

Keep it Moving! A Community-Based Intervention to Increase Physical Activity in Elementary School Students

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INTRODUCTION

- About 1 in 5 school aged children have obesity (Steinbeck, 2001).
- In typical PE classes, students engage in moderate to vigorous physical activity (MVPA) for around $\frac{1}{3}$ of the recommended 1 hour target (Fairclough & Stratton, 2004)
- Students spend majority of their time at school, so the classroom and physical education classes are ideal settings to target youths physical activity (PA) needs (Scruggs, 2003)
- Physical activity breaks can improve classroom behavior (Donnelly & Lambourne, 2011)
Increase time on task
Reduced fidgeting
Increase concentration
- Establishing PA as habit during childhood provides immediate and prolonged health benefits (Stanley et al., 2016)

INTERVENTION

- Designed a lesson plan for a 50 minute PE class
- Created games that engaged the kids (e.g. superhero tag, relay races, freeze dance, yoga)
- Goal was to have the children moving for the entire class
 - Filled waiting time with stationary exercises (e.g. jumping jacks, sit-ups, squats)
- Provided a handout to teachers and parents
 - explained the importance of PA
 - Provided brain blast ideas for implementing PA in home and classroom setting
 - included online resources for teachers and parents to give them quick PA ideas

TARGET POPULATION

- Third graders that attend Davidson Elementary school in Davidson, North Carolina.
- 14 boys, 15 girls

DATA

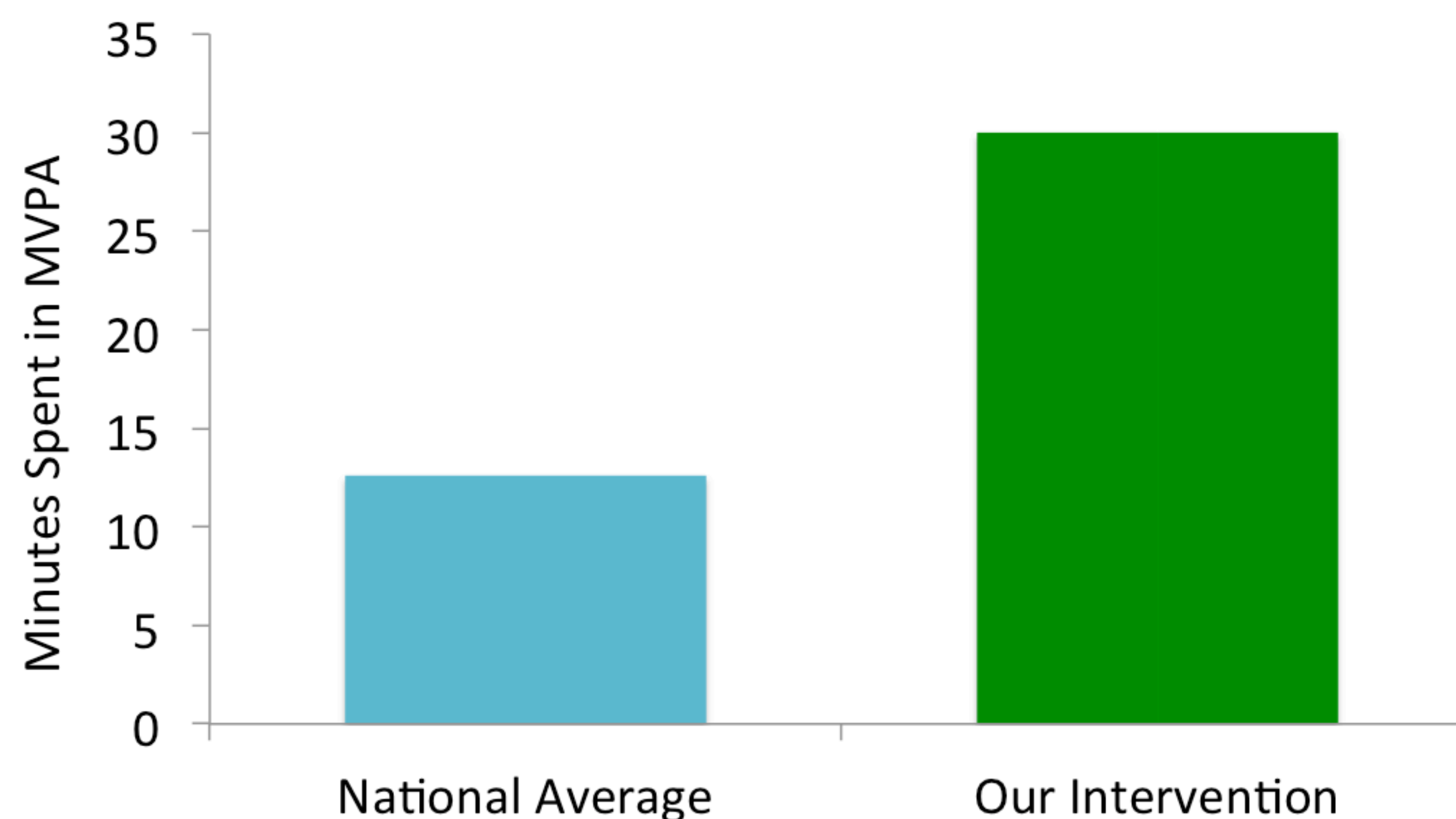


Figure 1. Average time spent in MVPA during a P.E. class in minutes

DISCUSSION

Main conclusion:

- Our intervention increased time spent completing MVPA compared to the national average

Implications:

- A similar program could be adopted in P.E classes nationally since we used very little equipment and could tailor the activities to each class level and interest

Limitations:

- Some children seemed overly tired towards the last few games so would integrate more active rest time
- We didn't know what activities were popular with this particular class so they did not engage well with the yoga cool down

Future Directions:

- Many P.E. classes focus on one sport at a time instead of switching between games, so try to design classes to fit each sport that includes active waiting time etc.

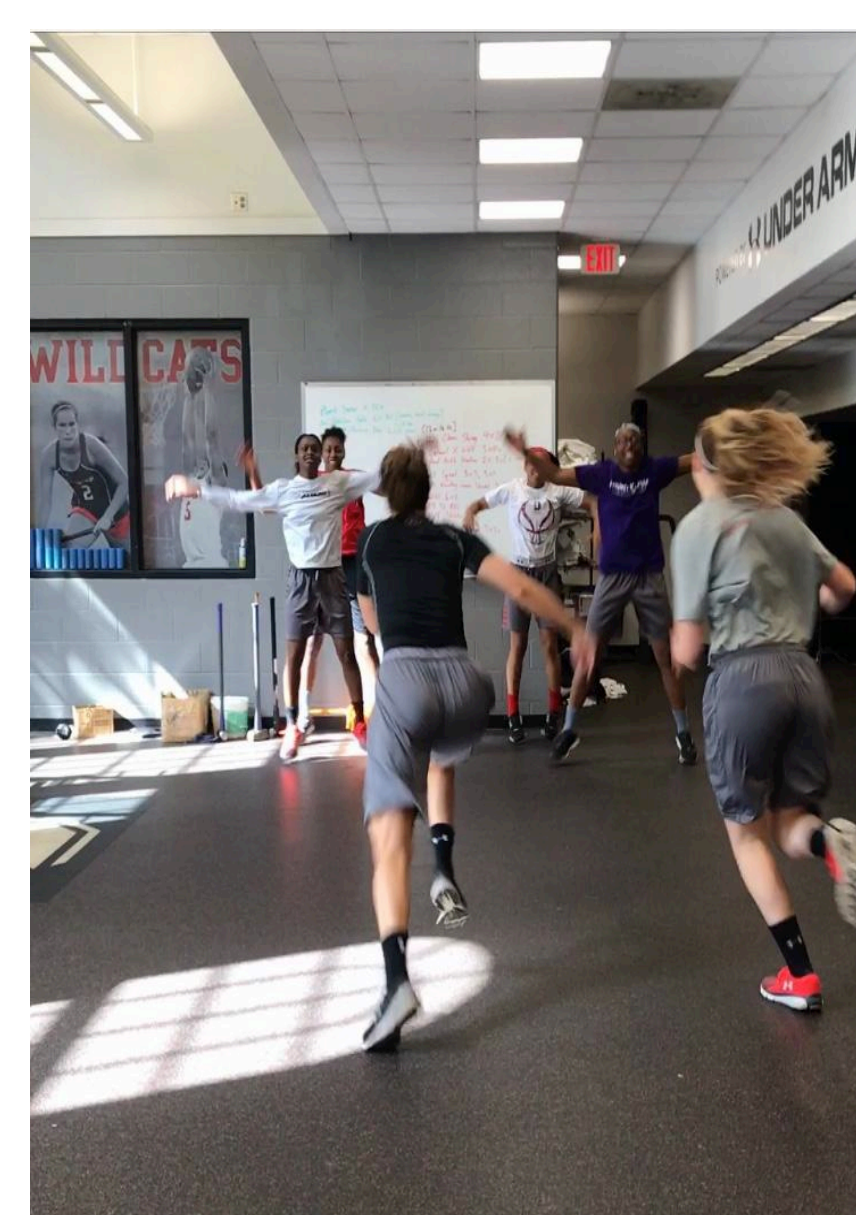
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Phase 2: Superhero Tag



Phase 1: Relay Races



Phase 3: Freeze Dance



Phase 4: Yoga



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Introduction

About 1 in 5 school aged children have obesity.

In typical PE classes, students engage in moderate to vigorous physical activity (MVPA) for around $\frac{1}{3}$ of the recommended 1 hour target (Biddle et al., 1998), so while PE can help increase children's daily volume of PA it is obvious that it is not enough used on its own.

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majority of their time at school, so the classroom and physical education are ideal settings to target youths physical activity needs

improve classroom behavior such as increase time on task, engagement and better concentration

Physical activity habit during childhood provides immediate health benefits as well as long-term quality of life advantages over their lifespan

Target Population/organization

Intervention

- Designed a lesson plan for a PE class
- The goal was to have the children moving for the entire class
- Created games that engaged the kids. Some examples are superhero tag and relay races
- Filled waiting time with activities such as jumping jacks and sit-ups
- Provided a handout to teachers and parents that explained the importance of PA for children
- The handout also included resources for teachers and parents to use for quick PA ideas

Discussion (main conclusions, implications, limitations, future directions)

Main conclusion: Our intervention increased their time in overall MVPA compared to the average in North Carolina

Implications: A similar program could be adopted in P.E classes nationally since we used very little equipment and could tailor the activities to each class level and interest

Limitations: Some children seemed overly tired towards the last few games so would integrate more active rest time, we didn't know what activities were popular with this particular class so they did not engage well with the yoga cool down

Future Directions: Many P.E. classes focus on one sport at a time instead of switching between games, so try to design classes to fit each sport that includes active waiting time etc.

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