ORIGINAL ARTICLE

Depressive Symptoms Prospectively Predict Peer Victimization: A Longitudinal Study Among Adolescent Females

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Abstract

Research has consistently demonstrated a relationship between peer victimization, a major issue in early adolescence, and depression. However, longitudinal studies examining the relationship between peer victimization and depressive symptoms have yielded mixed results. Thus, the current study examined how specific aspects of peer victimization and subtypes of depressive symptoms are related over a two-year period. Adolescent females (N = 265) completed a questionnaire battery at baseline and two-year follow-up. Results indicated that baseline depressive symptoms prospectively predict peer overt victimization, relational victimization, and decreased prosocial behaviors at follow-up; baseline peer victimization did not predict depressive symptoms at follow-up. Further, results demonstrate the differential predictive value of specific depressive symptoms for overt vs. relational aggression and decreased prosocial behavior. Taken together, this study provides insight into the impact of depressive symptoms on peer victimization and the importance of addressing peer relations in the context of treatment for adolescent depression.

Keywords Peer relations · Victimization · Depression · Early adolescence

Introduction

An extensive body of research has emerged showing that peer victimization is a major issue in school aged children [e.g. [1–4]. Peer victimization is defined as "a form of peer abuse in which a child is frequently the target of peer aggression" [5]. Peer victimization emerges in various forms, including overt behaviors (e.g. yelling or hitting) as well as more indirect relational aggression (e.g. spreading rumors or social exclusion) and decreased prosocial behavior from peers [2]. This includes various forms of bullying, which can be understood as a subtype of peer victimization, differentiated by two factors: the intent to cause harm or distress and a power imbalance between the bully and victim [6, 7]. Research has found that most children experience occasional peer aggression, and approximately 10% of children are chronically victimized by their peers [8, 9]. A multitude of cross-sectional studies have provided evidence for associations between peer victimization and internalizing problems including loneliness [1, 2, 10], low self-esteem [11, 12], school anxiety [13], social anxiety [14] and depression[1, 15, 16]. In a systematic review and meta-analysis, Hawker and Boulton found that victimization is most strongly related to depressive symptoms [17].

Traditionally, research on peer victimization and mental health has been guided by the notion that victimization and other social difficulties precipitate various forms of mental health sequalae [18, 19]. Proponents of this view argue that aversive peer interactions may reinforce negative self-evaluations and social isolation, ultimately contributing to the development of depressive symptoms [8]. In recent years, several longitudinal studies examining the link between peer victimization and subsequent psychological symptoms across age groups have yielded mixed results [20–26]. For instance, Schwartz and colleagues [25] found that peer victimization among third and fourth graders predicted depressive symptoms one year later. Conversely, Khatri and colleagues [22] found that peer victimization did not contribute to the development of depressive symptoms among a sample of fourth through sixth graders. Further, findings may differ across facets of peer victimization and specific types of internalizing symptoms. For example, Storch and colleagues found that relational victimization predicted symptoms of

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social phobia while overt victimization did not, in a sample of adolescent females [27]. Meanwhile, Sinclair and colleagues found that while both overt and relational victimization were related to increases in negative cognitions and decreases in positive cognitions, relational victimization was more consistently associated with increases in depressive cognitions [28].

On the other hand, there is evidence for the converse model in which internalizing symptoms precede peer victimization [29, 30]. Proponents of this alternative view posit that internalizing symptoms interfere with the development of adaptive social skills and promote relationship difficulties [31, 32]. To date, several longitudinal studies have demonstrated that internalizing symptoms, depressive symptoms in particular, predict significant increases in peer victimization [30, 33]. For example, Hodges and Perry found that internalizing problems contributed uniquely to victimization over time in a sample of 3rd through 7th graders [33]. Further, Kochel and colleagues found that depressive symptoms predicted greater victimization and lower peer acceptance in 4th through 6th graders [30].

Although it has been posited that depression may contribute to peer relational difficulties through social skills deficits and behavioral styles such as social withdrawal and passivity, no studies have systematically examined the role of specific depressive symptoms such as anhedonia, negative mood, and interpersonal problems in peer victimization. In addition, longitudinal research utilizing up to one-year follow-up data suggests the possibility of a bidirectional relationship between victimization and internalizing problems across childhood and adolescence [9, 24, 33–35]. For a systematic review and meta-analysis, see Reijntes and colleagues [35]. Of note, Sweeting and colleagues found a reciprocal relationship between depression and victimization among adolescents aged 13–15 years [34]. However, relatively few longitudinal studies have examined the potential bidirectional relationship between peer victimization and depression specifically, and no studies to our knowledge have considered the differential relationships among specific facets of peer victimization and depressive symptoms.

Importantly, considerable research has demonstrated that, coinciding with the onset of adolescence, girls experience increasingly higher rates of depression than boys [36, 37]. Cognitive factors including need for approval and success, self-focused negative cognitions, lower levels of positive thinking, ruminative coping style, and discrepancy between actual and ideal self may play a role in the relationship between gender and vulnerability to depression [38, 39]. Consistently, evidence from cross-sectional studies suggests that peer victimization may have a particularly pernicious impact on girls vs. boys [2, 20, 40–42]. For instance, overt victimization has been shown to be more highly correlated with anxiety and self-worth among girls [40], and relational victimization has been rated as more distressing among girls [41, 42]. Further, research has demonstrated that the relationship between exposure to various types of peer victimization and risk for depression and suicidality is stronger among females [43, 44].

Therefore the current study systematically examined the relationships among specific aspects of peer victimization (i.e. overt victimization, relational victimization, and decreased prosocial behavior) and depressive symptoms in a relatively large longitudinal study of females aged 8–14 years at baseline, capturing development over the preadolescent and adolescent stages. First, we examine whether baseline peer victimization prospectively predicts depressive symptoms two years later. Second, we examine whether depressive symptoms at baseline predict peer victimization two years later. We expect to observe a bidirectional relationship in which depressive symptoms at baseline will predict more overt victimization and relational victimization as well as less prosocial behavior from peers, and vice-versa. Further, we examine whether specific subtypes of depressive symptoms are differentially related to increased overt vs. relational victimization and reduced prosocial behavior.

Methods

Participants

Participants in the current study were part of a community sample of adolescent girls from Long Island, New York who were assessed at baseline and again at follow-up approximately two years later. Participants were recruited to be part of a larger longitudinal study of affect and neural development in adolescent females. Given the more serious impact of peer victimization increased vulnerability for depression observed in girls compared to boys, the study focused specifically on females. This data has been used in nine papers thus far, none of which examined measures of peer victimization [45–57]. At baseline, the sample consisted of 317 preadolescent to adolescent females between the ages of 8 and 14 years ($M = 12.42$, SD $= 1.79$). Participants were predominantly White/Caucasian (84.5%), with the remaining participants identifying as Black/African American (5.8%), Hispanic (5.2%), and Other (4.5%). Most parents reported having obtained a bachelor's (31.3%) or master's degree (27.9%), and average family income was $120,000–$130,000. For the follow-up assessment, data for 265 participants were available for analyses ($M = 14.39$, $SD = 1.81$). Within the 265 participants with data at follow-up, two participants were missing self-reported depressive symptom data (n = 263) and one participant was missing self-reported peer victimization data (n = 264). Given the two year follow up period, the 16.4% attrition rate was

consistent with the expected range. Participants with and without data at follow-up did not differ on depressive symptoms ($t = -0.74$, $p = .461$), relational victimization ($t = -0.13$, $p = .894$), prosocial behavior ($t = 0.57$, $p = .436$) or overt victimization ($t = -61$, $p = .542$) at baseline.

Measures

Children's Depression Inventory (CDI)

The CDI is a commonly used measure of depressive symptoms in children and adolescents [58] and has good psychometric properties [59]. Participants completed the CDI at both baseline and follow-up visits. The CDI consists of 27 items rated on a 3-point Likert scale (i.e., 0–2) and has five subscales: Negative Mood, Interpersonal Problems, Ineffectiveness, Anhedonia, and Negative Self-Esteem. Participants were asked to rate the intensity of each symptom within the last 2 weeks. In our sample, the internal consistency of the CDI was excellent at baseline, $\alpha = 0.89$ and at follow-up, $\alpha = .90$[1].

Child's Social Experience Questionnaire (CSEQ)

The CSEQ is a measure of peer victimization in children and adolescents [2]. The CSEQ consist of three subscales, each measured with five items: relational victimization (RV), overt victimization (OV) and prosocial behavior (PS). RV assesses how frequently peers attempt or threaten to harm their peer relationships (e.g., How often does a kid try to keep others from liking you by saying mean things about you?). OV assesses how frequently children report that their peers attempt or threaten physical harm (e.g., How often does another kid say they will beat you up if you don't do what they want you to do?). Finally, PS assesses how frequently children report that their peer demonstrate kind behavior (e.g., How often do other kids let you know that they care about you?). Each item is rated on a Likert scale ranging from 1 (never) to 5 (all the time). Participants completed the CSEQ at baseline and follow-up visits. At baseline, the internal consistency was good—with Cronbach's alphas reported at 0.80, 0.82 and 0.84 for OV, RV and PS, respectively. At follow-up, the internal consistency was 0.79, 0.78 and 0.82 for overt victimization, relational victimization and prosocial behavior, respectively.

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[1] The internal consistency of the CDI subscales ranged from poor to acceptable: Negative Mood (a = 0.69), Interpersonal Problems (a = 0.50), Ineffectiveness (a = 0.60), Anhedonia (a = 0.71), and Negative Self-Esteem (a = 0.79).

Procedure

Participants were recruited from the community through a commercial mailing list, using flyers and word of mouth. All participants and their parents provided informed consent and assent as approved by the Institutional Review Board at Stony Brook University. Participants completed a lab visit that lasted approximately 4–5 hours and consisted of multiple tasks, diagnostic interviews and self-report measures. All data were collected between 2012 and 2016 at Stony Brook University by trained post-bachelorette and graduate level research assistants.

Data Analysis

At both baseline and the two-year follow-up assessment, the relationships between CDI and CSEQ subscales were examined using bivariate (Pearson's r) correlations. Multiple linear regressions were conducted to examine whether depressive symptoms at baseline prospectively predicted victimization at the two-year follow-up while controlling for age and victimization at baseline. Similarly, multiple linear regressions were conducted to examine whether peer victimization at baseline prospectively predicts depressive symptoms at the two-year follow-up while controlling for age and depressive symptoms at baseline. To follow-up our main results, we examined whether specific depressive symptom subtypes at baseline differentially predicted victimization as the two-year follow-up assessment. All analyses were conducted using the statistical software package SPSS version 25 [60].

Results

Descriptive Data

Table 1 presents descriptive statistics and zero-order correlations among the study variables including age, the CDI, and the CSEQ total scores and subscales at baseline and follow-up. Results demonstrated significant correlations among all variables except OV and RV at baseline and PS at follow-up.

Primary Hypothesis Tests

Three separate linear regressions were conducted to determine whether RV, OV or PS prospectively predicts CDI total score (see Table 2). For each regression, we controlled for age and CDI total score at baseline. OV ($t = 1.07$, $\beta = 0.06$, $p = .286$), RV ($t = 0.60$, $\beta = 0.03$, $p = .547$), and PS ($t =$

Table 1 Descriptive data and zero-order correlations

	Variable	1	2	3	4	5	6	7	8	9
1.	Age	–	–	–	–	–	–	–	–	–
2.	BL depression	0.25**	–	–	–	–	–	–	–	–
3.	BL OV	− 0.12*	0.33**	–	–	–	–	–	–	–
4.	BL RV	− 0.01	0.41**	0.66**	–	–	–	–	–	–
5.	BL PS	− 0.04	− 0.40**	− 0.27**	− 0.24**	–	–	–	–	–
6.	FU depression	0.33**	0.60**	0.23**	0.26**	− 0.28**	–	–	–	–
7.	FU OV	− 0.09	0.21**	0.23**	0.19**	− 0.17**	0.26**	–	–	——
8.	FU RV	0.01	0.22**	0.21**	0.25**	− 0.15**	0.28**	0.56**	–	–
9.	FU PS	− 0.05	− 0.30**	− 0.09	− 0.10	0.42**	− 0.39**	− 0.16*	− 0.16*	–
	Mean	12.42	6.85	6.43	8.28	19.14	6.65	5.67	6.93	18.92
	SD	1.79	6.55	2.40	3.68	3.67	6.65	1.47	2.67	3.66

BL baseline; *OV* overt victimization; *RV* relational victimization; *PS* prosocial behavior

*$p < .05$, **$p < .01$

Table 2 Results of primary regression analyses

Outcome	Predictor	t	β	p	R^2	F	p
F/U depression		–	–	–	0.39	54.90	< 0.001
	Age	3.38	0.18	0.001	–	–	–
	BL depression	9.59	0.53	< 0.001	–	–	–
	BL OV	1.07	0.06	0.286	–	–	–
F/U depression		–	–	–	0.39	54.47	< 0.001
	Age	3.27	0.17	0.001	–	–	–
	BL depression	9.66	0.54	< 0.001	–	–	–
	BL RV	0.60	0.03	0.547	–	–	–
F/U depression		–	–	–	0.39	55.19	< 0.001
	Age	3.33	0.17	0.001	–	–	–
	BL depression	9.46	0.53	< 0.001	–	–	–
	BL PS	−1.30	− 0.07	0.196	–	–	–
F/U OV		–	–	–	0.08	7.81	< 0.001
	Age	−2.02	− 0.13	0.044	–	–	–
	BL OV	2.42	0.16	0.016	–	–	–
	BL depression	2.71	0.18	0.007	–	–	–
F/U RV		–	–	–	0.08	7.47	< 0.001
	Age	− 0.76	− 0.05	0.445	–	–	–
	BL RV	2.83	0.19	0.005	–	–	–
	BL depression	2.33	0.16	0.021	–	–	–
F/U PS		–	–	–	0.20	21.01	< 0.001
	Age	0.18	0.01	0.851	–	–	–
	BL PS	5.79	0.35	< 0.001	–	–	–
	BL depression	− 2.65	− 0.17	0.008	–	–	–

F/U follow-up; *BL* baseline; *OV* overt victimization; *RV* relational victimization; *PS* prosocial behavior

− 1.30, $\beta = − 0.07$, $p = .196$) at baseline did not predict CDI total score at follow-up.

Three additional linear regressions were conducted to determine whether depressive symptoms prospectively predict victimization. Participant age and victimization at baseline were included in these models. Consistent with our hypothesis, we found that baseline depressive symptoms predicted OV ($t = 2.71$, $\beta = 0.18$, $p = .007$), RV ($t = 2.33$, $\beta = 0.16$, $p = .021$), and PS ($t = − 2.65$, $\beta = − 0.17$, $p = .008$) at follow-up. These regression models accounted for 8.3%, 8.0%, and 19.6% of the variance in follow-up scores on OV, RV, and PS, respectively.

Table 3 Results of significant specificity regression analyses

Outcome	Predictor	t	β	p	R^2	F	p
F/U OV		–	–	–	0.09	8.63	<0.001
	Age	–1.90	–0.12	0.058	–	–	–
	BL OV	2.53	0.16	0.012	–	–	–
	BL ANH	3.11	0.20	0.002	–	–	–
F/U OV		–	–	–	0.07	6.66	<0.001
	Age	– .72	–0.11	0.087	–	–	–
	BL OV	3.01	0.19	0.003	–	–	–
	BL INE	2.02	0.13	0.045	–	–	–
F/U OV		–	–	–	0.07	6.80	<0.001
	Age	–1.87	–0.12	0.062	–	–	–
	BL OV	3.01	0.19	0.003	–	–	–
	BL NSE	2.11	0.14	0.036	–	–	–
F/U RV		–	–	–	0.07	7.81	<0.001
	Age	–0.60	–0.04	0.550	–	–	–
	BL RV	2.78	0.18	0.006	–	–	–
	BL ANH	2.52	0.17	0.012	–	–	–
F/U RV		–	–	–	0.09	8.06	<0.001
	Age	–0.99	–0.06	0.326	–	–	–
	BL RV	3.44	0.21	0.001	–	–	–
	BL NSE	2.66	0.17	0.008	–	–	–
F/U PS		–	–	–	0.21	23.41	<0.001
	Age	0.13	0.01	0.897	–	–	–
	BL PS	5.50	0.33	<0.001	–	–	–
	BL ANH	–3.61	–0.22	<0.001	–	–	–
F/U PS		–	–	–	0.19	20.68	<0.001
	Age	0.06	0.01	0.951	–	–	–
	BL PS	6.50	0.38	<0.001	–	–	–
	BL INE	–2.50	–0.15	0.013	–	–	–

F/U follow-up; *BL* baseline; *OV* overt victimization; *RV* relational victimization; *PS* prosocial behavior, *ANH* anhedonia; *INE* ineffectiveness; *NSE* negative self-esteem

Specificity Analyses

Additional linear regressions were conducted to determine whether specific depressive symptom subtypes predicted OV, RV, and PS (see Table 3). Results show that increased anhedonia at baseline predicted increased OV ($t = 3.11$, $\beta = 0.20$, $p = .002$), increased RV ($t = 2.52$, $\beta = 0.17$, $p = .012$, and increased PS ($t = -3.61$, $\beta = -0.22$, $p < .001$) at follow-up. These models account for 9.1%, 8.3%, and 21.3% of the variance in OV, RV, and PS at follow-up, respectively. Elevated ineffectiveness at baseline predicted increased changes in OV ($t = 2.02$, $\beta = 0.13$, $p = .045$) and PS (-2.50, $\beta = -0.15$, $p = .013$), but not RV ($t = 1.81$, $\beta = 0.12$, $p = .072$). Controlling for baseline scores and age, ineffectiveness accounted for 7.2% of the variance in OV and 19.3% of the variance in PS. Furthermore, increased negative self-esteem at baseline predicted increased changes in OV ($t = 2.11$, $\beta = 0.14$, $p = .036$) and RV ($t = 2.66$, $\beta = 0.17$, $p = .008$), but not PS ($t = -1.39$, $\beta = -0.09$, $p = .165$) Negative self-esteem, controlling for baseline scores and age, accounted for 7.3% of the variance in OV and 8.5% of the variance in RV. Negative mood and interpersonal problems subscales did not significantly predict OV, RV, or PS.

Discussion

The current study examined the bi-directional associations between depressive symptoms and peer victimization in a relatively large sample of preadolescent to adolescent females aged 8–14 at baseline; these associations were assessed longitudinally using data obtained at two year follow-up. We examined whether peer victimization at baseline predicted depressive symptoms at follow-up, and vice-versa. The results revealed that baseline depressive symptoms prospectively predicted later peer victimization, whereas baseline peer victimization did not predict depressive symptoms at follow-up. Specifically, higher depressive symptoms at

baseline predicted both increased overt and relational victimization and reduced prosocial behavior two years later. The current investigation provides further support for a model in which youth depressive symptoms may precede and predict subsequent peer victimization, suggesting that behaviors associated with depressive symptoms among young girls prompt negative patterns of peer interactions.

Although there were strong cross-sectional correlations between depression and peer victimization at both assessments, we did not find any evidence that peer victimization predicted increases in depressive symptoms. These results do not support a bidirectional relationship between depressive symptoms and peer victimization, contrary to some prior studies and our hypotheses. This may be due, in part, to the length of the follow-up period. Most prior longitudinal studies have examined this relationship within a timeframe of 1 year or less [35] whereas our study utilized a 2-year follow-up. Further, prior studies demonstrating a bidirectional relationship or an effect of peer victimization on depressive symptoms have utilized different assessment methods to identify victimization behaviors, such as peer nomination and teacher ratings [25]. Thus, it may be that identification of peer victimization behaviors is dependent on the informant, with outside observers more likely to recognize victimization in at-risk children. Finally, prior studies [e.g. [34]] and meta-analyses [17, 35] have utilized mixed gender samples and grouped internalizing symptoms including anxiety, depression, somatic symptoms, and loneliness outcomes. Therefore, peer victimization may not be a significant predictor of depression, specifically, among adolescent girls.

Follow-up analyses demonstrated that increased anhedonia was the strongest predictor of OV and PS. Children high in anhedonic symptoms would be characterized by a lack of pleasure, loss of energy, problems with sleep and appetite, and feelings of isolation – and these children may be less likely to seek out positive social interactions [61]. Therefore, children high in anhedonia may receive less social support in general and, specifically, decreased PS from peers. Additionally, children with anhedonia may be more likely to display passive behavioral styles. Insofar as previous research shows an association between passive behavioral styles and peer victimization [62], children experiencing anhedonic symptoms may be at higher risk for peer victimization as a result of their tendency toward passive behavioral styles.

Meanwhile, increased negative self-esteem predicted increased OV and RV, but not PS; indeed, negative self-esteem was the strongest predictor of RV. The relationship between negative self-esteem and RV suggests that negative self-evaluations may influence peer evaluation, which in turn increases behaviors such as teasing or social exclusion. Potential mechanisms of influence include negative self-statements and non-verbal cues. We also found

that increased ineffectiveness predicted increased OV and decreased PS, but not RV. The relationship between ineffectiveness, defined as negative evaluation of one's ability and school performance, and OV and PS may be reflective of negative peer reactions to performance-based self-criticism, rumination, or reassurance-seeking. Of note, negative mood and interpersonal problems did not predict peer victimization or prosocial behavior.

Overall, the present study is the first to examine the prospective association between specific depressive subtypes and later peer victimization—both overt and relational—as well as decreased prosocial behavior. The results suggest that specific symptom domains of depression including anhedonia, negative self-esteem, and ineffectiveness may negatively influence treatment by peers. These specific aspects of depression may fuel more negative social interactions. Given the importance of peer relationships during adolescence, these dimensions may represent important assessment and intervention targets among children with elevated depressive symptoms. It is important to note that depressed adolescents may feel responsible for victimization by peers, especially if they attribute these experiences as caused by their own behavior. Thus, it is vital that adolescents experiencing peer victimization have access to support in the form of trained educators or clinicians.

In this context, symptoms of depression might be targeted directly through cognitive-behavioral therapy, medication management, or both [63, 64]. Further, additional interventions may be warranted to directly address associated interpersonal behaviors. For example, social skills training for depressed children may be used and modified to specifically address engagement in positive social interactions, use of an assertive behavioral style, and elimination of negative self-talk as well as reassurance-seeking behaviors. Finally, these results highlight the need for prevention programs focused on mental health awareness and education. Thus far, research has found promising effects of education programs [65, 66] In fact, Wahl and colleagues found that a widely used mental health education program focused on changing knowledge and attitudes about mental illness resulted in improved awareness and willingness to interact with people with mental illness [66]. Future research should examine whether these interventions result in decreased victimization.

The present study must be considered in the context of several limitations. First, this study was comprised of predominantly white, middle class girls from the northeastern United States and therefore has limited generalizability. Thus, future research is needed to examine these associations across racial/ethnic minority groups, geographic localities, socioeconomic groups, and among boys so that comparisons can be made across groups. Second, this study only captured data from pre-adolescence to early adolescence (ages 8–14 at baseline). Although future research is

needed to examine earlier associations and developmental trajectories into adulthood, the cross-sectional relationships between depression and peer victimization were similar across time points indicating a relatively stable association that may generalize to other age cohorts. In addition, the current study utilized continuous depressive symptoms, and future research should examine peer victimization in relation to diagnosed depression—perhaps both before and after treatment to determine whether reductions in depression are associated with later decreases in peer victimization. Finally, this study did not include observational or behavioral measures of depression. Therefore, we are unable to distinguish between observed and perceived experiences of peer victimization and depression. Further research on depression-related behaviors, especially in the context of peer interactions, may help identify mechanisms of the relationships between specific depressive symptoms and peer victimization.

In conclusion, this study provides important insight into the prospective relationship between depressive symptoms and peer victimization. Overall, findings support a model whereby depressive symptoms influence peer victimization. Further, specific symptom dimensions show differential impacts on OV, RV, and PS. However, additional research is needed to further illuminate the mechanisms of these effects. Given the importance of peer relationships in child development and long-term outcomes, continued research and clinical intervention is warranted.

Summary

Peer victimization, including both overt behaviors and more indirect relational aggression, is a major issue in school aged children and adolescents. Prior research has demonstrated a relationship between peer victimization and depression. While research has consistently shown that internalizing symptoms predict peer victimization, longitudinal studies examining the impact of peer victimization on depressive symptoms have yielded mixed results. Further, no studies to date have considered potential relationships among specific facets of peer victimization and depressive symptoms. Thus, the current study examined how specific aspects of peer victimization and subtypes of depressive symptoms are related over a two-year period. Adolescent females (N = 265) completed a questionnaire battery at baseline and two-year follow-up, as part of a larger longitudinal study. Results indicated that baseline depressive symptoms prospectively predict peer overt victimization, relational victimization, and decreased prosocial behaviors at follow-up; baseline peer victimization did not predict depressive symptoms at follow-up. Further, results demonstrate the differential predictive value of specific depressive symptoms for overt vs. relational

aggression and decreased prosocial behavior. Whereas anhedonic symptoms and ineffectiveness were the strongest predictors of overt victimization and decreased prosocial behavior, negative self-esteem best predicted increased relational victimization. Taken together, this study provides insight into the impact of depressive symptoms on peer victimization and the importance of addressing peer relations in the context of treatment for adolescent depression.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

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