

ARTICLE REVIEWED

Physical Education Classes, Physical Activity, and Sedentary Behavior in Children

Silva, D. A. S., Chaput, J. P., Katzmarzyk, P. T., Fogelholm, M., Hu, G., Maher, C., ... & Tudor-Locke, C. (2018). Physical education classes, physical activity, and sedentary behavior in children. *Medicine and Science in Sports and Exercise*, 50(5), 99-1004.

THE PROBLEM:

Sedentary behavior has been attributed to the onset of many chronic diseases, especially childhood obesity. In 2016, the Active Healthy Kids Global Alliance collected physical activity data from 38 countries and findings were eye opening. Sixty-percent of children did not meet the daily moderate-to-vigorous physical activity guidelines. Furthermore, 60% of children spent two hours or more a day⁷ in front of a screen.

Structured and unstructured physical activity can take place at school as a means to both maintain and increase healthy behaviors among children. Physical education, for example, may provide students with the ability to be physically active on days that they normally would not. Also, how frequent a student attends physical education may be indicative of their physical activity participation outside of school, even on the weekends.



Research Summary:

A study was conducted by the International Study of Childhood Obesity, Lifestyle, and the Environment to look at the relationships between obesity and lifestyle behavior among children from 12 countries: Australia, Brazil, Canada, China, Colombia, Finland, India, Kenya, Portugal, South Africa, the United Kingdom, and the United States. The average age of the 5,874 children in this study was 10 years old. Children were instructed to wear accelerometers around their waist for 24 hours a day, over the course of one week – this included the weekend. Light, moderate, vigorous, total physical activity, and sedentary time were calculated. How frequently a student attended physical education classes throughout the week was measured using the U.S. Youth Risk Behavior Surveillance System – a self-reported questionnaire. Students were asked, “In the last week you were in school, on how many days did you go to physical education classes?”

Conclusion:

Average moderate-to-vigorous physical activity among children from the 12 countries fluctuated from 35.5-85.1 minutes per day. Total sedentary time, on the other hand, was between 444.2-582.6 minutes per day. Canada had the highest report of students attending physical education classes on three or more days a week (64.8%). On the contrary, South Africa had the greatest number of students (32.1%) not attending physical education classes. Students with the greatest adherence to the daily moderate-to-vigorous physical activity guidelines were from Finland (63.8%), and students with the lowest adherence were from China (15.9%). In conclusion, children that frequently participated in physical education classes were more likely to achieve their 60 minutes or more of moderate-to-vigorous physical activity and decrease their sedentary behavior.



Key Takeaway:

The more frequently a child attended physical education classes throughout the week, the more likely that child was able to be physically active for longer periods of time. As such, children spent shorter periods of time in sedentary behaviors. If males and females attended physical education class at least once a week in low- to middle-income countries, they had higher physical activity levels and lower sedentary behavior levels, whereas males and females in high-income countries had to attend physical education classes three or more times per week to satisfy their daily physical activity requirements. All in all, this study found that attending physical education classes at least once or twice a week provided students more time to be physically active and less time to be sedentary.

ADDITIONAL RESOURCES:

- **Advocacy tools to support HPE programs**
 - [Top 10 Tools](#)
 - [State Advocacy Toolkit](#)