as a part of the study whether student's diet meet the Dietary Reference Intakes for Japanese.

Study Design, Settings, Participants: Subjects were 450 college students (male 27, female 422) with two colleges in Tokyo. The questionnaire consisted twelve items concerning lunch including healthy diet awareness and convenience store usage. For box lunch, 37 kinds were examined with its nutritional labeling.

Results: For lunch at campus, 58% of students brought the lunches from home, 25% bought at the convenience store, and 14% ate at the cafeteria. The most popular choices at the convenience store were rice balls (66%) and breads (56%). The ratio of male students chose cup-noodles was 22.2%, significantly higher than female. Regarding the side dishes choice of box lunch, 44% picked deep-fried chicken, 23% teriyaki-meat, and 20% hamburger steak, the meat dishes were preferred. The maximum salt amount of box lunches was 7.1g and the mean was 3.7 ± 1.2 g, thus some of them contains more than recommended daily intake value.

Conclusions and Implications: Although the subject students knew vegetable and small amount of salt are important for healthy diet, they chose lunch with less vegetable and much salt. We learned that further consideration is necessary when purchasing lunch at convenience store to correspond with nutritional requirement.

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P132 The Association of Food Insecurity and Stress Among College Students in Rural North Carolina

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Objective: To describe food insecurity status among college students and examine possible relationships with stress.

Study Design, Setting, Participants: A cross-sectional design was used to analyze food security status of students

by use of an online survey that included the USDA Household Food Security Survey Module and questions associated with stress. The setting was a public university located in rural NC. A total of 381 students participated in the research study in February, 2016. The response rate was approximately 94%.

Outcome Measures and Analysis: Variables include food security status and stress level. Statistical analysis included descriptive statistics and one-way ANOVA with Bonferroni corrections.

Results: The percentage of student respondents who were considered food insecure was 38%. There was a significant mean difference on stress level between food security status ($p = .004$). Bonferroni test illustrated the statistically significant difference occurred between the very low food security and high food security ($p = .008$).

Conclusion and Implications: This study indicated the students with very low food security had significantly higher stress level than those with those high food security. Understanding the impact on stress level by food security may be useful in developing programs for those in need on college campuses.

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P133 The Relationship Between Past Eating Habits and Occurrence of Disability in University Female Athletes

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Objective: To investigate the relationship between past eating habit and exercise energy expenditure (EEE) and the subsequent menstrual condition and experience of fatigue injury and to provide a basic material for considering future nutrition education contents.

Design, Setting and Participants: The study was a retrospective survey involving 20 university female long distance athletes aged 18-22 years old.

Outcome Measures and Analysis: We conducted a questionnaire survey on body composition, weight loss consciousness, dietary consciousness, menstruation situation during high school days, and competition history and experience of fatigue fracture up to the present. Energy intake (EI) was assessed from the 1-day diet record on week-days practice day based on the record of practice diary in high school days. Unpaired t-tests were performed using SPSS.

Results: Participants who experienced fatigue fractures had significantly higher EEE ($p < 0.01$), lower energy availability (EA) ($p < 0.05$) than did those without fatigue fractures. Participants with abnormal menstruation had significantly higher EEE ($p < 0.05$) and lower EA ($p < 0.01$) and carbohydrate intake ($p < 0.05$) than did those with normal one. However, there was no significant difference in EI between the two groups in the

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