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The Association of Stalking Victimization With Adolescents' Depressed Mood and School Mattering

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Abstract

Stalking victimization may have a significant impact on adolescents' well-being, above and beyond the effects of other types of interpersonal violence victimization. This article explored the association of stalking victimization (unwanted harassing or threats) with adolescents' depressed mood and perception of mattering to other people. Adolescents (age $M = 15.8$ at baseline, 50.3% girls, 88.9% non-Hispanic White, 85.9% heterosexual) took surveys at two time points and reported on stalking victimization, depressed mood, and perception of mattering. Results indicate that, even when controlling for previous depressed mood and mattering, the odds of depressed mood and mattering among stalking victims was, respectively, 3.31 times higher and 0.49 times lower than the odds of depressed mood and mattering in non-victims. When controlling for other victimization experiences (i.e., dating violence, sexual assault, sexual harassment), the odds of depressed mood among stalking victims was 2.31 times higher than the odds of depressed mood among non-victims, but stalking victims were not less likely to report mattering. Although more research is needed, these results suggest that assessment and intervention efforts should target depressed mood in stalking victims in addition to underscoring the need for primary prevention of stalking in adolescence.

Keywords

dating violence; domestic violence; adolescent victims; sexual assault; adolescents; sexual harassment; stalking; youth violence

Adolescence is an important period of psychological development during the life span. Unfortunately, during this period, many adolescents are the victim of interpersonal violence that may negatively affect their development (Exner-Cortens et al., 2013). Stalking, or unwanted contact that makes one afraid for one's safety (Cook-Craig et al., 2014), is one

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Authors' Note

The findings and implications presented in this article do not represent the official views of the Centers for Disease Control and Prevention (CDC).

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such form of interpersonal violence. Much adolescent stalking occurs within or after dating relationships or out of the perpetrators' desire for a dating relationship (Leitz & Theriot, 2005); as a result, many instances of stalking can be conceptualized as intimate partner violence. Approximately 13% of adolescents report stalking victimization (Reidy et al., 2016). Unlike adult victims, adolescents may be required to see or be around their stalker (i.e., attending the same school), and may have less autonomy than adults in taking steps to maintain their safety. Despite the large percentage of adolescent stalking victims, little is known about the effects of stalking victimization on adolescents' psychological well-being.

The Impact of Interpersonal Violence on Adolescents

Although there is limited research on the sequelae of stalking, especially among adolescents, extensive research indicates that other forms of peer interpersonal violence can affect adolescent well-being (e.g., Exner-Cortens et al., 2013). Negative effects of other forms of interpersonal violence on well-being may include changes in mood (e.g., increased depressed mood) and changes in perceptions of oneself in relation to others (e.g., perceptions of mattering to other people; Resick et al., 2016).

A small but growing body of cross-sectional, largely retrospective studies have explored adolescent stalking and changes in mood. For example, in a cross-sectional study using latent class analysis, researchers found that adolescents in a stalking victim class reported higher levels of posttraumatic stress, mood disorder (e.g., depressed mood), and hopelessness, compared with a non-victim class (Reidy et al., 2016). Conversely, in a retrospective study (where adults were asked about previous experiences) of stalking victimization across the life span, the researchers found that stalking increased psychological stress for adult female victims but not adolescent female victims (Diette et al., 2013). A final study found a cross-sectional association between cyberstalking victimization and depression among late adolescents (Wright, 2018).

Research has also examined the impact of interpersonal violence on perceptions of oneself in relation to others, including mattering, or perceptions that one matters to others in a community. Adolescents who have been the victims of dating and sexual violence report lower perception of mattering than other adolescents (Edwards & Neal, 2017). Although less research has examined mattering, other research has examined related constructs. For example, interpersonal violence victimization may also affect adolescents' loneliness (Povedano et al., 2015) and perceived social support (Holt & Espelage, 2007). Mattering is critical to examine among adolescents, as it contributes to adolescent thriving. Thriving can be defined as not only avoiding risk behavior but also developing positive relationships, having positive values and self-perceptions, and contributing productively to the community (Scales, 1999). The current article specifically examines school mattering. School is a key environment to youth development (Van Ryzin, 2011), and in addition to the aspects of thriving described above, school mattering may specifically contribute to adolescent school success (e.g., Tucker et al., 2018). Overall, the mixed findings regarding stalking victimization coupled with the limited body of literature in the field of adolescent stalking victimization and psychopathology show that much more research is needed to understand the unique experiences of adolescent stalking victims.

The Current Article

Several review articles have noted the dearth of research on adolescent stalking, including its impacts on health and well-being (Leitz & Theriot, 2005; Roberts et al., 2016). In considering adolescents' development and well-being, it is crucial to not only examine negative markers of well-being (e.g., psychopathology) but also positive indicators of well-being that contribute to adolescent thriving (e.g., community connectedness; Scales, 1999). The current article adds to this literature by examining the association of stalking with two key outcomes of adolescent victimization (i.e., depressed mood, school mattering). In addition, polyvictimization (i.e., experiencing multiple forms of victimization) is common among adolescents (Diette et al., 2013) but is typically not accounted for in studies of adolescent stalking victimization (Reidy et al., 2016; Wright, 2018). To address this limitation, the current analyses included sexual harassment, sexual assault, and dating violence as covariates. This strategy allows the current analysis to identify the unique impact of stalking victimization over and above other types of violence victimization, and to compare the relative impact of stalking with other forms of victimization.

Method

Participants

The participants were 1,322 students from the control arm of a larger prevention evaluation outcome study of high school students in the northeastern United States (Edwards et al., 2019). The mean age of participants was 15.8 (range = 13–19, $SD = 1.18$), and half of participants were girls (50.3%). Most participants identified as White (88.9%) and heterosexual (85.9%). Approximately one in five (18.6%) students reported receiving free or reduced lunch.

Following institutional review board approval, passive parental consent procedures were used for students below 18 years of age. Most invited students (89.7%) received parental consent and participated in the research. Participants completed paper surveys in class. The current article used data from the baseline survey and from the second follow-up (henceforth referred to as the follow-up), because behavioral data were not collected at the first follow-up. The follow-up occurred an average of 97.9 days after the baseline (range = 50–133 days). Bivariate tests were conducted to understand how participants in the follow-up sample ($n = 1,117$) differed from participants who were not in the follow-up sample due to attrition or missing data ($n = 205$). Participants in the follow-up sample were less likely to have experienced dating violence victimization at baseline ($\chi^2 = 5.4, p < .05$) and were younger, $t(1320) = 3.5, p < .05$, than other participants. Participants did not differ on gender, race, sexual orientation, depressed mood/school mattering at baseline, or other interpersonal violence victimization.

Measures

Interpersonal violence perpetration and victimization.—Participants responded to Cook-Craig and colleagues' (2014) measure of interpersonal violence perpetration and victimization. Questions asked about the following types of interpersonal violence

as experienced in the past 2 months: stalking (three items; for example, “Made you afraid for your personal safety because you were followed, spied on, or monitored using computer software, cameras, listening tools, or GPS”), sexual harassment (three items; for example, “Made gestures, rude remarks, or used sexual body language to embarrass or upset you”), sexual assault (three items; for example, “Had sexual activities when you did not want because you were drunk or on drugs”), and dating violence (five items; for example, “Threatened to hit, slap, or physically hurt you” for physical dating violence, and “Controlled by checking up and limiting friends” for psychological dating violence). Each subscale was recoded into a dichotomous outcome, *experienced violence at least once* (1) or *no experience of violence* (0).

Depressed mood and school mattering.—To assess depressed mood and school mattering at baseline and follow-up, participants responded to the questions, “During the past month (30 days), did you ever feel so sad or hopeless almost every day for 2 weeks or more in a row that you stopped doing some usual activities?” with a dichotomous *yes* (1) or *no* (0) response, and “Do you agree or disagree that at your school you feel like you matter to people?” with response options *strongly disagree* (0), *disagree* (1), *agree* (2), and *strongly agree* (4). Due to the skewed nature of school mattering, these responses were recoded to *agree* (1) or *disagree* (0) to be consistent with depression. Items were adapted from the Centers for Disease Control’s Youth Risk Behavior Surveillance System (Eaton et al., 2012).

Analysis Plan

Two logistic regression analyses were performed using SPSS 25 for depressed mood (Models A and B), and two logistic regression analyses for school mattering were performed (Models C and D). For each outcome (depressed mood and school mattering), the first logistic regression (Models A and C) had two steps. Step 1 tested the effects of covariates: age, gender, sexual minority status, poverty, and depressed mood/school mattering at baseline. Step 2 added stalking victimization. The second logistic regression (Models B and D) for each outcome also had two steps. Step 1 tested the effects of the covariates, this time including sexual harassment, sexual assault, and dating violence victimization. Step 2 again added stalking victimization.

Results

Table 1 presents descriptive and bivariate analyses. Approximately 11.1% ($n = 122$) of adolescents had experienced stalking during the past 2 months at the follow-up. At baseline, 27.9% ($n = 320$) of adolescents reported depressed mood, whereas 65.2% ($n = 734$) agreed that they mattered to people. At the follow-up, 23.9% ($n = 264$) of adolescents reported depressed mood, and 70.4% ($n = 772$) agreed that they mattered.

Depressed Mood

In Model A predicting depressed mood, Step 2 was significant, indicating that stalking victimization in the past 2 months was significantly associated with depressed mood (Table 2). The odds of depressed mood among stalking victims was 3.31 higher than the odds of depressed mood among non-victims. In Model B, which controlled for sexual harassment,

sexual assault, and dating violence victimization, Step 2 was significant, indicating that stalking victimization in the past 2 months was significantly associated with depressed mood. Adjusting for other forms of victimization, the odds of depressed mood among stalking victims was 2.31 times higher than the odds of depressed mood among non-victims. Sexual harassment and dating violence victimization were also significantly associated with depressed mood—Victims of these types of interpersonal violence were more likely to report depressed mood. Last, regarding demographics, sexual minority adolescents were more likely to report depressed mood.

School Mattering

In Model C predicting school mattering, Step 2 was significant, indicating that stalking victimization in the past 2 months was significantly associated with school mattering (Table 3). The odds of mattering among stalking victims was 0.49 times lower than the odds of mattering among non-victims. In Model D, which controlled for sexual harassment, sexual assault, and dating violence victimization, Step 2 of Model D was not significant, indicating that when controlling for other forms of victimization, results did not indicate that stalking victims, compared with non-victims, were less likely to report that they mattered. Only sexual harassment was significantly associated with mattering—Victims of sexual harassment were less likely to report school mattering. Last, regarding demographics, older adolescents were more likely to report school mattering, whereas sexual minority adolescents were less likely to report school mattering.

Discussion

The aim of the current article was to examine the association of stalking with depressed mood and perception of school mattering at one's school among adolescents, two important indicators of adolescent well-being. Depressed mood is an important topic of study in adolescence because of the association of adolescent depression with suicide, as well as physical and mental problems later in the life span (Stice et al., 2009). School mattering is also critical to examine among adolescents, as it is one developmental asset that contributes to adolescent thriving (Scales, 1999).

These results indicate that stalking has a uniquely strong association with depressed mood, above and beyond other forms of victimization. Dating violence was also uniquely associated with depressed mood. It is possible that, unlike other forms of victimization, being stalked leads adolescents to withdraw from activities that they previously found pleasurable to avoid contact with a stalker. Withdraw from activities is also a potential outcome of dating violence victimization. Behavioral models of depression suggest that this withdrawal would increase negative emotions like depressed mood via decreased opportunities for pleasant experiences (Lewinsohn, 1974). Although this result is different from a prior study that accounted for other victimization experiences and did not find an increase in psychological symptoms among adolescent stalking victims (Diette et al., 2013), the prior study asked adults to retrospectively recall their stalking victimization experiences, which introduces recall bias and precludes the ability to control for baseline symptomatology. These results are critically important, as research on adolescent

victimization has focused on dating violence and sexual assault, and often does not assess stalking experiences. In addition, stalking research does not often consider other victimization experiences, such as dating violence (Diette et al., 2013; Reidy et al., 2016; Wright, 2018). Stalking should be considered alongside other forms of victimization, particularly dating violence, when understanding adolescents' depressed mood.

A second key finding of this article was that stalking was associated with school mattering, but not above and beyond other forms of victimization. Sexual harassment was associated with school mattering above and beyond other forms of victimization. Generally, exposure to victimization—including both stalking and sexual harassment—is thought to directly alter cognitions, resulting in distorted beliefs including the idea that one does not matter (Resick et al., 2016). Adolescents exposed to sexual harassment victimization may also experience actual losses of social capital, potentially due to their withdrawal from others or others' withdrawal from them (Wagner et al., 2016). Adolescents' cognitions may change accordingly to reflect these changes to their relationships. It is unclear why sexual harassment, and not other forms of victimization, emerged as a unique predictor of school mattering. Future research should explore the specific mechanisms involved in the association of sexual harassment and school mattering. It may also be that stalking victimization alters mattering in other contexts (i.e., mattering in the broader community) more so than mattering in school, particularly if the stalking occurs outside of school.

The current article's limitations indicate opportunities for this future scholarship. First, our sample was largely heterosexual; however, we found that sexual minority adolescents were more likely to report depressed mood and less likely to report perceptions of school mattering. In addition, other research shows that sexual minority adolescents are more likely to experience dating violence victimization (Edwards, 2018); a similar trend may exist for stalking victimization among adolescents, as indicated by the literature on college students (Edwards et al., 2015). Thus, more research is needed about stalking victimization and well-being among sexual minority adolescents. Second, depressed mood and school mattering were each measured using a single item. These single items have been used in past research (Brener et al., 2002; Eaton et al., 2012; Edwards et al., 2019). However, the item assessing depressed mood did not reflect the full range of symptoms associated with major depressive disorder, and the assessment of mattering was limited to mattering to others at school. Future research could address this limitation by using validated symptom checklists or conducting diagnostic assessments of depression, assessing a wider range of cognitions about others (e.g., perceived social support, loneliness), and assessing mattering in a broader range of contexts (e.g., home, neighborhood). In addition, future research could go beyond mattering to assess other strengths and developmental assets, such as self-efficacy, positive view of the future, and commitment to school/learning (Scales, 1999). Future research could also explore theoretical pathways between stalking victimization and well-being; we speculated about some potential pathways above. Moreover, future research that incorporates qualitative methodologies (i.e., interviews and open-ended questions) would also be an important next step in understanding adolescents' own understanding of how stalking affected their mood, cognitions, and overall quality of life.

Conclusion

The current article provides evidence of the association between stalking and two key outcomes: depressed mood and perceptions of mattering at their school. Findings emphasize the need for preventive interventions (e.g., bystander intervention) that work to prevent stalking in addition to other forms of interpersonal violence, given their potential impact on adolescents. Adolescents exposed to violence (especially stalking) should be assessed for depressed mood and negative cognitions about others, and offered interventions that address these concerns. Future research on the impact of adolescent stalking will help to inform prevention efforts with the goal of preventing stalking and decreasing the impact of stalking victimization on adolescents' mental health during a key period of development.

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Table 1.

Descriptive Statistics and Phi-Coefficients Representing the Association Between Key Study Variables ($n = 929-1,118$).

Variable	%	1	2	3	4	5	6	7
1. Depressed mood (baseline)	27.9							
2. School mattering (baseline)	65.2	-.31						
3. Depressed mood (follow-up)	23.9	.50	-.25					
4. School mattering (follow-up)	70.4	-.27	.51	-.27				
5. Sexual harassment victimization	23.3	.26	-.18	.25	-.18			
6. Sexual assault victimization	5.7	.17	-.09 ^a	.20	-.13	.29		
7. Dating violence victimization	9.3	.20	-.15	.25	-.11	.18	.35	
8. Stalking victimization	11.1	.19	-.12	.23	-.12	.39	.42	.31

Note. Baseline variables are marked. All other variables are from the follow-up.

^aAll coefficients are significant at the $p < .001$ level except for the association between sexual assault victimization and mattering at follow-up, which was significant at the $p < .01$ level.

Table 2.

Logistic Regression Analysis Predicting Depressed Mood at Follow-Up.

Variable	Model A (<i>n</i> = 875)				Model B (<i>n</i> = 865)			
	Step 1		Step 2		Step 1		Step 2	
	OR	95% CI (Lower, Upper)	OR	95% CI (Lower, Upper)	OR	95% CI (Lower, Upper)	OR	95% CI (Lower, Upper)
Age	1.08	[0.92, 1.26]	1.09	[0.93, 1.27]	1.07	[0.91, 1.26]	1.07	[0.91, 1.27]
Sex (male)	0.62*	[0.43, 0.91]	0.66*	[0.45, 0.97]	0.69	[0.46, 1.02]	0.67	[0.45, 1.00]
Race (White)	1.08	[0.61, 1.92]	1.14	[0.64, 2.05]	1.01	[0.56, 1.83]	1.05	[0.58, 1.90]
Sexual minority	2.67***	[1.66, 4.29]	2.75***	[1.70, 4.46]	2.50***	[1.54, 4.08]	2.60***	[1.59, 4.25]
Poverty	1.37	[0.87, 2.16]	1.43	[0.90, 2.25]	1.27	[0.79, 2.04]	1.31	[0.82, 2.11]
Depressed mood at baseline	9.34***	[6.44, 13.55]	8.54***	[5.85, 12.47]	7.88***	[5.35, 11.60]	7.74***	[5.24, 11.42]
Sexual harassment victimization	—	—	—	—	1.73*	[1.11, 2.68]	1.46	[0.92, 2.33]
Sexual assault victimization	—	—	—	—	1.54	[0.70, 3.38]	1.15	[0.50, 2.64]
Dating violence victimization	—	—	—	—	2.93***	[1.61, 5.31]	2.55**	[1.39, 4.68]
Stalking victimization	—	—	3.31***	[1.92, 5.70]	—	—	2.31*	[1.21, 4.43]
Constant (<i>B</i>)	—	-3.297	—	-3.616	—	-3.322	—	-3.456
Step chi-square	—	233.00***	—	18.48***	—	258.44***	—	6.30*
Model chi-square	—	233.00***	—	251.49***	—	258.44***	—	264.75***
Cox and Snell <i>R</i> ²	—	.23	—	.25	—	.26	—	.26

Note. OR = odds ratio; CI = confidence interval.

* *p* < .05.

** *p* < .01.

*** *p* < .001.

Table 3.

Logistic Regression Analysis Predicting School Mattering at Follow-Up.

Variable	Model C (<i>n</i> = 851)			Model D (<i>n</i> = 842)		
	Step 1		Step 2	Step 1		Step 2
	OR	95% CI (Lower, Upper)	OR	95% CI (Lower, Upper)	OR	95% CI (Lower, Upper)
Age	1.15	0.98, 1.35	1.15	0.99, 1.35	1.18*	1.01, 1.39
Gender (boy)	1.10	0.77, 1.58	1.06	0.74, 1.52	0.95	0.66, 1.39
Race (White)	0.78	0.43, 1.42	0.77	0.42, 1.40	0.80	0.43, 1.47
Sexual minority	0.51**	0.32, 0.83	0.53*	0.32, 0.86	0.57*	0.35, 0.94
Poverty	0.85	0.54, 1.33	0.85	0.54, 1.33	0.84	0.53, 1.33
School mattering at baseline	10.87***	7.64, 15.48	10.61***	7.44, 15.13	10.56***	7.35, 15.17
Sexual harassment victimization	—	—	—	—	0.51**	0.33, 0.79
Sexual assault victimization	—	—	—	—	0.72	0.32, 1.62
Dating violence victimization	—	—	—	—	0.77	0.42, 1.42
Stalking victimization	—	—	0.49*	0.28, 0.85	—	—
Constant (<i>B</i>)	—	-2.307	—	-2.232	—	-2.464
Step chi-square	—	234.44***	—	6.46*	—	251.16***
Model chi-square	—	234.44***	—	240.89***	—	251.16***
Cox and Snell <i>R</i> ²	—	.24	—	.25	—	.26

Note. OR = odds ratio; CI = confidence interval.

* *p* < .05.

** *p* < .01.

*** *p* < .001.