BACKGROUND
- Participation in school-based Social Emotional Learning (SEL) programs reduces aggressive behavior (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).
- It is unclear how SEL programs reduce aggressive behavior: through improvement of students’ social and emotional skills or by fostering emotionally supportive classroom environments.
- The mechanisms for reductions in aggressive behavior may be different for children who begin the school year displaying high levels of aggressive behavior, who also tend to benefit the most from SEL programs (Jones, Brown & Aber, 2011).

RESEARCH QUESTIONS
1. Do universal SEL programs reduce aggressive behavior through improving the classroom climate, reducing negative social emotional skills, or through a combination of both mechanisms? Do these mechanisms operate similarly across children?

METHOD: INTERVENTION
- This study is embedded within the evaluation of an integrated SEL and literacy program called the 4Rs (Reading, Writing, Respect, and Resolution; Morningside Center for Teaching Social Responsibility, 2001) in 35 third through fifth grade classrooms with 531 students.
- Participating teachers using the 4Rs curriculum are also supported with a standardized, video-based coaching program called MyTeachingPartner (MTP; Pianta et al., 2008).
- 4Rs + MTP has separate components that address each possible mechanism of change – social-emotional skill development (4Rs) and literacy program called the 4Rs (Reading, Writing, Respect, and Resolution).

METHOD: PARTICIPANTS
- 53.30% girls, 45.76% boys; 11.80% White, 44.60% Hispanic, 18.10% Black or African American, and 25.50% Other; 54.00% of the students received free or reduced price lunch. 20.00% of students were reported to be African American, and 25.50% Other; 54.00% of the students received

METHOD: MEASURES
- Hostile attribution bias and aggressive interpersonal skills were measured by child-report in the fall and spring using a 6-item adaptation of the Home Interview originally developed by Dodge (1986).
- Teacher-reports of aggression and conduct problem behaviors were measured using the Behavioral Assessment System for Children (Reynolds & Kamphaus, 1998).
- Child-reported aggression was measured by the Aggression Scale (Oppinas & Frankowski, 2001).
- Support was measured by the Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2008) during a single live observation in each classroom by an independent observer during the fall, and another single live observation in each classroom by an independent observer during the spring.

RESULTS: TEACHER-REPORTED AGGRESSION
- Three multilevel models were conducted in Mplus (version 6.01, Muthen & Muthen, 2008) – one for each of the three outcomes measured in the spring, controlling for the fall score and a host of student and classroom covariates.
- 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.

RESULTS: CHILD-REPORTED AGGRESSION
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DISCUSSION
- The interaction between emotional support and hostile attribution bias predicted less teacher-reported aggressive behavior and conduct problems.
- Reduction in aggressive interpersonal strategies alone predicted less child-reported aggression over the course of the year.
- Baseline levels of aggressive behavior did not interact with any of our other predictor variables in all three models.
- Findings provide preliminary evidence that 4Rs, an SEL program, reduces aggressive behavior through direct instruction of social-emotional skills and improvement of emotional support.
- Findings also provide preliminary evidence that 4Rs reduces aggressive behavior through similar pathways across children.
- It is possible that fewer aggressive interpersonal strategies predicted a reduction in child-reported aggression because of a social desirability bias.
- Results were not compared to a control group, and so we cannot attribute causality to the proposed mechanisms for reduction of aggressive behavior.
- Design experiment that tests these mechanisms in contrast to a control condition.
- Compare 4Rs + MTP to other SEL programs that focus on either instruction of social-emotional skills or fostering emotionally supportive classrooms.

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