

## Relationship between Mental Health and Food Access among Healthcare College Students in a Snowy Area in Japan

**Authors :** Yuki Irie, Shota Ogawa, Hitomi Kosugi, Hiromitsu Shinozaki

**Abstract :** Background: Dropout from higher educational institutions is a major problem both for students and institutions, and poor mental health is one of the risk factors. Medical college students are at higher risk of poor mental health than general students because of their hard academic schedules. On the other hand, food insecurity has negative impacts on mental health. The healthcare college of the project site is located heavily snowy area. The students without own vehicles may be at higher risk of food insecurity, especially in the winter season. Therefore, they have many risks to mental health. The aim of the study is to clarify the relationship between mental health and its risk factors to promote students' mental well-being. Method: A cross-sectional design was used to investigate the relationship between mental health status and lifestyle, including diet and food security among the students (n=421, 147 male, 274 females;  $20.7 \pm 2.8$  years old). Participants were required to answer 3 questionnaires which consisted of diet, lifestyle, food security, and mental health. The survey was conducted during the snowy season from Dec. 2022 to Jan. 2023. Results: Mean mental score was  $6.7 \pm 4.6$  (max. score 27, a higher score means worse mental health). Significant risk factors in mental health were breakfast habit ( $p=0.02$ ), subjective dietary habit ( $p=0.00$ ), subjective health ( $p=0.00$ ), exercise habit ( $p=0.02$ ), food insecurity in the winter season ( $p=0.01$ ), and vitamin A intakes ( $p=0.03$ ). Conclusions: Nutrients intakes are not associated with mental health except vitamin A; however, some other lifestyle factors are significantly associated with mental health. Nutrition doesn't lead to poor mental health directly; however, the promotion of a healthy lifestyle and improved food security in winter may be effective in better mental health.

**Keywords :** mental health, winter, lifestyle, students

**Conference Title :** ICMHEMW 2024 : International Conference on Mental Health in Emergencies and Mental Wellness

**Conference Location :** Singapore, Singapore

**Conference Dates :** March 25-26, 2024