Relational Experiences in School-Based Mentoring: The Mediating Role of Rejection Sensitivity

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#### Abstract

In this study, we examined associations between mentoring relationship quality, rejection sensitivity, and youth outcomes. Participants (N = 446) were part of a national, random assignment evaluation of Big Brothers Big Sisters of America school-based mentoring programs. Youth in more trusting mentoring relationships demonstrated reductions in teacher-reported behavioral evidence of rejection sensitivity. These reductions, in turn, were positively associated with youth's assertiveness with peers and prosocial behavior. Percentile bootstrap confidence intervals testing indirect effects demonstrated that rejection sensitivity mediated the association between mentoring relationship trust and teacher-reported assertiveness and prosocial behavior. Implications of the findings for theory and practice are discussed.

### Keywords

youth mentoring, relationships, rejection sensitivity, school-based intervention

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Youth & Society 1–22 © The Author(s) 2016 Reprints and permissions: sagepub.com/journalsPermissions.nav DOI: 10.1177/0044118X16653534 yas.sagepub.com Formal youth mentoring programs typically strive to create trusting, supportive relationships between young people and caring nonparental adults (DuBois & Karcher, 2013). These relationships are thought to be associated with improvements in socioemotional development, which, in turn, can influence positive youth outcomes (Rhodes & Lowe, 2008). Although meta-analyses have demonstrated the beneficial effects of youth mentoring on a range of outcomes, the magnitude of these effects has been modest (DuBois, Holloway, Valentine, & Harris, 2002; DuBois, Portillo, Rhodes, Silverthorn, & Valentine, 2011; Wheeler, Keller, & DuBois, 2010), suggesting the need for a greater understanding of the factors that influence mentoring effectiveness and the underlying mechanisms that explain this influence. This study examines the role of rejection sensitivity as a mediating pathway between trusting mentoring relationships and improvements in youth social outcomes.

## Background

Attachment theory suggests that early relationships with significant adults shape children's internal working models and affect the quality of subsequent relationships (Bowlby, 1969). Studies of attachment have corroborated the influence of these organizing frameworks in individual's social competencies across a variety of relationships, including those with peers and romantic partners (Allen, Porter, McFarland, & Boykin-McElhaney, 2007; Benson, McWey, & Ross, 2006; Simpson, Collins, Tran, & Haydon, 2007). Just as secure attachment relationships with significant adults can transfer to subsequent positive relationships, unreliable, neglectful, and rejecting relationships can also give rise to insecurity in children, leading them to hold expectations that others are untrustworthy (Allen, Moore, Kuperminc, & Bell, 1998; Collins & Read, 1994). As a defensive strategy, children with this latter stance may become hypersensitive, selectively attending to and guarding against signs of difficulty and rejection. Indeed, experiences of rejection with significant others, particularly caregivers, have been associated with defensive expectations of rejection, or rejection sensitivity in subsequent relationships (Downey, Khouri, & Feldman, 1997). Rejection sensitivity, conceptualized by Downey and colleagues as a "... pattern of defensively expecting, readily perceiving and overreacting to rejection . . . " (Downey, Lebolt, Rincón, & Freitas, 1998, p. 1076) has been associated with maladjustment across a variety of domains, including socioemotional (London, Downey, Bonica, & Paltin, 2007; Marston, Hare, & Allen, 2010; McDonald, Bowker, Rubin, Laursen, & Duchene, 2010), behavioral (Purdie & Downey, 2000), and academic (Downey, Lebolt, et al., 1998) outcomes.

Although initially enacted with caregivers, these defensive patterns are often ignited in new relationships throughout childhood and adolescence. When rejection sensitive youth encounter cues of relationship problems, however minimal or ambiguous, they may readily perceive intentional rejection (Downey & Feldman, 1996; London et al., 2007). These perceptions, in turn, negatively impact youth's external and internal experiences within interpersonal relationships. In some cases, such perceptions inhibit the youth's capacity to assert their own needs and to establish productive, trusting relationships with peers, teachers, romantic partners, mentors, and others (Downey, Freitas, Michaelis, & Khouri, 1998; Downey, Lebolt, et al., 1998). Rejection sensitive adolescents who respond with anger or anxiety to expected rejection have shown increased distress following ambiguous peer encounters (London et al., 2007). In particular, rejection sensitive youth who tend to respond more aggressively have difficulties in peer relationships and long-term academic difficulties (Downey, Lebolt, et al., 1998). Likewise, the effects of rejection sensitivity are seen in adolescents' romantic relationships (Downey & Feldman, 1996; Hafen, Spilker, Chango, Marston, & Allen, 2014). Rejection sensitive individuals tend to readily perceive intentional rejection or hurtful intent in response to insensitivities in relationships (Downey, Bonica, & Rincón, 1999).

Although many rejection sensitive youth react to perceptions of rejection with hostility and even rage (Downey, Lebolt, et al., 1998), others become overly accommodating to avoid situations that could lead to rejection (Downey, Feldman, Khouri, & Friedman, 1994; Harper, Dickson, & Welsh, 2006; Larose, Bernier, & Soucy, 2005; Romero-Canyas, Downey, Berenson, Ayduk, & Kang, 2010; Zilberstein, 2008). As such, rejection sensitive youth may be less likely to assert themselves with their peers, partners, and even caring adults out of fear of confrontation and loss of the relationship (Hafen et al., 2014; Luterek, Harb, Heimberg, & Marx, 2004; Purdie & Downey, 2000). Furthermore, continual hypersensitivity to rejection and defensive patterns in response to rejection across relationships may affect one's sense of worth, and further exacerbate interpersonal difficulties related to rejection sensitivity (Ayduk et al., 2000; Downey & Feldman, 1996).

### Rejection Sensitivity and Mentoring

Highly supportive relationships have the potential to alter youth's defensive rejection expectations (Purdie & Downey, 2000) and ameliorate the negative effects associated with high levels of rejection sensitivity (London et al., 2007; McDonald et al., 2010; Romero-Canyas et al., 2010).

Research and theory suggest that close, enduring, supportive mentoring relationships may help rejection sensitive youth to revise expectations of rejection and update their individual working models of relationships (McLachlan, Zimmer-Gembeck, & McGregor, 2010; Rhodes, Spencer, Keller, Liang, & Noam, 2006). Similar to other positive relationships with adults, volunteer mentors, who are trained to provide youth with safe, consistent, unconditional support (Kupersmidt & Rhodes, 2013), may be particularly well suited to provide a context for high rejection sensitive youth to feel accepted and supported. Close adult-youth ties can offer alternative relationship models, challenging views that youth may hold of adults as untrustworthy and rejecting (Rhodes & Lowe, 2008). Moreover, by acting as a sounding board and providing a model for effective communication, mentors can help adolescents better understand, more clearly express, and more effectively regulate both their positive and negative emotions. In this way, a mentoring relationship can become a "corrective experience" for youth who have experienced unsatisfactory relationships with parents or other caregivers. Positive social experiences are thought to generalize, enabling youth to interact with other adults more effectively (Rhodes, 2005). These improvements, in turn, can facilitate growth in more proximal relationships. In support of this possibility, a series of studies have shown how the positive effects of strong mentor-youth relationships are partially mediated through improved teacher relationships (Chan et al., 2013) and improvements in youth's perceptions of their parental relationships, including levels of intimacy, communication, and trust (DuBois, Neville, Parra, & Pugh-Lilly, 2002; Karcher, Davis, & Powell, 2002; Rhodes, Grossman, & Resch, 2000; Rhodes, Reddy, & Grossman, 2005; Spencer, 2006).

Relational improvements that stem from involvement in mentoring programs, in turn, have been linked to improvements in self-worth, perceived scholastic competence, and academic achievement (Karcher et al., 2002; Rhodes et al., 2000), as well as decreases in substance use (Rhodes et al., 2005). Although most previous research on these relational processes has been conducted within the context of community-based mentoring, recent research suggests that similar processes underlie school-based mentoring (SBM) as well. Chan and colleagues (2013) found that high-quality mentoring relationships were associated with positive changes in youth's relationships with both parents and teachers, which, in turn, were associated with improvements in self-esteem, academic attitudes, prosocial behaviors, and misconduct. Trusting mentoring relationship can also lead to improved peer relations. Indeed, mentoring has been linked to significant improvements in youth's perceptions of their relationships with parents as well as with peers and other adults (DuBois, Neville, et al., 2002; Karcher, 2005; Rhodes et al., 2000; Rhodes, Reddy, Roffman, & Grossman, 2005).

As is the case with supportive parents, mentors may scaffold rejection sensitive youth's understanding of social processes with peers and provide a safe context in which relational skills relevant to friendship can be developed (Contreras, Rhodes, & Mangelsdorf, 1995; Elledge, Cavell, Ogle, & Newgent, 2010). This latter role may be particularly important in early adolescence as peer and romantic relationships become a central focus for youth and problems resulting from rejection sensitivity may arise within these relationships (Downey & Feldman, 1996; Downey, Freitas, et al., 1998; Downey, Lebolt, et al., 1998).

In one of the few studies exploring rejection sensitivity in mentoring relationships, Grossman, Chan, Schwartz, and Rhodes (2012) found that youth higher in rejection sensitivity were more likely than youth with lower rejection sensitivity to be in relationships that were enduring. This finding runs counter to research on romantic relationships in which couples with at least one partner who was high in rejection sensitivity were more likely to break up than those with lower levels of rejection sensitivity (Downey, Freitas, et al., 1998). This may be due, in part, to the different roles of romantic partners versus mentors. Youth in romantic relationships may worry about their partner's commitment, and express jealousy, controlling behavior, hostility, and diminished emotional support (Downey & Feldman, 1996). Such behaviors may result in dissatisfaction with the relationship not only for the rejection sensitive individuals but also for their partners, thus self-fulfilling the rejection sensitive individual's anxious expectations. In contrast, mentorssimilar to other "professionals" such as teachers, counselors, and coacheswhose explicit goal is to provide support and guidance in a nonreciprocal relationship, may be more hesitant to disappoint or undermine that tie, particularly if they sense the youth's sensitivity and vulnerability (Rhodes, Schwartz, Willis, & Wu, 2014). In addition, mentors may generally be less likely than peers or romantic partners to sever relationships.

## Current Study

In this study, we explore the possibility that mentor-facilitated decreases in rejection sensitivity may partially underlie associations between the formation of close, trusting mentor-youth relationships and improvements in youth's interpersonal behaviors and internal experiences. We aim to (a) explore differences in teacher-reported behavioral evidence of rejection sensitivity among youth across demographic groups and (b) examine the process through which high-quality, trusting mentoring relationships promote positive relational behaviors. It is hypothesized that trusting mentoring relation-ships affect youth outcomes through changes in their sensitivity to rejection. Specifically, higher levels of mentor-mentee trust are expected to be associated with decreases in teacher-reported behavioral evidence of rejection sensitivity, which, in turn, will relate to positive changes in both youth's relational behaviors and sense of self-worth.

# Method

## Participants

We drew on data from a large-scale, national evaluation of Big Brothers Big Sisters of America (BBBS) SBM programs (Herrera, Grossman, Kauh, Feldman, & McMaken, 2007; Herrera, Grossman, Kauh, & McMaken, 2011). Participants in the current study were 446 youth who completed baseline surveys, were randomly assigned to the mentor treatment group, were matched with a mentor, and were pre-adolescents (defined as 12 years old or younger). Youth from the larger evaluation who were randomly assigned to the waitlist-control group (n = 574) and youth in the treatment group who were never matched with a mentor (n = 39) were excluded from the current study as our focus was on associations between mentoring relationship trust, rejection sensitivity, and youth outcomes. In addition, 80 youth who were matched with mentors but who were 13 years of age or older were excluded from this study. We restricted the age range in the study because a minority of participants were adolescents (ranging from ages 13-17), and relational processes would likely differ significantly based on developmental stage.

Among the 446 youth included in the current study, 55.4% were female. They ranged in age from 9 to 12 years (M = 10.64 years, SD = 0.99 years). Youth self-identified as White (49.3%), Hispanic or Latino (24.7%), Black or African American (23.3%), Native American (13%), Asian or Pacific Islander (1.8%), and Other (5.8%). Approximately, 35.7% of youth were from single-parent households and 67.2% of the sample received free or reduced lunch.

## Procedure and Intervention

**Recruitment.** Ten nationally representative BBBS agencies operating in 71 schools were selected to participate in a large-scale program evaluation of SBM. To be eligible, participating agencies had to have been in operation for at least 4 years, have strong leadership and connections to participating schools, and an existing school-based program matching at least 150 youth (both boys and girls) with a pool of volunteers from at least two volunteerrich populations (such as a partnering business, high school, or college).

*Surveys.* Youth were primarily referred for mentoring by school personnel (e.g., teachers, staff) and parents. Participating youth in the overall sample

were required to be in fourth through ninth grade, not have a referral for mentoring through protective services, and have parental consent. A total of 1,139 youth completed baseline surveys (T1) administered in small groups at school in the fall of the 2004-2005 academic year. Youth with completed baseline surveys were randomly assigned into either a treatment group (matched with a mentor, n = 565; as noted, 39 additional youth were assigned to this group but were never matched so were excluded from these analyses) or waitlistcontrol group (n = 574). A stratified randomization was used so that each participating school had approximately 50% of youth in each group. Followup surveys (T2) were administered either in person within the school setting or (for about 5% of youth) via telephone. The follow-up response rate for students at the end of the school year was 93%. Mentors and students' teachers completed self-administered baseline (mentors, n = 554; teachers, n =1,009) and follow-up surveys in the fall and spring of the school year, respectively.

Mentors and the intervention. Mentors completing the baseline assessment (n = 496) had an average age of 24.6 (SD = 12.06). The majority of the mentors were female (72.2%) and self-identified as White (76.5%), Black or African American (7.5%), Hispanic or Latino (6.3%), Multiracial (3.9%), Asian or Pacific Islander (3.7%), Native American (1.6%), or Other (0.6%). A notable percentage (48.8%) of the mentors in the sample were high school students as this group was oversampled in the impact evaluation to utilize this relatively new volunteer population (Herrera et al., 2007). Of the remaining mentors, 15.8% were college students and 35.4% were not students.

Most programs required mentors to make a one-school-year commitment; however, SBM matches are typically shorter in duration as matches generally begin after the start of the school year to accommodate volunteer recruitment, screening, and training. On average, youth in the current study had received 4.9 months (SD = 1.96 years) of mentoring, and met with their mentors 3 times per month (SD = 1.3).

#### Measures

The measures in this study were assessed at both baseline (T1) and follow-up (T2), except demographic information, which was measured at baseline only, and mentoring relationship trust and youth household composition, which were measured at follow-up only. Cronbach's alphas at baseline ( $\alpha_1$ ) and follow-up ( $\alpha_2$ ) are reported for all measures.

Mentoring Relationship Trust was measured with the six-item Youth-Reported Trust subscale of the Mentoring Relationship Quality Inventory (Rhodes et al., 2005). Items on the Trust subscale assess youth's perception of trust and distrust in the relationship with their mentor. Scale items include "I can't trust my mentor with secrets—my mentor would tell my parent [or] guardian or teacher." Item responses were scored on a 4-point Likert-type scale ranging from 1 (*not at all true*) to 4 (*very true*). All items were reverse coded and mean scores were calculated so that a higher score indicates a higher level of trust within the mentor–youth relationship ( $\alpha_2 = .57$ ).

*Rejection Sensitivity* was measured with a five-item Teacher-Reported scale adapted from Coie and Dodge (1988) by Downey, Lebolt, et al. (1998) in their study of rejection sensitivity and interpersonal difficulties in children. Scale items, which assess behavioral evidence of children's rejection sensitivity, are "This child is sensitive to rejection"; "This child tends to take things too personally"; "This child gets angry or gives up when the work is difficult"; "This child is unduly upset by negative feedback from me"; and "This child overreacts to accidental hurts with anger or tears." Responses were scored on a 4-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*), and a mean score was calculated, with higher scores indicating higher rejection sensitivity ( $\alpha_1 = .83$ ,  $\alpha_2 = .84$ ). In Downey, Lebolt, et al. (1998), scores on the measure were associated with youth self-reported assessments of rejection sensitivity measured by the Children's Rejection Sensitivity Questionnaire (CRSQ).

*Prosocial Behavior (teacher report)* was measured with an eight-item scale that asks teachers to rate how often a given student engages in prosocial behavior (Ladd & Profilet, 1996). Items include [this child] "seems concerned when classmates are distressed." Items were rated on a 4-point Likert-type scale ranging from 1 (*never*) to 4 (*very often*), and a mean score was calculated, with higher scores indicating more frequent prosocial behavior ( $\alpha_1 = .92, \alpha_2 = .94$ ).

*Prosocial Behavior (youth report)* was measured with a five-item scale that asks students to report how frequently they exhibited behaviors such as "given someone a compliment" (Posner & Vandell, 1994). Items were rated on a 5-point Likert-type scale ranging from 1 (*I have never done this*) to 5 (*I did it 5 or more times in the last 3 months*), and a mean score was calculated, with higher scores indicating more frequent prosocial behavior ( $\alpha_1$ = .72,  $\alpha_2$  = .69).

Assertiveness With Peers was assessed with an eight-item Teacher-Reported subscale of the Teacher-Child Rating Scale (Hightower et al., 1986). Items on the Assertiveness subscale ask teachers to rate students' level of assertiveness in social situations. Scale items include the extent to which the student "expresses ideas willingly" and "defends own views under group pressure." Teachers rated how true each statement was for a given student on a 4-point Likert-type scale ranging from 1 (strongly disagree) to 4 (strongly

*agree*). Four items were reverse coded, and a mean score was calculated with higher scores indicating greater assertiveness ( $\alpha_1 = .83, \alpha_2 = .81$ ).

*Global Self-Worth* was measured with an eight-item youth-reported measure derived from a subscale of the Self-Esteem Questionnaire (DuBois, Felner, Brand, Phillips, & Lease, 1996). Items include "I am the kind of person I want to be." Items were scored on a on a 4-point Likert-type scale ranging from 1 (*not at all true*) to 4 (*very true*). Three items were reverse coded, and a mean score was calculated, with higher scores indicating greater self-worth ( $\alpha_1 = .72$ ,  $\alpha_2 = .70$ ).

Youth's Relationship Profile at Baseline was measured with a dichotomized variable adapted from Schwartz, Rhodes, Chan, and Herrera (2011). This study found differential effects of mentoring based on youth's relational profiles derived from latent profile analysis of the quality of youth-reported relationship with parents (measured with a 16-item scale combining the Parent Trust and Communication subscales of the Inventory of Parent and Peer Attachment [IPPA]; Armsden & Greenberg, 1987), peers (a six-item subscale of the Self-Perception Profile for Children [SPPC]; Harter, 1985), and teachers (an 11-item scale adapted from a Teacher-Student Relationship scale; Eccles et al., 1993), and a Teacher Connectedness scale (Karcher, 2003) prior to the start of a mentoring relationship. In the previous study, each youth was categorized into one of three profiles (relationally vulnerable, relationally adequate, or relationally strong) reflecting the quality of these combined relationships. Furthermore, youth in the relationally vulnerable profile had low-quality (i.e., below the mean average) relationships with parents and teachers, whereas youth in the relationally adequate and relationally strong profiles had average or high-quality relationships. Based on these baseline mean differences from Schwartz et al. (2011), the three profiles were dichotomized in the current study and coded as 0 = relationally vulnerable (28.5% of youth) and 1 = relationally adequate or relationally strong (71.3%of youth), to reflect youth with low-quality relative to average or high-quality relationships prior to mentoring.

**Demographics.** At baseline (T1), youth reported their gender, race and ethnicity, age, and whether they received free or reduced price lunch. Youth's single-parent-household status was self-reported at follow-up (T2).

## Data Analysis

Preliminary analyses were conducted to examine descriptive information for all measured variables, as well as associations among them. In addition, differences in baseline rejection sensitivity across youth of different genders,



**Figure 1.** Hypothesized mediation model of mentoring relationship trust and youth prosocial behavior, assertiveness, and global self-worth via rejection sensitivity.

Note. Models include youth gender, race and ethnicity, age, single-parent status, baseline relationship profile, rejection sensitivity at T1, and the outcome of interest at T1 as covariates. Path a represents the path from mentoring relationship trust to rejection sensitivity. Path b represents the path from rejection sensitivity to each outcome of interest. Path c' represents the direct path from mentoring relationship trust to each outcome of interest.

racial and ethnic backgrounds, single-parent status, and relationship profiles at baseline (T1) were also examined.

Mediation analyses were performed using the PROCESS macro in SPSS (Hayes, 2016) to estimate a simple mediation model (Model 4) of mentoring relationship trust, rejection sensitivity, and youth outcomes. More specifically, the model tested our following hypotheses:

**Hypothesis 1:** Trusting mentoring relationships would be associated with positive youth outcomes including reductions in teacher-reported behavioral evidence of rejection sensitivity.

**Hypothesis 2:** These reductions would then relate to further improved outcomes (see Figure 1).

The model also included youth age, gender (dummy coded, 0 = male 1 = female), race and ethnicity (dummy coded, 0 = White, 1 = youth of color), and

single-parent status (dummy coded, 0 = other household configurations, 1 = single-parent household), relationship profile at baseline (T1), rejection sensitivity at baseline (T1), and the baseline level of each outcome variable as covariates.

In addition, to test the indirect effects in our model (i.e., the hypothesis that the association between high-trust mentoring relationships and youth outcomes is mediated through the relationship's effects on youth rejection sensitivity), percentile bootstrap confidence intervals (CI) of the indirect effect were estimated using 10,000 bootstrap samples as recommended in Hayes (2013). Using this approach, an indirect effect or test of mediation is considered statistically significant if the CI do not contain zero.

## Results

### Descriptives

Table 1 presents zero-order correlations, means, and standard deviations of all measured variables. In addition, baseline levels of rejection sensitivity were examined across several demographic categories. At baseline, there were no significant differences in teacher-reported behavioral evidence of rejection sensitivity between female youth (M = 2.18, SD = .53) and male youth (M = 2.27, SD = 0.61), t(395) = 2.64, p = .11. Youth who identified as White (M = 2.32, SD = 0.55) had significantly higher rejection sensitivity than youth of color (M = 2.16, SD = 0.58), t(395) = 6.58, p < .05. Youth who were from a single-parent household (M = 2.18, SD = 0.57) had higher rejection sensitivity than youth who were not (M = 2.18, SD = 0.57), these differences were marginally significant, t(378) = 2.53, p = .10. Similarly, there was a marginally significant difference in rejection sensitivity between youth with vulnerable relationships (M = 2.30, SD = 0.55) and those with adequate or strong relationships (M = 2.19, SD = 0.58), t(394) = 2.94, p < .10 at baseline.

## Mediation Models

Results (presented in Table 2) indicated that after controlling for youth demographic characteristics (i.e., age, gender, race and ethnicity, single-parent status, and baseline relationship profile), as well as baseline levels of rejection sensitivity and each outcome of interest, no direct associations were found between mentoring relationship trust and youth assertiveness, prosocial behavior, and global self-worth. Results, however, demonstrate that higher levels of youth-reported trust in their mentoring relationship were associated with greater reductions in teacher-reported rejection sensitivity (p < .05).

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٦.	<b>Baseline relationships</b>	09*	06	10.	02	08	09*	I									
œ	Prosocial behavior	33**	35**	.29**	.05	* <u> </u>	12*	.08									3.14 (0.57)
	(teacher report, TI)																
9.	Prosocial behavior	29**	<b>4 </b> **	.25**	<u>.</u>	05	12*	.I6**	.70**	I							3.12 (0.73)
	(teacher report, T2)																
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ы.	Assertiveness (T2)	33**	42**	00.	<b>8</b> ₩	90.	<b> 6</b> **	.08	.22**	.29**	<u>.03</u>	•. *	· **69	I			3.37 (0.69)
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Ι5.	Global self-worth (T2)	<b> 4</b> **	- <b>.  6</b> **	05	.05	03	03	.I6**	80.	.12*	*0I.	.I6**.	I. **6	×. **6	<b>1</b> 9∗		3.19 (0.57)
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	relationship trust (T2)																
Note	. Rejection = rejection sensi	tivity (high	her indication in the second s	es greatei single-nan	r sensitiv	ity to rej ehold I	ection), y = single-r	outh gen	der (0 =	= male, l	= fema	le), you	th race	and et	arional	v = 0	/hite, I = erahle_I =
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		Rejection -> Outcome	Direct effect	Indirect effect (Path a X	l otal effect (indirect +
	MRT -> Rejection (Path a)	(Path b)	(Path c')	Path b)	direct effect)
	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)
Prosocial	0943 (.0415)*	2198 (.0480)***	.0387 (.0367)	.0207 (.0110)	.0595 (.0375)
behavior	$R^2 = .6888$	$R^2 = .7472$		BootCl = <b>[.0015, .0462]</b>	
(teacher)	<i>F</i> (8, 335) = 37.79, <i>p</i> < .001	F(9, 334) = 46.92, p < 001		$P_{M} = 0.349$	
Prosocial	0992 (.0422)*	- 0049 (.1049)	.1052 (.0817)	.0005 (.0124)	.1057 (.0809)
behavior	$R^2 = .6748$	$R^2 = .4363$		BootCl = [0265, .0263]	
(youth)	F(8, 335) = 35.01, p < 001	F(9, 334) = 8.72, p <.001			
Assertiveness	0971 (.0421)*	2744 (.0570) ****	0112 (.0442)	.0266 (.0138)	.0154 (.0453)
	$R^2 = .6768$	$R^2 = .7356$		BootCl = [.0025, .0540]	
	F(8, 334) = 35.28, p < .001	F(9, 333) = 43.62, p < .001		$P_{M} = 1.727^{a}$	
Global self-worth	0927 (.0422)*	0858 (.0577)	.0472 (.0448)	.0080 (.0070)	.0552 (.0446)
	$R^2 = .6785$	$R^2 = .5567$		BootCl = [0045, .0242]	
	F(8, 335) = 35.72, p < .001	F(9, 334) = 16.67, p < .001		1	
X			2		

Table 2. Mediation Models of the Indirect Effect of Mentoring Relationship Trust on Prosocial Behavior, Assertiveness, and Global Salf-Worth Via Rejection Sensitivity

at T1 as covariates. MRT = mentoring relationship trust (higher = greater level of trust in the relationship), rejection = rejection sensitivity (higher = greater sensitivity to rejection). CI = lower and upper limit of percentile bootstrap confidence interval for indirect effect at the 95% level; CIs in bold are statistically significant as they do not Note. Models include youth gender, race and ethnicity, age, single-parent status, and baseline relationship profile, rejection sensitivity at T1, and the outcome of interest include zero.  $P_M$  = ratio of indirect effect to total effect (measure of effect size). \*p < .05. \*\*p < .01. \*\*\*p < .001. <sup>a</sup>Interpret with caution.

These reductions, in turn, were associated with increases in teacher-reported assertiveness (p < .001) and prosocial behavior (p < .001). Furthermore, rejection sensitivity mediated the associations between mentoring relationship trust and teacher-reported assertiveness (bootstrapped CI = [.0025,.0540]) and prosocial behavior (bootstrapped CI = [.0015, .0462]). No associations were found for youth-reported prosocial behavior or global selfworth. Effect sizes were reported by using  $P_{M}$  the ratio of the indirect effects to the total effect of X on Y, also known as the mediation ratio (Ditlevsen, Christensen, Lynch, Damsgaard, & Keiding, 2005). Although P<sub>M</sub> is one of the most widely used measures of effect size for mediation (Preacher & Kelley, 2011), Hayes (2013) warned against its use as a reliable measure of effect size when (a) the total effect is not larger than the indirect effect and (b) when the total effect and indirect effect are of different signs. When these criteria are not met, P<sub>M</sub> can suppress relatively large effects and/or exaggerate small effects (Preacher & Kelley, 2011). These criteria are met for the effect of mentor relationship trust on teacher-reported prosocial behavior through rejection sensitivity ( $P_M = 0.349$ ). However, for the effect of mentor relationship trust on teacher-reported assertiveness through rejection sensitivity ( $P_M$ ) = 1.727), the total effect is smaller than the indirect effect, meaning that  $P_M$ should be interpreted with caution. See Table 2 for measures of  $P_{M_2}$  as well as unstandardized path coefficients of direct, indirect, and total effects.

## Discussion

The aim of this study was to examine associations between mentoring relationship quality, rejection sensitivity, and youth outcomes. The results of our study suggest that a trusting mentoring relationship can lead to reductions in behavioral manifestations of rejection sensitivity. Such reductions, in turn, appear to be associated with higher levels of teacher-reported prosocial behavior and assertiveness with peers. At baseline, youth identifying as White demonstrated higher baseline levels of teacher-reported rejection sensitivity. Few studies have examined rejection sensitivity prevalence across demographic groups, particularly race; thus, it is important that future studies examine the potential interaction of race and levels of rejection sensitivity.

Next, we explored the processes through which mentoring relationships affected youth relational outcomes. As hypothesized, trusting relationships with mentors were associated with reductions in teacher-reported behavioral manifestations of rejection sensitivity. This is consistent with previous studies, which have linked supportive relationships to reductions in rejection sensitivity in youth (Downey & Feldman, 1996; London et al., 2007; McDonald et al., 2010; McLachlan et al., 2010; Romero-Canyas et al., 2010). Mentor relationships that were characterized by high levels of trust were also indirectly associated with higher levels of prosocial behavior, and greater assertiveness with peers suggesting that improvements in the ability to trust and rely on a significant adult can affect youth's expectations and behaviors in other important relationships.

Taken together, these findings suggest that mentoring relationships may promote positive outcomes through reductions in rejection sensitivity. Results of the mediation analysis suggest that reductions in rejection sensitivity play a role in explaining the association between a trusting mentoring relationship and improvements in youth's external experiences including prosocial behavior and assertiveness. This suggests that a trusting mentoring relationship may act as a corrective emotional or relational experience for youth, decreasing behavioral enactments of sensitivity to rejection and increasing engagement and improvements in subsequent relationship behavior. Although additional research is needed, it may be that a trusting mentor relationship may lead to the development of improved peer relations by allowing youth a safe place to practice being assertive while experiencing feelings of closeness and trust without the fear of peer rejection. These behavioral changes include increases in prosocial behavior, such as cooperating and being kind to peers, recognizing others' feelings, showing concern for others' distress, and offering help to others (Ladd & Profilet, 1996). Longitudinal studies beyond the period of an academic year may be needed to track how positive relational behaviors are enacted in relationships with peers, teachers, and other important adults, as well as subsequent improvements in these relationships.

These results, if replicated, have implications for mentoring practice. Given that many mentoring programs aim to serve youth who have experienced great challenges in their life, specifically difficulties with social support (in this study, almost a third of the youth were characterized as "relationally vulnerable"; see also Rhodes & Lowe, 2008), it is not surprising that a relatively large proportion of youth who are referred to mentoring programs present with some levels of baseline rejection sensitivity. Program staff and mentors can be made aware of the challenges youth with rejection sensitivity may encounter in mentoring relationships. For example, youth higher in rejection sensitivity may be more likely to interpret ambiguous gestures, such as canceled or missed meetings or even their mentor being distracted during a meeting, as a sign of rejection. Brief assessments of rejection sensitivity could be incorporated into youth, teacher, and parent intakes so that, prior to being matched with a mentor, program staff could more easily identify matches that might require additional support. Similarly, mentor training could include discussions about behavioral indicators of rejection sensitivity and strategies for ameliorating them. In addition, program staff could explicate the role that improved peer and teacher relationships may play in contributing to a broad range of youth outcomes and provide mentors with training designed to foster such improvement in their mentees. More generally, these findings suggest the importance of providing volunteers with evidence-based training around relationship building and maintenance (Kupersmidt & Rhodes, 2013).

Mentoring may be a particularly well-suited intervention for decreasing rejection sensitive behavior in youth. For example, the intervention may provide a setting in which youth can practice taking relational risks in a less threatening interpersonal context. Previous research investigating the effects of mentoring on youth with varying levels of success in their baseline relationships with parents, teachers, and peers indicated that youth with satisfactory, but not particularly strong, relationships benefitted more from mentoring than those with especially positive relationships (Schwartz et al., 2011). Future studies using more complex models (e.g., moderated mediation) could test the mediating role of rejection sensitivity among youth with varying degrees of relationship difficulties.

Although this study benefitted from a large, national sample and longitudinal data from multiple informants, a number of limitations should be noted. First, because all data were drawn from youth in BBBS programs, our ability to generalize to other mentoring programs is limited. Our analysis also focused on youth of a relatively narrow age range, and youth's capacity to forge connections with nonparental adults as well as the way in which they experience rejection sensitivity may vary as a function of developmental status; future studies should explore how these processes may be similar or different among youth in different developmental stages. In addition, although significant, the pathway between mentoring relationship trust and rejection sensitivity indicated a relatively weak association. This may in part relate to the relatively low reliability of the mentoring Relationship Trust scale, which might have undermined the precision of this key measure. It is important to note, however, that the dosage of mentoring was relatively low (less than 5 months). As such, these results hint at a potentially important effect of mentoring relationships for rejection sensitive youth.

Although baseline functioning of youth's relationships was accounted for in the model, it remains possible that more trusting mentoring relationships were forged with youth who had better underlying adjustment. If this were the case, then the improvements in rejection sensitivity may reflect unmeasured factors. Moreover, the measure of youth's relationships at baseline was dichotomized from a three-profile categorical variable derived from a previous latent profile analysis study (see Schwartz et al., 2011), which may have limited the variability of this measure in the current study. Of note, however, the results were almost identical when we ran the analyses with youth's baseline relationships as continuous variables. It is also possible that teachers were primed to find improvements in the youth given their participation in the mentoring program. It is important to note, however, that teachers reported differential improvements in the youth despite all being mentored. Finally, outcomes were multi-informant including both teacher and youth report.

Finally, our measure of rejection sensitivity was a teacher-reported measure of behavioral evidence of rejection sensitivity as opposed to a youthreported measure of underlying rejection sensitivity. Future studies using youth-reported measures of rejection sensitivity are needed to replicate these findings and further explore the associations between mentoring relationship quality and youth outcomes. The Rejection Sensitivity Questionnaire (RSQ; Downey & Feldman, 1996; Downey, Lebolt, et al., 1998) presents individuals with interpersonal vignettes in which there is the potential for rejection within important relationships (e.g., those with peers, teachers), and measures the individual's expectations of rejection and feelings related to the scenario. The teacher report of rejection sensitivity used in the current study captures only one aspect of rejection, namely, the behavioral or affective component to potential rejection that youth who are high in rejection sensitivity exhibit. Future studies should also include measures that explore other facets of the mentoring relationship including youth's feelings of emotional engagement and satisfaction in the relationship with their mentor.

Despite these limitations, the current study suggests possible processes through which trusting mentoring relationships may affect youth outcomes. Mentoring programs may foster reductions in rejection sensitivity and improvements in youth's prosocial behavior and assertiveness, perhaps indicating a shift in how youth perceive and interact in other relationships including those with peers and teachers. To the extent that such pathways are understood, programs can be refined to maximize youth benefits. More generally, these findings underscore the potentially far-reaching effects of close mentor–youth bonds and the necessity of additional research on the nature of their effects. Future research can build on this study by exploring variables assessing children's attachment styles, emotion regulation, and social skills. Studies that investigate whether mentoring relationship trust affects youth– adult relationships in other settings, such as in after-school programs, summer camps, and sports programs, as well as relationships with other family members, would also provide valuable contributions to the literature.

This study also reveals the potential impact of bringing additional caring adults into school settings and has implications not only for mentoring relationships but also for classroom aids, adult volunteers in schools, and support staff, including guidance counselors, social workers, and school psychologists. Although future research is needed, this study suggests that by increasing the number of caring adults in schools with whom students can build close relationships, particularly for students who may demonstrate some relational challenges, schools could foster a wide range of positive youth outcomes.

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