## Vitamin D Deficiency and Depression Among Urban University Students in United Arab Emirates

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## **ABSTRACT**

**INTRODUCTION:** The aim of this study was to explore a relationship between vitamin D deficiency and symptoms of depression and its related factors among urban university students. METHODS: A cross-sectional study was conducted using a validated questionnaire during May-July 2018 among urban university students in the UAE. Levels of serum 25(OH)D were assessed using chemiluminescent microparticle immunoassay (CMIA)-Architect i System. Data analyses were done using SPSS-IBM. Differences in proportional were tested with Chisquare test and P<0.05 was considered significant. RESULTS: 417 students were participated and reported their Vitamin D level in this study. 242 (58%) of respondents were females. 318 students (76.3%) had vitamin D deficiency with a level of less than 50 nmol/L. The majority of student 281 (67.4%) linked their vitamin D deficiency to lack of sun exposure, while 95 (22.8%); 33 (7.9%); and the rest of the students (1.9%) linked their vitamin D deficiency to the diet; the socioeconomic factors and the financial issues respectively. The following factors showed a relationship with vitamin deficiency: Gender (p=0.036); Medical students (p<0.001); and senior students (p=0.001). Medical students factor showed a significant relationship with severe depression (p=0.002). A significant relationship between depression severity and vitamin D deficiency is shown in this study (p<0.001). CONCLUSION: There was a significant relationship between vitamin D deficiency and the severity of depression. The urbanisation is an important factor related to vitamin D deficiency in this study. Therefore, promoting vitamin D health awareness, if replicated across university students, could contribute to positive health outcomes.

**KEYWORDS:** Vitamin D; deficiency; depression; students, United Arab Emirates (UAE)

## Weight Status and Its Association of Self-Regulation Among Secondary School Students in Hulu Langat, Selangor

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## ABSTRACT

INTRODUCTION: Obesity in adolescents is a major public health problem in Malaysia. Understanding selfregulation in relation to body weight status is important. The objective of this study was to determine the weight status and its association with the level of self-regulation in maintaining healthy body among secondary school students in Hulu Langat, Selangor. METHODS: A cross sectional study conducted among secondary school students in Hulu Langat district. Those with parental consent were selected and their Body Mass Index (BMI) was calculated and weight status was classified using CDC BMI for age. They were given a set of selfadministered questionnaires to gather information on socio-demographic profiles, dietary habits, exercise level and self-regulations. T test was used to measure the association between self-regulation and weight status. **RESULTS:** There were 636 students participated in this study and 26.2% of them were overweight and obese. Only 3.1% (21) were amotivated or not interested in maintaining healthy body weight, 52.4% of them had normal weight. Among those who were interested, they had both high external (controlled regulation, with mean (SD) score of 36.4 (9.2) and internal (autonomous regulation, with mean (SD) score of 36.2 (4.4) regulations to maintain healthy weight. There was no association between weight status and autonomous regulation or controlled regulation. CONCLUSION: Regardless of the students' weight status, students seem to have similar level of external and internal level of motivation in maintaining body weight. This perhaps warrant for an intervention especially for overweight students to increase their motivation.

**KEYWORDS:** Self-Regulation, Weight Status, Students, Obesity, Overweight