



**DEFINING THE ASSOCIATION BETWEEN A VOLUNTARY USE OF FITBITS AND  
SELF-REPORTED PHYSICAL ACTIVITY VOLUMES**

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**Background:** Achieving 150 minutes of moderate-intensity exercise per week can decrease risk for cardiovascular disease, metabolic syndrome, type 2 diabetes, and other health concerns. College students typically lack adequate amounts of physical activity on a regular basis. One possible intervention strategy is to utilize Fitbit trackers. However, multiple studies reveal mixed results on how Fitbits affect physical activity levels. Therefore, in hopes of alleviating some uncertainties of wearable fitness trackers, the purpose of this study is to explore the influence of a voluntary usage of Fitbits on self-reported quantities of physical activity. Does opting to receive a Fitbit increase self-reported physical activity levels?

**Methods:** In this study, 90 University of Utah Undergraduate students participated in the Prevention Plus Wellness Study for 12 weeks. Upon screening procedures, the participants completed a baseline survey to identify their current frequency of physical activity on a weekly basis. Participants were then randomized into one of two groups. One group received a Fitbit (28 participants), and the second group did not receive a Fitbit (62 participants). Following the 12-week period, the participants completed a follow-up survey to update their current physical activity levels on a weekly basis. The physical activity values from the baseline survey and the follow-up survey were assessed using the International Physical Activity Questionnaire to convert the physical activity levels into MET-minute values. The MET-minute values were analyzed utilizing a regression analysis to identify the correlations of the physical activity levels and the Fitbit usage. We also performed ANOVA tests to investigate the difference in MET-minute values between the two groups.

**Results:** Although the data analysis is still in progress, we hypothesize a statistically significant correlation between Fitbit usage and physical activity levels ( $p < 0.05$ ). Additionally, we hypothesize a statistically significant difference between using a Fitbit and not using a Fitbit. The group with a Fitbit will illustrate higher MET-minute values compared to the group without a Fitbit ( $p < 0.05$ ).

**Conclusion:** These results will be important as they will reveal whether or not Fitbits are an effective method for increasing physical activity levels among college students.