

ARE 24-HR ACTIVITY BEHAVIORS ASSOCIATED WITH DEPRESSION?

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BACKGROUND: Among young adults, depression reached crisis levels during the last decade. This crisis is far from over. Depression is linked to the development of other mental health-related disorders and events like eating disorders, sleep disorders, suicide, and substance abuse. There is an urgent need to identify simple, lifestyle-based strategies for managing depression risk. One important strategy about which we know little is the management of 24-hours activity behaviors (24-AB), defined as the distribution of sleep, sedentary behavior, and physical activity throughout the day. The aim of this study is to assess the strength of the association between latent profiles of 24-AB and depression in young adults. **METHODS:** We will analyze data from the 2015-2018 National Health and Nutrition Examination and Survey (NHANES) for individuals 18-30 years old with complete responses to the depression screener, sleep disorder, and physical activity surveys. Estimates will be stratified, clustered, and weighted to account for the probability-sample design. Depression scores will be estimated using the Patient Health Questionnaire, which describes the frequency of depressive symptoms over the last 2 weeks. Each item is scored from 0-3, and categorized as either “Not at all”, “Several days”, “More than half the days”, and “Nearly every day” with a possible total score ranging from 0-27. Physical activity will be defined as moderate to vigorous physical activity per day; sedentary behavior will be defined as minutes of sedentary behavior per day; and sleep as sleep minutes per day. We used multiple linear regression to determine the association between depression and each 24AB. We will adjust for age, sex, race/ethnicity, and education. **RESULTS:** After adjusting for age, sex, race/ethnicity, and education a 1-minute increase in sedentary behavior per day was associated with a 0.003 unit increase in depression score. Sleep and MVPA were not associated with depression score.

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