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Short Communication

School wellness team best practices to promote wellness policy implementation

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ABSTRACT

Schools with wellness teams are more likely to implement federally mandated Local Wellness Policies (LWPs, Local Education Agency-level policies for healthy eating/physical activity). Best practices have been developed for wellness teams based on minimal empirical evidence. The purpose of this study is to determine, among schools with wellness teams, associations between LWP implementation and six wellness team best practices (individually and as a sum score). An online survey targeting Maryland school wellness leaders/administrators (52.4% response rate, 2012–2013 school year) was administered that included LWP implementation (17-item scale: categorized as no, low, and high implementation) and six wellness team best practices. Analyses included multi-level multinomial logistic regression. Wellness teams were present in 311/707 (44.0%) schools, with no (19.6%), low (36.0%), and high (44.4%) LWP implementation. A sum score representing active wellness teams (mean = 2.6) included: setting healthy eating/physical activity goals (66.9%), informing the public of LWP activities (71.4%), meeting ≥4 times/year (45.8%), and having school staff (46.9%), parent (25.4%), or student (14.8%) representation. In adjusted models, goal setting, meeting ≥4 times/year, and student representation were associated with high LWP implementation. For every one-unit increase in active wellness team sum score, schools were 41% more likely to be in high versus no implementation (Likelihood Ratio = 1.41, 95% C.I. = 1.13, 1.76). In conclusion, wellness teams meeting best practices are more likely to implement LWPs. Interventions should focus on the formation of wellness teams with recommended composition/activities. Study findings provide support for wellness team recommendations stemming from the 2016 Healthy, Hunger-Free Kids Act final rule.

1. Introduction

Poor nutrition and inactivity can negatively impact child health and academic achievement (Edwards et al., 2011; Donnelly and Lambourne, 2011). To promote student wellness, the federal government mandated that Local Education Agencies (LEAs; also known as "school systems" or "school districts", each containing multiple schools) participating in federal nutrition programs have a written Local Wellness Policy (LWP) by September 2006 (Child Nutrition and Women, Infants, and Children Reauthorization Act of 2004, n.d.). LWPs, which are written at the LEA-level, guide LEA- and school-level efforts to create health-promoting school environments. For example, if a LEA's LWP includes language specifying the nutrition content of all foods sold in school and prohibiting food as a reward in the classroom, LEA-level efforts would ensure that all foods sold in schools meet the specified nutrition content and school-level efforts would ensure that food is not being used as a reward. The effectiveness of LWPs depends on the degree of school-level implementation, which can be strengthened by involvement of teachers and staff (Budd et al., 2012; Wall et al., 2012). A recent Healthy, Hunger-Free Kids Act (HHFKA) final rule (July 2016) indicates that LEAs must establish LWP leadership at the school and/or LEA level (United States Department of Agriculture, 2016a). Additionally, the U.S. Department of Agriculture (USDA) provided a Local School Wellness Policy Outreach

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Toolkit for LEAs following the final rule, which specifies the importance of forming school-based wellness teams (United States Department of Agriculture, 2016b).

Creating school-level wellness teams is endorsed by researchers (Budd et al., 2012; Murray et al., 2015; Hager et al., 2016), school wellness promotion programs (Alliance for a Healthier Generation, 2013; Action for Healthy Kids, n.d.), and federal agencies (United States Department of Agriculture, 2016b; Centers for Disease Control and Prevention, 2014). Studies have shown that schools with wellness teams report greater LWP implementation (Hager et al., 2016; Rasberry et al., 2015), including a recent study by our team. Wellness team best practices have been developed (United States Department of Agriculture, 2016b; Alliance for a Healthier Generation, 2013; Action for Healthy Kids, n.d.; Centers for Disease Control and Prevention, 2014), yet not fully evaluated. Studies are needed that go beyond examining only wellness team formation and further investigate, among schools with wellness teams, how best practices, including composition and activities, are associated with LWP implementation.

This study examines, among schools with wellness teams, the association between having a high-functioning or "active" wellness team (based on established wellness team best practices (United States Department of Agriculture, 2016b; Alliance for a Healthier Generation, 2013; Action for Healthy Kids, n.d.; Centers for Disease Control and Prevention, 2014)) and school-level LWP implementation. Specifically, the objectives are to examine associations between LWP implementation and school wellness team best practices (individually and as an active wellness team sum score).

2. Methods

An online (SurveyMonkey, Inc. Palo Alto, CA) survey was developed and emailed to school administrators or school wellness leaders in 1349 schools in all 24 Maryland public LEAs in summer 2013 (Hager et al., 2016). All procedures were approved by the University and State Department of Health Institutional Review Boards.

2.1. Study sample

The response rate was 52.4% (707/1349) for the entire survey, with 311 schools (44.0%) responding "yes" to: "my school had a school health council or wellness team responsible for implementing LWPs" during 2012–2013.

2.2. Measures

2.2.1. Active wellness team sum score

Six questions determined composition/activities of wellness teams based on best practices (Alliance for a Healthier Generation, 2013; Action for Healthy Kids, n.d.; Centers for Disease Control and Prevention, 2014), including: (i) set goals for healthy eating/physical activity; (ii) met ≥4 times during 2012–2013 school year; (iii) included at least 3 of the following: administrator, physical education teacher, cafeteria manager, school nurse; (iv) included a parent; (v) included a student; and (vi) mechanism in place for making wellness team activities publicly available (website, PTA meetings, or newsletter). Each was scored 0 or 1 (1 = met the criterion, 0 = did not meet criterion) and summed to generate an active wellness team sum score (higher scores = a greater number of best practices).

2.2.2. LWP implementation

LWP implementation was assessed using a 17-item scale (test-retest reliability = 0.70, Cronbach's alpha = 0.92). The full scale has been published (Hager et al., 2016) and is available online (Maryland School Wellness Partnership, 2013). Two examples of items included in this scale are: "My school provides annual progress reports to the LEA on school-level implementation of LWPs" and "My school has provided training/education to encourage staff to model healthy eating and physical activity behaviors". Each item was dichotomized to "fully implemented" or "not fully implemented". This scale has been previously summed and categorized as: no (0 items), low (1–5 items), and high (6 or more items) implementation to account for skewness (Hager et al., 2016).

2.2.3. School demographics

The State Department of Education provided the percentage of students per school eligible for Free and Reduced-price Meals (FARMS), dichotomized at <75% and ≥75% as a proxy for majority low-income student body, as was done in a previous study (Hager et al., 2016).

2.3. Statistical analysis

Analyses (SPSS version 20.0) included bivariate statistics (Chi-Square analyses and ANOVA with LSD post-hoc testing) and multilevel multinomial logistic regression [adjusting for clustering within LEAs, majority low-income student body, respondent (administrator versus other) and school type (3 categories: elementary or elementary/middle, middle, and high)] and were conducted in 2016–2017.

3. Results

All Maryland LEAs (n = 24) were represented in the sample (n = 311), including elementary (66%), elementary/middle (7%), middle (14%), and high (13%) schools. These proportions are very similar to the distribution of school type in Maryland during the 2012–2013 school year (55% elementary, 7% elementary/middle, 18% middle, and 16% high. Respondents were mostly administrators (n = 280, 90%). Other respondents included teachers involved in wellness activities (n = 20, 6.4%), school nurses (n = 5, 1.6%), and other school personnel (n = 6, 1.9%). Approximately one-quarter (26%) had a majority low-income student body, 19.6% did not implement any LWP implementation items ("no implementation"), 36.0% reported "low implementation," and 44.4% reported "high implementation".

Most wellness teams (Fig. 1) reported setting goals for healthy eating/physical activity (66.9%) or a mechanism to inform the public (71.4%). Less than half met ≥4 times/year (45.8%) or had representation from key staff (46.9%), parents (25.4%), or students (14.8%). The mean active wellness team sum score, based on the 6 best practices above, was 2.73 (SD = 1.53, range 0–6), and differed by LWP implementation category ($F = 9.7$, $p < 0.001$); specifically, schools reporting no and low implementation had lower scores than schools reporting high implementation (2.51 and 2.33 versus 3.14, $p = 0.007$ and $p < 0.001$, respectively). Adjusted models revealed for every one-unit increase in the active wellness team sum score, schools were 45% more likely to report high compared to no implementation (Table 1).

In unadjusted bivariate models (Fig. 1), each of the six wellness team best practices was independently associated, at least marginally, with LWP implementation. In separate adjusted regression models (Table 1), schools with wellness teams that set goals, met ≥4 times/year, or included a student were over twice as likely to be in high versus no implementation. Wellness teams including key school staff had a 98% increased likelihood of reporting the high versus no implementation. Having a mechanism to inform the public and parent representation were not associated with LWP implementation.

4. Discussion

This study describes how often wellness teams are meeting best practices and provides support for wellness team best practices (Alliance for a Healthier Generation, 2013; Action for Healthy Kids, n.d.; Centers for Disease Control and Prevention, 2014), individually and in aggregate.