PROMOTING PHYSICAL ACTIVITY

RUTH AND NORMAN RALES
Rales Center for the Integration of Health and Education

JOHNS HOPKINS CHILDREN'S CENTER

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What did we do?

The Rales Wellness team worked closely with KIPP Baltimore to support implementation of the CDC's Comprehensive Physical Activity Program approach [1], focusing on the Physical Activity During School component. We undertook a formative project to explore how recess at Harmony was meeting the objectives set out in the CDC's Strategies for Successful Recess [2] and we provided and promoted the use of an online platform for classroom-based physical activity breaks during the school day. We evaluated the relationship between physical activity breaks and academic and behavioral outcomes among students in participating classrooms.

Rationale

Schools are optimally positioned to help students meet the recommendation for young people to have 60 minutes or more of physical activity every day. This recommendation is crucial to promoting health and preventing health conditions like obesity [3]. A Comprehensive School Physical Activity Program-informed framework can help schools address the Physical Education and Physical Activity component of the Whole Child, Whole Community, Whole School model and related student physical activity recommendations [4]. Students who are physically active are more likely to perform better academically, have fewer school absences, and have more positive classroom behaviors [5, 6].

Summary of Implementation and Results

Optimizing Recess

During Year 3, the Rales Wellness team conducted unstructured observations of recess, in-depth interviews, and focus groups to capture the experiences of various members of the school community involved with recess programs. Unstructured observations of lunch hour recess were conducted for each grade level in grades Kindergarten through four. Ten recess stakeholders including teachers, administrators, and parents participated in in-depth interviews. Three focus groups were conducted—one group for parents and two groups for recess monitors, who are primarily charged with implementing recess.

Stakeholders expressed diverse opinions about the value and role of recess. Recess monitors and teachers commonly perceived recess to be an optional, reward-based part of a school day, while administrators endorsed district guidelines in which recess was not used as a punishment or reward.

Teachers' involvement with recess was variable as it was not part of their contracts, however, they played a role in addressing behavior issues that stemmed from recess. Administrators were less aware of written guidelines for recess or tools available to help develop written recess plans. Training and equipment resources were scarce for recess monitors. All stakeholders expressed goals for recess that aligned with the CDC recommendations including more parent engagement, more resources, equipment, and training, and more structured activities.

Based on these findings, the Wellness team partnered with the Harmony Operations team to plan and implement changes to the recess plan. These changes included training for recess monitors on student behavior and game management and purchasing additional equipment to be used exclusively during recess.To align with the school's efforts to improve culture and climate, the KIPP Operations team redesigned the recess monitor position to increase monitors' opportunity to build proactive positive relationships with students and staff.

Physical Activity Breaks

Beginning in Year 2, the Wellness team offered all KIPP teachers access to daily physical activity breaks through an online platform called GoNoodle. From Years 2 to 4, 101 teachers offered physical activity breaks. In total, there were over 1 million student minutes of activity during the school day.

In the Year 3, the second year of implementing physical activity breaks, the Wellness team promoted the use of GoNoodle among teachers and school staff with a trophy. GoNoodle also became an integral component of indoor recess; recess monitors used it to provide structured opportunities for movement. During Year 3 alone, student minutes of activity increased by over 175,000 minutes compared to the previous year.

PHYSICAL ACTIVITY BREAKS WERE ASSOCIATED WITH FEWER CLASSROOM DISRUPTIONS AND MORE SELF-CONTROL AMONG PARTICIPATING STUDENTS

We hypothesized that more classroom physical activity breaks would be associated with classroom behavior (as measured by teacher reports of student disruptiveness and self-control in an online behavior management system). We examined associations between classroom physical activity breaks and classroom behavior ratings using multivariable linear regression models with robust standard errors to account for classroom clustering. We found that the number of physical activity breaks was significantly associated with fewer classroom disruptions ($B=0.11$, $p<.001$) and more self-control ($B=0.48$, $p<.001$) after accounting for grade, gender, standardized test score performance (PARCC English language arts), attendance, and student body mass index.

Dissemination

- Suleman, S., Calderon-Velazquez, G., Haag, T., Connor, R, Marshall, B. Implementation of CDC Guidelines for Recess: A formative research study. Manuscript under review.
- Evaluation of stakeholders' perceptions of value of recess on child health & wellness: A formative research study. Presented at the 2018 Pediatric Academic Societies Annual Meeting, Toronto, CA. Evaluating the Challenges of Implementing Pediatric Health and Wellness Services in Urban Schools. Presented at the 2018 Pediatric Academic Societies Annual Meeting, Toronto, CA.
- Implementation of CDC Guidelines for Recess: A formative research study. Presented at the 2017 American School Health Association Conference, St. Louis, MI.
- Are physical activity breaks associated with achievement and behavior? Presented at the 2017 American School Health Association Conference, St. Louis, MI.
- Fitnessgram screening in an urban K-8: Acceptability and logistics. Presented at the 2017 National School-Based Health Care Convention, Long Beach, CA.

Impact

- Recess programs were optimized to promote physical activity, reduce behavioral incidents, and enhance recess monitors' agency in implementing successful recess for all elementary school students.
- Over one million minutes of student physical activity delivered through an online physical activity break platform in Years 2-4.
- Higher number of physical activity breaks was associated with higher levels of teacher-reported self-control among students and less classroom disruption.

LESSONS LEARNED

- *Engaging key staff in the discussion and planning of physical activity-related activities was key to bringing about change. For instance, bringing together recess monitors, administrators who supervise recess, and teachers to discuss challenges and opportunities of our updated recess plan helped all stakeholders feel more confident about implementation, and improved relationships across all three groups.*
- *Training recess monitors in behavior management and game facilitation was essential in improving the quality of recess.*
- *Offering professional development for staff on ways to integrate physical activity into their classroom helped staff feel more comfortable trying the strategies and integrating physical activity breaks into their daily practice.*

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We are grateful to all those who have joined us in our mission to create models of school health that help every child to achieve their full health and academic potential. Special thanks to the Norman and Ruth Rales Foundation and our partners at KIPP Baltimore; without them this work would not be possible.

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