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Title: Does Playworks Work? Findings from a Randomized Controlled Trial

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Abstract Body

Background / Context:

Description of prior research and its intellectual context.

Most school principals believe recess has a positive impact on the development of students' social skills and academic achievement (Robert Wood Johnson Foundation [RWJF] 2010). Research also suggests that physical activity and play during recess may be linked to improvements in both academic and prosocial behaviors (Centers for Disease Control and Prevention 2010). Recess, however, has been reduced or eliminated in up to 40 percent of school districts across the country and these declines have disproportionately affected low-income minority students in urban areas. In schools where recess is still offered, recess periods often lack the structure needed to support physical activity and positive social development, often leading to increased discipline-related problems (RWJF 2010).

The Playworks program—which aims to address these issues—places full-time coaches in low-income schools to provide opportunities for organized play during recess and throughout the school day. Activities are designed to engage students in physical activity, improve quality of play, foster social skills related to cooperation and conflict resolution, improve students' ability to focus on class work, decrease behavioral problems, and improve school climate.

Purpose / Objective / Research Question / Focus of Study:

Description of the focus of the research.

This study is designed to both rigorously assess the impacts of the Playworks program on student and school outcomes and document the program's implementation. A recent implementation study (London et al. 2010) suggests that when Playworks is fully implemented, recess is more structured and organized and students are more engaged in recess activities and learn to use conflict resolution skills. The study that is the focus of this presentation is the first rigorous random assignment evaluation to measure the effectiveness of the Playworks program.

Setting:

Description of the research location.

The study included 25 low-income, urban schools from 5 cities. All of the schools were interested in implementing the Playworks program.

Population / Participants / Subjects:

Description of the participants in the study: who, how many, key features, or characteristics.

Data were collected from 1,982 students, 247 teachers, 25 principals, and 14 Playworks coaches in spring 2011 to document the implementation of Playworks and to assess the impact of the program.

Intervention / Program / Practice:

Description of the intervention, program, or practice, including details of administration and duration.

The Playworks program places full-time coaches in low-income schools to provide opportunities for organized play during recess and throughout the school day. Activities are designed to engage students in physical activity, improve quality of play, foster social skills related to cooperation and conflict resolution, improve students' ability to focus on class work, decrease behavioral problems, and improve school climate. The Playworks model includes the following components, the first three of which are examined in this study:

- **Organized Recess Activities.** During recess, the coach teaches conflict resolution skills and fosters student play by encouraging involvement in organized, inclusive activities. The coach introduces a common set of rules to games and models conflict resolution tools such as ro-sham-bo (rock-paper-scissors), with the goal of reducing the number of conflicts that arise, enabling youth to resolve their own disputes, and creating an environment of positive play.
- **Class Game Time.** Class game time provides an opportunity for coaches to model positive language and involve teachers in activities.
- **Junior Coach Program.** This program provides fourth- and fifth-grade students with an opportunity to develop leadership and conflict resolution skills so they can act as role models and facilitators during recess.
- **After-School Activities.** Playworks also includes an after-school program, a sports league, and school staff trainings.

Research Design:

Description of the research design.

25 low-income, urban schools interested in implementing Playworks were randomly assigned to a treatment group that received Playworks in the 2010–2011 school year or to a control group that was not eligible to implement Playworks until the following year.

Data Collection and Analysis:

Description of the methods for collecting and analyzing data.

To address the study's impact and implementation research questions, we obtained data from both treatment and control schools near the end of the school year, in spring 2011. Data collection activities included administration of student and teacher surveys, recess observations, interviews with principals, collection of student physical activity data, and collection of administrative records from schools. Our data collection activities focused on six outcome domains: (1) school climate, (2) conflict resolution and aggression, (3) learning and academic performance, (4) recess experience, (5) youth development and (6) student behavior.

The study team used regression models to estimate the impact of Playworks on outcomes. For outcomes based on student-level data, we estimated the following model:

$$Y_{ijs} = \alpha + \beta X_{ijs} + \gamma T_s + \mu_s + \varepsilon_{ijs},$$

where Y_{ijs} is the outcome for student i in classroom j in school s , α is a vector of indicator variables denoting the random assignment block in which the school was located, X_{ijs} is a vector of student baseline characteristics, T_s indicates whether the school in which the student was

enrolled was assigned to the treatment group, μ_s is a school-specific random error term, ε_{ijs} is a student-level random error term, and β and γ are parameters to be estimated. Similar (appropriately revised) models were estimated for outcomes based on school-level and teacher-level data.

Findings / Results:

Description of the main findings with specific details.

The following significant, positive impacts of Playworks were found:

- There was a positive impact of Playworks on teachers' perceptions of students' safety and the extent to which teachers reported students felt included during recess.
- Teachers in treatment schools reported less bullying and exclusionary behavior during recess than teachers in control schools.
- Teachers in treatment schools were less likely to report difficulties in transitioning to classroom learning activities after recess and reported significantly less time to transition from recess to learning activities than teachers in control schools. Treatment students were also more likely than control students to report better behavior and attention in class after sports, games and play.
- Treatment teachers reported significantly better student behavior at recess and readiness for class than control teachers and were also more likely to report that their students enjoyed adult-organized recess activities.

The following key implementation findings were observed:

- Strong implementation occurred in seven of 14 treatment schools and moderate implementation occurred in another five schools. Two schools had weak implementation.
- Playworks implementation was stronger in schools that had recess in the past and when coaches were experienced with the program.
- Most teachers, students and principals had positive perceptions of the Playworks program.

Conclusions:

Description of conclusions, recommendations, and limitations based on findings.

In summary, this study found positive impacts of the Playworks program on some measures of school climate, conflict resolution and aggression, learning and academic performance, and recess experience, and showed no negative impacts of the program in any of the six domains that were assessed. We see three key implications of this study for future research and program development. First, the findings suggest that Playworks – a program with a substantial focus on recess – can have spillover effects into the classroom, which is useful information for schools that are seeking to both improve recess and increase time spent on academics. Second, an observed pattern of differences in impacts based on whether the outcomes were reported by teachers or students would be worthy of focus in future studies. Finally, we think that the lack of significant impacts in the youth development and behavior domains deserves additional attention.

Appendices

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Appendix A. References

References are to be in APA version 6 format.

Centers for Disease Control and Prevention. (2010). *The association between school-based physical activity, including physical education, and academic performance*. Atlanta, GA: U.S. Department of Health and Human Services.

London, R.A., Mallonee, N., Stokes-Graham, K., & Westrich, L. (2010). *Playworks implementation in eight Bay Area elementary schools: Final report*. Stanford, CA: John W. Gardner Center.

Robert Wood Johnson Foundation. (2010). *The state of play: Gallup survey of principals on school recess*. Princeton, NJ: Author.

Appendix B. Tables and Figures

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No tables included.