Pittsburgh Obesity Prevention Initiative: Lessons Learned

Nicole Smith,[1,2] Thomas McKenzie,[1] Paul Rosengard, [3] & Julie Frank[3]

[1]San Diego State University, School of Exercise and Nutritional Sciences

[2]University of Nevada, Las Vegas

[3]The SPARK Programs

Abstract

Staff development (aka, in-service training) is a common feature of public education, and an important aspect of the continued development of physical education teachers after their initial certification. This presentation describes the Pittsburgh Obesity Prevention Initiative (POPI), with emphasis on describing lessons learned in conducting staff development at the high school level. Results indicated high teacher satisfaction with the program as well as high levels of physical activity during PE classes (i.e., over 50% MVPA). Numerous barriers to conducting and assessing staff development on a limited budget were identified. Results shed light on important contextual and behavioral influences on high school student participation in physical activity and for the continued development of teachers. Procedures used in POPI may serve as models for others interested in conducting staff development programs.

Introduction

•Physical education is strongly recommended as a public health tool for increasing participation in physical activity.

•In the absence of intervention, physical education lessons often fall short of public health goals for providing moderate-vigorous physical activity (MVPA).

•Professional development in elementary and middle school physical education is known to improve the quality and contribution of physical education to public health goals.

•Little is known about staff development efforts in high school physical education.

Methods

•POPI was a 4-year collaboration involving Pittsburgh Public School District, an external funding agent, three universities, and a private sector staff development team (SPARK).
•7 High schools participated
  •4 control
  •3 intervention
•Graduate students were trained to collect data using the System for Observing Fitness Instruction Time (SOFIT).
•Baseline data were collected in all 7 high schools in the spring of 2005 prior to the implementation of the staff development program.
•Follow-up data were collected in all 7 schools in the spring of 2007.
•Data were generated (a) using teacher-reported feedback on the program and the staff development process (b) direct observation of lessons in the 7 schools over two years using SOFIT, and (c) interviews with key informants.

Results

Figure 1 shows the percentage of lesson length students engaged in MVPA increased by 9.8% and 9.0% in intervention and control schools respectively from baseline to follow-up.

Figure 1. % MVPA by condition and time

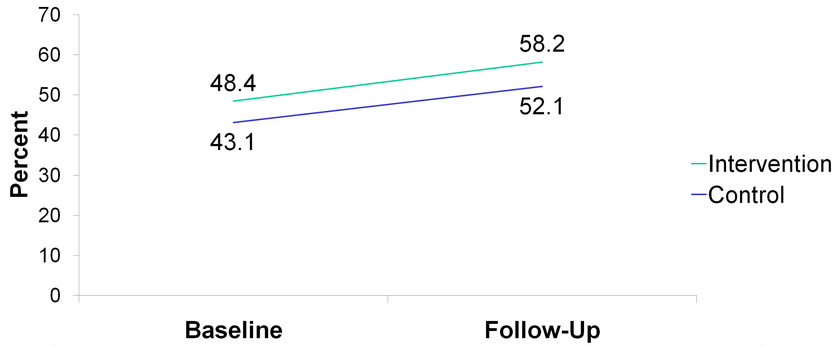
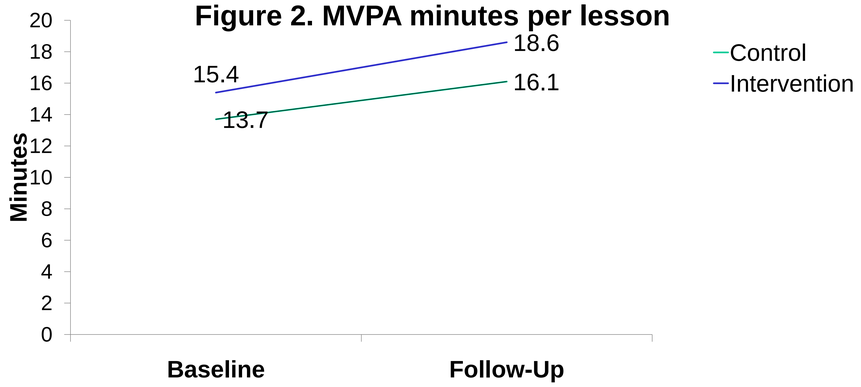


Figure 2 shows intervention schools increased MVPA by 3.2 minutes (15.4 to 18.6 min., 20.8%) and controls increased MVPA by 2.4 minutes (13.7 to 16.1 min; 17.5%) from baseline to follow-up.

Figure 2. MVPA minutes per lesson



90% of teachers (n = 9) would recommend SPARK to others.

Table 1 shows teachers reported the training program was very useful and that the components of the training were excellent.

Table 1. Overall Impression of SPARK Workshop

Characteristic	Mean Score [a]
Presenter's Knowledge	5.0
Presenter's skills	5.0
Organization of scheduled time	4.5
Quality and value of audiovisual materials	4.7
Provided new information	4.8
Sufficient time to ask questions	4.5
Overall usefulness	4.8
Overall quality	4.9

[a] Items scored on a 5 point scale. 1 = poor; 5 = excellent

Results Continued

Table 2 shows the range of mean scores for items measuring the "Usefulness of SPARK Professional Development" between 4.7-5.0 on a 5.0 point scale.

Table 2. Usefulness of SPARK Professional Development

Characteristic	Mean Score [a]
Pathways to change	5.0
Teaching methods and strategies	4.8
Assessment	4.6
Content	4.7
Direction of PE	4.9
Resources to facilitate change	4.8
Activity demonstrations	4.9

[a] Items scored on a 5 point scale. 1 = not useful at all; 5 = very useful

Discussion

Lessons Learned

•Although MVPA% approached the Healthy People 2010 goal at baseline (48.4% intervention; 43.1% control) and increased over time in both groups (Δ+9.8% intervention; Δ+9.0% control), MVPA minutes accrued during PE lesson were far short of daily activity recommendations (i.e., 60 minutes).

•MVPA was relatively high at baseline, thus an intervention to increase it even more would need to be robust.

•Staff professional development in high schools was well-received.

•Collecting quality data in high schools is challenging unless observers are properly trained, supervised, and compensated. Building in research capacity at the beginning and providing adequate funding for data collection (training, supervision) is important.

•POPI was the first of the SPARK high school professional development programs to be studied. Additional assessment is needed in order to fully understand adoption and adherence to health-related physical education programs.

Conclusions

Similar to studies of SPARK staff development in elementary and middle schools, the program was well received by teachers in these high schools. Additional assessment procedures are needed to evaluate specific changes in the conduct of PE, including its dosage, content, and activity intensity.

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