

Lack of Staff is Associated with Not Meeting State Requirements Regarding Physical Education Class Time in California Public Elementary Schools

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Introduction

Physical education (PE) is an essential aspect of school-based physical activity programming. The National Association for Sport and Physical Education (NASPE) recommends that elementary schools offer students 150 minutes of PE per week (mins/wk PE); however, in 2009-10 only 22.2% of U.S. public elementary schools met that criterion.¹ Prior research demonstrates the importance of state laws. Slater and colleagues² found that schools in states with a law requiring at least 150 mins/wk PE were significantly more likely to offer that amount of PE to third graders. In addition, schools were more likely to offer 150 mins/wk PE if the school day was longer, but less likely to do so if they also offered 20 minutes of recess daily. Having a strong district policy requiring 150 mins/wk PE was associated with offering 150 mins/wk PE.

California law requires that elementary students (grades K through 5) be offered 200 minutes of physical education class every 10 days—in other words, an average of 100 mins/wk. The current analyses examined the characteristics of schools in compliance—or not—with this law.

Methods

Annually during the 2006-07 to 2010-11 school years, BTG researchers sent surveys to a nationally-representative sample of U.S. public elementary schools. Only schools from California were selected for these analyses, and the data are not weighted. The sample was selected to be representative at the national level, not the state level; 361 schools in California responded (33 did not provide data on PE and are not included here). District policies were collected and coded for each school for the year of survey participation.

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Results

Table 1 shows demographics of participating schools. Across the five years, 60.7% of schools (199 of 328) offered third graders at least 100 mins/wk PE. As shown in Table 2, school factors were not associated with PE time in bivariate tests (chi-squares) other than administrators' perceptions that lack of necessary staff was a barrier to implementing PE. In logistic regression models (not shown) controlling for year, urbanicity, student race/ethnicity and free/reduced-price lunch eligibility, only a lack of necessary staff was associated with a lower likelihood of schools offering 100 mins/wk PE (OR = .58; 95% CI = 0.35-0.96, $p < .05$). School demographics, length of school day, and offering 20+ mins/day recess were not associated with PE time.

Conclusion

Lack of staff was a barrier to schools offering the state-mandated amount of PE time. It is important that schools have the budgets to employ staff to deliver quality PE programs. Although few administrators considered their gymnasium facilities adequate, most did rate the outside facilities (fields and playgrounds) as adequate. However, these factors were not associated with PE time. Unlike prior research in Los Angeles schools, PE time was not found to be associated with free/reduced-price lunch eligibility.³ Most CA schools (89.9%) in the current study offered 20 mins/day recess, but offering recess was not associated with less likelihood of meeting the PE criterion, nor was the length of school day. This may be because it is easier to offer both daily recess *and* meet the 100 mins/wk PE criterion (versus 150 mins/wk) given that it is easier to schedule 100 minutes in a school week.

1. Turner L, Chaloupka FJ, Slater S. Geographic variations in elementary school-based physical activity practices. *Journal of School Health*. 2012;82(7):307-310.
2. Slater SJ, Nicholson L, Chriqui JF, Turner L, Chaloupka FJ. The impact of state laws and district policies on physical education and recess practices in a nationally-representative sample of US public schools. *Archives of Pediatrics and Adolescent Medicine*. 2012;166(4):311-316.
3. Laffeur M, et al. Physical education and student activity: evaluating implementation of a new policy in Los Angeles public schools. *Annals of Behavioral Medicine*. 2013;45(suppl 1):S122-S130.

Table 1: Characteristics of Participating CA Schools (n = 328)

	% schools
Race/Ethnicity of Students	
Majority ($\geq 66\%$ White)	12.2
Majority ($\geq 50\%$ Black)	0.3
Majority ($\geq 50\%$ Latino)	49.7
Diverse (no majority)	37.8
School Size	
Small (< 451 students)	22.6
Medium (451 to 621 students)	36.9
Large (> 621 students)	40.6
Locale	
Urban	38.4
Suburban	45.7
Town	4.9
Rural	11.0
Eligible for free/reduced-price meals	
Lowest ($\leq 33\%$ eligible)	26.0
Middle (33% to 66% eligible)	29.7
Highest ($\geq 66\%$ eligible)	44.3

Table 2: School Characteristics, by Weekly Minutes of PE (% schools endorsing each item)

	overall	<100	100+
Offers third-graders 20+ minutes of recess daily	89.9	89.1	90.4
Administrator rated gymnasium facilities as adequate	27.9	32.0	25.3
Administrator rated playing fields as adequate	81.8	81.4	82.1
Administrator rated playground facilities as adequate	88.0	84.4	90.3
Administrator-Perceived Barriers to Offering PE			
Lack of necessary staff	35.0	42.7	30.1*
Inadequate indoor facilities/equipment	25.3	22.6	27.0
Inadequate outdoor facilities	11.3	12.9	10.2
Competing demands for other subject areas	58.8	56.5	60.2
PE not a high priority for district administrators	8.1	11.3	6.1
Financial constraints	22.8	26.6	20.4
District Policy Characteristics			
Addresses goals for PE	91.4	90.6	91.8
Recommends or requires PE	73.1	73.4	73.0

* $p < .05$