Pathways From Depressive Symptoms to Low Social Status

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Abstract

This research examined two pathways through which depressive symptoms contribute to low social status (i.e., neglect and rejection) within the peer group over time: (a) depressive symptoms promote socially helpless behavior and consequent neglect by peers; and (b) depressive symptoms promote aggressive behavior and consequent rejection by peers. These pathways were investigated in independent samples of youth at two developmental stages: middle childhood (2nd – 4th grade) and early adolescence (5th – 7th grade). In both Study 1 (M age = 7.97, SD = .37; 338 girls, 298 boys) and Study 2 (M age = 11.74, SD = .68; 305 girls, 300 boys), youth and their teachers completed questionnaires at three waves. Multi-group comparison path analyses were conducted to examine sex differences in the models. Consistent with expectations, two pathways emerged through which depressive symptoms undermined subsequent social status. Support was not found for the reverse direction of effect nor for developmental or sex differences in the pathways with one exception: In early adolescence, neglect directly predicted depressive symptoms. These findings suggest specificity but also heterogeneity in the effects of depressive symptoms on social status, and identify behaviors that may be targeted for preventing the persistence of depression and its interpersonal consequences.

Keywords

depression; social status; peer relations

Interpersonal theories of depression (Hammen, 2006; Joiner, Coyne, & Blalock, 1999; Rudolph, 2009) propose transactions between social difficulties and symptoms. However, empirical investigations of social status and depression generally focus on social status as an antecedent rather than a consequence of depression (for exceptions, see Brendgen, Vitaro, Turgeon, & Poulin, 2002; Chen & Li, 2000). Moreover, little research has examined the process through which depression undermines social status (for one exception, see Kochel, Ladd, & Rudolph, 2012). To advance interpersonal theories of depression, the present research examined two possible pathways connecting depressive symptoms in youth to subsequent low social status (i.e., neglect and rejection) within the peer group: (a) depressive symptoms promote socially helpless behavior and consequent neglect by peers; and (b) depressive symptoms promote aggressive behavior and consequent rejection by peers; reverse-risk pathways (social status to depression) also were examined. These pathways were investigated in two three-wave studies at two developmental stages: middle childhood (2nd – 4th grade) and early adolescence (5th – 7th grade).

Peer relations, particularly status within the peer group, assume great importance in development during middle childhood through early adolescence (Parker, Rubin, Price & DeRosier, 1995; Rubin, Bukowski, & Parker, 1998). A small body of research suggests that

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depressive symptoms predict poor social status (e.g., rejection) over time (Brendgen et al., 2002; Chen & Li, 2000); however, few studies examine pathways through which depressive symptoms undermine social status (for an exception, see Kochel et al., 2012). According to a "scar" model of depression (Nolen-Hoeksema, Girgus, & Seligman, 1992; Rohde, Lewinsohn, & Seeley, 1990; Rudolph, 2009), depressive symptoms interfere with the acquisition of normative social competencies, creating lasting impairment in youths' lives. In line with this model, we hypothesized that depressive symptoms would undermine youths' social orientation toward the world, causing youth to move "away from the world" (Caspi, Elder, & Bem, 1988) in the form of socially helpless behavior, or "against the world" (Caspi, Elder, & Bem, 1987) in the form of aggressive behavior. In turn, socially helpless behavior would prompt peers to move away from youth, in the form of neglect, whereas aggressive behavior would prompt peers to move against youth, in the form of rejection. Consequently, we expected that socially helpless and aggressive behavior would mediate the prospective contribution of depressive symptoms to low social status.

Pathway 1: Depressive Symptoms to Socially Helpless Behavior to Peer Neglect

According to the first pathway, depressive symptoms contribute to social disengagement in the form of socially helpless behavior, which elicits neglect from peers over time.

Depressive symptoms as a predictor of socially helpless behavior—Socially helpless behavior is characterized by a failure to take initiative in social situations and low persistence when facing social challenges (Nolen-Hoeksema et al., 1992). Depressive symptoms such as anhedonia, fatigue, and low self-worth may lead youth to feel unmotivated or unable to cope with difficult social situations. Depressed mood also may prime negative memories about one's social competencies (Blaney, 1986) and cause selective recall (Murray, Whitehouse, & Alloy, 1999) of negative peer interactions (e.g., failing to resolve arguments, being rebuffed when initiating contact with peers). A depressive attributional style (e.g., attributing social failures to internal causes) may cause youth to blame themselves for peer problems, leading them to feel less effective and more helpless in social situations (Nolen-Hoeksema et al., 1992). Together with depression-associated social withdrawal (Allen et al., 2006), these negative beliefs and expectations may produce low social initiative and social disengagement. Thus, depressive symptoms and associated affect, cognitions, and behavior may lead to social helplessness over time.

Research supports concurrent links between depressive symptoms and deficits that may drive social helplessness. Depressive symptoms are associated with views of the self as socially incompetent (Rudolph & Clark, 2001), low perceptions of control (Abramson, Seligman, & Teasdale, 1978), less assertive problem-solving (Quiggle, Garber, Panak, & Dodge, 1992; Rudolph, Hammen, & Burge, 1994) and difficulty negotiating conflicts (Rudolph et al., 1994). Together, these negative perceptions and social competence deficits may lead depressed youth to show low levels of social initiative and to give up easily when faced with challenging social situations. Indeed, one study does link depressive symptoms with helpless behavior when faced with social challenge, with inconsistent evidence supporting a prospective association (Nolen-Hoeksema et al., 1992). Moreover, one study revealed that negative self-views associated with depression (low perceived social self-worth, self-competence, and control) predicted less social initiative, more withdrawal, and more helpless behavior over a six-month period (Caldwell, Rudolph, Troop-Gordon, & Kim, 2004). These findings support the hypothesis that depressive symptoms will predict more social helplessness over time.

Socially helpless behavior as a predictor of peer neglect—When youth move away from their social worlds through socially helpless behavior, the peer group may

respond by moving away from youth through neglect and isolation. Perceiving themselves as less competent to interact effectively with peers, socially helpless youth may gradually withdraw from the peer group, which may lead peers to view them as less desirable interaction partners (Coplan, Girardi, Findlay, & Frohlick, 2007). Indeed, youth with lower perceptions of self-competence in social situations, as well as youth who make fewer attempts to initiate social interactions and take less positive action with peers (i.e., show fewer helpful, supportive, or empathic behaviors), experience more peer neglect (Newcomb, Bukowski, & Pattee, 1993; Patterson, Kupersmidt, & Griesler, 1990). Although research has not yet examined the effect of socially helpless behavior on future social status, one prospective study revealed that social disengagement (showing less initiative with peers, withdrawal, and social helplessness) generated more general peer stress (e.g., teasing, social isolation, fewer close friendships) over time (Caldwell et al., 2004), supporting the idea that socially helpless behavior would predict subsequent peer neglect.

Pathway 2: Depressive Symptoms to Aggressive Behavior to Peer Rejection

According to the second pathway, depressive symptoms contribute to aggressive behavior, which elicits rejection from peers over time.

Depressive symptoms as a predictor of aggressive behavior—Aggressive behavior can take the form of overt aggression, reflected in harm of others through physical aggression or threat of such aggression, or relational aggression, reflected in harm of others through manipulation of relationships (Crick & Grotpeter, 1995). Depression-associated irritability may increase youths' reactivity when interacting with peers, thereby triggering more defensiveness and hostility during social encounters. Depressive symptoms also are associated with a tendency to attribute hostile intent to peers (Quiggle et al., 1992), leading youth to potentially misinterpret peer interactions and respond with aggression.

Research supports concurrent links between depressive symptoms and deficits that may drive aggressive behaviors. Depressive symptoms are associated with views of peers as unresponsive and hostile (Rudolph & Clark, 2001), as well as hostile problem-solving (Quiggle et al., 1992; Rudolph et al., 1994). More directly, depressive symptoms are associated with anger (Renouf & Harter, 1990), as well as overt (Angold & Costello, 1993; Angold, Costello, & Erkanli, 1999) and relational (Crick & Grotpeter, 1995) aggression toward peers. Although prospective research is limited, one study found that depressive symptoms predicted subsequent verbal and physical aggression (Ferguson, San Miguel, & Hartley, 2009). These findings support the hypothesis that depressive symptoms will predict more aggressive behavior over time.

Aggressive behavior as a predictor of peer rejection—When youth move against their social worlds through aggressive behavior, the peer group may respond by moving against youth through rejection. Hostile, defensive, and manipulative behaviors can create friction in social relations and alienate peers, thereby increasing the likelihood that peers develop a feeling of animosity toward youth. Many concurrent studies link both overt (Newcomb et al., 1993; Dodge et al., 2003; Zimmer-Gembeck, Geiger, & Crick, 2005; Zimmer-Gembeck, Hunter, & Pronk, 2007) and relational (Zimmer-Gembeck et al., 2005; Zimmer-Gembeck et al., 2007) aggression with peer rejection. Several studies also provide evidence for the prospective contribution of overt (Crick, 1996; Panak & Garber, 1992) and relational (Crick, 1996; Zimmer-Gembeck et al., 2007) aggression to peer rejection over time, supporting the proposed pathway.

Depressive Symptoms as a Consequence of Social Status

Both interpersonal models of depression (Hammen, 2006; Joiner, et al., 1999; Rudolph, 2009) and empirical evidence suggest reverse associations (i.e., low social status predicts subsequent depressive symptoms; Lansford et al., 2007; Nolan, Flynn, & Garber, 2003) and transactional associations (i.e., reciprocal links between depressive symptoms and low social status; Vernberg, 1990) although these effects are not consistently reported (e.g., Kochel et al., 2012). Thus, we also examined whether low social status predicts socially helpless and aggressive behavior and consequent depressive symptoms over time.

Low social status may trigger depressive symptoms through two pathways: (a) neglect by peers may promote socially helpless behavior, leading to subsequent depressive symptoms; and (b) rejection by peers may promote aggressive behavior, leading to subsequent depressive symptoms. Neglected youth may blame themselves for their social difficulties (Crick & Ladd, 1993) and feel unable to change their circumstances, leading them to display more socially helpless behavior. In contrast, rejected youth may blame peers for their difficulties and feel the need to defend themselves, leading them to display more reactive and proactive aggression (Dodge et al., 2003; Orobio et al., 2002). Socially helpless and aggressive behavior may in turn disturb peer relations and reduce youths' social support, thereby increasing risk for depression (Vernberg, 1990). To explore this possibility, we examined reverse-risk pathways wherein peer neglect and rejection predict socially helpless and aggressive behavior, respectively, which both predict subsequent depressive symptoms.

Developmental and Sex Differences

In light of developmental and sex differences in a variety of peer relations processes and their impact on adjustment (Rose & Rudolph, 2006), as well as sex-differentiated trajectories in aggressive behavior (Lahey et al., 2006) and depressive symptoms (Hankin & Abramson, 2001) across development, we explored whether the proposed reciprocal associations among depressive symptoms, socially helpless and aggressive behavior, and social status differed across age and sex. Specifically, we (1) examined the models within two studies using independent samples of youth, one in middle childhood (2nd – 4th grade) and the other in early adolescence (5th – 7th grade); and (2) conducted multi-group comparisons to test differences in the pathways between girls and boys.

We expected that the pathway from depressive symptoms to peer neglect via socially helpless behavior may be stronger in girls than in boys, particularly in older youth. Given girls' stronger need for affiliation than boys, especially during adolescence (Rose & Rudolph, 2006), lack of motivation and low self-worth associated with depressive symptoms may be a particular challenge to girls' social self-efficacy, leading to more helpless behavior. Moreover, depressive symptoms predict future interpersonal stress (Rudolph, Flynn, Abaied, Groot, & Thompson, 2009) and declines in friendship quality (Rudolph, Ladd, & Dinella, 2007) in girls but not in boys. In contrast, we expected that the pathway from depressive symptoms to peer rejection via aggressive behavior may be stronger in boys than in girls, particularly in older youth. In boys compared to girls, more robust links are found between depressive symptoms and anger, aggression, and hostility (Renouf & Harter, 1990), as well as between aggression and rejection (Zimmer-Gembeck et al., 2005). Moreover, boys' aggression increases during adolescence (Lahey et al., 2006), suggesting that the pathway from depressive symptoms to peer rejection through aggression may intensify during this time.

Study 1 — Middle Childhood

Method

Participants and Procedures—Participants in the first study included 636 youth (338 girls, 298 boys; M age = 7.97, SD = .37) and their teachers who participated in a three-wave longitudinal study starting in 2nd grade. Participants were from various ethnic groups (66.7% White, 21.7% African American, 7.1% Asian American, 4.5% Other) and were diverse in socioeconomic class (34.7% received a subsidized school lunch). For the initial recruitment, consent forms were distributed to families of 724 eligible 2nd graders across schools in several Midwestern towns. Of the eligible families, 80% (576) consented to participate. An additional 60 3rd graders who were classmates of the original participants were added the following year, resulting in a total of 636 participants. Parents provided written consent and youth provided verbal assent. Participants and nonparticipants at W_1 did not differ in sex, $\chi^2(1)$ = .15, ns, age, $t(723)$ = .63, ns, ethnicity (white vs. minority), $\chi^2(1)$ = .59, ns, or lunch status (full pay vs. subsidized), $\chi^2(1)$ = .35, ns.

Of the participants, 576 had child reports of depressive symptoms and teacher reports of social helplessness, aggression, and social status at Wave 1 (W_1). At Wave 2 (W_2), 593 had child reports of depressive symptoms, and 596 had teacher reports of social helplessness, aggression, and social status. At Wave 3 (W_3), 573 had child reports of depressive symptoms, and 571 had teacher reports of social helplessness, aggression, and social status. Youth with complete data (no missing data at W_1, W_2, or W_3: n = 507) did not significantly differ from those missing data (W_1 only: n = 60; W_2 only: n = 9; W_3 only: n = 29; W_2 and W_3: n = 31) in sex, $\chi^2(1)$ = .77, ns, ethnicity, $\chi^2(1)$ = 1.09, ns, lunch status, $\chi^2(1)$ = .89, ns, W_1 social helplessness, $t(574)$ = .14, ns, W_1 neglect, $t(574)$ = 1.73, ns, or W_1 rejection, $t(574)$ = 1.22, ns. Compared to youth with complete data, youth with missing data at W_1, W_2 and/or W_3 were slightly older (M = 8.05, SD = .49 vs. M = 7.95, SD = .33), $t(634)$ = 2.72, $p < .01$, reported more W_1 depressive symptoms (M = 1.88, SD = .83 vs. M = 1.69, SD = .65), $t(574)$ = 2.26, $p < .05$, and showed more W_1 aggression (M = 2.00, SD = 1.10 vs. M = 1.68, SD = .74), $t(574)$ = 3.17, $p < .01$. Our analyses were conducted using full information maximum likelihood estimation (FIML) to handle missing data.

In the winter of each year, questionnaires were administered to small groups of 3 – 4 students during two classroom sessions as participants recorded their responses. Teacher surveys were distributed and returned to a locked box at the school. Youth received small gifts, and teachers received monetary reimbursements for completed surveys as well as a monetary honorarium for each participating classroom.

Measures—All measures showed strong internal consistency (as noted for each measure) and significant stability across the three waves (Table 2).

Depressive symptoms: Youth completed the Short Mood and Feelings Questionnaire (Angold, Costello, Messer, & Pickles, 1995). This measure includes 13 items assessing youths' depressive symptoms over the past two weeks (e.g., "I felt unhappy or miserable."). The response format was modified from a 3- to 4-point scale (*Not at All* to *Very Much*) to provide a format similar to other study questionnaires (see also Lau & Eley, 2008). Scores were computed as the mean of the items (αs for W_1 -W_3 = .88 – .90). This measure shows significant correlations with scores on the Children's Depression Inventory and the Diagnostic Interview Schedule for Children (Angold et al., 1995), and differentiates depressive symptoms from other psychiatric disorders (Thapar & McGuffin, 1998).

Social helplessness: Teachers completed the Social Helplessness Questionnaire (Fincham, Hokoda, & Sanders, 1989; Nolen-Hoeksema et al., 1992). This measure includes 12 items

assessing youths' tendency to exhibit helpless behavior in the context of peer interactions (e.g., "Takes little independent initiative in making friends." "Makes few attempts to resolve disagreements that occur with other children."). Each child was rated on a 5-point scale (*Not True* to *Very True*). Scores were computed as the mean of the items (αs for W_1 -W_3 = .88 – .90). This measure has established validity (Caldwell et al., 2004; Nolen-Hoeksema et al., 1992; Rudolph, Lambert, Clark, & Kurlakowsky, 2001).

Aggression: Teachers completed the Children's Social Behavior Scale (CSBS; Crick, 1996). This measure includes four items assessing overt aggression (e.g., "This child hits or kicks peers.") and five items assessing relational aggression (e.g., "This child spreads rumors or gossips about some peers."). Each item was rated on a 5-point scale (*Never True* to *Almost Always True*). To note, we conducted a separate set of path analyses for overt and relational aggression. Because the pattern of findings for the path analyses was highly similar, a single score for aggression was calculated as the mean of the nine items (αs for W_1 -W_3 = .91 – .93). This measure has established validity, and shows high correspondence with peer reports of aggression (Crick, 1996). Validity of teacher reports of aggression is well-established (Monks, Smith, & Swettenham, 2003).

Social status: Teachers completed two ratings assessing youths' level of peer rejection ("How much is this child rejected by his/her peers?") and peer neglect ("How much is this child neglected or overlooked by his/her peers?"). Each child was rated on a 7-point scale (*Not At All* to *Extremely*). Teacher reports of social status show moderately high correspondence with peer reports (rs = .51–.60; Kemp & Carter, 2002; Landau, Milich, & Whitten, 1984; McKown, Gumbiner, & Johnson, 2011) and have well-established validity (e.g., Andrade et al., 2005; Rudolph & Clark, 2001; Rudolph et al., 1994). Furthermore, teachers are able to discriminate between characteristics of rejected children and children from other sociometric groups (Nelson, Robinson, Hart, Albano, & Marshall, 2010), specifically between neglected and rejected children (Ollendick, Greene, Francis, & Baum, 1991).

Results

Preliminary Analyses—Table 1 provides the descriptive and psychometric information for the measures. Table 2 provides the intercorrelations among the measures. These are provided for descriptive purposes but were not interpreted given the goal of testing the full hypothesized model over time.

Model Testing Overview—Path analyses were conducted with AMOS Version 17.0 (Arbuckle, 2008). This method enables simultaneous modeling of multiple variables within a network and provides an index of fit of the models. AMOS uses the full information maximum likelihood (FIML) estimation method to handle missing data (Arbuckle, 2008); thus, parameters were estimated using all available data from the 636 participants. All constructs were represented by manifest variables, and each variable was included at each wave of assessment.

Following Cole and Maxwell (2003), we systematically tested whether there were significant differences in fit between a model with reciprocal paths compared to models with one direction of effect only (i.e., depression through social helplessness and aggression to social status vs. social status through social helplessness and aggression to depression). As shown in Figure 1, the reciprocal-influence model included paths reflecting the hypothesized indirect pathways (W_1 depressive symptoms to W_2 social helplessness and aggression to W_3 social status), the reverse-risk pathways (W_1 social status to W_2 social helplessness and aggression to W_3 depressive symptoms), as well as the direct pathways in each direction of

effect (depression to social status and social status to depression at each wave). The model also included paths that adjusted for initial levels of each type of social status (neglect and rejection) on the alternate type of social status at W_3, as well as initial levels of each type of behavior (social helplessness and aggression) on the alternate type of behavior at W_2. Finally, the model included the within-wave correlations (correlated errors for the endogenous variables) and stability paths across waves. Correlations, correlated errors, and paths between outcomes/mediators are not depicted for clarity of presentation; rather, the range of values is presented in the Figure Caption (see Figure 1). Nonsignificant correlated errors were removed from the model.

To assess fit, we examined the Comparative Fit Index (CFI; Bentler, 1990), the Incremental Fit Index (IFI; Bollen, 1990), and the Root Mean Square Error of Approximation (RMSEA; Steiger, 1990). Good model fit is reflected in CFI and IFI values above .90 (Bentler, 1990; Bollen, 1990) and RMSEA values of .08 or less (Browne & Cudeck, 1993). To estimate indirect effects, we used the distribution of product approach (MacKinnon, Fritz, Williams, & Lockwood, 2007), as recommended by Preacher and Hayes (2008) for testing specific indirect effects in multiple mediator models. This approach involves generating 95% confidence limits for the significance of the mediated effects, and enables determination of whether a significant indirect effect is due to one or both mediators in the model. Multi-group comparison analyses were conducted to examine the relative fit of the model across sex.

Social Consequences of Depressive Symptoms in Middle Childhood—Figure 1 displays the final model and the standardized path coefficients. The reciprocal-influence model showed a good fit to the data, $\chi^2(31) = 120.15$, $p < .001$, CFI = .98, IFI = .98, RMSEA = .07. Moreover, the fit of this model was significantly better than the uni-directional models with each direction of effect (depression through social helplessness and aggression to peer neglect and rejection, $\chi^2(47) = 175.70$, $p < .001$; $\Delta\chi^2(16) = 55.56$, $p < .001$; peer neglect and rejection through social helplessness and aggression to depression, $\chi^2(47) = 236.62$, $p < .001$; $\Delta\chi^2(16) = 116.47$, $p < .001$).

W_1 depressive symptoms significantly predicted more W_2 social helplessness, and W_2 social helplessness significantly predicted more W_3 neglect and W_3 rejection. W_1 depressive symptoms also significantly predicted more W_2 aggression, and W_2 aggression significantly predicted more W_3 rejection but not W_3 neglect.

Tests of mediation (MacKinnon et al., 2007) revealed that W_2 social helplessness significantly mediated the effect of W_1 depressive symptoms on both W_3 neglect (95% CI: .0212 – .1281) and W_3 rejection (95% CI: .0195 – .1170). W_2 aggression significantly mediated the effect of W_1 depressive symptoms on W_3 rejection (95% CI: .0098 – .0687) but not W_3 neglect (95% CI: −.0276 – .0244). Collectively, these results indicate an indirect effect of depressive symptoms on peer neglect via social helplessness, and an indirect effect of depressive symptoms on peer rejection via both social helplessness and aggression.

Social Antecedents of Depressive Symptoms in Middle Childhood—With regard to the reverse-risk model, W_1 neglect and W_1 rejection did not significantly predict either W_2 social helplessness or W_2 aggression, and W_2 social helplessness and W_2 aggression did not significantly predict W_3 depressive symptoms. Tests of mediation (MacKinnon et al., 2007) revealed that W_2 social helplessness did not significantly mediate the effect of either W_1 neglect (95% CI: −.0008 – .0009) or W_1 rejection (95% CI: −.0018 – .0021) on W_3 depressive symptoms, and W_2 aggression did not significantly mediate the effect of either W_1 neglect (95% CI: −.0072 – .0015) or W_1 rejection (95% CI: −.0051 – .0042) on W_3 depressive symptoms. Thus, the reverse-risk model revealed no significant indirect effects.[1]

Moderation by Sex—Multi-group comparison analyses were conducted to compare the fit of a constrained reciprocal-influence model (one in which the paths of interest were set to be equal across sex) with multiple unconstrained models (one in which each path of interest was allowed to vary across sex). There were no significant difference between the fit of the constrained and unconstrained models, $\Delta\chi$s$^2(1) = .01 - 2.17$, *ns*, with one exception. Specifically, unconstraining the path from W_2 social helplessness to W rejection resulted in a significant improvement of fit for the model, $\Delta\chi^2(1) = 4.64$, $p < 0.05$. The path from W_2 social helplessness to W_3 rejection was significant both in girls ($B = .28$, $p < .001$) and in boys ($B = .18$, $p < .01$). Furthermore, W_2 social helplessness significantly mediated the effect of W_1 depressive symptoms on W_3 rejection in both girls (95% CI: .0244 – .1413) and in boys (95% CI: .0117 – .0966).

Study 2 — Early Adolescence

Method

Participants and Procedures—Participants in the second study included 605 youth (305 girls, 300 boys; M age = 11.74, $SD = .68$) and their teachers who participated in a three-wave longitudinal study starting in 5th or 6th grade. Participants were from various ethnic groups (60.8% White, 32.4% African American, 3.8 % Asian American, 3.0% Other) and were diverse in socioeconomic class (36.2% received a subsidized school lunch). Youth were recruited from several Midwestern towns. Parents of targeted participants were informed about the study and were asked to contact the school or the research investigators if they chose to decline participation for their child. All youth gave verbal assent before participating. Data were collected from the teachers of 605 youth; 586 youth provided self report data.

Of the participants, 582 had child reports of depressive symptoms, and 602 had teacher reports of social helplessness, aggression, and social status at Wave 1 (W_1). At Wave 2 (W_2), 536 had child reports of depressive symptoms, 558 had teacher reports of social helplessness, and 560 had teacher reports of aggression and social status. At Wave 3 (W_3), 466 had child reports of depressive symptoms, 527 had teacher reports of social helplessness and social status, and 526 had teacher reports of aggression. Youth with complete data (no missing data at W_1, W_2, or W_3: $n = 513$) did not significantly differ from those missing data (W_2 only: $n = 3$; W_3 only: $n = 32$; W_2 and W_3: $n = 34$) in sex, $\chi^2(1) = .001$, *ns*, or age, $t(584) = .22$, *ns*. Compared to youth with complete data, youth with missing data at W_2 and/or W_3 were more likely to be minority, $\chi^2(1) = 5.07$, $p < .05$, and to receive subsidized lunch, $\chi^2(1) = 15.22$, $p < .001$, reported more W_1 depressive symptoms ($M = 10.98$, $SD = 8.59$ vs. $M = 7.97$, $SD = 7.20$), $t(580) = 3.18$, $p < .01$, and showed more W_1 social helplessness ($M = 1.55$, $SD = .71$ vs. $M = 1.32$, $SD = .56$), $t(581) = 3.15$, $p < .01$, W_1 aggression ($M = 1.90$, $SD = 1.20$ vs. $M = 1.41$, $SD = .85$), $t(581) = 4.35$, $p < .001$, W_1 neglect ($M = 3.22$, $SD = 1.57$ vs. $M = 2.54$, $SD = 1.43$), $t(581) = 3.75$, $p < .001$, and W_1 rejection ($M = 3.25$, $SD = 1.52$ vs. $M = 2.44$, $SD = 1.42$), $t(581) = 4.50$, $p < .001$.

Three waves of data, each approximately 6 months apart, were collected in the spring of one school year and the fall and spring of the following school year. Questionnaires were administered aloud in the classroom from an administration manual as participants recorded

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[1]When an even more conservative model was tested with reciprocal paths between each social-behavioral mediator at all waves and each social status outcome at all waves, the model was still a good fit to the data, $\chi^2(27) = 105.99$, p < .001, CFI = .98, IFI = .98, RMSEA = .07. All effects were consistent with those reported above. More specifically, W_1 depressive symptoms significantly predicted more W_2 social helplessness, and W_2 social helplessness significantly predicted more W_3 neglect (95% CI: .0121 – .1037) and W_3 rejection (95% CI: .0144 – .1081). W_1 depressive symptoms also significantly predicted more W_2 aggression, and W_2 aggression significantly predicted more W_3 rejection (95% CI: .0099 – .0792) but not neglect. As before, the reverse-risk model revealed no significant effects.

their responses. Teacher surveys were distributed and returned to a locked box at the school. Youth received small gifts, and teachers received monetary reimbursements for completed surveys.

Measures—All measures showed strong internal consistency (as noted for each measure) and significant stability across the three waves (Table 2).

<u>Depressive symptoms:</u> Youth completed the Children's Depression Inventory (CDI; Kovacs, 1992). This measure includes 27 items assessing youths' depressive symptoms (e.g., "I can never be as good as other kids." "I am sad all the time."). One item on suicide was dropped before administration because of concerns of schools; an additional three items (e.g., "I get into fights all the time.") were not included in the final scores to avoid confounding depressive symptoms with externalizing behavior. For each item, youth selected one of three response alternatives that best described how they have been feeling in the past two weeks. Response alternatives ranged in severity on a 3-point scale (e.g., "I am sad once in a while." "I am sad many times." "I am sad all the time."). Scores were computed as the sum of the 23 items (αs for $W_1 - W_3 = .87 - .90$). The CDI has well-established reliability and validity (Kovacs, 1992; Smucker, Craighead, Craighead, & Green, 1986), and demonstrates moderate correlations with scores on the Short Mood and Feelings Questionnaire (Angold et al., 1995).

<u>Social helplessness:</u> Teachers completed the Social Helplessness Questionnaire (Nolen-Hoeksema et al., 1992) to assess youths' helpless behavior in the context of peer interactions (see Study 1 for details about this measure). Scores were computed as the mean of the 12 items (αs for $W_1 - W_3 = .93 - .95$).

<u>Aggression:</u> Teachers completed the Teacher Assessment of Social Behavior (Cassidy & Asher, 1992). This measure includes three items assessing overt aggression (i.e., "This child starts fights." "This child is mean to other children." "This child hurts other children."). Each item was rated on a 5-point scale (*Very Uncharacteristic* to *Very Characteristic*). Scores were calculated as the mean of the three items (αs for $W_1 - W_3 = .87 - .92$). This measure has established validity (Rudolph & Clark, 2001), and shows high correspondence with peer reports of aggression (Cassidy & Asher, 1992). Validity of teacher reports of aggression is well-established (Monks et al., 2003).

<u>Social status:</u> Teachers completed two ratings assessing youths' level of peer rejection ("To what degree is this child rejected by his/her peers?") and peer neglect ("To what degree is this child neglected or ignored by his/her peers?") (see Study 1 for details about this measure).

Results

Preliminary Analyses—Table 1 provides the descriptive and psychometric information for the measures. Table 2 provides the intercorrelations among the measures. Once again, these are provided for descriptive purposes but were not interpreted given the goal of testing the full hypothesized model over time.

Model Testing Overview—Path analyses were again conducted with AMOS Version 17.0 (Arbuckle, 2008). Parameters were estimated using all available data from the 605 participants. All constructs were represented by manifest variables, and each variable was included at each wave of assessment. As shown in Figure 2, the reciprocal-influence model included paths reflecting the hypothesized indirect pathways (W_1 depressive symptoms to W_2 social helplessness and aggression to W_3 social status), the reverse-risk pathways (W_1

social status to W_2 social helplessness and aggression to W_3 depressive symptoms), as well as the direct pathways in each direction of effect (depression to social status and social status to depression at each wave). The model also included paths that adjusted for initial levels of each type of social status (neglect and rejection) on the alternate type of social status at W_3, as well as initial levels of each type of behavior (social helplessness and aggression) on the alternate type of behavior at W_2 Finally, the model included the within-wave correlations (correlated errors for the endogenous variables) and stability paths across waves. Correlations, correlated errors, and paths between outcomes/mediators are not depicted for clarity of presentation; rather, the range of values is presented in the Figure Caption (see Figure 2). Nonsignificant correlated errors were removed from the model. The same procedures were followed as in Study 1 to examine model fit, indirect effects, and sex differences.

Social Consequences of Depressive Symptoms in Early Adolescence—Figure 2 displays the final model and the standardized path coefficients. The reciprocal-influence model showed a good fit to the data, $\chi^2(36) = 157.99$, $p < .001$, CFI = .98, IFI = .98, RMSEA = .08. Moreover, the fit of this model was significantly better than the uni-directional models with each direction of effect (depression through social helplessness and aggression to peer neglect and rejection, $\chi^2(52) = 188.20$, $p < .001$; $\Delta\chi^2(16) = 30.21$, $p < .05$; peer neglect and rejection through social helplessness and aggression to depression, $\chi^2(52) = 279.21$, $p < .001$; $\Delta\chi^2(16) = 121.21$, $p < .001$).

W_1 depressive symptoms significantly predicted more W_2 social helplessness, and W_2 social helplessness significantly predicted more W_3 neglect and W_3 rejection. W_1 depressive symptoms also significantly predicted more W_2 aggression, and W_2 aggression significantly predicted more W_3 rejection but not W_3 neglect.

Tests of mediation (MacKinnon et al., 2007) revealed that W_2 social helplessness significantly mediated the effect of W_1 depressive symptoms on both W_3 neglect (95% CI: .0019 − .0108) and W_3 rejection (95% CI: .0003 − .0084). W_2 aggression significantly mediated the effect of W_1 depressive symptoms on W_3 rejection (95% CI: .0008 − .0061) but not W_3 neglect (95% CI: −.0014 − .0031). Collectively, these results indicate an indirect effect of depressive symptoms on peer neglect via social helplessness, and an indirect effect of depressive symptoms on peer rejection via both social helplessness and aggression.

Social Antecedents of Depressive Symptoms in Early Adolescence—With regard to the reverse-risk model, W_1 rejection but not W_1 neglect significantly predicted more W_2 aggression. W_1 rejection and W_1 neglect did not significantly predict W_2 social helplessness, and W_2 social helplessness and W_2 aggression did not significantly predict W_3 depressive symptoms. Tests of mediation (MacKinnon et al., 2007) revealed that W_2 social helplessness did not significantly mediate the effect of either W_1 neglect (95% CI: −.0831 − .0244) or W_1 rejection (95% CI: −.0145 − .1361) on W_3 depressive symptoms, and W_2 aggression did not significantly mediate the effect of either W_1 neglect (95% CI: −.0597 − .0520) or W_1 rejection (95% CI: −.0711 − .0807) on W_3 depressive symptoms. Thus, the reverse-risk model revealed no significant indirect effects. However, W_2 peer neglect did significantly predict more W_3 depressive symptoms.[2]

Moderation by Sex—Multi-group comparison analyses were conducted to compare the fit of a constrained reciprocal-influence model (one in which the paths of interest were set to be equal across sex) with multiple unconstrained models (one in which each path of interest was allowed to vary across sex). There were no significant differences between the fit of the constrained and unconstrained models, $\Delta\chi s^2(1) = .01 − 3.44$, *ns*, with one exception. Specifically, unconstraining the path from W_1 rejection to W_2 social helplessness resulted in

a significant improvement of fit for the model, $\Delta\chi^2(1) = 3.97$, $p < 0.05$. The path from W_1 rejection to W_2 social helplessness was significant in boys ($B = .19$, $p < .01$) but not girls ($B = .12$, *ns*). However, W_2 social helplessness did not significantly mediate the effect of W_1 rejection on W_3 depressive symptoms in either boys (95% CI: .0230 – .1902) or girls (95% CI: −.0184 – .1012).

Discussion

The present research aimed to advance theory and research on interpersonal models of depression by elucidating possible social-behavioral pathways through which depressive symptoms undermine youths' status in the peer group. Using a three-wave prospective design in two separate samples, the results supported two hypothesized pathways through which depressive symptoms contribute to low social status over time: (a) a pathway wherein depressive symptoms promoted socially helpless behavior and consequent neglect and rejection by peers; and (b) a pathway wherein depressive symptoms promoted aggressive behavior and consequent rejection by peers. Support was not found for the reverse direction of effect nor for developmental or sex differences in the pathways with one exception: In early adolescence, W_2 neglect directly predicted W_3 depressive symptoms.

Social Consequences of Depressive Symptoms—Consistent with the first proposed pathway, depressive symptoms predicted more social helplessness, which in turn predicted more peer neglect, adjusting for earlier levels of social helplessness and social status. Moreover, social helplessness significantly mediated the effect of depressive symptoms on neglect. Along with symptoms such as anhedonia and fatigue, youth experiencing depressive symptoms have poorer perceptions of their social competence (Rudolph & Clark, 2001) and difficulties asserting their needs with peers (Quiggle et al., 1992), which may lead them to take less social initiative and to become easily discouraged in challenging social situations. In turn, peers responded by neglecting or ignoring these youth.

Although not predicted, social helplessness also predicted more peer rejection, and social helplessness significantly mediated the effect of depressive symptoms on rejection. Thus, when depressive symptoms led youth to move away from their social worlds in the form of socially helpless behavior, their peers also responded by moving against these youth through rejection. This lack of specificity may be due in part to overlap between teacher ratings of neglect and rejection. However, the teacher ratings did show specificity in other theoretically meaningful ways. That is, aggression predicted rejection but not neglect in both studies, and rejection but not neglect predicted social helplessness and aggression in Study 2. Moreover, research does suggest that behaviors related to social helplessness, such as social withdrawal, are associated with peer rejection starting in middle childhood (Newcomb et al., 1993; Rubin, LeMare, & Lollis, 1990).

Consistent with the second proposed pathway, depressive symptoms predicted more aggression, which in turn predicted more peer rejection, adjusting for earlier levels of aggression and social status. Moreover, aggression significantly mediated the effect of depressive symptoms on rejection but not neglect. Youth experiencing depressive symptoms are more irritable and more likely to attribute hostile intent to peers (Quiggle et al., 1992),

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[2]When an even more conservative model was tested with reciprocal paths between each social-behavioral mediator at all waves and each social status outcome at all waves (dropping nonsignificant paths), the model was still a good fit to the data, $\chi^2(54) = 107.47$, p < .001, CFI = .99, IFI = .99, RMSEA = .04. All effects were similar with the results reported above with one exception: W_2 social helplessness significantly predicted more W_3 neglect but not W_3 rejection. More specifically, W_1 depressive symptoms significantly predicted more W_2 social helplessness, and W_2 social helplessness significantly predicted more W_3 neglect (95% CI: .0013 – .0031). W_1 depressive symptoms also significantly predicted more W_2 aggression, and W_2 aggression significantly predicted more W_3 rejection (95% CI: .0013 – .0056) but not neglect. With regard to the reverse-risk model, W_1 rejection significantly predicted more W_2 social helplessness, and W_2 peer neglect significantly predicted more W_3 depressive symptoms.

which may lead them to be defensive and aggressive during social encounters. In turn, peers responded by rejecting these youth. Because aggressive behavior is harder to ignore than socially helpless behavior, when depressive symptoms promote aggression, youth may experience rejection rather than neglect by peers.

These results are consistent with prior research suggesting that depressive symptoms undermine social status over time (Brendgen et al., 2002; Chen & Li, 2000; Kochel et al., 2012). Building on prior research, we identified specific social-behavioral pathways through which depressive symptoms interfere with the development of adaptive peer relations. Of interest, Kochel and colleagues (2012) found that depressive symptoms predicted more peer victimization over time, which in turn predicted lower social status. It would be useful for future research to determine the convergence between these two sets of findings. Perhaps the socially helpless and aggressive behavior stemming from depressive symptoms elicits peer victimization, which then contributes to lower status over time. Alternatively, perhaps exposure to peer victimization stimulates socially helpless and aggressive behavior, which then directly undermines social status.

Social Antecedents of Depressive Symptoms—In line with interpersonal theories of depression (Hammen, 2006; Joiner et al., 1999; Rudolph, 2009) and empirical evidence suggesting reverse (Lansford et al., 2007; Nolan et al., 2003; Panak & Garber, 1992) and transactional (e.g., Vernberg, 1990) associations between social status and depressive symptoms, we also investigated reverse-risk models wherein social status predicted socially helpless and aggressive behavior, which then predicted subsequent depressive symptoms. Although our results generally did not support reverse-risk associations (with the exception of a direct effect of W_2 neglect on W_3 depressive symptoms in early adolescence), our analyses were quite stringent and adjusted for more variables than prior studies examining the prospective effect of social status on depressive symptoms. Moreover, prior research yields mixed evidence regarding this effect. Whereas some studies provide support for this direction of effect (e.g., Lansford et al., 2007; Nolan et al., 2003; Panak & Garber, 1992; Vernberg, 1990), others do not (e.g., Chen & Li, 2000; Kochel, et al., 2012). Studies supporting an interpersonal risk model have used a variety of informants and methods including peer nominations (Lansford et al., 2007; Panak & Garber, 1992) and composites of self, mother, and teacher reports of peer rejection (Nolan et al., 2003). However, several studies that failed to support an interpersonal risk model also used peer nominations and/or multi-informant reports (Brendgen et al., 2002; Chen & Li, 2000; Kochel et al., 2012). Thus, although it is possible that the measurement approach plays some role in these inconsistent findings, no clear pattern has emerged. Given these mixed findings, research needs to determine the conditions under which low social status contributes to depressive symptoms. It may be fruitful to consider characteristics of youth or their social contexts that determine the strength of this effect. For example, cognitive vulnerabilities, such as a depressive attributional style, and temperamental characteristics, such as negative emotionality, moderate the effects of peer rejection on depressive symptoms (Brendgen, Wanner, Morin, & Vitaro, 2005; Panak & Garber, 1992). Moreover, high levels of inclusion in peer networks outside of school provide a buffer against experiencing negative psychological outcomes in the context of low inclusion in peer networks within school (e.g., Kiesner, Poulin, & Nicotra, 2003). Further research should seek to better understand individual variation in the contribution of social status to subsequent depressive symptoms and in the mechanisms underlying these effects.

Developmental and Sex Differences—Considering empirical evidence suggesting developmental and sex differences in associations between peer processes and adjustment (Rose & Rudolph, 2006), as well as in the emergence of aggressive behavior (Lahey et al., 2006) and depressive symptoms (Hankin & Abramson, 2001), we investigated whether the

pathways linking depressive symptoms, socially helpless and aggressive behavior, and social status differed across age and sex. Analyses mainly revealed a similar pattern of pathways within the two separate samples, one involving middle childhood ($2^{nd} – 4^{th}$ grade) and the other involving early adolescence ($5^{th} – 7^{th}$ grade). Little evidence was found for sex differences in the hypothesized pathways.

It is important to note that the timing of the two studies differed, with a two-year interval between W_1 and W_3 in Study 1 and a one-year interval between W_1 and W_3 in Study 2. Thus, firm conclusions cannot be drawn about differences across the studies, such as the direct effect of neglect on depressive symptoms in early adolescence but not in middle childhood. However, given the general parallel nature of the findings, it seems unlikely that the study duration had a significant effect on the findings. It also is possible that more notable differences would emerge in the context of comparisons between more distinct developmental stages. For example, increasing differentiation between the sexes may occur as they progress through late adolescence (e.g., Twenge & Nolen-Hoeksema, 2002), potentially amplifying the differences between girls and boys.

Contributions, Implications, and Limitations—This research makes a significant contribution to interpersonal theories of depression by elucidating two specific social-behavioral pathways through which depressive symptoms undermine social status (for an example of an alternative pathway, see Kochel et al., 2012). More broadly, this research supports interpersonal "scar" (Nolen-Hoeksema et al., 1992; Rohde et al., 1990; Rudolph, 2009) and stress-generation models (Hammen, 1991) of depression, which emphasize that depressive symptoms not only exert short-term adverse effects but also undermine the achievement of age-appropriate tasks, such as the development of healthy peer relations, thereby triggering adverse long-term social consequences. These lasting effects of depressive symptoms emerge during early childhood and persist into adolescence, suggesting that early intervention is essential for redirecting youth with depressive symptoms onto more healthy developmental pathways. Although our indirect effects were quite small, we took a very conservative approach to statistical analysis, which contributes significantly to the validity of our findings.

Despite this contribution, several limitations should be noted. First, these studies involved community samples with only moderate levels of depression. Although evidence for the dimensional nature of depressive symptoms (Hankin, Fraley, Lahey, & Waldman, 2005) supports the likelihood of replication in youth with more severe depression, future research needs to test the generalizability of these results. Second, although our assessments involved two informants, each construct was assessed through only one informant. Supporting the use of teacher reports, teacher ratings of social status have established validity (e.g., Andrade et al., 2005; Kemp & Carter, 2002; Landau et al., 1984; McKown et al., 2011; Rudolph & Clark, 2001; Rudolph et al., 1994). The fact that our results are consistent with prior relevant research also validates the use of teacher reports. Moreover, despite the high correlation between neglect and rejection, our findings revealed theoretically meaningful patterns of specificity. This specificity is consistent with research showing that teachers can reliably distinguish between the characteristics of children with different social status difficulties (Nelson et al., 2010; Ollendick et al., 1991). Nevertheless, it would be beneficial for future research to incorporate multi-informant, multi-method assessments for each of the constructs. Third, although the peer context is especially salient during the developmental periods examined, youth in Study 2 were just at (or before) the stage at which depressive symptoms and the sex difference therein begin to intensify; thus, future research is needed to examine these pathways during mid- to late adolescence.

In sum, this research indicates specificity and heterogeneity in the pathways through which depressive symptoms undermine social status, causing youth to move both away from and against the world over time and, in turn, for peers to move away from and against youth. These findings suggest that depression-linked behaviors are useful targets for prevention programs; specifically, teaching depressed youth to persist despite social challenges and to restrain aggression would help them establish better peer relations, which ultimately will promote maximum social and mental health.

Acknowledgments

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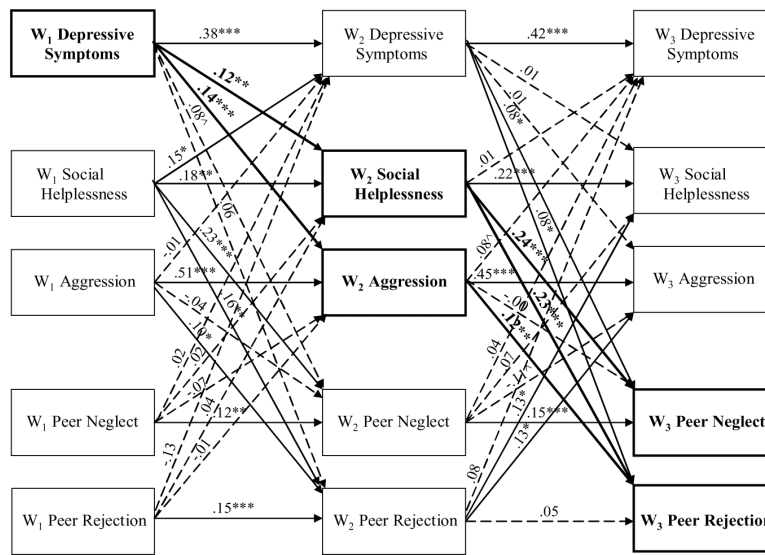
Figure 1.
Study 1: Standardized path coefficients for final model in middle childhood. *$p < .05$. **$p < .01$. ***$p < .001$. Nonsignificant paths indicated by dotted lines; significant paths of interest designated in bold. W_1 within-wave correlations: rs = .12 – .84, ps < .01; W_2 and W_3 within-wave correlated errors: rs = .08 – .79, ps < .05. W_1 social helplessness to W_2 aggression: $B = .03$, ns; W_1 aggression to W_2 social helplessness, $B = .12$, $p < .01$. W_1 neglect to W_3 rejection: $B = .11$, $p < .001$; W_1 rejection to W_3 neglect, $B = .07$, $p < .05$.
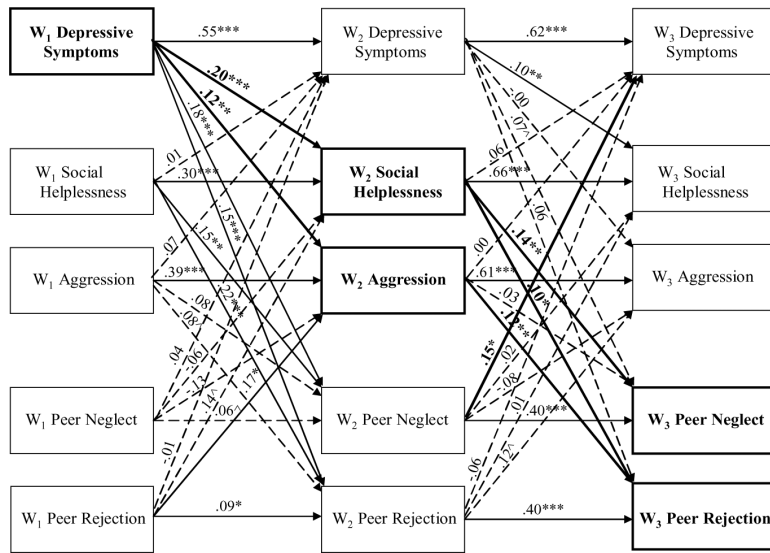
Figure 2.
Study 2: Standardized path coefficients for final model in early adolescence. *$p < .05$. **$p < .01$. ***$p < .001$. Nonsignificant paths indicated by dotted lines; significant paths of interest designated in bold. W_1 within-wave correlations: rs = .20 – .88, ps < .001; W_2 and W_3 within-wave correlated errors: rs = .09 – .82, ps < .05. W_1 social helplessness to W_2 aggression: $B = .04$, *ns*; W_1 aggression to W_2 social helplessness, $B = .11$, $p < .05$. W_1 neglect to W_3 rejection: $B = .01$, *ns*; W_1 rejection to W_3 neglect, $B = .02$, *ns*.

Table 1

Descriptive Statistics

Variable	Wave 1				Wave 2				Wave 3			
	Study 1		Study 2		Study 1		Study 2		Study 1		Study 2	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Depressive Symptoms	1.71	.68	8.33	7.43	1.60	.58	6.95	6.42	1.53	.57	6.20	6.88
Range (Study 1): 1–4												
Range (Study 2): 0–46												
Social Helplessness	1.69	.57	1.37	.59	1.80	.66	1.30	.56	1.78	.61	1.35	.62
Range (Study 1 & 2): 1–5												
Aggression	1.72	.79	1.49	.93	1.75	.81	1.43	.86	1.77	.79	1.42	.81
Range (Study 1 & 2): 1–5												
Peer Neglect	2.48	1.54	2.65	1.50	2.81	1.63	2.83	1.56	2.83	1.60	3.08	1.61
Range (Study 1 & 2): 1–7												
Peer Rejection	2.43	1.48	2.58	1.49	2.71	1.57	2.84	1.53	2.72	1.53	2.93	1.61
Range (Study 1 & 2): 1–7												

Note. Range = potential range on the measure.

Table 2

Intercorrelations Among the Variables

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. W_1 Depressive Symptoms	--	.19***	.15***	.12**	.15***	.38***	.18***	.20***	.14**	.13**	.36***	.10*	.13**	.14**	.16***
2. W_1 Social Helplessness	.25***	--	.50***	.65***	.69***	.14**	.31***	.27***	.30***	.32***	.19***	.30***	.21***	.33***	.35***
3. W_1 Aggression	.19***	.55***	--	.31***	.45***	.08	.26***	.52***	.14**	.26***	.09*	.20***	.45***	.15**	.28***
4. W_1 Peer Neglect	.18***	.46***	.29***	--	.84***	.07	.26***	.15**	.31***	.32***	.14**	.26***	.15**	.29***	.31***
5. W_1 Peer Rejection	.18***	.46***	.38***	.88***	--	.05	.27***	.21***	.28***	.33***	.15**	.26***	.20***	.28***	.33***
6. W_2 Depressive Symptoms	.56***	.17***	.15***	.14**	.15**	--	.25***	.17***	.19***	.19***	.47***	.11*	.09*	.17***	.17***
7. W_2 Social Helplessness	.30***	.44***	.34***	.27***	.31***	.23***	--	.52***	.62***	.67***	.23***	.37***	.28***	.37***	.38***
8. W_2 Aggression	.20***	.31***	.46***	.18***	.25***	.18***	.59***	--	.28***	.43***	.20***	.27***	.50***	.23***	.32***
9. W_2 Peer Neglect	.23***	.26***	.21***	.21***	.22***	.13***	.41***	.30***	--	.80***	.22***	.31***	.11*	.32***	.26***
10. W_2 Peer Rejection	.23***	.34***	.26***	.26***	.27***	.15**	.44***	.35***	.84***	--	.24***	.38***	.24***	.39***	.36***
11. W_3 Depressive Symptoms	.47***	.19***	.18***	.16**	.14**	.60***	.21***	.14**	.21***	.19***	--	.15***	.11**	.23***	.25***
12. W_3 Social Helplessness	.23***	.41***	.23***	.26***	.28***	.23***	.68***	.44***	.33***	.36***	.27***	--	.52***	.59***	.60***
13. W_3 Aggression	.15**	.26***	.38***	.15**	.21***	.12*	.41***	.61***	.20***	.27***	.09	.50***	--	.28***	.45***
14. W_3 Peer Neglect	.18***	.28***	.14**	.22***	.22***	.13**	.32***	.24***	.56***	.59***	.17***	.44***	.27***	--	.76***
15. W_3 Peer Rejection	.15**	.32***	.21***	.21***	.25***	.14**	.34***	.32***	.52***	.61***	.14**	.47***	.35***	.87***	--

Note. Correlations above the diagonal are for Study 1; correlations below the diagonal are for Study 2.

***
$p < .001$.

**
$p < .01$.

*
$p < .05$.