

# Examining the Relationship Between Physical Activity and Academic Workload in Sport Science Students

Travis Blandford, Monica Martinez, Bryant Spence  
Sport Science, Douglas College

## Introduction

Time management can be difficult, and time constraints placed on post-secondary students by their academic pursuits can compete with time they commit to physical activity and exercise (Lothes and Nanney, 2020). Physical activity has benefits for both physical and mental health, and is negatively correlated with depression and anxiety (Herbert et al., 2020).

## Purpose

We attempted to determine if there was a correlation between school-related workload and physical activity among Sport Science (SPSC) students. Our study will allow us to elaborate on the importance of balancing workload and physical activity for post-secondary students.

## Methods

We collected data from students attending upper and lower level SPSC classes at Douglas College using a modified version of the International Physical Activity Questionnaire (IPAQ) that included questions about time spent on academic activities. The questionnaire was delivered electronically during class time. Data from 50 participants was analyzed.

## Results

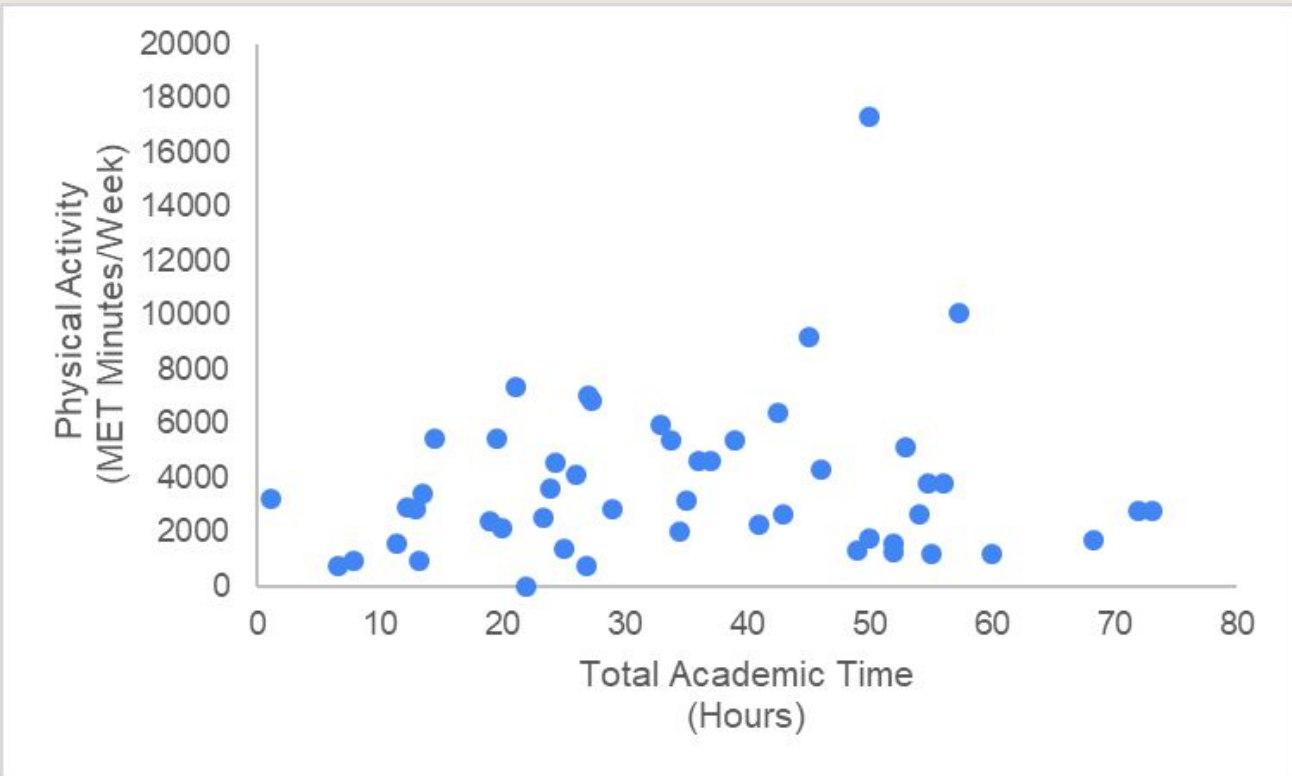
Of the students surveyed, 32 were highly physically active, 14 were moderately physically active, and 4 had a low level of physical activity. There was not a strong correlation found between the level of the physical activity level of the participants and their academic workload, and the values were found to not be statistically significant.

**Table 1**  
*Correlation Between Physical Activity and Academic Workload*

Variables Compared	Correlation	P-value
MET Minutes per Week and Total Academic Time	0.133	0.356
MET Minutes per Week and Credit Hours	-0.030	0.833
Total Time Spent on Vigorous or Moderate Physical Activity and Total Academic Time	0.121	0.402
Total Time Spent on Vigorous or Moderate Physical Activity and Credit Hours	-0.139	0.334
Total Time Spent on Vigorous or Moderate Physical Activity and Time Spent in Lectures	0.171	0.236
Total Time Spent on Vigorous or Moderate Physical Activity and Time Spent on Assignments	0.110	0.446
Total Time Spent on Vigorous or Moderate Physical Activity and Time Spent on Studying	-0.154	0.285

*Note.* All values were calculated from collected questionnaire responses. P-value below 0.05 is considered statistically significant.

**Figure 1**  
*Physical Activity and Total Academic Time*



*Note.* Physical activity and academic time were self-reported values collected via questionnaire. MET minutes per week calculated from self-reported physical activity as per IPAQ recommendations.

## Discussion

The correlation between total academic time and METs per week was negligible. The high proportion of highly physically active students is also notable, with 64% of participants belonging to this category. Our choice of participants, Sports Science students, may have influenced this. It is possible that if we had also collected data from students attending classes outside of the Sports Science department a wider range of activity levels may have been observed. The scope of our study was also very narrow; we looked only at physical activity and academic workload and did not consider other variables such as the participant’s employment status. Prince et al. (2020) write that full-time working adults spend roughly 69% of their day sedentary.

## Conclusion

While our study did not find any significant correlation between academic workload and time spent participating in physical activity, further research can be done with the inclusion of more variables such as employment. Additionally, the faculty in which the student is enrolled in may also be a contributing factor.

Additionally, future studies could include how students manage their time differently which may reveal how much they prioritize academic studies in comparison to physical activity.

Seeing if there is a correlation between academic workload and time dedicated to physical activities may be beneficial to future students as long-term healthy living habits are formed in post-secondary.

## References

Herbert, C., Meixner, F., Wiebking, C., & Gilg, V. (2020). Regular physical activity, short-term exercise, mental health, and well-being among university students: The results of an online and a laboratory study. *Frontiers in Psychology, 11*. <https://doi.org/10.3389/fpsyg.2020.00509>

Lothes, J. E., & Nanney, L. (2020). Using the wellness inventory to assess health and well-being in college students at the end of the semester. *Journal of American College Health, 68*(3), 294–301.

Prince, S. A., Roberts, K. C., Reed, J. L., Biswas, A., Colley, R. C., & Thompson, W. (2020). Daily physical activity and sedentary behaviour across occupational classifications in Canadian adults. *Health Reports, 31*(9), 13–26. <https://doi.org/10.25318/82-003-x202000900002-eng>