

29 UNDERGRADUATE RESEARCH CRITIQUE

Research Critique on “Health-Related Physical Fitness and Physical Activity in Elementary School Students”

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ABSTRACT

Background: This study examined the associations between physical activity (PA) and physical fitness. This study also focused on if being in better physical shape directly correlate's to being more physically active in different settings in both boys and girls. Currently almost 1/3 of all US children are overweight or obese, these stats from our K-12 schools. Studies show that children are 15% less physically active than their parents were when they were a kid.

Purpose: The purpose of this study is to examine students in different physical fitness tests to determine their physical fitness levels During various settings with the students having different physical fitness levels and different physical fitness activity throughout their normal daily lives. This will determine if being physically active will determine your physical fitness level.

Methods: A total of 265 fifth grade students with an average age of 11 volunteered to participate in this study. The student's physical fitness was measured by 4 Fitness Grams tests which included Progressive Aerobic Cardiovascular Endurance Run (PACER), curl-up, push-up, and trunk lift tests. The student results were measured over seven days in different settings and the data was analyzed with descriptive statistics to determine results.

Results: Results show that the students PA minutes were significantly associated with the time spent in physical education class or recess. Most of the students did not spend time doing sports or extracurricular activities outside of school, which affected their physical fitness level. 106 boys whose fitness scores were 62 or greater were classified as having healthy fitness levels. While the remaining boys were classified as having unhealthy fitness levels which correlated to lower scores in their fitness tests. For girls 112 who scored 50 or greater were classified as having healthy fitness levels who are the other 20 girls scored lower than 50 and were classified as having unhealthy fitness levels. It is

documented that girls are less physically active than boys, this can show why the score for being physically fit was reduced to 50 versus 62 for boys.

Conclusion: As expected, the results show that students that are physically active in school and active at home as well had better fitness levels. The study shows that children's healthy cardiovascular endurance is mostly correlated to their total weekly physical activity. With cardiovascular continuing to be a problem in our country this should be a focal point for our children to be more physically active in school during recess and PE class but also to be active at home with their parents or any other extracurricular activities. With monitoring our children weekly physical activity could lower the risk of cardiovascular problems for them. With all the data captured from the cardiovascular endurance and the muscular strength tests, it shows better results with physical activity throughout the seven-day trial these children were examined.

Critique: This article proves that children need to be more physically active. In this study the students that participated and volunteered for the study were overwhelmingly more physically fit. With only 27 boys and 20 girls scoring low physical fitness levels it leaves majority of the students in the study to be considered physically fit in this study. With the statistics given most children at an average age of 11 are not physically fit so I'd argue that in this volunteered study the participants just so happened to be physically fit, out of the 352 students the stats show that those students we're more than likely under the unhealthy physically fit category. Which would change the data that was collected to be more in favor of the unhealthy fitness level group. Overall, the study did show a correlation that healthy physical activity in your daily life usually means healthy physical fitness levels or vice versa.

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