Self Report Physical Activity Levels in Higher Education

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Abstract

Purpose: The objective of this study is to assess physical activity levels in higher education settings. **Methods:** The International Physical Activity Questionnaire (IPAQ) long form was used to assess physical activity. Questions regarding demographics, technology use, and information about the school in which the individuals associate were added. . Surveys were sent out via an online survey program. **Results:** A total of 455 completed the survey. Of those, 90% (N=409) fit the criteria of a higher education students (n=354) or educator (n=55). Overall, there were no significant differences in time spent in moderate-vigorous physical activity (MVPA) between students and educators. However, students reported more time walking (mean = 2814.303 METs/min; P<0.05) and engaging in vigorous physical activity (mean = 2818.486 METs/min; P<0.05), while educators spent more time engaging in moderate physical activity (mean = 2018.818 METs/min). There were no significant differences in amount of time engaging in technology use. A total of 70.6% (n=250) of students and 74.5% (n=41) of educators met the current Surgeon General Guidelines for physical activity. **Conclusion:** In our study, a majority of participants are engaging at physical activity levels that are at or above the current Surgeon General Guidelines. A majority the respondents were from Kinesiology departments. Further research should examine PA levels across disciplines.

Introduction

Regular engagement in physical activity (PA) is crucial for human health. The President's Council on Fitness, Sports & Nutrition recommends 30 minutes a day of moderate to vigorous physical activity on most days of the week for adults (age 18-64) and 60 minutes a day for children (< 18 years).[1] More than half of the American population do not meet these recommendations. [2] Approximately 24% of Americans report not participating in any physical activity on a regular basis. [2] Sedentary behavior is a contributor to the development of metabolic syndrome among other health risks.

Enrollment in post-secondary education programs delivered entirely online is on the rise. Approximately 13% of all post-secondary students take all of their course work online across all institution types. Public higher education institutions reported 8% of their students completing their degrees online. In contrast, the private for profit sector reported 51% of their students completing post-secondary education completely online. [4] Online education provides more potential opportunities for individuals, both instructor and student, to be increasingly sedentary. [5]

Surgeon General Physical Activity Recommendations

Adults: at least 150 minutes of moderate-intensity activity each week,

Children and teenagers: at least one hour of activity each day.

www.surgeongeneral.gov

Methods

Physical activity was assessed using the International Physical Activity Questionnaire-long form (IPAQ). Questions regarding demographics, technology use, and school information were added. Surveys were sent out via an online survey program through email. A total of 455 participants (409 students and 55 educators) from Linfield College, Oregon State University, Eastern Washington University and other institutions completed the survey. Participants were separated into student and educators. Students T-Tests were used to evaluate differences between the groups and Chi-squares were used to evaluate differences in categorical variables. Physical actiity values were converted to MET/minutes and classifications based on the current Surgeon General Guidelines were made. This study was approved by the Linfield College Institutional Review Board.

Results

Table 1: Participant Demographics

Parameters	All	Student	Educator
Age (years)	25.2 ± 10.74	22.1 ± 8.88	45.4 ± 12.91
Height (m)	1.7 ± .10	1.7 ± 0.10	1.7 ± 0.09
Weight (kg)	71.7 ± 16.89	70.9 ± 16.59	76.7 ± 18.13
BMI (m/kg^2)	25.0 ± 4.85	24.9 ± 4.87	25.9 ± 4.69

Mean ± SD

Table 2: Education Type

	Student (%)	Educator (%)
Traditional	87.5	68.2
Online	8.8	25.5
Hybrid	3.6	6.4

Table 3: Technology Usage and Time Sitting

	All Participants (N = 455)
	Mean ± SD
Tech Time (min/week)	316.2 ± 157.53
School Tech Time (min/week)	155.6 ± 131.49
Sit Time (min/week)	705.2 ± 455.79

Figure 1: Surgeon General's PA Recommendations

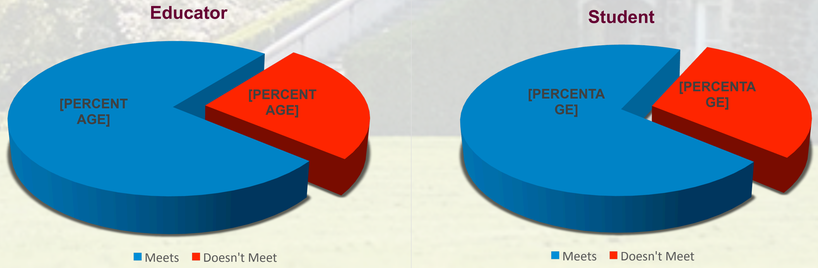
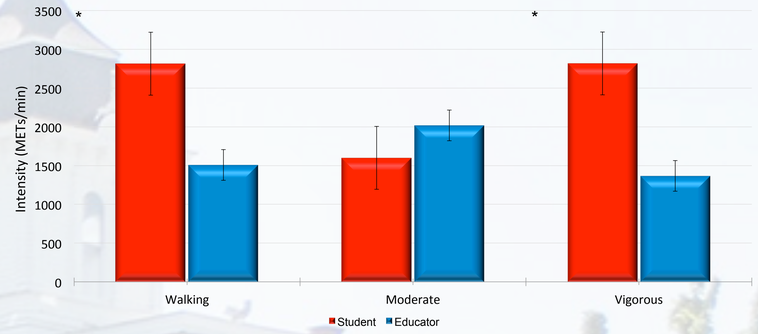


Figure 2: Time Spent in Low, Moderate and Vigorous Physical Activity



* $p < 0.05$

Discussion

These results showed that 70.6% of students and 74.5% of educators met the current Surgeon General guidelines for physical activity. This is significantly higher than the CDC reported rates of 21% of Americans meeting the guidelines for physical activity. No significant difference was seen in time spent in moderate-vigorous physical activity (MVPA). However, students reported significantly more time walking and engaging in vigorous physical activity than educators (p<.05). The high levels of physical activity reported in our study are likely influenced by the fact that a majority of the participants were from kinesiology and/or health departments. Further research should be conducted to include more participants, from a larger spectrum of institutions. In addition, a similar study should be performed to access physical activity rates across disciplines.

Study Limitations

The main limitation for this study is that the physical activity data is self reported. A majority of the students and faculty participants were from Linfield College. Another limitation is the relatively small sample size of the educators. Most of the participants came from a kinesiology or health department. This health based field may play a role in the large percentage of people that met the Surgeon General Guidelines for physical activity.

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References

Available on request

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