



Contents lists available at ScienceDirect

# Child Abuse & Neglect



## Psychological distress as a risk factor for re-victimization in children<sup>☆</sup>

Carlos A. Cuevas<sup>a,\*</sup>, David Finkelhor<sup>b</sup>, Cynthia Clifford<sup>a</sup>, Richard K. Ormrod<sup>b</sup>,  
Heather A. Turner<sup>b</sup>

<sup>a</sup> College of Criminal Justice, Northeastern University, 204 Churchill Hall, 360 Huntington Avenue, Boston, MA 02115, USA

<sup>b</sup> Family Research Laboratory/Crimes Against Children Research Center, University of New Hampshire, Durham, NH, USA

### ARTICLE INFO

#### Article history:

Received 16 July 2008

Received in revised form 6 July 2009

Accepted 15 July 2009

Available online 20 March 2010

#### Keywords:

Victimization

Child abuse

Psychological distress

Re-victimization

Juvenile Victimization Questionnaire

### ABSTRACT

**Objective:** The goal of this study is to examine the role of psychological distress in predicting child re-victimization across various forms including conventional crime, peer/sibling violence, maltreatment, sexual violence, and witnessed violence.

**Methods:** Longitudinal data from the Developmental Victimization Survey, which surveyed children between the ages of 2 and 17 using random digit dial (RDD) methodology, was used to ask about child victimization and psychological distress. The sample for this analysis was 1,025 children who had experienced at least one form of victimization in the first wave of data collection.

**Results:** Results show that psychological distress (defined as a composite score of the depression, anger, and anxiety scales) was a unique significant predictor of subsequent overall victimization, as well as victimization across the different categories of victimization (conventional crime, maltreatment, peer and sibling victimization, sexual victimization, and witnessed/indirect victimization), while controlling for demographic variables and prior year victimization.

**Conclusions:** These results suggest that the psychological consequences of victimization may also serve as precipitants for re-victimization. We discuss the implications this may have on the understanding of the psychological sequelae of victimization and its role in the risk of future victimization.

**Practice implications:** This research suggests that practitioners should expand the forms of victimization that are assessed when working with victimized children. Treatment should not only focus on alleviating psychological distress, but also on the role it may play in raising the risk for re-victimization. Treatment providers should be attentive to bolstering protective qualities when treating victimized children.

© 2010 Elsevier Ltd. All rights reserved.

### Introduction

Research in the area of victimization and childhood abuse has provided evidence for the connection between childhood abuse and victimization and their association with later re-victimization in adulthood (Arata, 2000; Desai, Arias, Thomson, & Basile, 2002; Doll, Koenig, & Purcell, 2004; Irwin, 1999). While this has increased our knowledge regarding the risk for

<sup>☆</sup> For the purposes of compliance with Section 507 of PL 104-208 (the "Stevens Amendment"), readers are advised that 100% of the funds for this program are derived from federal sources (this project was supported by Grant No. 2003-JN-FX-0064 awarded by the Office of Juvenile Justice and Delinquency Prevention, Office of Justice Programs, US Department of Justice). The total amount of federal funding involved is \$352,997. Point of view or opinions in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.

\* Corresponding author.

victimization and its lifetime course, there are a number of areas that continue to need additional investigation. Specifically, these include further understanding of re-victimization within childhood, psychological mechanisms associated with re-victimization risk, and expanding the different forms of victimization that are studied.

The research on re-victimization has historically emphasized sexual abuse, highlighting the risk for re-victimization in adulthood for individuals who are sexually abused in childhood. Recent reviews of this literature have discussed how childhood sexual abuse (CSA) is a risk factor for adult sexual re-victimization, with some research indicating that CSA severity may differentiate between re-victimized and non-re-victimized individuals (Classen, Palesh, & Aggarwal, 2005; Rich, Combs-Lane, Resnick, & Kilpatrick, 2004). Additional studies have also found that CSA is a risk factor for other forms of victimization in adulthood including physical assault and psychological maltreatment (Messman-Moore & Long, 2000; Noll, 2005). Research that has expanded beyond CSA has found that other forms of childhood maltreatment are also associated with re-victimization in adulthood. In the National Violence Against Women Survey (NVAWS) Tjaden and Thoennes (2000) found that individuals who were physically assaulted, sexually assaulted, and stalked in childhood had higher rates of the same form of victimization in adulthood. Analyzing the same NVAWS data, Desai et al. (2002) found that childhood physical and sexual abuse independently and in combination significantly increases the risk of adult victimization by both intimate partners and non-intimate perpetrators for both men and women. Other research has found that childhood victimization including physical abuse and witnessed violence result in an increased likelihood of experiencing sexual victimization (Siegel & Williams, 2003) and relationship violence (Gagne, Lavoie, & Hebert, 2005; Gladstone et al., 2004) in adulthood. Additionally, Irwin (1999) found that physical, emotional, and sexual abuse in combination was predictive of violent victimization in adulthood (although no one form of victimization was unique in predicting adulthood victimization).

While much of this research has emphasized childhood to adulthood re-victimization, studies examining re-victimization within childhood are showing a similar pattern suggesting that prior victimization is a risk factor for subsequent victimization. Previous work using our current sample found that children who are victimized are at a significantly increased risk to be victimized again a year later across multiple different forms of victimization (Finkelhor, Ormrod, & Turner, 2007c). These results are consistent with other research that has examined victimization within childhood and found that prior victimization, including sexual abuse, physical assault, witnessed victimization, neglect, and emotional abuse are predictive of subsequent victimization (Boney-McCoy & Finkelhor, 1995a; Fryer & Miyoshi, 1994; Hamilton & Browne, 1999; Swanson et al., 2002). Furthermore, some of this research indicates that a substantial proportion of the re-victimization occurs within a one-year period (Fryer & Miyoshi, 1994; Hamilton & Browne, 1999).

Researchers have proposed a number of theories to explain the mechanisms that lead to re-victimization. Finkelhor and Browne (1985) put forth the concept of “traumagenic dynamics” which outlined four factors (traumatic sexualization, betrayal, powerlessness, and stigmatization) that can help explain the difficulties victims of sexual abuse experience, including subsequent re-victimization. Koss and Dinero (1989) found support for the “vulnerability hypothesis” which suggests that vulnerability variables such as sexual abuse, sexual attitudes, alcohol use, and sexual activity place women at increased risk for victimization. In a theoretical discussion of the topic, Chu (1992) proposed the possibility that posttraumatic symptoms, particularly dissociation and numbing, might prevent victims from being aware of danger cues and exercising appropriate judgment. Focusing on sexual re-victimization, Breitenbecher (2001) reviewed most of the major theories to explain sexual re-victimization including spurious factors, situation or environmental variables, disturbed interpersonal relationships, cognitive attributions, self-blame and self-esteem, coping skills, perception of threat and trauma related symptomatology, and general psychological adjustment. This review of the literature concluded that the strongest empirical support was for the theory of threat perception, with modest support for theories focusing on situational factors and general psychological adjustment (Breitenbecher, 2001). Threat perception theories hypothesize that women with a history of sexual victimization have difficulty perceiving and responding to threats, placing them at greater risk of repeat victimization. Theories focusing on situational factors indicate that situational variables such as substance use, socioeconomic status, and number of consensual sex partners serve as risk factors for sexual re-victimization. General psychological adjustment theories, which are most in line with our current analysis, suggest that re-victimization is related to poorer psychological adjustment (Breitenbecher, 2001).

Given that our proposed analysis will focus on psychological distress, the empirical support focusing on the role of psychological distress merits attention. As with other research that has been mentioned, this work is predominantly based on the study of sexual abuse. Gidycz, Coble, Latham, and Layman (1993) found that childhood and adolescent victimization predicted adulthood victimization with depression and anxiety partially mediating the relationship between the childhood to adulthood and adolescence to adulthood re-victimization. However, this result was not supported in their subsequent investigation which examined the mediating role of psychological adjustment (depression and anxiety) on re-victimization (Gidycz, Hanson, & Layman, 1995). Partial support was found by Greene and Navarro (1998) who also found that depression and anxiety partially mediated re-victimization at particular time periods in their longitudinal design. One of the few studies that has examined maltreatment in general, found support for the mediating role of depression on re-victimization (Becker-Lausen, Sanders, & Chinsky, 1995). Although this line of research suggests that psychological distress may serve as a predictor or mediator of re-victimization, a primary limitation of all of these studies is that their participants were solely female college students, with the exception of the study by Becker-Lausen et al. (1995) whose college sample was approximately 70% female.

Other lines of research also provide support for the role of psychological distress in re-victimization experiences. For example, PTSD symptomatology has been found to be a mediator between CSA and adult sexual re-victimization (Arata, 2000; Risser, Hetzel-Riggin, Thomsen, & McCanne, 2006). Other research has found support for dissociation, self-esteem,

and impaired reality-detecting as possible mechanisms that might mediate the relationship between CSA and adult sexual victimization (Becker-Lausen et al., 1995; DePrince, 2005; Zurbriggen & Freyd, 2004). Our own research also suggests that psychiatric diagnosis, typically considered a consequence of victimization, may serve as a risk factor for subsequent victimization (Cuevas, Finkelhor, Ormrod, & Turner, 2009). In summary, what much of the research underscores is that the potential consequences of victimization, including psychological distress and psychological functioning, may in part be culprits that contribute to re-victimization risk.

The limitations of the research examining the connection between victimization and re-victimization primarily lie in the emphasis on childhood to adulthood victimization, historical focus on sexual abuse, lack of general population samples, and cross-sectional research designs. These limitations impair the examination of the theoretical mechanisms that may explain the connection between victimization and re-victimization. Furthermore, we need to expand this research by investigating other forms of victimization, and whether they follow the same pattern of re-victimization and similar psychological mechanisms. Finally, by examining re-victimization within childhood and using a longitudinal design, we can more clearly investigate victimization patterns beyond the childhood to adulthood re-victimization connection. Our analysis aims to address these issues by using a longitudinal design to examine re-victimization within childhood across various forms of victimization in addition to sexual abuse, including conventional crime, maltreatment, peer and sibling victimization, and witnessed/indirect victimization. In keeping with the empirical evidence, our primary hypothesis is that psychological distress will be a significant and unique predictor of subsequent re-victimization overall and for each different victimization types while controlling for demographic variables and prior victimization.

## Methods

### Participants

Participants for this study were individuals who participated in the Developmental Victimization Survey (DVS), a national telephone survey which aimed to comprehensively evaluate the victimization experiences of children ages 2–17 by obtaining 1-year incidence rates of victimization (Finkelhor, Ormrod, Turner, & Hamby, 2005b). The first wave of the DVS was conducted from December 2002 to February 2003 and resulted in a total sample of 2,030 participants. The second wave was conducted from December 2003 to May 2004, approximately 1 year after the first wave, evaluating victimization for a total of 1467 respondents (72.3% of the sample from the first wave). For the purpose of this analysis, only children who had experienced at least one form of victimization in Wave 1, and had also responded at Wave 2 were included, resulting in a total sample of 1,025 respondents. When comparing children lost to follow-up for the subsample used in this analysis, they were more likely to be Latino, of lower socioeconomic status, and younger (all  $p$ 's < .01). However, there were no significant differences on Wave 1 victimization or any of the psychological distress scales. These differences for children lost to follow-up are consistent with the differences found in the full DVS sample (Finkelhor et al., 2007c).

### Measures

*Demographic questionnaire.* The demographic questionnaire asked about background information on the child and household characteristics, including child age, gender, ethnicity and race, family structure, measures of socioeconomic status, and the character of residential locale. This information was obtained in an initial parental interview. Gender was coded with the higher value being female, while the race/ethnicity dummy codes were coded so that a higher value is the described racial/ethnic group. The socioeconomic status variable is based on the sum of the standardized household income and standardized parental education level scores, which was then re-standardized. All demographic data is reported for Wave 1 of the survey.

*Juvenile Victimization Questionnaire (JVQ).* The JVQ is an instrument developed by Hamby, Finkelhor, Ormrod, and Turner (2005) that allows for a comprehensive evaluation of childhood victimization. The instrument contains 34 screener questions that cover 5 general areas of victimization (referred to as “modules”): Conventional Crime, Child Maltreatment, Peer and Sibling Victimization, Sexual Assault, and Witnessing and Indirect Victimization. These categories were developed so they would better map onto the official categories typically used by law enforcement and child protective services (Finkelhor, Hamby, Ormrod, & Turner, 2005). This results in the separation of victimization experiences that are often under the same category in the child abuse literature. For example, physical abuse and neglect are under the Child Maltreatment module, while sexual assault by a known adult is under the Sexual Assault module. The screener questions ask about whether a particular victimization event occurred in the past year, with each module having between 4 and 8 screener questions. Prior to administering the JVQ, “time bounding” is addressed. This procedure leads participants through key events (e.g., last birthday, holidays, school-related events) to help them define the past year and minimize the possibility of inappropriately including or excluding events within the prescribed time frame (Hamby et al., 2005). Each of the screeners has follow up questions, inquiring about the perpetrator(s), weapon use, injury, and whether it was in conjunction with 1 of the other events asked about in the survey. For the purpose of our analysis number of types victimizations refers to the total JVQ screener count. When referencing a specific module, this is the screener count for that particular victimization category (e.g., “Conventional Crime” refers to how many of the 8 possible conventional crime victimizations were endorsed). The

rationale for using this method of measuring victimization is that in the JVQ the count of different types of victimization (i.e., different screeners) has been found to be more predictive of psychological distress than counts of multiple episodes of the same type of victimization (Finkelhor, Ormrod, Turner, & Hamby, 2005a).

The JVQ has shown acceptable psychometric properties with an alpha of .80 and overall test-retest reliability Kappas averaging .59, with the average Kappa for the child self-report version being .63 and for the caregiver proxy version being .50 (Finkelhor et al., 2005). Validity has been supported by moderate correlations between victimization and trauma symptoms (Finkelhor et al., 2005).

*Trauma Symptom Checklist for Young Children (TSCYC)/Trauma Symptom Checklist for Children (TSCC).* The TSCYC is a 90-item caretaker report measure of trauma and abuse related symptomatology for children between the ages of 3 and 12 (Briere et al., 2001). The instrument provides 2 reporter reliability measures and 8 clinical scales (Briere et al., 2001). The TSCC is a 54-item instrument that assesses posttraumatic and trauma related symptomatology in children and adolescents which has been normed for use with children between the ages of 8 and 17 (Briere, 1996b). The TSCC provides two validity scales and six clinical scales (Briere, 1996b). The TSCC asks the child how often each symptom has happened (with no specific time frame) while the TSCYC asks the caretaker how frequently the symptom has occurred in the past month. Both instruments use a 4-point Likert scale from 0 (never) to 3 (almost all the time). Due to the focus of the larger study and time restrictions on the survey, only the anger, depression, and anxiety scales were used for each instrument, with this analysis using the psychological distress score from Wave 1. For both of the instruments, the anger, anxiety and depression subscales have been shown to be reliable, with all alphas above .80 (Briere, 1996a, 1996b; Briere et al., 2001). The TSCC and the TSCYC have both found validity support across various samples of children and adolescents (Briere, 1996a, 1996b; Briere et al., 2001).

### Procedures

The participants were contacted using random digit dial (RDD) telephone survey methodology by an experienced survey research firm using a Computer Assisted Telephone Interview (CATI) system. Initially, an adult caregiver (usually a parent) responded to questions about family demographic information. After that, one child was randomly selected for the interview by choosing the child with the most recent birthday. For children between the ages of 2 and 9, the caregiver “most familiar with the child’s daily routine and experiences” was interviewed while children ages 10 and older self-reported on their experiences. Previous evaluation of the parent versus child reporting does not show that parents are any poorer reporters of the child’s victimization (Finkelhor et al., 2005). In the case of a child interview, consent was obtained from both the parent and the child prior to the interview. Respondents were promised complete confidentiality, and were paid \$10 for their participation. Children or parents who disclosed a situation of serious threat or ongoing victimization were re-contacted by a clinical member of the research team, trained in telephone crisis counseling, whose responsibility was to stay in contact with the respondent until the situation was resolved or brought to the attention of appropriate authorities. Detailed description of the data collection procedures can be found in Finkelhor et al. (2005). The Institutional Review Board of the University of New Hampshire authorized all procedures and the Northeastern University Institutional Review Board approved subsequent analyses of the collected data.

### Analysis strategy

Prior to conducting the main analysis, the Wave 1 raw scores for the anger, anxiety, and depression subscales on the TSCYC and the TSCC were converted to z-scores and then summed together to form an aggregate score of psychological distress. The decision to combine these scales was a result of the high intercorrelations ( $r$ 's ranging between .44 and .52) among the 3 subscales that suggest a high co-existence of these symptoms as well as possible inflation due to method variance. Such high intercorrelations are likely to result in multicollinearity when entered separately in a linear regression model. The correlational analysis was also used to evaluate bivariate relationships among the remaining predictor variables and the dependent variables. All bivariate correlations were consistent with the relationships observed in the multivariate models. Based on the design of the JVQ and in keeping with previous research with this data, the overall victimization as well as victimization within each category was a count of how many different forms (screeners) of victimization the individual had experienced in the past year (Finkelhor et al., 2005).

The main analyses were hierarchical regressions conducted to evaluate the relationship between demographic variables, number of types of victimizations at Wave 1, and psychological distress in Wave 1, and their prediction of the number of types of victimizations in Wave 2. This longitudinal design overcomes some limitations of cross-sectional studies in understanding the relationship between psychological distress and subsequent re-victimization.

## Results

### Descriptives

Of children ages 2–17 with data at both Wave 1 and Wave 2, 1,025 reported at least 1 incident of victimization at Wave 1. The average age was 10.3 years, with the sample relatively evenly split between girls (48.1%) and boys (51.9%). The

**Table 1**  
Victimization frequencies (N = 1025).

Frequency	Total % (N) (maximum: 34)	Conventional crime % (N) (maximum: 8)	Maltreatment % (N) (maximum: 4)	Peer/sibling % (N) (maximum: 6)	Sexual % (N) (maximum: 7)	Witness/indirect % (N) (maximum: 9)
Wave 1						
None	n/a	45.6 (467)	81.4 (834)	17.7 (181)	88.7 (909)	49.8 (510)
1–2	44.1 (442)	43.1 (442)	17.7 (182)	67.1 (688)	10.1 (104)	42.2 (433)
3–4	28.3 (290)	9.2 (95)	0.9 (9)	14.9 (152)	1.1 (11)	7.3 (74)
5 or more	27.6 (293)	2.1 (21)	n/a	0.4 (4)	0.1 (1)	0.8 (8)
Wave 2						
None	19.3 (198)	52.8 (541)	87.3 (895)	40.1 (411)	88.9 (911)	57.8 (592)
1–2	36.4 (373)	35.7 (366)	11.9 (122)	49.9 (512)	10.3 (105)	36.4 (373)
3–4	22.1 (226)	9.0 (93)	0.8 (8)	9.9 (102)	0.8 (8)	5.3 (54)
5 or more	22.2 (228)	2.5 (25)	n/a	0.0 (0)	0.1 (1)	0.6 (6)

study sample was primarily Caucasian (78.7%), followed by African-American (10.8%), and Latino/Hispanic (6.7%). Children in our subsample experienced an average of 3.6 ( $SD = 2.8$ ) different forms of victimization in Wave 1 and 2.9 ( $SD = 3.0$ ) new different forms of victimization in Wave 2. The difference in number of different form of victimizations across the 2 waves was significant,  $t(1,025) = 7.8, p < .01$ . Detailed victimization data are presented in Table 1.

### Multivariate models

Hierarchical regression models were conducted to examine the association between psychological distress in Wave 1 and the various victimization categories in Wave 2—total victimizations, conventional crime, maltreatment, peer/sibling victimization, sexual victimization, and witnessing/indirect victimization—while controlling for demographic variables including age, gender, SES, race/ethnicity, and number of types of victimizations at Wave 1. Of the control variables, child age was significantly associated with conventional crime victimization ( $\beta = -.10, p < .01$ ), peer/sibling victimization ( $\beta = -.33, p < .01$ ), sexual victimization ( $\beta = .16, p < .01$ ), and witnessed victimization ( $\beta = .25, p < .01$ ). Child gender was significantly associated with conventional crime victimization ( $\beta = -.09, p < .01$ ) and sexual victimization ( $\beta = .07, p < .05$ ). Also, Wave 1 overall victimization was a significant unique predictor of Wave 2 victimization across all of the victimization variables (standardized  $\beta$ 's ranging from .17 to .45, all  $p$ 's  $< .01$ ).

Psychological distress was a significant unique predictor for the following year scores of total number of victimizations ( $\beta = .17, p < .01$ ), conventional crime ( $\beta = .13, p < .01$ ), maltreatment ( $\beta = .17, p < .01$ ), peer/sibling victimization ( $\beta = .10, p < .01$ ), sexual victimization ( $\beta = .09, p < .01$ ), and witnessed victimization ( $\beta = .08, p < .01$ ). Detailed regression results are presented in Table 2.

### Discussion

The results support the hypotheses that psychological distress at Wave 1 would uniquely predict subsequent overall re-victimization, as well as different forms of victimization including conventional crime, maltreatment, peer/sibling victimization, sexual victimization, and witnessed victimization. Given the longitudinal design, this indicates that, even while controlling for demographic variables and prior victimization, psychological distress uniquely predicts subsequent victimization. Substantial research has shown that victimization leads to psychological distress and trauma symptomatology (e.g., Boney-McCoy & Finkelhor, 1995b; Briere & Elliott, 2003; Finkelhor, Ormrod, & Turner, 2007a). The current results also suggest that the same symptomatology that may be the sequelae of victimization can also serve as a precipitant to future victimization. Furthermore, our results show that this pattern is present in children from one year to the next. Given the literature that discusses re-victimization from childhood to adulthood, it is possible that those results mask a re-victimization pattern that may be an on-going experience throughout childhood, with adult re-victimization simply being a continuation of chronic childhood victimization.

A notable aspect of our analysis is that the effect of psychological distress on re-victimization was consistent across all measured types of victimization. As discussed, prior research has emphasized sexual re-victimization. It appears that other forms of victimization may function similarly in their re-victimization patterns and that psychological distress functions as a possible risk for these other forms of victimization as well. While our analysis does not directly address the issue of childhood to adulthood re-victimization, it does provide support for the notion that re-victimization may be more global and diverse, and not necessarily unique to any one particular type of victimization.

The results also shed light on some of the hypotheses that have attempted to explain why re-victimization occurs. It is possible that psychological symptomatology may erode protective qualities, and thus make children more vulnerable to future victimization. Alternatively, psychological distress symptoms may increase the risk of victimization due to stigmatization by peers or because these children may present a greater parenting challenge. However, these explanations may not function consistently across all forms of victimization. For example, maltreatment may be more likely to re-occur if

**Table 2**  
Multiple regression models predicting number of types of victimization in wave 2 (N = 1025).

Predictor <sup>a</sup>	Dependent variable (Wave 2 victimizations)																	
	Number of types of victimizations			Conventional crime			Maltreatment			Peer/sibling			Sexual			Witness		
	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β
Step 1																		
Age	-.03	.02	-.05	-.03	.01	-.10**	-.00	.00	-.02	-.08	.01	-.33**	.01	.00	.16**	.05	.01	.25**
Gender (F)	-.14	.16	-.02	-.21	.06	-.09**	.03	.02	.04	-.11	.06	-.05	.04	.02	.07*	.02	.06	.01
Caucasian	-.63	.43	-.09	-.26	.17	-.09	-.02	.05	-.02	-.05	.16	-.02	-.01	.05	-.01	-.02	.15	-.01
Af-Am	-.64	.49	-.07	-.20	.20	-.05	-.04	.06	-.04	-.39	.18	-.12*	.02	.06	.02	.25	.17	.08
Latino	-.80	.52	-.07	-.20	.21	-.04	-.05	.06	-.04	-.29	.20	-.07	-.07	.06	-.06	.12	.18	.03
SES	.06	.08	.02	.07	.03	.06*	-.01	.01	-.02	.06	.03	.06	.01	.01	.04	-.03	.03	-.03
Wave 1 victimization	.48	.03	.45**	.18	.01	.43**	.02	.00	.17**	.11	.01	.28**	.03	.00	.28**	.11	.01	.30**
Step 2																		
Wave 1 distress	.19	.03	.17**	.06	.01	.13**	.02	.00	.17**	.04	.01	.10**	.01	.00	.09**	.03	.01	.08**
R <sup>2</sup> change <sup>b</sup>			.02**			.01**			.02**			.01**			.01**			.01**
Full model R <sup>2</sup>			.29**			.26**			.08**			.20**			.15**			.22**

<sup>a</sup> All predictor variables are from Wave 1.

<sup>b</sup> R<sup>2</sup> change is incremental change from Step 1.

\*  $p < .05$ .

\*\*  $p < .01$ .



symptomatic children present a greater parenting challenge. Alternatively, peer/sibling victimization may be more likely to occur as a result of stigmatization while conventional crime victimization may be more likely to occur if there is a loss of protective qualities. Psychological distress may also result in giving the impression of vulnerability, which could result in perpetrators, whether they are children or adults, believing they have a greater chance of “success” with their victims. In part these explanations suggest that symptomatology may interact with the environment and result in an overall increased risk for re-victimization. While this supports some of the theories such as “traumagenic dynamics” put forth by Finkelhor and Browne (1985) and the “vulnerability hypothesis” suggested by Koss and Dinero (1989), it is quite possible that the symptomatology along with other factors work together to increase victimization risk.

Given that so much of the re-victimization research has focused on sexual violence, it should be noted that while psychological distress was predictive of sexual re-victimization, it had one of the smallest Beta weights in comparison to some of the other forms of maltreatment. While some of the dynamics that have attempted to explain the mechanisms behind adult sexual re-victimization may hold true, there are characteristics unique to sexual violence against children that may not fit some of the previously proposed theories. Children are more likely to be victimized by family members and caretakers (Finkelhor, Hotaling, Lewis, & Smith, 1990; Simon, Sales, & Kaszniak, 1992), and may have fewer protective resources available to them such as someone they feel safe to disclose to, or knowledge and resources to report to authorities. Hence, there may be additional external factors that could have greater relevance in re-victimization risk relative to other forms of victimization. Similarly, witnessed re-victimization, which also had one of the smallest Beta weights, may also have greater influence from external factors rather than psychological distress in increasing re-victimization risk. The experience of witnessed violence is often a result of neighborhood and environmental characteristics such as street violence or familial discord. These characteristics may play a greater role in re-victimization risk, whereas psychological distress, while still relevant, may not be as crucial. For example, a child may be experiencing psychological distress, in part as a result of witnessing domestic violence in the home, and thus the relationship between the distress and the re-victimization may be spurious and a result of the home environment, rather than specifically related to the presented psychological mechanisms.

In light of these results, clinicians and service providers may benefit their clients by shifting the overall view of the role of psychological distress in association with victimization. Rather than focusing on symptomatology primarily as a consequence, treatment providers should also emphasize that psychological distress can serve as a precipitant to victimization and work with clients to not only decrease symptoms, but also help bolster protective qualities and resources. Specifically, treatment should include working with both children and parents on how to improve symptom management, personal safety, and how to be proactive in self-care. The goal is not to give children the idea that they are responsible for their victimization, but to help them rebuild abilities that may have eroded as a result of having been victimized. Also, as Finkelhor, Ormrod, and Turner (2007b) have argued before with this line of research, and consistent with our results, treatment providers should assess for multiple different forms of victimization, beyond simply focusing on physical abuse, sexual abuse, and neglect. The cumulative effect of different forms of victimization has been shown to have greater impact on subsequent trauma-related symptoms than any one form of victimization (Finkelhor et al., 2007a) and our results suggest that those symptoms then help precipitate a continuation of these diverse victimization experiences.

There are a number of limitations in this analysis that merit discussion and serve as caveats to the interpretation of the results. First, we needed to combine the psychological symptomatology scales into a single psychological distress index. This decision was based primarily on the high overlap among the three symptom categories we measured which may have been inflated by method variance and limited our ability to examine each of them individually in a regression model. Furthermore, other forms of posttraumatic symptomatology were not evaluated, such as dissociation or hyperarousal. These symptoms may have differing effects on re-victimization risk as has been suggested in previous research (Arata, 2000; Breitenbecher, 2001; DePrince, 2005; Risser et al., 2006) and merit further investigation using longitudinal designs. Also, our data only allowed examination of re-victimization from one year to the next. Hence, any suggestions in regards to the long-term effect of psychological distress on victimization, or the link between childhood and adult victimization, could not be directly evaluated in our analysis. Also, our study did not evaluate other variables that could be associated with victimization, re-victimization, or psychological distress such as dysfunctional parenting or neighborhood characteristics. The presence of these factors could have provided a more comprehensive picture in understanding the role of psychological distress in re-victimization. Furthermore, since we do not have data prior to Wave 1, it is impossible to tease out the complexity of the victimization–distress connection. For example, it is possible that psychological distress preceded victimization in Wave 1 as well as Wave 2, or that it was a result of a non-victimization stressor that was not evaluated (e.g., familial poverty) making a conclusive causal argument impossible given the nature of our data. Finally, the disproportionate loss at follow-up of younger children, children of lower SES, and Latino children could arguably be resulting in a loss of children who are at higher risk for victimization or psychologically distressing experiences.

Another notable characteristic of our results is that although psychological distress was a significant predictor, in most models it accounted for a small amount of variance. There are a variety of explanations for this phenomenon. The most straightforward is that the role of psychological distress is small and not as important as other demographic, situational, or environmental factors. Alternatively, the role of psychological distress may be larger, but we were unable to see it due to the time gap between victimization experiences. The TSCC and TSCYC assess recent distress, while victimization experiences may have occurred as much as a year apart. The relationship could be stronger if we evaluate the distress and occurrence of re-victimization within a more narrow time span. This would suggest that it might be the experience, timing, and temporal stability of psychological distress that is also relevant in its relationship with re-victimization.

In spite of the mentioned limitations, our results clearly show that psychological distress can serve as a risk factor for subsequent victimization in childhood. This highlights the need for clinicians to broaden their assessment of victimization in the context of a comprehensive diagnostic and mental health assessment, as well as recognize the possibility that future victimization may be precipitated by mental health difficulties.

## References

- Arata, C. M. (2000). From child victim to adult victim: A model for predicting sexual revictimization. *Child Maltreatment*, 5, 28–38.
- Becker-Lausen, E., Sanders, B., & Chinsky, J. M. (1995). Mediation of abusive childhood experiences: Depression, dissociation, and negative life outcomes. *American Journal of Orthopsychiatry*, 65, 560–573.
- Boney-McCoy, S., & Finkelhor, D. (1995a). Prior victimization: A risk factor for child sexual abuse and for PTSD-related symptomatology among sexually abused youth. *Child Abuse & Neglect*, 19, 1401–1421.
- Boney-McCoy, S., & Finkelhor, D. (1995b). Psychosocial sequelae of violent victimization in a national youth sample. *Journal of Consulting and Clinical Psychology*, 63, 726–736.
- Breitenbecher, K. H. (2001). Sexual revictimization among women: A review of the literature focusing on empirical investigations. *Aggression and Violent Behavior*, 6, 415–432.
- Briere, J. (1996a). Psychometric review of the Trauma Symptom Checklist for Children. In B. H. Stamm (Ed.), *Measurement of stress, trauma, and adaptation*. Lutherville, MD: Sidran Press.
- Briere, J. (1996b). *Trauma Symptom Checklist for Children (TSCC) professional manual*. Odessa, FL: Psychological Assessment Resources.
- Briere, J., & Elliott, D. M. (2003). Prevalence and psychological sequelae of self-reported childhood physical and sexual abuse in a general population sample of men and women. *Child Abuse & Neglect*, 27, 1205–1222.
- Briere, J., Johnson, K., Bissada, A., Damon, L., Crouch, J., Gil, E., Hanson, R., & Ernst, V. (2001). The Trauma Symptom Checklist for Young Children (TSCYC): Reliability and association with abuse exposure in a multi-site study. *Child Abuse & Neglect*, 25, 1001–1014.
- Chu, J. A. (1992). The revictimization of adult women with histories of childhood abuse. *Journal of Psychotherapy Practice and Research*, 3, 259–269.
- Classen, C. C., Palesh, O. G., & Aggarwal, R. (2005). Sexual revictimization: A review of the empirical literature. *Trauma, Violence & Abuse*, 6(2), 103–129.
- Cuevas, C. A., Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2009). Psychiatric diagnosis as a risk marker for victimization in a national sample of children. *Journal of Interpersonal Violence*, 24, 636–652.
- DePrince, A. P. (2005). Social cognition and revictimization risk. *Journal of Trauma and Dissociation*, 6, 125–141.
- Desai, S., Arias, I., Thomson, M. P., & Basile, K. C. (2002). Childhood victimization and subsequent adult revictimization assessed in a nationally representative sample of women and men. *Violence and Victims*, 17, 639–653.
- Doll, L. S., Koenig, L. J., & Purcell, D. W. (2004). Child sexual abuse and adult sexual risk: Where are we now? In L. J. Koenig, L. S. Doll, A. O'Leary, & W. Pequegnat (Eds.), *From child sexual abuse to adult sexual risk: Trauma, revictimization, and intervention* (pp. 3–10). Washington, DC: American Psychological Association.
- Finkelhor, D., & Browne, A. (1985). The traumatic impact of child sexual abuse: A conceptualization. *American Journal of Orthopsychiatry*, 55, 530–541.
- Finkelhor, D., Hamby, S. L., Ormrod, R. K., & Turner, H. A. (2005). The Juvenile Victimization Questionnaire: Reliability, validity, and national norms. *Child Abuse & Neglect*, 29, 383–412.
- Finkelhor, D., Hotaling, G., Lewis, J. A., & Smith, C. (1990). Sexual abuse in a national survey of adult men and women: Prevalence, characteristics, and risk factors. *Child Abuse & Neglect*, 14, 19–28.
- Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2007a). Poly-victimization and trauma in a national longitudinal cohort. *Development & Psychopathology*, 19, 149–166.
- Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2007b). Poly-victimization: A neglected component in child victimization. *Child Abuse & Neglect*, 31, 7–26.
- Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2007c). Re-victimization patterns in a national longitudinal sample of children and youth. *Child Abuse & Neglect*, 31, 479–502.
- Finkelhor, D., Ormrod, R. K., Turner, H. A., & Hamby, S. L. (2005a). Measuring poly-victimization using the Juvenile Victimization Questionnaire. *Child Abuse & Neglect*, 29, 1297–1312.
- Finkelhor, D., Ormrod, R. K., Turner, H. A., & Hamby, S. L. (2005b). The victimization of children and youth: A comprehensive, national survey. *Child Maltreatment*, 10, 5–25.
- Fryer, G. E., & Miyoshi, T. J. (1994). A survival analysis of the revictimization of children: The case of Colorado. *Child Abuse & Neglect*, 18, 1063–1071.
- Gagne, M.-H., Lavoie, F., & Hebert, M. (2005). Victimization during childhood and revictimization in dating relationships in adolescent girls. *Child Abuse & Neglect*, 29, 1155–1172.
- Gidycz, C. A., Coble, C. N., Latham, L., & Layman, M. J. (1993). Sexual assault experience in adulthood and prior victimization experiences: A prospective analysis. *Psychology of Women Quarterly*, 17(2), 151–168.
- Gidycz, C. A., Hanson, K., & Layman, M. J. (1995). A prospective analysis of the relationships among sexual assault experiences: An extension of previous findings. *Psychology of Women Quarterly*, 19(1), 5–29.
- Gladstone, G. L., Parker, G. B., Mitchell, P. B., Malhi, G. S., Wilhelm, K., & Austin, M.-P. (2004). Implications of childhood trauma for depressed women: An analysis of pathways from childhood sexual abuse to deliberate self-harm and revictimization. *American Journal of Psychiatry*, 161, 1417–1425.
- Greene, D. M., & Navarro, R. L. (1998). Situation-specific assertiveness in the epidemiology of sexual victimization among university women. *Psychology of Women Quarterly*, 22, 589–604.
- Hamby, S. L., Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2005). *The Juvenile Victimization Questionnaire (JVQ): Administration and scoring manual*. Durham, NH: Crimes against Children Research Center.
- Hamilton, C. E., & Browne, K. D. (1999). Recurrent maltreatment during childhood: A survey of referrals to police child protection units in England. *Child Maltreatment*, 4, 275–286.
- Irwin, H. J. (1999). Violent and nonviolent victimization of women abused in childhood. *Journal of Interpersonal Violence*, 14, 1095–1110.
- Koss, M. P., & Dinero, T. E. (1989). Discriminant analysis of risk factors for sexual victimization among a national sample of college women. *Journal of Consulting and Clinical Psychology*, 57, 242–250.
- Messman-Moore, T. L., & Long, P. J. (2000). Child sexual abuse and revictimization in the form of adult sexual abuse, adult physical abuse, and adult psychological maltreatment. *Journal of Interpersonal Violence*, 15, 489–502.
- Noll, J. G. (2005). Does childhood sexual abuse set in motion a cycle of violence against women?: What we know and what we need to learn. *Journal of Interpersonal Violence*, 20, 455–462.
- Rich, C. L., Combs-Lane, A. M., Resnick, H. S., & Kilpatrick, D. G. (2004). Child sexual abuse and adult sexual revictimization. In L. J. Koenig, L. S. Doll, A. O'Leary, & W. Pequegnat (Eds.), *From child sexual abuse to adult sexual risk: Trauma, revictimization, and intervention* (pp. 49–68). Washington, DC: American Psychological Association.
- Risser, H. J., Hetzel-Riggin, M. D., Thomsen, C. J., & McCanne, T. R. (2006). PTSD as a mediator of sexual revictimization: The role of reexperiencing, avoidance, and arousal symptoms. *Journal of Traumatic Stress*, 19, 687–698.
- Siegel, J. A., & Williams, L. M. (2003). Risk factors for sexual victimization of women: Results from a prospective study. *Violence Against Women*, 9, 902–930.
- Simon, L. M., Sales, B., & Kaszniak, A. (1992). Characteristics of child molesters: Implications for the fixated-regressed dichotomy. *Journal of Interpersonal Violence*, 7, 211–225.



- Swanson, H. Y., Parkinson, P. N., Oates, R. K., O'Toole, B. I., Plunkett, A. M., & Shrimpton, S. (2002). Further abuse of sexually abused children. *Child Abuse & Neglect*, 26, 115–127.
- Tjaden, P., & Thoennes, N. (2000). *Full report of the prevalence, incidence, and consequences of violence against women*. Washington, DC: U.S. Department of Justice, Office of Justice Programs.
- Zurbriggen, E. L., & Freyd, J. J. (2004). The link between child sexual abuse and risky sexual behavior: The role of dissociative tendencies, information-processing effects, and consensual sex decision mechanisms. In L. J. Koenig, L. S. Doll, A. O'Leary, & W. Pequegnat (Eds.), *From child sexual abuse to adult sexual risk: Trauma, revictimization, and intervention* (pp. 135–157). Washington, DC: American Psychological Association.