Frequency data were calculated for each group. If a participant owned a fitness activity tracker, they were given survey form A. If they answered no, survey form B was given. The most common types of fitness tracking devices were the Fitbit (44.7% of students) and the Garmin (29.49% of participants). Step count tracking was the most popularly used feature among all participants (86.8% of students and 96.2% of faculty, staff, and administration). 84% of all participants reported that the device encouraged their participation in physical activity. For those not owning a device (70.51% of participants), lack of interest was the most prevalent reason reported against purchasing a device, followed by expense.

CONCLUSION: Our results suggest that only a small percentage of individuals across a college community own these fitness tracking devices, despite the fact that they are perceived to encourage physical activity.

Purpose

Obesity continues to be a major health concern as more than one-third of U.S. adults are obese. Obesity has been associated with a number of diseases including cardiovascular disease, stroke, type 2 diabetes, and certain types of cancer (CDC, 2015). A significant way to combat obesity is through increasing physical activity. According to the 2008 Physical Activity Guidelines for Americans, U.S. adults are recommended to engage in moderate-intensity aerobic activity for a minimum of 150 minutes each week, which is equivalent to 30 minutes a day for five days per week. In addition, muscle-strengthening activities that work all major muscle groups should be performed 2 days a week. (CDC, 2015) Wearable devices for tracking health and fitness related activities are thought to motivate individuals to participate in regular exercise (Rooney et al., 2003). A 2014 report estimated that one in five Americans own a wearable fitness tracker, but only one in ten wears them daily. (Comstock, 2014). With new (e.g. Apple Watch) and updated devices (e.g. Fitbit) on the market this past year, along with the Digital Self theme for the Program for Excellence in the Liberal Arts and Civic Engagement (PLACE) on our campus, there was a need to examine the prevalence and use of fitness activity tracking devices among the Linfield community.

Materials and Methods

We sought to recruit a broad sample of students, faculty and staff from the Linfield College community. Surveys were administered at recruitment tables in high traffic places on campus such as the student dining hall, campus coffee shops and the library. Surveys were administered to students in some classroom settings with instructor permission. Researchers visited faculty and staff offices on campus to solicit participation. Participants were asked to complete the survey onsite. To begin the survey process, participants were questioned whether or not they owned a fitness activity tracker. If they answered yes, survey form A was given. If they said no, survey form B was given. For data analysis, students were separated from faculty and staff. Frequency data were calculated for each group.

Abstract

PURPOSE: Wearable devices for tracking health and fitness related activities are thought to motivate individuals to participate in regular exercise. While there are many reports regarding the reliability and validity of fitness tracking devices, the prevalence and usage is not typically reported, particularly in college communities. The purpose of this study was to determine the prevalence and usage of fitness activity tracking devices among the Linfield College community.

Introduction

While many studies have examined the reliability and validity of fitness tracking devices, only a few studies report the usage of wearable devices in small samples (Coorevits, 2016; Choi & Stulins, 2014) and the prevalence is not typically reported, particularly in college communities. Thus, the purpose of this study was to determine the prevalence and usage of fitness activity tracking devices among the Linfield College community.

Results

While we surveyed only 217 participants, our generalizability of the study may be lower. Our results show that only a small percentage of College community members own fitness tracking devices; 27.14% of students and 33.77% of faculty and staff. Lack of interest and expense were the primary reasons for not owning a device. We found that fitness tracking devices are primarily used to track step counts. A high percentage of users, 84.6% of faculty and staff and 84.2% of students felt that the devices encouraged their physical activity. One limitation of our study is a relatively small sample size from our college population. We surveyed only 217 participants, so the generalizability of the study may be lower than hoped.

Summary and Conclusion

• Our results show that only a small percentage of Linfield College community members own fitness tracking devices; 27.14% of students and 33.77% of faculty and staff. Lack of interest and expense were the primary reasons for not owning a device.
• We found that fitness tracking devices are primarily used to track step counts.
• A high percentage of users, 84.6% of faculty and staff and 84.2% of students felt that the devices encouraged their physical activity.
• One limitation of our study is a relatively small sample size from our college population. We surveyed only 217 participants, so the generalizability of the study may be lower than hoped.

References


Acknowledgments

We would like to thank the following individuals for making this research project possible: Dr. Sarah Coste, Participants, & Linfield College Institutional Review Board.