

Abstract Title Page
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Title: An Increase in Emotional Support, A Reduction in Negative Social Emotional Skills, Or Both?: Examining How Universal Social Emotional Programs Achieve Reductions in Aggression

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Abstract Body

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Background / Context:

Participation in Social Emotional Learning (SEL) programs reduces aggressive and antisocial behavior (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Theoretically, SEL programs foster social and emotionally intelligent youth through improving children's social and emotional skills, defined in the present study as the ability to manage emotions and develop meaningful friendships (Izard, 2002; Lemerise & Arsenio, 2000; Webster-Stratton & Reid, 2004), as well as fostering emotional support, defined in the present study as safe and caring learning environments (Hawkins et al., 2004; Schaps, Battistich, & Solomon, 2004). Presently, it is unclear which component is more important, or if both components are equally important. Research on interventions designed specifically for children who engage in aggressive and antisocial behavior suggest that each component is equally important. Like SEL programs, interventions designed for children who engage in aggressive and antisocial behavior can target multiple levels of influence on children. These interventions reduce aggressive and antisocial behavior, regardless of whether the child, parent, or teacher is the target of the intervention (Webster-Stratton, Reid, & Hammond, 2004). This indiscriminate pattern focused on children's skills, home environment, and classroom environment, and as such, indicates that both skill-based and environmental pathways can play a role in reducing aggressive and antisocial behavior. We therefore expect SEL programs, such as 4Rs+MTP, to achieve reductions in aggressive and antisocial behavior through *both* improving social and emotional skills (child-level) and fostering emotionally supportive classrooms (teacher-level). Although universal SEL programs reach every available child within the school, the programs often have their largest effects on children who began the program displaying antisocial and aggressive behavior (Muthén et al., 2002). It is possible that emotional support may be more important than social emotional skills for children who began the program exhibiting elevated levels of aggressive and antisocial behavior than improvement in SEL skills because there is a strong relationship between social emotional skills and the home environment (Weiss, Dodge, Bates, & Pettit, 1992), and the majority of SEL programs do not address the home environment.

Purpose / Objective / Research Question / Focus of Study:

The current study is embedded within the evaluation of an integrated SEL and literacy program in third through fifth grade classrooms called the 4Rs (Reading, Writing, Respect, and Resolution; Morningside Center for Teaching Social Responsibility, 2001). A recent randomized controlled evaluation of 4Rs indicated moderate to large, positive impacts on teacher practices and small, positive impacts on student outcomes (Brown, Jones, LaRusso & Aber, 2010; Jones, Brown & Aber, 2011). Despite the promise of these findings, there was considerable variability during implementation of the 4Rs Program in curriculum delivery, which may have attenuated intervention effects. Therefore, in the current study teachers using the 4Rs curriculum are supported with a standardized, video-based coaching program called MyTeachingPartner (MTP; Pianta et al., 2008). In past trials with a variety of curricula across pre-k and secondary classrooms, MTP yielded improvements on teacher implementation and teaching practices that were moderate to large (Pianta et al., 2008).

We used the 4R's+MTP data in order to delineate how social-emotional programs benefit children. Is it through an improvement in children's social-emotional skills, an improvement in

emotional support, or some combination of both mechanisms? In addition, we investigated whether these mechanisms operated differently for children who began the school year displaying elevated levels of aggressive behavior.

Setting:

The 4Rs+MTP intervention was implemented in 6 New York City public elementary schools.

Population / Participants / Subjects:

Across the 6 schools, 35 teachers are participating from grades 3-5. This sample includes 18 regular education classrooms, 3 special education classrooms, 10 inclusion classrooms (mix of regular and special education students) and 4 dual language classrooms. Schools and teachers are distributed between 2 4Rs coaches, with one coach serving 3 schools and 16 teachers and the other coach serving 4 schools and 19 teachers.

Intervention / Program / Practice:

The 4Rs program has two primary components: (1) a comprehensive 7-unit, 21 lesson, literacy-based curriculum in conflict resolution and social-emotional learning and (2) 25 hours of teacher training, plus ongoing coaching. The 4Rs curriculum uses high quality children's literature as a springboard for helping students gain skills and understanding in handling anger, listening, assertiveness, cooperation, negotiation, mediation, and building community. Each unit begins with the teacher reading aloud a children's book, carefully chosen to introduce the main theme of the unit. After the read-aloud is "Book Talk," which includes discussion, writing, and role-playing aimed at deepening students' understanding of the book. The rest of the unit consists of "Applied Learning" lessons in conflict resolution and social-emotional skills related to the theme. Lessons are taught every week for 30-45 minutes throughout the academic year. MTP is an innovative approach to supporting curriculum implementation that unites the ideas of providing ongoing, personalized feedback and support to teachers and embedding these implementation supports within a validated framework that emphasizes the importance of teacher-student interactions to ensure effectiveness of curricula. The premise of MTP is that professional development for teachers can improve the implementation of curricula through provision of extensive *opportunities for individualized feedback* and support for effectiveness in one's own instruction, implementation, and interactions with students. Importantly, the Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2008), a shared framework for defining and observing teacher-student interactions that has shown strong links to growth in student outcomes, guides all observations, feedback, and support. Every two weeks, teachers videotape their implementation of instructional activities and send this footage to their coach. The coach then edits the tape into short segments that focus on a specific dimension of interaction, as defined by the CLASS (e.g., teacher sensitivity), and its application to implementation of the instructional activity. The short video segments and accompanying written feedback and questions (called prompts) are posted to each teacher's private website. Teachers view the segments and respond to the accompanying prompts. Based on a long history of similar work focused on parent-child interactions (Dishion, Shaw, Connell, Gardner, Weaver, & Wilson, 2008; Juffer, Bakermans-Kranenburg, & van IJzendoorn, 2008; Mendelsohn et al., 2007; Webster-Stratton & Taylor, 2001), the intention of these prompts is to focus the teacher's attention on specific aspects of her behavior toward students and the students' responses. Teachers then meet with their coach for an in-person 30-minute conference to discuss the

prompts and feedback, the teachers' responses, and to problem-solve and plan for future lessons. In this study, teachers will engage in 8 MTP coaching cycles throughout the academic year.

Research Design:

The study is a quasi-experimental, matched control group design. However, the current questions involve within-treatment group analyses.

Data Collection and Analysis:

Description of the methods for collecting and analyzing data.

Hostile attribution bias and aggressive interpersonal strategies were measured by child-report in the fall and spring using a 6-item adaptation of the Home Interview originally developed by Dodge (1986). In order to measure hostile attribution bias, six hypothetical vignettes were read aloud, while students viewed an accompanying illustration. Students were asked to imagine themselves as the recipient of a provocation involving a peer, the cause of which is both visually and verbally ambiguous. Students were then asked about the cause of the provocation, and selected one of four possible causal attributions. Responses were coded as either 1 (hostile) or 0 (benign) and then averaged across items. In order to assess aggressive interpersonal strategies, following assessment of their attributions of intent, students were asked what action they would take next in each of the six scenarios, and selected from among four possible response strategies. Responses were coded as either 1 (aggressive) or 0 (non-aggressive) and then averaged across items.

Teacher-reports of aggression and conduct problem behaviors were measured using the *Behavioral Assessment System for Children* (Reynolds & Kamphaus, 1998). This questionnaire asks teachers about students' typical behaviors observed within the past 30 days, and includes 13 aggressive behavior items (e.g., physically aggressive, argumentative, threatening or critical of others) and 11 conduct problem items (e.g., steals, truancy). Items were rated on a 4-point scale (never = 1; almost always = 4).

Child-reported aggression was measured by the Aggression Scale (Orpinas & Frankowski, 2001). The scale is calculated as an average of six items (e.g., "I pushed, shoved, or hit a kid at school"), each of which is rated on a 4-point Likert scale (never = 0; many times=3).

Emotional support was measured by the Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2008). The CLASS assesses quality of teacher-student interactions. The present study focuses on the emotional support factor of the CLASS, which is the sum of positive climate, negative climate (reflected), teacher sensitivity, regard for student perspectives, and behavior management, each measured on a 7-point Likert scale..

Data Analysis

To delineate whether change in classroom climate, social-emotional skills, or both produce reductions in aggressive behavior and antisocial, and whether these reductions are moderated by initial aggressive and antisocial behavior, three multilevel models were conducted in Mplus (version 6.01, Muthen & Muthen, 2008), one predicting teacher-reported aggressive behavior in the spring, controlling for teacher-reported aggressive behavior in the fall, one

predicting conduct problem behavior in the spring, controlling for conduct problem behavior in the fall, and one predicting child-reported aggressive behavior in the spring, controlling for child-reported aggressive behavior in the fall. In each model, change in emotional support, change in social-emotional skills, initial aggressive/conduct problem behavior, and the interaction between each were entered as predictors.

Findings / Results:

An increase in emotional support predicted a reduction in teacher-reported aggressive behavior in the spring, controlling for teacher-reported aggressive behavior in the fall ($\beta = -.14$, $t_{351.47} = -2.32$, $p = .02$). However, this effect was qualified by an interaction: the effect of emotional support was amplified when hostile attribution bias decreased ($\beta = -.22$, $t_{158.62} = -1.83$, $p = .07$). An increase in emotional support predicted a reduction in teacher-reported conduct problems in the spring, controlling for teacher-reported conduct problems in the fall ($\beta = -.13$, $t_{333.27} = -2.10$, $p = .04$). However, this effect was qualified by an interaction: the effect of emotional support was amplified when hostile attribution bias decreased ($\beta = -.21$, $t_{153.39} = -1.83$, $p = .09$). A decrease in aggressive interpersonal strategies predicted a reduction in child-reported aggressive behavior in the spring, controlling for child-reported aggressive behavior in the fall ($\beta = -.56$, $t_{427.06} = -5.22$, $p = .00$).

Conclusions:

The present study suggests that SEL programs reduce aggressive and antisocial behavior through improving social and emotional skills and fostering safe and caring learning environments. More specifically, in support of our hypothesis, we found that within the intervention group of the 4Rs + MTP program, the interaction between emotional support and hostile attribution bias predicted less teacher-reported aggressive and antisocial behavior. Said differently, an increase in emotional support and a decrease in hostile attribution bias over the course of the year predicted less teacher-reported aggressive and antisocial behavior. As such, our hypotheses were partially confirmed. Contrary to our hypothesis, baseline levels of aggressive and antisocial behavior did not interact with any of our other predictor variables, indicating that the combination of more emotional support and less hostile attribution bias predict less aggressive and antisocial behavior across children. Another finding that was not expected was that a reduction in aggressive interpersonal strategies alone predicted less child-reported aggression over the course of the year. Such exploration of the mechanisms by which SEL programs may lead to reductions in children's aggressive and antisocial behavior have the potential to identify key components of complex universal interventions, and in this case suggest that targeting both emotional support and social emotional skills are key elements of ensuring the positive benefits of 4Rs+MTP and perhaps other SEL interventions.

Appendices

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Appendix A. References

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Appendix B. Tables and Figures