

College Students Who Meet Recommendations for Vigorous Activity Perceive Greater Benefits and Less Barriers

JG Stevens, AM Garris, RJ Schofield, EA Easley, SH Sellhorst, WF Riner FACSM
University of South Carolina Lancaster, Lancaster, SC

Abstract

According to ACSM, adults should participate in at least 20 minutes of vigorous-intensity aerobic physical activity 3 days each week. Individuals have to perceive the benefits of vigorous activity as a higher reward than the opposing barriers.

PURPOSE: To determine if individuals who met the ACSM recommendations perceived the benefits and barriers of vigorous exercise differently than those who do not.

METHODS: The study involved 35 full time college students aged 18-25 who attended a rural, commuter college campus. Each individual completed the Exercise Benefits/Barriers Scale (EBBS) and was asked to self-report number of days of vigorous activity. The subjects were divided into two groups, those who met the ACSM recommendations (those that participated in 20 minutes of physical activity at least 3 days a week) and those who did not. Independent t-tests were used to compare the mean benefits and barriers scores between the groups.

RESULTS: Those who met the ACSM recommendations for vigorous activity reported a statistically higher benefits score (96.8 ± 7.7) than those who did not (90.6 ± 9.2), $p = 0.044$. Those who did not meet the ACSM recommendations reported a statistically higher barriers score (28.8 ± 5.6) than those who did (24.0 ± 3.5), $p = 0.005$.

CONCLUSION: The subjects who reported participating in vigorous activity at least 3 days a week perceived the benefits as outweighing the barriers.

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PURPOSE

The purpose was to determine if individuals who met the ACSM recommendations perceived the benefits and barriers of vigorous exercise differently than those who do not.

METHODS

Participants

- 35 full time (enrolled in no less than 12 credit hours) college students aged 18-25
- 17 Males and 18 Females
- Students could not be student athletes
- All students were from a small rural, commuter college campus
- Students were divided into two groups by who met the ACSM recommendations and those who did not based on a self-report survey (Carlson et al., 2012) (met $n = 22$; did not meet $n = 13$)

Self-Report Benefits and Barriers Survey

- Participants completed an Exercise Benefits/Barriers Scale (K. Sechrist, S. Walker, N. Pender, 1985).
- The Exercise Benefits/Barriers Survey was a forced-choice Likert-type format survey with responses ranging from 4 (strongly agree) to 1 (strongly disagree).
- The Benefits Scale was composed of questions that gave a sense of reward in regards to exercises. These benefits ranged from health concerns to body image and physical abilities.
- The Barriers Scale consisted of questions that denoted exercise in different aspects consisting of time, locations, self-consciousness, appearance, cost, encouragement.
- The Benefits Scale consisted of 29 questions that ranged from a score of 29 to 116.
- The Barriers Scale consisted of 14 questions that ranged from a score of 14 to 56.

Data Analysis

- Two independent sample t-tests were used to determine whether differences existed in the reported benefit and barrier scores between those who did meet the physical activity recommendations and those who did not meet the physical activity recommendations.

RESULTS

- Students who did meet the ACSM recommendations for vigorous activity at least 3 days a week reported a higher benefit score (96.8 ± 7.7) than those who did not meet the ACSM recommendations (90.6 ± 9.2), $p = 0.044$.
- Students who did not meet the ACSM recommendations for vigorous activity at least 3 days a week reported a higher barriers score (28.8 ± 5.6) than those who did meet the ACSM recommendations (24.0 ± 3.5), $p = 0.005$.

Table 1. Descriptive characteristics of participants

Age (yr)	19.69 ± 1.45
Weight (kg)	71.55 ± 18.39
Height (cm)	169.37 ± 9.02
DXA Body Fat (%)	28.63 ± 7.96
BMI (kg/m ²)	24.7 ± 5.32

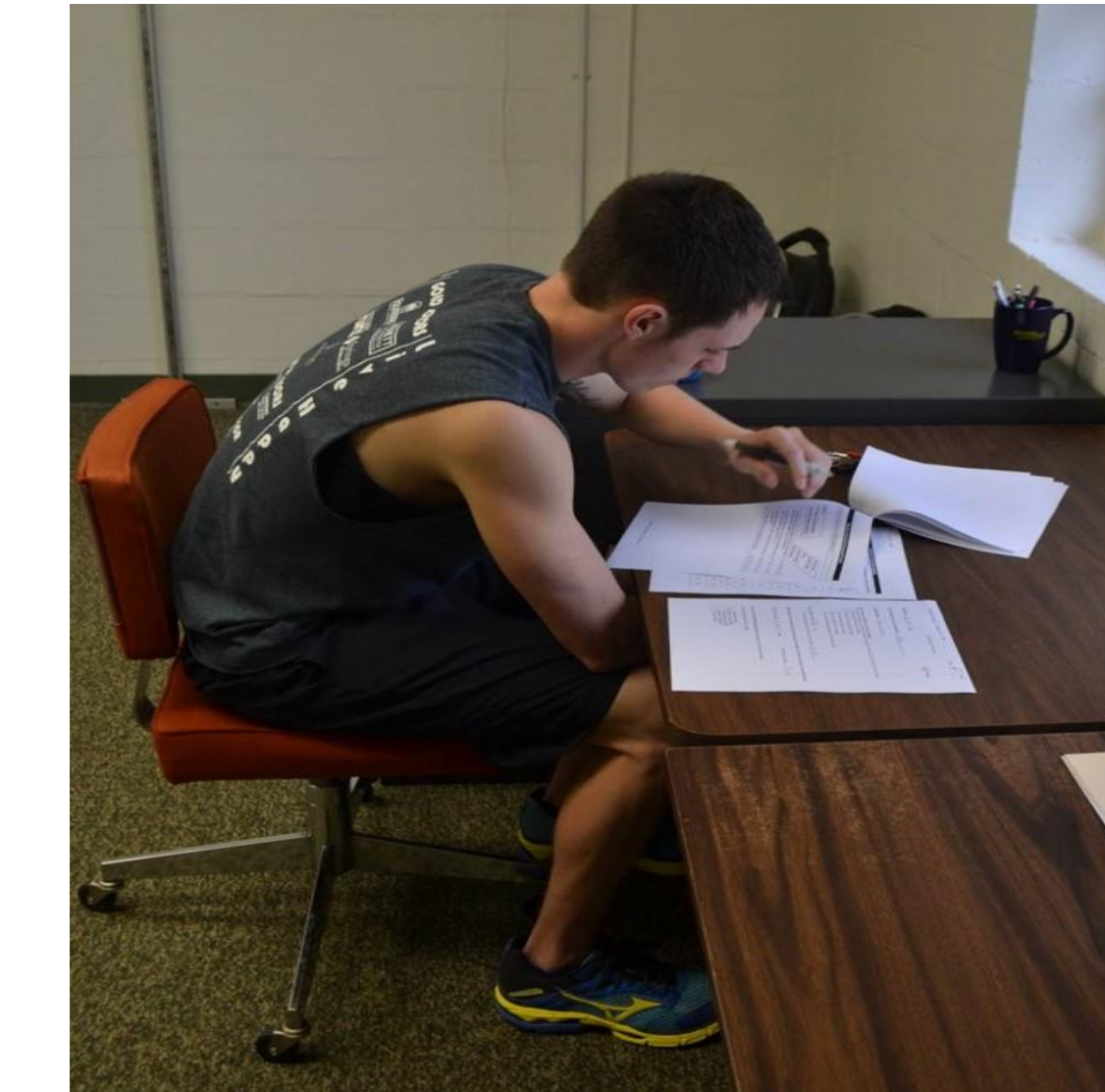


Table 2. Descriptive characteristics of groups

	Did not meet ACSM Recommendations	Met ACSM Recommendations
Age (yr)	19.15 ± 0.987	20.0 ± 1.60
Height (cm)	168.28 ± 10.65	170.02 ± 8.11
Weight (kg)	70.38 ± 19.47	72.25 ± 18.15
DXA Body Fat (%)	29.44 ± 7.74	28.15 ± 8.23
BMI (kg/m ²)	24.55 ± 4.94	24.91 ± 5.65

CONCLUSIONS

- Based on this study, individuals who did meet the ACSM physical activity recommendations perceived the benefits of physical activity more rewarding than the impeding barriers. Given the content of the benefits questions, it would seem that those who did meet the ACSM recommendations are motivated by concerns related to their health, body image and physical abilities.
- Limitations of the study included a small sample size. However, It should be noted that this is preliminary data from a study that has yet to be completed.
- Further studies could be done to compare the individual's self-report physical activity to their actual measured physical activity. This may be done by comparing the participants self-report data with accelerometer data.
- Future plans for this study include comparing the percentage of body fat, lean muscle mass, and accelerometer measured physical activity.

REFERENCES

Carlson, JA, Sallis, JF, Wagner, N, Calfas, KJ, Patrick, K, Groesz, LM, Norman, GJ. (2012). Brief Physical Activity-Related Psychosocial Measures: Reliability and Construct Validity. *Journal of Physical Activity and Health*, 9, 1178-1186.

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