

Improving Fitness Knowledge with Five for Life: High School Effectiveness

Justin A. Haegele and Xihe Zhu^F, Old Dominion University
(jhaegele@odu.edu)

Background/Purpose: Health-related fitness knowledge plays an important role in promoting physical activity among adolescents (Keating et al., 2009; 2010). As such, the National Standards & Grade-Level Outcomes for K-12 PE includes the “acquisition of the knowledge to achieve and maintain a health-enhancing level of physical activity and fitness” as a primary outcome (Mitchell & Walton-Fisette, 2016, p.4). In order to improve health-related fitness knowledge in PE classes, effective research-based curricula must be available to physical educators. Therefore, the purpose of this analysis was to examine the effectiveness of the Five for Life curriculum for improving health-related fitness knowledge for high school-aged students in a Mid-Atlantic state.

Method: A pretest-posttest group design (Thomas et al., 2005) using secondary data was used to examine the effectiveness of the Five for Life—Advanced curriculum at the high school level. Data collected over a 5 year period (2010–2015) from students enrolled in 64 high schools in a Mid-Atlantic state were utilized for this analysis. Participants received the Five for Life advanced curriculum, which introduces training principles and the use of behavior logs which allow students to track how personal habits affect health, performance, and fitness, over one academic school year. At the beginning and culmination of curricular implementation, students took an 11 question health-related fitness exam, and teachers uploaded scores into a district-wide internet platform. Data were extracted directly from the internet platform by the investigators for this analysis.

Analysis/Results: After data were extracted, school demographic variables (e.g., number of students, grade level distribution, and gender distribution) were summarized descriptively. Next, paired samples t-tests were utilized to determine if there were differences between pre- and post- test scores at the school level. Lastly, Cohen’s *D* and Glass’ Δ were computed to estimate effect size. In total, data from 45,898 students (grades 9–11; 49% female, 51% male) were available and extracted within the 64 schools targeted in this analysis. Inferential statistics revealed that on average, schools experienced significantly greater health-related

fitness scores during the post-test measure ($M = 6.78$, $SE = 0.11$) than during pre-test ($M = 8.12$, $SE = 0.11$), $t(63) = -13.144$, $p = .000$. Effect size calculations using the Cohen’s $d = 1.47$, 95% CI = .92–2.02; and Glass’ Δ ($\Delta = 1.43$) demonstrated large weighted effect sizes at school level.

Conclusions: Health-related fitness knowledge is considered an important aspect of enhancing student physical activity as well as their ability to maintain an active lifestyle into adulthood (Demetriou et al., 2015). This analysis provides preliminary support for the effectiveness for the Five for Life curriculum for improving health-related fitness knowledge among high school-aged students. However, limitations associated with the pretest-posttest design (i.e., lack of a control group) and data collection (i.e., entered into online system by physical educators) are considerations when reviewing these findings. Although this analysis provided favorable results, additional research is needed to further elucidate the effectiveness of this curriculum for enhancing high school-aged students’ health-related fitness.

Influence of a Major in PE on Implementing State Standards

Hong-Min Lee, University of New Mexico
(kine19@gmail.com)

Background/Purpose: According to Lawson (1986), occupational socialization is explained as “all kinds of socialization that initially influence persons to enter the field of physical education (PE) and are responsible for their perspectives and practices as teacher educators and teachers” (p. 107). There are three phases of occupational socialization (Lawson, 1983a, 1983b): acculturation, professional socialization, and organizational socialization that are closely related to explain PE teachers’ teaching conceptions. Little research, however, has examined how a major in PE during professional socialization is associated to the use of the State Standards for PE. Therefore, the aim of this study was to examine the influence of the major in PE on implementing the State Standards for PE.

Method: This study used data from the School Health Policies and Practices Study (SHPPS) 2014, a national survey conducted by the Centers for Disease Control and Prevention (CDC), which evaluated school health policies and practices at the classroom and school levels in the United States (CDC, 2015). Classroom-level data in 2014 was used in the current study ($N = 722$),