

# Peer Victimization, Depression, and Suicidiality in Adolescents

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The association between specific types of peer victimization with depression, suicidal ideation, and suicide attempts among adolescents was examined. A self-report survey was completed by 2,342 high-school students. Regression analyses indicated that frequent exposure to all types of peer victimization was related to high risk of depression, ideation, and attempts compared to students not victimized. Infrequent victimization was also related to increased risk, particularly among females. The more types of victimization the higher the risk for depression and suicidality among both genders. Specific types of peer victimization are a potential risk factor for adolescent depression and suicidality. It is important to assess depression and suicidality among victimized students in order to develop appropriate intervention methods.

Peer victimization is a prevalent problem among high school students (Brunstein Klomek, 2007; Nansel, Overpeck, Pilla, Ruan, Simons-Marten, & Scheidt, 2001). Approxi-

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mately 10 to 20% of high school students in the U.S. report moderate or frequent victimization (Klomek et al., 2007; Nansel et al., 2001). Nansel and colleagues' national study assessed five specific types of victimization: belittling about religion/race; belittling about looks/speech; hitting, slapping, or punching; rumor spreading or lying about the target; and sexual comments/gestures (Nansel et al., 2001). The prevalence of these types of victimization among adolescents ranged from 8 to 20%; the most common being belittling about looks or speech and the least prevalent being belittling about religion or race (Nansel et al., 2001). Being bullied via e-mail or the Internet (cyber victimization) is the newest type of victimization (Patchin & Hinduja, 2006; Ybarra, 2004; Ybarra & Mitchell, 2004). The prevalence of this type of victimzation varies, from 4 to 35% in adolescent samples (Patchin & Hinduja, 2006; Ybarra & Mitchell, 2004).

The classification and definition of specific types of victimization varies among studies (Wolke & Stanford, 1999), making comparisons among studies difficult (Hawker

& Boulton, 2000). Overt victimization includes acts that are meant to harm a peer physically, verbal threats of such acts (e.g., threatening to beat up a peer), and name calling (Crick & Grotpeter, 1995; Grotpeter & Crick, 1996; Prinstein, Boergers, & Vernberg, 2001). Similarly, direct victimization includes diverse physical and verbal methods of victimization; for example, kicking, hitting, threatening, name calling, and insulting (van der Wal, de Wit, & Hirasing, 2003). Direct victimization has also included having belongings taken, having lies told about the target, having nasty tricks played on the target, and having been threatened or blackmailed (Wolke, Woods, Bloomfield, & Karstadt, 2000). Indirect victimization has been defined as aggression that is enacted through third parties (Bjorkqvist, 1994; Rivers & Smith, 1994). It includes aspects of social isolation such as ignoring, excluding, and backbiting (van der Wal et al., 2003) as well as rejecting and having rumors spread about them (Baldry & Farrington, 1999). Relational victimization includes behaviors that cause or threaten to damage peer relationships, particularly friendship and acceptance (Crick, Kasas, & Ku, 1999; Crick & Grotpeter, 1995, 1996; Wolke et al., 2000). Studies have compared different subsets of these constructs: direct and indirect victimization (Baldry & Farrington, 1999; van der Wal et al., 2003); direct and relational victimization (Wolke et al., 2000; van der Wal et al., 2003); overt and relational victimization (Prinstein et al., 2001); physical, verbal, and indirect victimization (Bjorkqvist, 1994; Rivers & Smith, 1994); and physical and relational victimization (Crick et al., 1999). Given this lack of clarity in the classification of peer victimization, in the present study we examined discrete peer victimizations as suggested by the World Health Organization (WHO) study on youth health (Nansel et al., 2001).

Peer victims are found to manifest more depressive symptoms compared to nonvictims (Brunstein Klomek, 2007; Craig, 1998; Crick & Grotpeter, 1996; Fekkes, Pijpers, & Verloove-Vanhorick, 2004; Hawker & Boulton, 2000; Kumpulainen & Rasanen, 2000; Kumpulainen, Rasanen, & Henttenen, 1999; Mills, Guerin, Lynch, Daly, & Fitzpatrick, 2004; Neary & Joseph, 1994; Slee, 1995; van der Wal et al., 2003; Williams, Chambers, Logan, & Robinson, 1996). In a meta-analysis, peer victimization was most strongly related to depression in comparison to other types of maladjustment (Hawker & Boulton, 2000). Compared to nonvictims, victims are also found to exhibit high levels of suicidal ideation (Brunstein Klomek, 2007; Hold, Finkelhor, & Kantor, 2006; Kaltiala-Heino, Rimpela, Marttunen, Rimpela, & Rantanen, 1999; Rigby & Slee, 1999; Roland, 2002; van der Wal et al., 2003) and are more likely to have attempted suicide (Brunstein Klomek, 2007; Cleary, 2000; Eisenberg, Neumark-Sztainer, & Story, 2003; Kim, Koh, & Levanthal, 2005; Mills et al., 2004).

Studies have found significant interactions between gender and victimization with regard to depression and suicidality risk; the results, however, are not consistant. Kim et al. (2005) found that female but not male students who were victimized were at significantly greater risk for suicidal ideation. Similarly, Katliala-Heino et al. (1999) found that severe ideation was associated with frequent victimization only among girls and there was no gender interaction for depressive symptoms. van der Wal et al. (2003) found that among both genders indirect victimization was associated with depression and suicidal ideation. Direct victimization, however, was associated with depression and suicidal ideation among girls but not boys. In our earlier study (Brunstein Klomek et al., 2007), we found a different threshold at which bullying was associated with depression and suicidality among females and males. Among females, victimization at any frequency increased the risk of depression, ideation, and attempts. Among males only frequent victimization increased the risk of depression and ideation.

Most of the existing research on the association between peer victimization with depression and suicidality have examined overall victimization (Cleary, 2000; Eisenberg et al., 2003; Kaltiala-Heino et al., 1999; Kim et al., 2005; Mills et al., 2004; Rigby &

Slee, 1999; Roland, 2002; Slee, 1995; van der Wal et al., 2003). Only a few studies have examined the association between specific types of peer victimization with depression (Crick & Grotpeter, 1996; Prinstein et al., 2001). Specific types of peer victimization examined include weight-based teasing (Eiesnberg et al., 2003; Janssen, Craig, Boyce, & Pickett, 2004) and sexual victimization (Gidycz & Koss, 1989). To our knowledge, no study has examined the association between specific types of peer victimization with suicidality.

The purpose of the current research was to examine the association between specific types of peer victimization with depression, suicidal ideation, and suicide attempts among a large sample of American high school students. Specifically, we examined the prevalence of six specific types of peer victimization; the association of these types of victimizations with depression, suicidal ideation, and suicide attempts by gender; and the co-occurrence of multiple types of peer victimization.

#### **SUBJECTS AND METHODS**

#### **Participants**

This study targeted adolescents aged 13 through 19 years, enrolled in nineth through twelfth grade in six high schools in Nassau, Suffolk, and Westchester counties in New York State. Five schools were public coeducational schools and one was a parochial all-boys school. These schools were part of a study examining whether asking about suicidality during a screening program creates distress or increases suicidal ideation (Gould et al., 2005). This study included 2,341 of 3,635 students (64.4% participation rate) from the fall of 2002 through the spring of 2004. Reasons for nonparticipation included parental refusals (61.9%), student refusals (14.3%), and absences (23.7%). The ethnic distribution of the participating sample was 80.3% White, 5.1% Black, 7.3% Hispanic, 3.8% Asian, and 3.5% other. A total of 58.1% of the students were boys (the inclusion of an all-male parochial school explains the high percentage of boys). The mean (SD) age of participating students was 14.8 (1.2) years. There were no significant differences between participants and nonparticipants in sex, age, and race/ethnicity.

Students were recruited with a waiver of parental consent for parents and active written assent for youth. The recruitment procedures were based on those used in our earlier study (Gould, Velting, Kleinman, Lucas, Thomas, & Chung, 2004) and were developed in response to what the schools considered would best meet the needs of their communities. The current study received IRB approval of a waiver of consent, based on Federal Regulations (Title 45; Part 46, Article 46.116(d)). Two mailings with an information sheet describing survey content and procedures, a response form, and a stamped response envelope were sent to parents 6 and 4 weeks before survey administration, providing parents opportunities to refuse their children's participation and giving them ample pertinent information about the project. Students' written assent was obtained immediately before the survey.

The study procedures, consistent with the Family Educational Rights and Privacy Act and the Protection of Pupil Rights Amendment, were approved by the IRB of the New York State Psychiatric Institute/Columbia University Department of Psychiatry.

## Measures

A self-report questionnaire assessed depression, suicidal ideation, suicide attempts, and peer victimization. The assessment time frame was the past 4 weeks, with the exception of measuring lifetime suicide attempts.

Demographic Questionnaire. The demographic questionnaire elicited information with regard to age, grade, gender, racial/ethnic background, and household composition.

Depression. The Beck Depression Inventory (BDI-IA, version I amended; Beck & Steer, 1993) assessed cognitive, behavioral, affective, and somatic components of depression. Loss of libido was not assessed. The BDI has been used in over 200 studies, including those with adolescents samples (Rob-

erts, Lewinsohn, & Seeley, 1991; Strober, Green, & Carlson, 1981; Teri, 1982). Each response ranged from 0 (symptoms not present) to 3 (symptom is severe), with a maximum total score of 60. A cut-off point of 16 was employed to dichotomize BDI scores. This cut-off has correctly classified 81% of adolescent psychiatric patients with major depressive disorder (Strober et al., 1981) and has been recommended to detect possible depression in normal populations (Beck & Steer, 1993). The internal consistency reliability (as measured by Cronbach's alpha) of the BDI-IA is .89 (Beck, Steer, Ball, & Ranieri, 1996).

Suicidal Ideation. The Suicide Ideation Questionnaire (SIQ-JR) assesses suicidal thoughts and is designed for large-scale, school-based screening of adolescents (Revnolds, 1988). The 15-item SIQ-JR uses a 7point Likert-type scale, ranging from 0 (I never had this thought) to 6 (This thought was in my mind almost every day), assessing the frequency of specific suicidal thoughts during the past month. It assesses thoughts related to death and dying, passive and active suicidal ideation, and suicidal intent. Reliability of the SIQ-JR is high, ranging from .91 to .96 (Keane, Dick, Bechtold, & Manson, 1996; Reynolds, 1988; Reynolds & Mazza, 1999) for internal consistency and from .87 to .93 for test-retest reliability (Reynolds & Mazza, 1999). The SIQ-IR has demonstrated criterion validity (King et al., 1993; Reynolds, 1988, 1990; Reynolds & Mazza, 1999), construct validity in clinical samples (King, Ghaziuddin, McGovern, Brand, Hill, & Naylor, 1996; King, Hill, Naylor, Evans, & Shain, 1993; King, Katz, Ghaziuddin, Brand, Hill, & McGovern, 1997; Sibthorpe, Drinkwater, Gardner, & Bammer, 1995; Siemen, Warrington, & Mangano, 1994), and predictive validity (Keane et al., 1996). Suicidal ideation was considered serious if the adolescent scored 31 or higher on the SIQ-JR; or scored 5 or 6 on two or more of the six "critical" SIQ-JR items (Reynolds, 1988); or responded with either of the two most serious response options of the BDI suicide item.

Suicide Attempt History. Seven questions asking about lifetime and recent suicide

attempts were derived from the depression module of the Diagnostic Interview Schedule for Children (DISC-IV; Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000) and an earlier suicide screen (Shaffer et al., 2004). These items have demonstrated good construct validity (Gould et al., 1998; Shaffer et al., 2004). The assessment of an attempt included questions about occurrences, injuries sustained, medical care sought, and hospitalization (Meehan, Lamb, Saltzman, & O'Carroll, 1992). The adolescent was considered to have a history of an attempt if he or she reported any past attempt, regardless of timing, injury, or medical attention.

Specific Types of Peer Victimization. Several questions regarding victimization were derived from the WHO study on youth health (Nansel et al., 2001). Questions about victimization were preceded with the following explanation. "We say a student is being bullied when another student or group of students says or does nasty and unpleasant things to him or her. It is also bullying when a pupil is teased repeatedly in a way he or she doesn't like. But it is not bullying when two students of about the same strength quarrel or fight." Victimization was assessed by six questions asking respondents to report the frequency with which they were victimized in different ways. The different types of victimization assessed were: "Made fun of you because of your religion or race"; "Made fun of you because of your looks or speech"; "Hit, slapped, or punched you"; "Spread rumors or mean lies about you"; "Made sexual jokes, comments, or gestures to you"; "Used e-mail or Internet to be mean to you." The frequency items were coded on a 5-point scale ranging from not at all to most days. Respondents were classified as never victimized, victimized less than weekly, or victimized frequently (at least 3 to 4 times in the past 4 weeks).

### Statistical Analysis

Chi-square analyses were conducted to examine gender differences in the prevalence of specific types of peer victimization. A series of logistic regression models was conducted to examine the association between specific types of victimization (less than weekly and frequently) with depression, serious suicidal ideation, and suicide attempts (as dichotomized outcomes). The category "never victimized" was the reference group in these analyses. These regression analyses were first conducted separately for males and females and were adjusted for schools and grade. Interactions between gender and the specific types of victimization were examined in additional models. A power analysis revealed sufficient power (greater than .80) to detect potential interactions.

Another series of logistic regression analyses was conducted to examine the relation of each of the three outcome measures to the co-occurrence of the different types of victimization. A count of the number of the different types of victimization was created for each respondent. The maximum count was 5 or 6 types of victimization. We combined having been victimized in 5 or 6 ways in order to avoid small ns. For this analysis we combined frequent and infrequent victimization within each type of victimization. Respondents who were never victimized served as the reference group in the logistic regression. In addition, within the victimization groups we conducted tests for linear trends (Fleiss, Levin, & Paik, 2003).

We chose not to include random effects for school or class in the regression analyses because the sample clusters (school) and the randomization unit (class within school) had little impact on the outcomes or correlates (gender, depression, serious suicide ideation/behavior, peer victimization), as indicated by the intraclass coefficients (ICCs), which were all close to zero (ICCs < .06). Moreover, meaningful differences between results of random effects regression models and our analysis were not anticipated because there were many units of randomization (181 classes) of relatively small average size (Murray, 1998). Analyses were conducted using the SPSS software package, version 12. Results were considered significant at  $\alpha$  < .05.

## **RESULTS**

Frequency of Specific Types of Victimization

The most common experience of being bullied involved having one's looks or speech belittled ([infrequently] less than weekly, 20.4%; frequently, 9.1%) (Table 1). Being bullied via e-mail or the Internet occurred with the lowest frequency (infrequently, 5%; frequently, 2.3%).

Males were more likely than females to be belittled because of religion or race and to be bullied by being hit, slapped, or punched ( $\chi^2 = 41.15$ , p < .001;  $\chi^2 = 47.53$ , p < .001, respectively) (Table 1). Females were more likely than males to be the subject of rumors ( $\chi^2 = 26.10$ , p < .001); sexual jokes, comments, or gestures ( $\chi^2 = 28.31$ , p < .001); and meanness by use of e-mail or the Internet ( $\chi^2 = 18.99$ , p < .001).

All types of victimizations were significantly correlated (Table 2) but they were not redundant, given the modest sizes of the correlations. We therefore examined the association of specific types of peer victimization with depression, serious suicidal ideation, and suicide attempts by gender (see Table 3).

Belittled About Religion or Race. This type of victimization was significantly associated with depression and suicide attempts for females, but was not significantly associated with serious suicidal ideation (SSI) among females. Among males, being bullied frequently but not infrequently was associated with depression and SSI. This type of victimization at any frequency was not associated with suicide attempts among males. Interactions between victimization and gender were not significant with regard to depression, SSI, and attempts.

Belittled About Looks or Speech. Among females, being belittled about looks or speech at any frequency was significantly associated with depression, SSI, and attempts. Among males frequent, but not infrequent, victimization was associated with depression, SSI, and attempts. Significant interactions between

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**TABLE 1**Prevalence of Specific Types of Peer Victimization by Gender

		$Male (N = 1,274)^a$			Female $(N = 907)^a$		•	Total $(N=2,181)^a$		
	Never $\%$ $(n)$	Less than weekly % (n)	weekly Frequently Never $\%$ $(n)$ $\%$ $(n)$ $\%$ $(n)$	Never % (n)	Less than weekly % (n)	Less than weekly Frequently % (n) % (n)	Never % (n)	Less than weekly % (n)	ess than weekly Frequently % (n) % (n)	$\chi^2 \\ \text{Gender} \\ \text{Differences}$
Made fun of you because of your religion or race	83.3(1,061) 9.7(123)	9.7(123)		92.2(836)	7.1 (90) 92.2(836) 5.7 (52)	2.1(19)	87.0(1,897) 8.0(175)	8.0(175)	5.0(109)	41.15, <i>p</i> = .000
looks or speech Hit, slapped, or punched	69.4 78.6	(881) 20.5(260) (997) 14.3(181)	10.2(129) 7.2 (91)	72.3(655) 20.2(183) 89.6(813) 7.6 (69)	20.2(183) 7.6 (69)	7.5(68) 2.8(25)	70.6(1,536) 20.4(443) 83.2(1,810) 11.5(250)	20.4(443) 11.5(250)	9.1(197) 5.3(116)	4.77, p = .092 47.53, p = .000
Spread rumors or mean nes about you	84.6(1,075) 11.1(141)	11.1(141)		76.0(689)	4.3 (55) 76.0(689) 18.1(164)	6.0(54)	81.0(1764) 14.0(305)	14.0(305)	5.0(109)	5.0(109) $26.10, p = .000$
or gestures to you	85.8(1,091)	8.9(113)		76.9(697)	5.3 (68) 76.9(697) 13.9(126)	9.2(83)	82.1(1,788)	11.0(239)	6.9(151)	82.1(1,788) 11.0(239) 6.9(151) 28.31, $p = .000$
Used e-mail of internet to be mean to you	94.7(1,205)	3.5 (44)	1.8 (23)	89.9(816)	7.2 (65)	3.0(27)	92.7(2,021)	5.0(109)	2.3 (50)	94.7(1,205) 3.5 $(44)$ 1.8 $(23)$ $89.9(816)$ 7.2 $(65)$ 3.0 $(27)$ $92.7(2,021)$ 5.0 $(109)$ 2.3 $(50)$ 18.99, $p = .000$

Note. <sup>a</sup>N's vary slightly because of missing data.

TABLE 2
Correlation Matrix of the Specific Types of Peer Victimization

Correlations	Victimized about religion/ race	Victimized about looks/ talks	Victimized by hit, slapped or punched	Victimized by spreading rumors	Victimized by sexual jokes	Victimized by e-mail
Victimized about						
religion/ race		.290**	.159**	.174**	.149**	.110**
Victimized about						
looks/talks			.322**	.358**	.353**	.248**
Victimized by hit,						
slapped, punched				.302**	.302**	.225**
Victimized by spread-						
ing rumors					.391**	.383**
Victimized by sexual						
jokes						.249**
Victimized by e-mail						

*Note.* \*\* < .01

gender and victimization by looks or speech indicated that females who were belittled about looks or speech were at significantly higher risk for depression compared to males  $(OR_{\text{infrequently}} = 3.71, 95\% CI = 2.41-5.72, p < .001; <math>OR_{\text{frequently}} = 10.81, 95\% CI = 6.20-18.85, p < .001)$ . Interactions between victimization and gender were not significant with regard to SSI and attempts.

Physical Victimization (Being Hit, Slapped, or Punched). Among females, being physically bullied at any frequency was significantly associated with depression, SSI, and attempts. Among males frequent, but not infrequent, physical victimization was associated with depression, SSI, and attempts. Significant interactions between gender and infrequent physical victimization indicated that females who were physically victimized infrequently were at significantly higher risk for depression than comparable males (OR =.311, 95% CI = .13 - .73, p < .001). Interactions between physical victimization and gender were not significant with regard to SSI and attempts.

Subject of Rumors or Mean Lies. Among females, victimization by the spread of rumors or lies at any frequency was associated with depression, SSI, and attempts. Among males, victimization at any frequency was associated with depression and SSI but only frequent victimization was associated with attempts. Interactions between this type of victimization and gender were not significant with regard to depression, SSI, and attempts.

Subject of Sexual Jokes, Comments, or Gestures. Among females, being bullied infrequently or frequently was significantly associated with depression and attempts. Only frequent victimization was associated with SSI. Among males only frequent victimization was associated with depression and both levels of victimization were associated with SSI and attempts. Interactions between this type of victimization and gender were not statistically significant with regard to depression, SSI, and attempts.

Cyber Victimization. Among females, being bullied via Internet or e-mail infrequently or frequently was significantly associated with depression and SSI. Only frequent victimization was associated with attempts. Among males, frequent but not infrequent victimization was associated with depression and both levels of victimization were associated with SSI. The small number of males who were victimized via Internet or e-mail

and made an attempt ( $n_{\text{infrequent}} = 2$ ;  $n_{\text{frequent}} = 1$ ) precluded a meaningful examination of the risk of attempts. Interactions between this type of victimization and gender were not significant with regard to depression, SSI, and attempts.

Impact of Co-Occurrence of Several Types of Victimizations

Among males who were victimized, 44.9% experienced one type of victimization, 26.6% experienced two types, 15.2% experienced three types, 7.5% experienced four types, and 5.8% experiences five or six types of victimization. Among females who were victimized, 40.9% experienced one type of victimization, 28.4% experienced two types, 18.1% experienced three types, 8.1% experienced four types, and 4.5% experienced five or six types of victimization.

Overall, the more types of victimization the higher the risk for depression, SSI, and suicide attempts among both genders (Table 4). A test for linear trends within the victimization groups indicated that as the types of victimization increased, the rates of depression and suicidality increased in a nonlinear fashion (male depression:  $\chi^2 = 22.94$ , df = 3, p < .001; female depression:  $\chi^2 = 25.16$ , df = 3, p < .001; male ideation:  $\chi^2 = 30.46$ , df = 3, p < .001; female ideation:  $\chi^2 = 27.97$ , df =3, p < .001; male attempts:  $\chi^2 = 11.65$ , df = 3, p < .05; female attempts:  $\chi^2 = 27.93$ , df = 3, p < .05.001). When an individual is exposed to five or six types of peer victimization the risk of depression and suicidality increases dramatically. Males who were victimized in five or six ways were 12 times more likely to be depressed, nearly 20 times more likely to have reported serious suicidal ideation, and approximately 18 times more likely to have attempted suicide compared to males who were never victimized. Similarly, females who were victimized in five or six ways were approximately 33 times more likely to be depressed, 27 times more likely to have experienced suicidal ideation, and 19 times more likely to attempt suicide. Approximately 40% of the males and 70% of the females who were victimized in five or six ways had any of these three outcomes (depression, serious suicidal ideation, suicide attempts).

#### **DISCUSSION**

The most common experience of being bullied involved having one's looks or speech belittled, similar to Nansel's findings (Nansel et al., 2001). This result is not surprising in light of teens' interest and investment in their appearance. Being bullied via email or the Internet occurred with the lowest frequency. Cyber victimization may have occurred infrequently in the present sample because the data was collected between 2002–2004. Cyber victimization may have become more frequent since then (Patchin & Hinduja, 2006; Ybarra, 2004; Ybarra & Mitchell, 2004).

Males were more likely than females to be physically bullied and to be belittled because of religion or race. Females were more likely than males to be the subject of rumors, sexual gestures, and meanness by use of the Internet. The gender differences we found are consistent with previous findings that physical victimization is more prevalent among males (Baldry & Farrington, 1999; Prinstein et al., 2001). Adolescent males may be more involved in physical victimization due to their generally higher levels of aggression (Achenbach & Edelbrock, 1981). Our results are also consistent with Nansel's findings that for males, both physical and verbal victimization was common while for females verbal victimization and rumors were common (Nansel et al., 2001). The high levels of verbal victimization among both genders may be explained by the increase in verbal aggression with age (Conner, 2004).

All types of victimization were associated with depression and suicidality. Our findings support previous reports that both direct and indirect victimization have negative consequences for internalizing problems (Crick & Grotpeter, 1996; van der Wal et al., 2003). The pattern of associations we found was consistent across the different types of peer victimization. On average, the more fre-

TABLE 3

Prevalence of Depression, Suicidal Ideation, and Suicide Attempts among Teens Experiencing Specific Types of Victimization by Gender

	Never	ver		Less than Weekly		Frequently
	( <i>u</i> )%	OR (95% CI)	(u)%	OR (95% CI)	%( <i>n</i> )%	OR (95% CI)
Made fun of you because of your religion or race						
Male <sup>a</sup>	4.8 (51)		8.1(10)	-08. )	16.7(15)	3.80*** (2.01- 7.15)
Female	14.2(118)	1	25.0(13)	2.11* (1.07- 4.13)	36.8 (7)	3.41* (1.30– 8.95)
Suicide ideation						
$\mathrm{Male}^{\mathrm{a}}$	2.5 (26)		3.3 (4)	1.26  (.42-3.75)	6.7 (6)	2.58* (1.02-6.53)
Female <sup>b</sup>	5.0 (42)		9.6 (5)		15.8 (3)	3.36 ( .91–12.37)
Suicide attempts						
$Male^{a}$	2.2 (23)	I	4.1 (5)	1.85   (.67 - 5.06)	4.7 (4)	2.20 ( $.73-6.67$ )
Female <sup>b</sup>	5.6 (47)		17.6 (9)	4.55*** (1.98–10.47)	26.3 (5)	6.83** (2.23–20.90)
Made fun of you because of your looks or speech						
Depression						
$ ilde{ ext{Male}}^{ ext{a}}$	4.4 (39)		5.8(15)	1.28  (6.9 - 2.36)	16.3(21)	$4.12^{***}(2.32-7.33)$
Female <sup>b</sup>	8.6 (56)		26.1(47)	*	48.5(33)	$10.68^{***}$ (6.12–18.65)
Suicide ideation						
$\mathrm{Male}^{\mathrm{a}}$	1.7 (15)		3.1 (8)	1.88  (.79-4.51)	9.4(12)	$6.04^{***}$ (2.72–13.38)
Female <sup>b</sup>	3.4 (22)		7.7(14)	(1.20-	20.9(14)	$7.62^{***}$ (3.64–15.94)
Suicide Attempts						
$Male^{a}$	1.8 (16)		2.7 (7)	1.48  (.60-3.65)	7.1 (9)	4.32** (1.84-10.15)
Female <sup>b</sup>	4.60(30)		8.7(16)	(1.04-	22.1(15)	$6.04^{***}$ (2.99–12.19)
Hit, slapped, or punched						
Depression						
$ar{ ext{Male}}^a$	4.9 (49)	1	6.6(12)	1.40  (.73-2.71)	16.5(15)	$3.75^{***}$ (2.00- 7.04)
Female <sup>b</sup>	12.5(101)		38.8(26)	4.37*** (2.55- 7.49)	44.0(11)	5.65*** (2.48–12.86)
Suicide ideation						
$Male^{a}$	2.0 (20)	1	3.9 (7)	2.09 ( .86– 5.05)	10.1 (9)	5.82*** (2.53–13.36)
Female	4.4 (36)	l	10.3 (7)		28.0 (7)	8.49*** (3.26–22.09)

Suicide Attempts Male <sup>a</sup> Female <sup>b</sup>	1.8 (18) 5.1 (41)	1 1	3.9 (7) 16.2(11)	2.34 ( .95- 5.74) 3.55** (1.70- 7.44)	8.0 (7) 36.0 (9)	4.42** (1.78–11.00) 11.42*** (4.52–28.83)
Spread rumors or mean lies about you						
Depression						
$\mathrm{Male}^{\mathtt{a}}$	4.6 (49)		9.4(13)	2.13* (1.12- 4.06)	25.5(14)	7.40*** (3.73–14.66)
Female <sup>b</sup>	10.3 (71)	I	25.3(41)	2.92*** (1.89- 4.51)	49.1(26)	8.35*** (4.60–15.16)
Suicide ideation						
$\mathrm{Male}^{\mathtt{a}}$	1.8 (19)		5.8 (8)	3.23** (1.38- 7.58)	16.4 (9)	11.33*** (4.77–26.87)
Female <sup>b</sup>	3.5 (24)	I	8.0(13)	2.32* (1.14- 4.69)	24.5(13)	8.91*** (4.17–19.08)
Suicide attempts						
$Male^a$	2.0 (21)	I	4.3 (6)	2.15 ( $.85-5.47$ )	9.3 (5)	5.58** (1.98-15.74)
Female <sup>b</sup>	4.2 (29)	I	13.5(22)		18.9(10)	5.30*** (2.37–11.86)
Made sexual jokes, comments, or gestures to you						
Depression						
$\mathrm{Male}^{\mathrm{a}}$	5.1 (56)	I	8.9(10)	1.72  (.85 - 3.49)	14.7(10)	2.99** (1.44- 6.20)
Female <sup>b</sup>	11.3 (78)	1	24.6(31)	$2.61^{***}$ (1.62- 4.21)	33.7(28)	4.02*** (2.39- 6.76)
Suicide ideation						
$\mathrm{Male}^{\mathrm{a}}$	2.2 (24)		5.3 (6)		9.0 (6)	4.35** (1.69–11.20)
Female	4.0 (28)		7.2 (9)	1.83 ( $.83 - 4.04$ )	15.9(13)	4.48*** (2.18-9.20)
Suicide attempts						
$\mathrm{Male}^{\mathrm{a}}$	1.8 (19)		7.2 (8)	4.07** $(1.73-9.61)$	7.5 (5)	4.19** (1.50-11.74)
Female <sup>b</sup>	4.3 (30)	1	11.9(15)	3.03** (1.55-5.95)	20.0(16)	6.15*** (3.09-12.24)
Used e-mail or Internet to be mean to you						
Depression						
$\mathrm{Male}^{\scriptscriptstyle{a}}$	5.1 (61)	I	9.1 (4)	1.82 (3.63 - 5.29)	47.8(11)	16.98*** (7.10–40.57)
Female <sup>b</sup>	12.7(103)	I	35.4(23)	$3.90^{***} (2.24-6.79)$	44.4(12)	5.83*** (2.62–12.96)
Suicide ideation						
$\mathrm{Male}^{\mathrm{a}}$	2.2 (26)	I	9.3 (4)	4.65** (1.53-14.17)	26.1 (6)	$17.07^{***}$ (6.07–48.01)
Female <sup>b</sup>	4.2 (34)	I	13.8 (9)	3.67** (1.66-8.11)	26.9 (7)	8.17*** (3.12–21.44)
Suicide attempts						
$\mathrm{Male}^{\scriptscriptstyle 3}$	2.4 (29)	1	4.5 (2)	1.76   (.40-7.69)	4.5 (1)	1.76  (.23-13.63)
Female <sup>b</sup>	5.9 (48)		12.3 (8)	2.18 ( .97 – 4.89)	19.2 (5)	

Note. Adjusted for schools attended and grade; N's vary slightly because of missing data.  $^{a}N=1,270;~^{b}N=902$  OR = Odds ratio; CI = Confidence interval  $^{*}p<.05;~^{**}p<.01;~^{**}p<.01;$  \*\*\* $p<.01;~^{**}p<.01;$ 

**TABLE 4**Prevalence of Depression, Ideation, and Attempts by Number of Types of Victimization

			Victimization	at any frequen	cy	
	Never $n_{\text{males}} = 625^{\text{a}}$ $n_{\text{female}} = 456^{\text{a}}$	One type $n_{\text{male}} = 289^{\text{a}}$ $n_{\text{female}} = 183^{\text{a}}$	Two types $n_{\text{male}} = 171^{\text{a}}$ $n_{\text{female}} = 127^{\text{a}}$	Three types $n_{\text{males}} = 98^{\text{a}}$ $n_{\text{female}} = 81^{\text{a}}$	Four types $n_{\text{males}} = 48^{\text{a}}$ $n_{\text{female}} = 36^{\text{a}}$	Five or six types $n_{\text{males}} = 37^{\text{a}}$ $n_{\text{female}} = 20^{\text{a}}$
Males						
Depression						
$\sqrt[n]{(n)}$	3.2(20)	7.3(21)	5.8(10)	8.2(8)	12.5(6)	29.7(11)
$OR^{b}$	. ,	2.32**	1.85	2.57*	4.23**	12.15***
(95% CI)		(1.23-4.37)	(.85-4.03)	(1.09-6.04)	(1.60-11.19)	(5.20-28.42)
Ideation		,				
%( <i>n</i> )	1.4 (9)	2.4(7)	2.9(5)	4.1(4)	6.3(3)	22.2(8)
$OR^b$		1.72	2.01	3.10	4.78*	19.65***
(95% CI)		(.63-4.69)	(.66-6.10)	(.92-10.40)	(1.23-18.53)	(6.85-56.34)
Attempts						
%(n)	1.0(6)	3.5(10)	2.4(4)	6.1(6)	2.1(1)	13.9(5)
$OR^b$		3.67*	2.57	6.37**	1.98	18.23***
(95% CI)		(1.32-10.24)	(.71-9.25)	(1.99-20.39)	(.23-16.98)	(5.11-65.10)
Females						
Depression						
%(n)	5.5(25)	14.2(26)	25.2(32)	33.3(27)	41.7(15)	65.0(13)
$OR^b$		2.88***	5.83***	8.49***	11.73***	33.51***
(95% CI)		(1.61-5.14)	(3.29-10.34)	(4.59-15.73)	(5.38-25.59)	(12.13 - 92.58)
Ideation						
%(n)	2.4(11)	4.9(9)	6.3(8)	11.1(9)	13.9(5)	40.0(8)
$OR^b$		2.10	2.65*	5.03*	6.20**	27.38***
(95% CI)		(.85-5.16)	(1.03-6.78)	(2.00-12.65)	(2.00-19.24)	(8.98 - 83.53)
Attempts						
%(n)	2.9(13)	3.2(6)	12.7(16)	14.8(12)	16.7(6)	40.0(8)
$OR^b$		1.10	4.53***	6.41***	7.36***	19.40***
(95% CI)		(.41-2.96)	(2.09 - 9.80)	(2.76-14.88)	(2.54-21.34)	(6.52-57.79)

<sup>&</sup>lt;sup>a</sup>N's vary slightly because of missing data; <sup>b</sup>Adjusted for schools and grade.

quent the victimization, the higher the risk for depression and suicidality. Among males it was primarily frequent peer victimization that was more consistently associated with depression and suicidality. Among females, any level of peer victimization was associated with depression and suicidality. This pattern was similar to the one we found in our earlier study in which we assessed general peer victimization (Brunstein Klomek et al., 2007). Our findings contradict reports that only fe-

male victims are at greater risk for depression and ideation (Kim et al., 2005; van der Wal et al., 2003); male victims are also at increased risk.

Generally, the more types of peer victimization the teen has been exposed to the higher the risk for depression and suicidality. This finding is consistent with reports that adolescent victims of multiple forms of agression are at greater risk for psychological adjustment difficulties than victims of one form

OR = Odds ratio; CI = Confidence interval

<sup>\*</sup>*p* < .05; \*\**p* < .01; \*\*\**p* < .001

of agression (Holt et al., 2006; Prinstein et al., 2001).

#### Limitations

There are a number of limitations in regard to this study. The first is the employment of a convenience sample, rather than a random sample of schools. The schools were suburban and predominantly White, limiting the generalizability of the findings to urban and more ethnically or socioeconomically diverse settings. However, studies reporting on ethnicity and socioeconomic status as factors in victimization have shown inconsistent results (Nansel et al., 2001; Olweus, 1999; Seals & Young, 2003; Veenstra, Lindenberg, Oldehinkel, De Winter, Verhulst, & Ormel, 2005; Wolke et al., 2001). The small number of minority students in the present study precludes the examination of the association of peer victimization with depression, serious suicidal ideation, and suicide attempts by race. Second, only two thirds of eligible subjects participated in the study. Despite there being no significant differences between participants and nonparticipants in demographic factors (e.g., sex, grade level, ethnicity), it is not known whether clinical factors (e.g., BDI-IA and SIQ-JR scores) were comparable across the groups. Third, data on victimization was based on self-reports. Information about victimization can also be obtained from peers, parents, and teachers. Fourth, we assessed sexual victimization by asking about sexual jokes, comments, and gestures. Our data does not include the specific form and severity of the sexual victimization nor any item regarding sexual orientation. Sexual victimization is an area that should be the focus of future studies. Fifth, our data did not include assessment of victimization via social exclusion. Furthermore, it was difficult to classify specific types of victimization into broader categories. The modest correlations among the different types of peer victimization (ranging from .15-.39) suggest that these types of victimization may reflect different constructs (Crick et al., 1999; Crick & Grotpeter, 1995, 1996; Prinstein et al., 2001).

Specific types of victimizations can cross constructs. For example, verbal victimization such as belittling because of looks or speech can be categorized as direct victimization but also as indirect victimization if it is used to harm the victim through a third party (Hawker & Boulton, 2000). It can also be considered relational victimization if it is used to exclude the victim. Similarly, the use of e-mail or Internet can be considered a direct (e.g., cursing the victim directly) or an indirect (e.g., spreading rumors on a public chat) form of victimization. Another difficulty in differentiating between the different types of peer victimization is that relational victimization may include both direct and indirect forms. Lastly, in light of the crosssectional design, causality cannot be determined from the associations between peer victimization and depression/suicidiality.

# Clinical Implications

Our findings suggest that specific types of peer victimization are a prevalent and serious problem among high school students. All types of victimization are associated with high risk of depression, serious suicidal ideation, and suicide attempts. Morover, the more types of victimization the teen experiences the higher the risk. Our results emphasize that peer victimization may be a marker of suicidal behavior and that school-based suicide prevention programs should include the reduction of peer victimization because of its association with suicidality. Any intervention should target the specific forms of peer victimization.

One possible theory that might at least in part explain the relation of peer victimization to depression and suicidality is the self-concept perspective. From this perspective, the central, most damaging impact of peer victimization is on self-concept. Studies have shown that victimized children and adolescents have a more negative self-concept than children who are not victimized by their peers (Mizell, 2003; O'Moore & Kirkham, 2001). Similarly, suicidal adolescents have been shown to have a negative self-concept

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compared to adolescents who are not suicidal (Brunstein Klomek, Orbach, Meged, & Zalsman, 2005). As such, interventions and prevention strategies that focus on enhancing self-concept may reduce peer victimization as well as depression and suicidality among adolescents. Assessments of suicidal tendencies

among high school students should consider peer victimization as a potential risk factor. Conversely, when evaluating victimized students, especially those victimized in multiple forms, it is important to assess depression, serious suicidal ideation, and suicide attempts.

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