Exploring an Interaction of Antidepressants and Depressive Symptoms on Health Behaviors in College Students


Introduction:

• Physical activity and healthy eating are important health behaviors however, maintaining these behaviors is challenging in the context of depressive symptoms.

• Although antidepressants help reduce depressive symptoms, it is unclear how antidepressants interact with depressive symptoms to impact health behaviors, especially among emerging adult college students.

Method:

• Across two academic years, a comprehensive survey of college student health was administered anonymously online to 4286 students in exchange for extra credit in a course.

• Separate items examined how many hours of moderate and strenuous activity (operationally defined for the participant) a participant had over the past 7 days.

• History of strenuous activity while in high school, and since starting college were quantified as number of days in a week of at least 20 minutes of activity.

• Two by two factorial ANOVAs with self-reported antidepressant status (Yes v. No) and presence of clinically significant depressive symptoms (> 9 on PHQ9) were used to determine if the interaction between these two factors influenced selected health behaviors.

Results:

• Valid responses based on embedded validity checks resulted in an analytic sample of 3547.

• Significant interactions between depressive symptoms and antidepressant status were not found for moderate activity (p = 0.145) but were found for strenuous activity F(1, 3432) = 6.643, p = 0.01 .

• Among individuals not taking antidepressants, the presence of clinically significant depressive symptoms was associated with lower physical activity. However, this difference was not observed among individuals that were taking antidepressants.

• Similar results were observed for history of activity examined through two items, one examining strenuous activity since starting college F(1,3438) = 8.107, p = 0.004 and another during high school F(1, 3440) = 6.585, p = 0.01 .

• These results suggest that antidepressants may also provide a “protective effect” for maintaining healthy exercise habits in young adults who are still experiencing depressive symptoms.

• Further research is necessary to determine if this is a consistently observable effect, and to understand mechanisms by which antidepressants enable individuals experiencing depressive symptoms to maintain physical activity.