Depression among medical and non-medical students and its association with cognitive enhancers and psychostimulants use

Running title: Tobacco smoking and depression among medical and non-medical students

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By
Hamdallah Mahmoud Taya
Marah Nasser Qadous
Yara Jawdat Abu El Hija

Supervised by
Basma Damiri, PhD, Faculty of Medicine and Health Sciences/Drugs, Toxicology, and Physiology, An-Najah National University
Dr Zaher Nazzal, Community Medicine (ANNU)

Dr. Ahmad Abu Hassan, Neurology (NNHU)

Dr. Abulsalam Alkaiyat, Public Health Department (ANNU)

ABSTRACT

University students are at higher risk of using cognitive enhancers (CE) and psychoactive substances (PS). Depression is associated with a noticeable decline in academic performance and may increase the risk of substance use. Due to social-political problems, the use of CE/PS occurred among Palestinians and spread among them in the last decade in an ascending phase. Depression among CE/PS users is underrecognized and neglected health in previous national studies. Self-administrated questionnaire and Beck Depression Inventory were used to assess the association of depression and CE/PS use among university students at An-Najah National University in 2020. The response rate was 78.8%; (n=1051; 38.8% males, 61.2% females). The overall prevalence of depression was high (30.6% males, 34.7% females). The prevalence of cigarette smoking (39.2% males, 3.9% females), waterpipe smoking (43.1% males, 21.6% females), energy drink consumption (59.6% males, 29.7% females), coffee consumption (85.5% for each gender), tea, and chocolate were high, with apparent differences in accordance to gender and academic fields. The multinomial logistic regression results revealed that cigarette smokers are at higher risk of severe (OR=4.5, p-value=0.001), moderate (OR=3.27, p-value<0.001), and mild depression (OR: 2.24, p-value=0.002) than non-smokers. Severe depression was less prevalent among medical students than health sciences and nonmedical students (OR=0.215, p-value=0.015). Males were less likely to have moderate (OR=0.5, p-value=0.012) and mild (OR=0.48, p-value=0.001) depression than females. Overall, the results of this study revealed the high prevalence of depression and the detrimental effects of smoking on students. They also suggest the urgent need to address depression and risk factors associated with it among Palestinian university students by educating students about mental health, identifying high-risk students, and offering easily accessible psychological help. They prompt the need to broaden the spectrum of studies to include students from various academic fields instead of focusing on medical students.

Keywords: Addiction, depression; caffeine intoxication; energy drinks consumption; cognitive enhancers; psychostimulants