JoLynn V. Carney, Ph.D., *is an associate professor of counselor education with the Pennsylvania State University, University Park. E-mail: jcarney@psu.edu*

Perceptions of Bullying and Associated Trauma During Adolescence

Connections between exposure to bullying and trauma were explored with 91 sixth-grade adolescents who experienced exposure to bullying in a school environment. Levels of trauma were rated as high with greater exposure to bullying. Significant predictors were frequency of exposure to bullying and participant sex. Implications for school counselors working with students who experience bullying-related trauma are discussed.

Bullying impacts everyone exposed to it (Baldry, 2004; Espelage & Swearer, 2004; Rigby, 2000) and can lead to physical, biological, psychological, emotional, cognitive, and social consequences (Casey-Cannon, Hayward, & Gowen, 2001; Demaray, Malecki, & DeLong, 2006; Juvonen, Nishina, & Graham, 2001; Rigby, 2002; Wigfield, Lutz, & Wagner, 2005). Newman, Holden, and Delville (2005) suggested that being a victim of bullying is a chronic stressor that often results in traumatic responses. Even though adults might view bullying as a minor form of traumatic exposure, the risk of not intervening would seem particularly important when considering how developmentally vulnerable to bullying youth might be (Boney-McCoy & Finkelhor, 1995). The purpose of this study was to explore potential connections between bullying and trauma levels involved with adolescents in a school environment. This information is thought to have significant value for school counselors who face the consequences of bullying among their middle school-aged students on a daily basis.

A commonly recognized definition of bullying was used in this study (Cole, Cornell, & Sheras, 2006; Rigby, 2002). The definition contains several components that identify a situation as bullying including when *harm* is done, an *unfair match* exists, and the actions are *repeated* over time. Trauma was defined in this study as an emotionally painful, distressful, or shocking experience that might result in lasting impact on individuals involved in the situation (Weathers & Keane, 2007). Cognitive and behavioral aspects of trauma are specifically examined. Research into children's exposure and trauma responses to acts of community and school violence has developed rapidly in the past decade (Davidson, Inslicht, & Baum, 2000). Specifically, school violence that can traumatize students takes many forms from violence against property (e.g., vandalism) to violence against people in the form of bullying, robbery, and school shootings (Cantor & Wright, 2001).

Children and adolescents seem particularly vulnerable to trauma. The impact on development has been shown to be significant and long-lasting (Carlisle & Rofes, 2007; Hazler, 1996; Novick & Novick, 2001; Olweus, 1996; Salmon & Bryant, 2002; Vermetten & Bremner, 2002). Repetitive exposure of even commonplace stressors such as bullying seems to influence the overall development of symptoms and severity of the individual's experiences (Bromet & Havenaar, 2002). These repeated traumatic events appear to disrupt the individual's sense of trust in self, others, and the world (Janson & Hazler, 2004; Singer, Anglin, Song, & Lunghofer, 1995), leaving him or her to suffer significant helplessness and/or fear (O'Brien, 1998). Chronic exposure to bullying appears to increase feelings of distress and has been linked to greater expressed physical, psychological, and emotional symptomology in children (Garbarino, 1999, 2001).

Youth may experience traumatic reactions to bullying through different pathways such as avoidance or intrusion of triggering stimuli. Youth reacting to trauma through avoidance may exhibit reluctance to (a) seek appropriate support or counseling, (b) mention the trauma to others, and/or (c) talk about the trauma when the topic is brought up by a supportive person. Students who are being bullied or who witness chronic bullying may use avoidance as an attempt at coping by repressing the intrusive thoughts and feelings about the abuse (O'Brien, 1998). Both victims and witnesses of bullying who are using avoidance as a defensive strategy may exhibit restricted/blunted affect, diminished or loss of interest in previously enjoyed activities and/or people, numbness, and avoidance of any stimuli that

trigger thoughts of the trauma (Davidson et al., 2000; O'Brien; Pelcovitz & Kaplan, 1996).

Intrusive traumatic reactions are thoughts triggered by a wide range of stimuli (Ehlers, Halligan, & Clark, 2005) that are defined as unwanted, distressing thoughts and feelings of the traumatic event (Brewin & Smart, 2005; Sundin & Horowitz, 2002). Bullying victims and witnesses who are plagued with intrusive thoughts and feelings might exhibit nightmares, waves of strong emotions, and anxiety as sudden vivid images of the experiences pop into their minds (Sundin & Horowitz). Some bullying victims and witnesses who suffer from intrusive trauma reactions may demonstrate repetitive and even compulsive behaviors such as repeated play that mirrors the bullying trauma (Davidson et al., 2000).

Bullying impacts everyone exposed to it and can lead to physical, biological, psychological, emotional, cognitive, and social consequences.

While bullying (Carney, 2005) and trauma reactions (Janson & Hazler, 2004) have long been a focus of international research, there is scarce literature on the specific combination of these variables. The core questions for this study are as follows:

- What do youth who are currently exposed to repetitive bullying believe their personal level of trauma might be after reading a hypothetical bullying scenario?
- What variables commonly associated with repetitive bullying experiences predict trauma levels as indicated by the Impact of Event Scale?

METHOD

Participants

Ninety-one sixth-grade students (55 females and 36 males) who were recruited from a rural school district in the Midwest were participants for this study. The overall school district had approximately 2,000 students with one middle school that had 200 sixth-grade students. Approximately 50% of the sixth-grade students volunteered to participate in this study. Students were initially recruited during their homeroom periods. The classroom teachers collected the parental informed consent forms returned by students. Participant ages ranged from 11 to 14 with a mean age of 11.46. Racial identifications included European American (85%) followed by African American (7%), American Indian (5%), and Other (1%). Two students did not report their racial identity.

The following information provides details about participants' experiences with bullying. Exposure to repetitive bullying either as a victim and/or witness in school was reported by all participants. Victims (n = 35) reported varying levels of chronicity, including almost every day (n = 6), several times a week (n = 1), once a week (n = 14), or only once or twice (n = 14). Witnesses (n = 68) reported chronicity including almost every day (n = 11), several times a week (n = 14), once a week (n = 33), or only once or twice (n = 10). Students reported varying types of bullying occurring in their school, including direct types identified as physical (n = 42) and verbal (n = 31) bullying as well as an indirect type identified as social (n = 18) bullying.

Procedures

The School Bullying Survey (SBS; Hazler, Hoover, & Oliver, 1991) and the Impact of Event Scale (IES; Horowitz, Wilner, & Alvarez, 1979) along with a bullying scenario (Carney, 2000) were administered in a counterbalanced fashion to students as a group in the school cafeteria. Prior to completion of the IES, students read a brief hypothetical bullying scenario and were then told to answer the IES *as if* they were the victim in the situation.

The hypothetical bullying scenario is used as a structured format that can indirectly identify student perspectives on sensitive issues by projecting personal thoughts and feelings onto the fictional characters. This reduces concern about divulging personal information to the researchers, school personnel, and parents, or being worried about right versus wrong answers. The use of a scenario in this study was designed to allow students the freedom to project their thoughts and feelings related to trauma and bullying without having to consider the social and personal implications for their responses.

The hypothetical scenario format was specifically used in this exploratory study for two reasons. First, no other research has been reported with students in schools to evaluate levels of trauma and exposure to bullying. Second, the school district administrators also were more willing to allow the collection of trauma data with this format especially as we could not provide previous examples of related children's trauma research being done in other schools. All students and parents received supportive contact information in case they experienced distress while participating in the study even with the scenario format.

Instruments

School Bullying Survey. The SBS (Hazler et al., 1991) has items that assess general demographic information (e.g., age, sex, grade, and race) and specific items related to being (a) a bully and/or (b) a victim and/or (c) a witness of bullying during the current academic year. The specific components of the SBS used for this study were the demographic information, a standardized definition of bullying, and four items. Two of the four items assessed the frequency of bullying exposure (i.e., as a victim and as a witness) experienced by the participants: "How often were you bullied at school?" Possible responses to this item included *not bullied, once or twice,*

once a week, several times a week, or *almost every day.* "How often did you see other students being bullied at school?" Responses to this item included *never, once or twice, once a week, several times a week,* or *almost every day.* Specific findings related to frequency of exposure are reported above in the "Participants" section.

The other two items assessed the type of bullying that participants experienced or observed: "In what way(s) have you been bullied at school this year?" "In what way(s) have you seen others being bullied at school this year?" Response categories for these items included *verbal,* such as hurtful names; *physical,* such as pushed, shoved, or hit; and *social,* such as isolation from peer group and rumors. Specific findings related to types of bullying are reported above in the "Participants" section.

The SBS has been used in previous research on bullying (Carney, 2000; Hazler et al., 1991; Hoover, Oliver, & Hazler, 1992) although no validity or reliability scores have been reported. The instrument provides a consistent standardized definition of bullying to provide a common context for participants. *Bullying* means the following: (a) it is repeated (not just once) harm to others by hurting others' feelings through words or by attacking and physically hurting others; (b) it may be done by one person or by a group; (c) it happens on the school grounds or on the way to and from school; and (d) it is an unfair match (i.e., the person doing the bullying is physically stronger or better with words or making friends than the person being bullied).

Hypothetical bullying scenario. A case of direct bullying was represented through a hypothetical bullying scenario (Carney, 2000; see Appendix A). The scenario represents the common types of bullying in middle schools that researchers have documented for more than a decade. Development of the scenario was conducted through a pilot study (N = 28) to evaluate the extent to which the content of the scenario represented the standardized definition of bullying (Carney). The scenario was identified by all pilot participants as being a clear case of bullying. A combination of verbal and physical bullying was used in the scenario so that both male and female participants could resonate with the type(s) of bullying in the scenario. Verbal taunts are alluded to in order for participants to picture name calling from their own experiences. The physical component is kept to a minimum with no significant fighting depicted so that participant overreaction to the graphic content would be limited while still identifying with common physical bullying such as shoving.

Gender-free fictional characters were created (bully, Aaron; victim, Ricki). Ricki is designed as a chronic victim of verbal and physical bullying who exhibits signs of hopelessness, helplessness, isolation, poor interpersonal skills, and low self-esteem. Aaron is framed as an aggressive bully who always hangs out with a gang of kids. The hypothetical scenario was used in conjunction with the IES in order to allow the students to project the level of trauma they would be feeling *if* they were in Ricki's situation.

Impact of Event Scale. The IES (Horowitz et al., 1979; see Appendix A) is currently one of the most widely used self-report instruments on trauma in the scholarly literature. The theoretical foundation of the IES is based on the understanding that exposure to trauma evokes a patterned response to stress of intrusive experiences (e.g. nightmares, unwanted thoughts and imagery connected with the event) and avoidance to ward off intrusive phenomena (e.g., avoiding places and/or conversations that might trigger the trauma, self-medicating with alcohol/drugs to reduce trauma symptoms) (Horowitz, 1976).

The instrument is easily administered and scored. The directions for the IES in this study were shifted slightly as participants were asked to respond to the items *as if* they were the victim. All other components of the IES remained intact. There is precedent in the scholarly literature of adaptations being made to the IES to fit various research studies (Sundin & Horowitz, 2003). It is important that these adaptations be reported and reliability of scores be assessed to ensure valid interpretation of findings (Weiss, 2004).

The IES consists of 15 items related to trauma reactions (e.g., "I would try not to talk about it," "Pictures about it would pop into my mind," and "I would have dreams about it"). Respondents report subjective level of severity (0 = *not at all*; 1 = *rarely*; 3 = *sometimes*; 5 = *often*). Responses can be summed to yield an overall score as well as two subscale scores (Avoidance and Intrusion). Ranges for total overall score are 0 to 75. Scores for the Intrusion subscale range from 0 to 35 and for the Avoidance subscale from 0 to 40.

Horowitz (1982) used total scale scores to identify thresholds for low, medium, and high symptom levels. Low symptom level equals less than 8.5; medium level ranges from 8.6 to 19; and high level is greater than 19. Other scoring methods for using the IES as a clinical assessment tool have been suggested. The ranges for the alternative scoring method are 0 to 8 subclinical range, 9 to 25 mild range, 26 to 43 moderate range, and 44-plus severe range (Devilly & Spence, 1999). Seven items of the Intrusion subscale and eight items of the Avoidance subscale correspond approximately to criteria B and C of the post-traumatic stress disorder (PTSD) diagnosis (American Psychiatric Association, 2000).

IES scores have been shown to be consistently reliable. Satisfactory reliability has been reported as Cronbach's alpha = .86 for the total IES (Horowitz,

Research into children's exposure and trauma responses to acts of community and school violence has developed rapidly in the past decade.

Table 1. Correlation Coefficients for Regression Model Variables

	IES Total	Intrusion	Avoidance
Participant sex	.190*	.187*	.197*
Exposure to bullying	.294*	.268*	.246*
Bullying type—physical/nonphysical	.189*	.048	.265*
Bullying type—direct/indirect	.001	.127*	.032
IES Total	—	.874**	.895**
Intrusion		—	565**
Avoidance			—

Note. Participant sex: male = 1; female = 2. Exposure to bullying: once or twice = 1; once a week = 2; several times a week = 3; almost every day = 4. Bullying type: physical = 1; nonphysical verbal = 2; nonphysical social = 3. Bullying type: direct = 1; indirect = 2.
* Correlation significant at .05.
** Correlation significant at .01.

Bullying victims who are plagued with intrusive thoughts and feelings might exhibit nightmares, waves of strong emotions, and anxiety as sudden vivid images of the experiences pop into their minds.

1982), and .82 for Avoidance and .78 for Intrusion (Horowitz et al., 1979). Test-retest reliability has shown internal reliabilities to be consistent across studies (Sundin & Horowitz, 2002). The IES has been shown through extensive research to be correlated with similar instruments that measure distress such as the Clinician Administered PTSD Scale, the Symptom Checklist-90, the General Health Questionnaire, and the Beck Depression Inventory (Joseph, 2000; Sundin & Horowitz, 2002, 2003).

In this study, Cronbach's alpha (Cronbach, 1951) was calculated for total and subscale scores. All were found to be acceptable and similar to other reported scores with total IES α = .86 (confidence interval = .808–.897), Intrusion α = .83 (confidence interval = .757–.872), and Avoidance α = .78 (confidence interval = .709–.846).

RESULTS

Research Question 1

Research question 1 focused on the level of trauma that students believed they might experience after reading a hypothetical bullying scenario. Their responses as they placed themselves in Ricki's situation resulted in a mean Total IES score of 31.6 (*SD* = 14.2), which would be rated "high" according to Horowitz's (1982) threshold for high symptom levels. Intrusion subscale scores resulted in a mean of 13.0 (*SD* = 8.3), and the Avoidance subscale mean was 18.6 (*SD* = 8.9).

Use of a *t* test identified statistically significant higher Total trauma scores (t = 3.47, p = .05; Cohen's d = .61) for females (n = 51; M = 34.1, SD = 12.2) as compared to males (n = 33; M = 28.1, SD = 6.8). The Avoidance subscale also showed statistically significantly higher scores (t = 5.97, p = .017; Cohen's d = .45) for females (M = 20.1, SD = 7.77) as compared to males (M = 16.4, SD = 10.3). No significant statistical difference was found between female (M = 14.3, SD = 8.1) and male (M = 11.2, SD = 8.3) participants on the Intrusion subscale. Tests of significance also were run to analyze differences in trauma scores within the race variable. No statistical significance was found among the groups African American (M = 25.8, SD = 13.6), European American (M = 32.9, SD = 14.2), and American Indian (M = 22.4, SD = 9.8).

Research Question 2

Research question 2 focused on which variables commonly associated with repetitive bullying predict trauma levels as indicated by IES scores. Multiple regression was selected as the analysis for this question to examine the impact of predictor variables on trauma reactions. A power analysis was conducted in order to determine the appropriate sample size for this analysis. Power for multiple regression was estimated by the formula $50 + 8(m)$ where m is the number of predictor variables, with a medium effect size and power of .80 (Tabachnick & Fidell, 2001). The current study includes four predictor variables (two types of bullying categories, the frequency of exposure, and participant sex), so the formula dictates a minimum of 82 participants before analysis can be conducted with confidence. The sample size of 91 participants for the current study meets this criterion.

The predictor variables (frequency of exposure, participant sex, and bullying type) were selected based on research and theory that suggest a potential relationship to degree of trauma (Crick &

Table 2. Four-Factor Regression Model for IES Scores

Model	Beta	*t*	Significance	Structure Coefficients
IES Total				
(Constant)		–.440	.661	
Bullying type—physical/nonphysical	–0.049	–.316	.753	.45762
Bullying type—direct/indirect	–0.154	–1.021	.311	–.00242
Exposure	.400	2.0478	.016	.71186
Participant sex	.235	2.009	.049	.46004
IES Intrusion				
(Constant)		.032	.974	
Bullying type—physical/nonphysical	–.170	–1.313	.262	.12435
Bullying type—direct/indirect	–.045	–.310	.757	.32902
Exposure	.382	2.492	.015	.69430
Participant sex	–.210	–1.807	.075	.48446
IES Avoidance				
(Constant)		1.526	.132	
Bullying type—physical/nonphysical	.118	.762	.449	.69191
Bullying type—direct/indirect	–.136	–.894	.375	.08355
Exposure	.261	1.599	.115	.64230
Participant sex	–.204	–1.737	.087	.51436

Grotpeter, 1995; Janson & Hazler, 2004; Wolke, Woods, Bloomfield, & Karstadt, 2000). The categorical variables of exposure to bullying, participant sex, and bullying type were dummy coded for the analysis. Bullying type (verbal, physical, and social) was further categorized for analysis as follows: *direct* (i.e., physical and/or verbal bullying) versus *indirect* (i.e., social isolation and/or spreading rumors), and *physical* (i.e., kicking, shoving, hitting) versus *nonphysical* (i.e., social/verbal). Exposure was defined through SBS frequency questions that had four levels of responses (once or twice, once a week, several times a week, or almost every day). Participant sex is biological sex and represented through the terms *male* and *female*.

A correlation matrix (see Table 1) demonstrates relationships among the variables used in the regression model. The regression model for IES Total score predicted an R of .413 (R^2 = .171, SEE = 13.56), which was significant (df = 4, F = 3.146, p = .02) based on results of a follow-up analysis of variance (ANOVA). Seventeen percent of the total variance in trauma was predicted through a combination of sex, bullying type, and exposure to bullying. The greatest contributors to the significance of the regression model through examination of the predictor variable coefficients were participant sex and exposure to bullying. Additional analysis of structure coefficients also indicated that exposure was the noteworthy predictor of Total IES score (see Table 2).

The regression model for IES Intrusion subscale scores predicted R = .386 (R^2 = .15, SEE = 7.66), which was found to be significant (df = 4, F = 2.801, p = .03) based on results of a follow-up ANOVA. The model for IES Avoidance subscale scores predicted R = .383 (R^2 = .147, SEE = 8.25), which was found to be significant (df = 4, F = 2.665, p = .04) based on results of a follow-up ANOVA (see Table 2).

Examination of the coefficients relating each of the predictor variables to the IES Total regression formula demonstrated that by far the greatest contributor to the significance of the regression model

was exposure to bullying. Additional analysis of structure coefficients also indicated that exposure was a noteworthy predictor of trauma (see Table 2). Examination of structure coefficients for both subscales indicated that exposure was also the greatest contributor to the significance for Intrusion, but not Avoidance. Participant sex was the second greatest contributor for both Intrusion and Avoidance subscales.

DISCUSSION

The most significant outcome from this study is that frequency of exposure to bullying events was the greatest factor in predicting trauma level. Results suggest that if the participants were in Ricki's situation, they would be experiencing significant feelings of trauma. These findings are consistent with other studies showing the traumatic impact of bullying on everyone regardless of roles whether bullies, victims, bully/victims (Baldry, 2004; Carney, 2000; Rigby, 2002), or bystanders (Janson & Hazler, 2004).

The most significant outcome from this study is that frequency of exposure to bullying events was the greatest factor in predicting trauma level.

Female students had higher scores on the IES than males on the Total scale and the Avoidance subscale, but not on the Intrusion subscale. One explanation might be that female students responded more to the physical type of bullying in the scenario even though care was taken in the development of the hypothetical case study to minimize the level of physical violence. The female participants might have seen Ricki being grabbed and shoved as different and therefore more disturbing from the more commonly female-experienced verbal/social bullying.

Higher ratings of trauma by females as compared to males on the Avoidance subscale but not on the Intrusion subscale present an interesting finding. Female students may have seen avoidance as a viable coping mechanism for themselves. The Intrusion subscale score was lower than the Avoidance subscale score for males and females. It would seem that if they were in Ricki's situation, both the boys and the girls saw themselves as having less intrusive reactions to the bullying (i.e., having thoughts pop into their heads or experiencing dreams with bullying content).

Some limitations of the study are important to mention. Participants were sixth-grade students in one rural, homogeneous, Midwestern middle school with few students representing racial or ethnic diversity. The results were, however, found to be consistent with other studies. Replication with a larger and more diverse sample of middle school students exposed to chronic bullying is needed. An additional limitation was the use of the hypothetical scenario, which provided an opportunity for students to project their perceptions onto the fictional victim rather than directly evaluating their own experiences.

Future research, if permission can be gained from school administrators, might assess actual trauma levels of students exposed to bullying rather than gaining an estimate through the use of the hypothetical character. Further investigation into coping strategies such as avoidance versus intrusion also might provide important information into understanding the relationship between bullying and trauma. The original IES was chosen for this study due to its extensive use with children, the precedent for adapting the scale, and its well-established psychometric properties. Still, there are several other versions of the IES available to use with youth such as the Children's Revised Impact of Event Scale, which has 8-item and 13-item versions. Future researchers may want to consider assessing the psychometric properties of scores for this revised scale.

IMPLICATIONS FOR SCHOOL COUNSELORS

School counselors daily encounter the consequences of bullying and other forms of violence among students (Hermann & Finn, 2002). They are crucial in developing a safe environment where less abuse and trauma occur and where more students are successful (Rigby, 2006; Wigfield et al., 2005). Results clearly demonstrate the need for these counselor roles. The overall level of believed trauma as rated by the participants who imagined themselves as the victim was high on the Horowitz (1982) symptomology scale and moderate on Devilly & Spence's (1999) interpretation scale. Typically with these IES levels, a student could benefit from professional attention provided by the school counselor and/or possible referral to a community resource. The widespread nature of the results encompassing victims and witnesses affirms the need for school counselors to provide targeted intervention strategies to specific students and universal prevention programming to enhance the whole school environment (Wigfield et al.).

Counseling a student who is experiencing high levels of bullying trauma can therapeutically be accomplished through a brief solution-focused approach (Newsome, 2005; Sklare, 2005). Avoidance may be an initial way to deal with trauma, but it can be unproductive as the only means of coping. Counselors can encourage children to develop productive coping mechanisms and appropriate methods for managing the anxiety that accompanies trauma. Expanding students' means of coping beyond only an avoidance strategy would be helpful for trauma related to bullying and also future anxiety-provoking experiences.

Assessment of students who are dealing with significant intrusive thoughts is a prudent course of action for school counselors (Stallard, Velleman, & Baldwin, 1999). Intrusive thoughts may be very stressful to individuals experiencing this type of trau-

matic reaction, and uncontrollable intrusive thoughts have been linked to the development of mental health issues such as depression and lower overall level of well-being (Douglas, Craig, & Baum, 1999). Early recognition and brief solution-focused approaches (Newsome, 2005) can help students learn to cope with these intrusive experiences.

School counselors also can use various problem-solving strategies such as the STOPP problem-solving model (Orpinas & Horne, 2006), problem-based learning (Hall, 2006), or "Promoting Issues in Common" (PIC; Hazler, 1996). The purpose of these programs is to increase students' ability to deal with the impact of bullying. STOPP provides specific guidelines that are easy for students to understand and remember when faced with bullying situations: S = stop, T = think, O = options, P = plan, and P = plan working (Orpinas & Horne). Problem-based learning provides similar decision-making strategies that students can productively use to deal with bullying (Hall). PIC was developed specifically for school counselors working directly with bullies and victims and provides guidance through various intervention stages (Hazler). Students who are targets of chronic bullying as well as their families can be referred to community counselors for continued intervention (Orpinas & Horne).

Findings also support the use of universal bullying programs that involve all students because trauma was widespread among witnesses as well. Results suggest that victims and witnesses might benefit from activities that emphasize self-care for feelings of trauma with specific information on how to deal with those feelings. Programming for students provides the opportunity for them to talk about the issue of bullying within a classroom environment so that students can realize they are not alone in their reactions to bullying. Programming activities also teach students the skills to gain a greater sense of control of their abuse experiences (Hazler, 1996; Hazler & Carney, 2006), which can be quite helpful in resolving traumatic feelings associated with bullying.

The findings from this study suggest that bullying as a form of chronic repetitive abuse might produce traumatic reactions in both victims and witnesses. The implications of these findings support other research (e.g., Janson & Hazler, 2004) indicating that both experiencing and watching repetitive abuse must be taken seriously. Bullying and its traumatic impact can lead to physical, biological, psychological, emotional, cognitive, and social consequences that have long-term effects. Future research is needed to more thoroughly understand the relationship between bullying and trauma.

References

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.

Baldry, A. C. (2004). The impact of direct and indirect bullying on the mental and physical health of Italian youngsters. *Aggressive Behavior, 30*, 343–355.

Boney-McCoy, S., & Finkelhor, D. (1995). Psychosocial sequelae of violent victimization in a national youth sample. *Journal of Consulting & Clinical Psychology, 63,* 726–736.

Brewin, C. R., & Smart, L. (2005). Working memory capacity and suppression of intrusive thoughts. *Journal of Behavior Therapy Experimental Psychiatry, 36,* 61–68.

Bromet, E. J., & Havenaar, J. M. (2002). Mental health consequences of disasters. In N. Sartorius & W. Gaebel (Eds.), *Psychiatry in society* (pp. 241–261). New York: Wiley.

Cantor, D., and Wright, M. M. (2001). *School crime patterns: A national profile of U.S. public high schools using rates of crime reported to police. Report on the Study of School Violence and Prevention.* Washington, DC: U.S. Department of Education, Planning and Evaluation Service.

Carlisle, N., & Rofes, E. (2007). School bullying: Do adult survivors perceive long-term effects? *Traumatology, 13,* 16–26.

Carney, J. V. (2000). Bullied to death: Perceptions of peer abuse and suicidal behavior during adolescence. *School Psychology International, 21,* 44–54.

Carney, J. V. (2005). Factor structure of the bullying situations identification (BSI) instrument. *Journal of School Violence, 4,* 77–92.

Casey-Cannon, S., Hayward, C., & Gowen, K. (2001). Middle-school girls' reports of peer victimization: Concerns, consequences, and implications. *Professional School Counseling, 5*, 138–147.

Cole, J. C. M., Cornell, D. G., & Sheras, P. (2006). Identification of school bullies by survey methods. *Professional School Counseling, 9*, 305–313.

Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development, 66,* 710–722.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16,* 297–334.

Davidson, L. M., Inslicht, S. S., & Baum, A. (2000). Traumatic stress and posttraumatic stress disorder among children and adolescents. In M. Lewis (Ed.), *Handbook of developmental psychopathology* (pp. 723–737). New York: Kluwer Academic/Plenum.

Demaray, M. K., Malecki, C. K., & DeLong, L. K. (2006). Support in the lives of aggressive students, their victims and their peers. In S. R. Jimerson & M. J. Furlong (Eds.), *The handbook of school violence and school safety: From research to practice* (pp. 21–30). Mahwah, NJ: Erlbaum.

Devilly, G. J., & Spence, S. H. (1999). The relative efficacy and treatment distress of EMDR and a cognitive behavior trauma treatment protocol in the amelioration of post traumatic stress disorder. *Journal of Anxiety Disorders, 13,* 131–157.

Douglas, A. L., Craig, K. J., & Baum, A. (1999). Assessment of characteristics of intrusive thoughts and their impact on distress among victims of traumatic events. *American Psychosomatic Medicine, 61,* 38–48.

Ehlers, T. M., Halligan, S. L., & Clark, D. M. (2005). Unwanted memories of assault: What intrusion characteristics are associated with PTSD? *Behaviour Research and Therapy, 43*, 613–628.

Espelage, D. L., & Swearer, S. M. (Eds.). (2004). *Bullying in American schools: A social-ecological perspective on prevention and intervention.* Mahwah, NJ: Erlbaum.

The implications of these findings support other research indicating that both experiencing and watching repetitive abuse must be taken seriously.

Garbarino, J. (1999). The effects of community violence on children. In L. Balter & C. S. Tamis-LeMonda (Eds.), *Child psychology: A handbook of contemporary issues* (pp. 412–425). Philadelphia: Psychology Press.

Garbarino, J. (2001). An ecological perspective on the effects of violence on children. *Journal of Community Psychology, 29,* 361–378

Hall, K. R. (2006). Using problem-based learning with victims of bullying behavior. *Professional School Counseling, 9,* 231–237.

Hazler, R. J. (1996). *Breaking the cycle of violence: Interventions for bullying and victimization.* Washington, DC: Accelerated Development.

Hazler, R. J., & Carney, J. V. (2006). Critical characteristics of effective bullying prevention programs. In S. R. Jimerson & M. J. Furlong (Eds.), *Handbook of school violence and school safety* (pp. 275–292). Mahwah, NJ: Erlbaum.

Hazler, R. J., Hoover, J. H., & Oliver, R. L. (1991). Student perceptions of victimization by bullies in schools. *Journal of Humanistic Education and Development, 29,* 143–150.

Hermann, M. A., & Finn, A. (2002). An ethical and legal perspective on the role of school counselors in preventing violence in schools. *Professional School Counseling, 6,* 46–54.

Hoover, R., Oliver, R., & Hazler, R. J. (1992). Bullying: Perceptions of adolescent victims in the Midwestern USA. *School Psychology International, 13*, 5–16.

Horowitz, M. J. (1976). *Stress response syndromes.* New York: Aronson.

Horowitz, M. J. (1982). Stress response syndromes and their treatment. In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 711–732). New York: Free Press.

Horowitz, M. J., Wilner, N., & Alvarez, W. (1979). Impact of Event Scale: A measure of subjective stress. *Psychosomatic Medicine, 41*, 209–218.

Janson, G. R., & Hazler, R. J. (2004). Trauma reactions of bystanders and victims to repetitive abuse experiences. *Violence and Victims, 19,* 239–255.

Joseph, S. (2000). Psychometric evaluation of Horowitz's Impact of Event Scale: A review. *Journal of Traumatic Stress, 13,* 101–113.

Juvonen, J., Nishina, A., & Graham, S. (2001). Self-views and peer perceptions of victim status among early adolescents. In J. Junoven & S. Graham (Eds.), *Peer harassment in schools: The plight of the vulnerable and victimized* (pp. 105–124). New York: Guilford Press.

Newman, M. L., Holden, G. W., & Delville, Y. (2005). Isolation and the stress of being bullied. *Journal of Adolescence, 28,* 343–357.

Newsome, S. W. (2005). The impact of solution-focused brief therapy with at-risk junior high school students. *Children and Schools, 27,* 83–90.

Novick, J., & Novick, K. K. (2001). Trauma and deferred action in the reality of adolescence. *American Journal of Psychoanalysis, 61,* 43–61.

O'Brien, L. S. (1998). *Traumatic events and mental health.* Cambridge, United Kingdom: Cambridge University Press.

Olweus, D. (1996). Bully/victim problems at school: Fact and effective intervention. *Journal of Emotional and Behavioral Problems, 5,* 15–22.

Orpinas, P., & Horne, A. M. (2006). *Bullying prevention: Creating a positive school climate and developing social competence.* Washington, DC: American Psychological Association.

Pelcovitz, D., & Kaplan, S. (1996). Post-traumatic stress disorder in children and adolescents. *Child and Adolescent Psychiatric Clinics of North America, 5,* 449–469.

Rigby, K. (2000). Effects of peer victimization in schools and perceived social support on adolescence well-being. *Journal of Adolescence, 23,* 57–68.

Rigby, K. (2002). *New perspectives on bullying.* Philadelphia: Jessica Kingsley Publishers.

Rigby, K. (2006). What we can learn from evaluated studies of school-based programs to reduce bullying in schools. In S. R. Jimerson & M. J. Furlong (Eds.), *The handbook of school violence and school safety: From research to practice* (pp. 325–337). Mahwah, NJ: Erlbaum.

Salmon, K., & Bryant, R. A. (2002). Posttraumatic stress disorder in children: The influence of developmental factors. *Clinical Psychology Review, 22,* 163–188.

Singer, M. I., Anglin, T. M., Song, L. Y., & Lunghofer, L. (1995). Adolescents' exposure to violence and associated symptoms of psychological trauma. *Journal of the American Medical Association, 273,* 477–482.

Sklare, G. B. (2005). *Brief counseling that works: A solution-focused approach for school counselors and administrators* (2nd ed.). Thousand Oaks, CA: Corwin Press.

Stallard, P., Velleman, R., & Baldwin, S. (1999). Screening of children for post-traumatic stress disorder. *Journal of Child Psychology and Psychiatry, 40,* 1075–1082.

Sundin, E. C., & Horowitz, M. J. (2002). Impact of Event Scale: Psychometric properties. *British Journal of Psychiatry, 180*, 205–209.

Sundin, E. C., & Horowitz, M. J. (2003). Horowitz's Impact of Event Scale evaluation of 20 years of use. *Psychosomatic Medicine, 65*, 870–876.

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston: Allyn and Bacon.

Vermetten, E., & Bremner, J. D. (2002). Circuits and systems in stress: II. Applications to neurobiology and treatment in posttraumatic stress disorder. *Depression & Anxiety, 16,* 14–38.

Weathers, F. W., & Keane, T. M. (2007). Controversies and challenges in defining and measuring psychological trauma. *Journal of Traumatic Stress, 20,* 107–121.

Weiss, D. S. (2004). The Impact of Event Scale–Revised. In J. P. Wilson & T. M. Keane (Eds.), *Assessing psychological trauma and PTSD* (2nd ed., pp. 168–189). New York: Guilford Press.

Wigfield, A., Lutz, S. L., & Wagner, A. L. (2005). Early adolescents' development across the middle school years: Implications for school counselors. *Professional School Counseling, 9,* 112–119.

Wolke, D., Woods, S., Bloomfield, L., & Karstadt, L. (2000). The association between direct and relational bullying and behaviour problems among primary school children. *Journal of Child Psychology and Psychiatry, 41*, 989–1002.

APPENDIX A

Hypothetical Bullying Scenario

What if you were in this situation?
The kids hanging around with Aaron laugh, make noises, and call Ricki names. Ricki tries to walk past the gang of kids as quickly as possible, thinking, "I'll just keep my head down and hope no one pays attention to me." For Ricki, the embarrassment is as bad as the actual confrontation.

Aaron leaves the gang of friends to catch up with Ricki. Aaron gets in Ricki's face, grabbing both arms and pushing hard. "Let's go over here where we can be alone and talk about sharing that money."

Ricki does not resist when Aaron takes the money. This has happened to Ricki many times before. Aaron embarrasses Ricki like this or takes Ricki's money often. Ricki worries about it every day.

Imagine yourself in Ricki's position. Please answer the questions on the next page to describe how you would feel or behave if you were Ricki and this story had happened to you.

APPENDIX A

Hypothetical Bullying Scenario

(*See scenario on previous page*)

Impact of Event Scale with Adapted Introductory Instructions
Imagine yourself in Ricki's situation from the example. Think about how you would feel if you were Ricki in a situation like this, not just once or twice, but repeatedly over a period of time.

Circle the number that matches how much you think you would be bothered by these difficulties *if* you were Ricki:

	Not at all	Rarely	Sometimes	Often
1. I would think about it when I didn't mean to.	0	1	3	5
2. I would avoid letting myself get upset when I thought about it or was reminded of it.	0	1	3	5
3. I would try to remove it from memory.	0	1	3	5
4. I would have trouble falling asleep or staying asleep because of pictures or thoughts that came into my mind.	0	1	3	5
5. I would have waves of strong feelings about it.	0	1	3	5
6. I would have dreams about it.	0	1	3	5
7. I would stay away from reminders of it.	0	1	3	5
8. I would feel as if it hadn't happened or it wasn't real.	0	1	3	5
9. I would try not to talk about it.	0	1	3	5
10. Pictures about it would pop into my mind.	0	1	3	5
11. Other things would keep making me think about it.	0	1	3	5
12. I would be aware that I still had a lot of feelings about it, but I wouldn't deal with them.	0	1	3	5
13. I would try not to think about it.	0	1	3	5
14. Any reminder would bring back feelings about it.	0	1	3	5
15. My feelings about it would be kind of numb.	0	1	3	5