Poly-Victimization in a National Sample of Children and Youth

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Background: Most studies of children's exposure to violence focus on separate, relatively narrow categories of victimization (such as sexual abuse, physical maltreatment, or bullying), paying less attention to exposure to multiple forms of victimization.

Purpose: This study documents children's lifetime exposure to multiple victimization types (i.e., "poly-victimization") and examines the association between poly-victimization and extent of trauma symptomatology.

Methods: Analyses were based on telephone interviews conducted between January 2008 and May 2008 with a nationally representative sample of 4053 children aged 2–17 years and their caregivers.

Results: Exposure to multiple forms of victimization was common. Almost 66% of the sample was exposed to more than one type of victimization, 30% experienced five or more types, and 10% experienced 11 or more different forms of victimization in their lifetimes. Poly-victims comprise a substantial portion of the children who would be identified by screening for an individual victimization type, such as sexual assault or witnessing parental violence. Poly-victimization is more highly related to trauma symptoms than experiencing repeated victimizations of a single type and explains a large part of the associations between individual forms of victimization and symptom levels.

Conclusions: Studies focusing on single forms of victimization are likely to underestimate the full burden of victimization that children experience and to incorrectly specify the risk profiles of victims. Research, clinical practice, and intervention strategies are likely to improve with more comprehensive assessments of victimization exposure.

(Am J Prev Med 2010;38(3):323–330) © 2010 American Journal of Preventive Medicine

Introduction

Considerable research has documented[1–6] high levels of childhood exposure to abuse, violence, and crime, as well as its damaging physical and mental health consequences. Most of this substantial body of literature focuses on separate, relatively narrow categories of experiences. For example, investigators have documented linkages between psychological disorder and specific forms of maltreatment, such as child physical abuse[7,8] and child sexual abuse.[9–11] Associations between mental health impairments and exposure to neighborhood violence,[12,13] peer bullying,[14,15] and witnessing parental violence[16,17] are also well established. In this literature, however, little attention has been paid to the possibility that children may often be exposed to multiple forms of victimization. Yet there is reason to suspect that children who suffer one type of victimization are also likely to experience other types.[18–20]

Focusing on only one or a few types of the large spectrum of victimizations that children experience has several important limitations. First, it is likely to substantially underestimate the full burden of victimization exposure and the full strength of the relationship between victimization and child mental health.[21] Second, a narrow focus on specific types of victimization can lead to a serious overestimation of the impact of individual victimization experiences because outcomes may be related to other victimizations or their co-occurrence rather than individual victimization events.[22] Third, this fragmented approach hampers the identification of the most highly victimized children, who are at greatest risk for serious mental health problems and who may be the most important targets for intervention. To the extent that such chil-

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0749-3797/00/$17.00
doi: 10.1016/j.amepre.2009.11.012

dren are included in intervention efforts, the range and complexity of victimization exposures that characterize their risk are unlikely to be fully acknowledged and addressed.

It was hypothesized that a more complete assessment of the number of different victimization types to which children are exposed will reveal a group of youth who account for both a high proportion of the total victimization burden and a considerable part of the explained variance in distress symptoms. Building on earlier research,[19] the current study employs the concept of "poly-victimization" to describe this highly victimized group of children in an effort to demonstrate the detrimental consequences of poly-victimization for child well-being.

The present study builds on previous research on this topic in several ways. Although earlier work[19] by the authors demonstrated the effects of multiple contemporaneous (within the past year) victimizations on child mental health, evidence[6,23,24] suggests that the effects of adversity often accumulate over time. Examining cumulative lifetime exposure to multiple victimizations across the entire developmental spectrum of childhood may provide more insight into this public health problem. Unlike studies that rely on adult recall of events from the distant past, this research assesses children themselves, focusing on the effects of cumulative victimization experiences over the child's life course. By utilizing a large, nationally representative sample of children and youth, and examining a broader array of victimizations than previous studies, this research represents the most comprehensive epidemiologic assessment of child victimization to date.

Methods

Participants

The National Survey of Children's Exposure to Violence (NatSCEV) was designed to obtain incidence and prevalence estimates of a wide range of childhood victimizations. Conducted between January 2008 and May 2008, the survey focused on the experiences of a nationally representative sample of 4549 children aged 0–17 years living in the contiguous U.S. The interviews with parents and youth were conducted over the phone by the employees of an experienced survey research firm.

The primary foundation of the design was a nationwide sampling frame of residential telephone numbers from which a sample of telephone households was drawn by random-digit dialing (RDD). This nationally representative cross section yielded 3053 of the 4549 completed interviews. There was also an oversampling of U.S. telephone exchanges that had a population of 70% or more of African-American, Hispanic, or low-income households. Random-digit dialing employed with this oversample yielded 1496 of the completed interviews. Sample weights were applied to adjust for differential probability of selection resulting from (1) study design; (2) demographic variations in nonresponse; and (3) variations in within-household eligibility. The current research focuses on 4053 children aged 2–17 years, the subsample for which comparable victimization and mental health measures were obtained.

Procedure

A short interview was conducted with an adult caregiver (usually a parent) in each household to obtain family demographic information. One child was randomly selected from all eligible children living in a household by selecting the child with the most recent birthday. If the selected child was aged 10–17 years, the main telephone interview was conducted with the child. If the selected child was aged <10 years, the interview was conducted with the caregiver who was "most familiar with the child's daily routine and experiences." The interview protocol included procedures to ensure privacy throughout the interview. Comparison between proxy versus self-reports with this instrument found no evidence of reporter bias,[25] including no differences in reports of child maltreatment or family-perpetrated victimization.

Respondents were promised complete confidentiality and were paid $20 for their participation. The interviews, averaging 45 minutes in length, were conducted in either English or Spanish. Respondents 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. All procedures were authorized by the IRB of the University of New Hampshire.

Response Rates and Nonresponse Analyses

The cooperation level for the RDD cross-section of this survey was 71%, and the response level was 54%. The cooperation and response levels associated with the smaller oversample were somewhat lower, at 63% and 43%, respectively. These are good rates by current survey research standards.[26,27] Although the potential for response bias remains an important consideration, several recent studies[28–31] have shown no meaningful association between response rates and response bias. Moreover, nonresponse analyses with the current data found that respondents who refused to participate (or could not be reached) were not systematically different from respondents with respect to victimization risk (additional information on the survey methodology and nonresponse analysis is available at www.unh.edu/ccrc/pdf/NATSCEV_methods_report.pdf).

Measurement

This survey utilized an enhanced version of the Juvenile Victimization Questionnaire (JVQ), an inventory of childhood victimization.[25,32,33] The original JVQ obtained reports on 34 forms of youth victimization covering five general areas of interest: conventional crime, maltreatment, victimization by peers and siblings, sexual victimization, and witnessing and indirect victimization.[34] The caregiver version, designed for proxy interviews with younger children, uses wording very similar to the self-report questionnaire, allowing for direct comparability of items across the two versions. The JVQ has shown evidence of good test–retest reliability and construct validity.[25]

The enhanced version adds three more substantial forms of victimization to the questionnaire: two items about witnessing family violence and one item about Internet victimization. Specific wording for all individual screening items and how they were aggregated for analysis is presented in Appendix A (available online at www.ajpm-online.net). Repeat victimizations of the same type were also of interest. After each screening item, respondents were asked how many times the victimization had occurred in their whole life. Answers to this question were used to identify respondents who experienced victimization types at a "high chronic" frequency—those who experienced a number of incidents greater than the median for that victimization type.

Poly-victimization was assessed with a summary measure of the total number of different victimization types (of a possible 37) to which respondents were exposed in their lifetimes. In addition to this continuous measure, a categoric measure was constructed to represent children who could be considered serious poly-victims—a group of children who experienced particularly high levels of cumulative exposure to multiple forms of victimization. Based on previous research by the authors,[35] poly-victims were categorized as respondents whose victimization levels fell in the top 10% of the sample. This categorization resulted in poly-victims being defined as respondents who had experienced 11 or more different forms of victimization in their lifetimes.

Mental health status was measured with shortened versions of the anger, depression, anxiety, and dissociation scales of two closely related measures: the Trauma Symptoms Checklist for Children (TSCC),[36] which was used with the self-report interviews for those aged 10–17 years, and the Trauma Symptom Checklist for Young Children (TSCYC),[37] used in the caregiver interviews for those aged 2–9 years. Respondents were asked to indicate how often they (or their children) have experienced each symptom within the past month. All item responses for the three scales together were summed to create an aggregate trauma symptom score for each age group (2–9 years; 10–17 years). A unified trauma symptom score for all children in the sample was then constructed by merging the standardized trauma scores for each group. The TSCC and TSCYC have shown[36,37] very good reliability and validity in both population-based and clinical samples. In this study, the alpha coefficient is 0.93 for the TSCC and 0.86 for the TSCYC.

Results

Exposure to multiple forms of victimization was common in this nationally representative sample of children and youth. The large majority (80%) had experienced at least one type of victimization in their lifetimes, 66% were exposed to more than one type, 30% experienced five or more types, and 10% experienced 11 or more different forms of victimization in their lifetimes.

Figure 1 displays estimated mean levels of symptoms associated with the number of different types of victimization exposures (controlling for demographics). The cumulative impact of lifetime victimization on child mental health is clear, with results showing a relatively linear increase in symptoms with each additional form of victimization experienced. At 11 victimizations, the level that defines the lower bound of the serious poly-victim group, symptom levels become especially high, ranging from approximately 1.25 to 2 SDs above the sample mean.

Table 1 shows the demographic profile of the poly-victim group (those exposed to more than ten types of victimization), which differs from children with lower levels of victimization and those who experienced no victimization in their lifetimes. Poly-victims were more likely to be older, because exposures accumulate with age. Nonetheless, 40% of the poly-victims are children aged ≤13 years. Children living in stepfamilies or parent–partner households, single-parent households, or with other (nonparent) caregivers are all overrepresented in the poly-victim group. For example, stepfamily households make up 6.8% of the nonvictim group, 10% of the

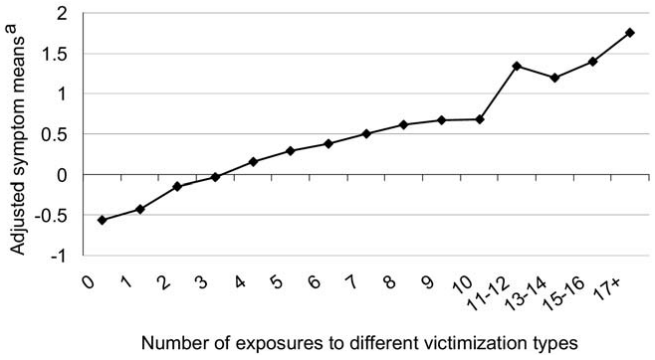

Figure 1. Trauma symptom levels by total number of victimization types; cases with ≥11 victimization types are aggregated because of smaller *n*'s.
[a]Mean standardized symptom scores by numbers of victimization types, controlling for demographic variables

Table 1. Demographic characteristics by victimization group (% unless otherwise indicated)

Characteristic[a]	Nonvictim (0 types)	Victim (1–10 types)	Poly-victim (>10 types)
Age (years)			
2–5	**40.6**	**21.9**	**5.4**
6–9	**24.1**	**27.9**	**12.6**
10–13	**22.1**	**27.1**	**21.2**
14–17	**13.2**	**23.1**	**60.8**
Gender			
Female	52.4	47.8	47.8
Male	47.6	52.2	52.2
SES[b]			
Low	**24.8**	**14.9**	**17.2**
Middle	**62.9**	**69.5**	**74.4**
High	**12.3**	**15.6**	**8.4**
Race/ethnicity			
White, non-Hispanic	**52.3**	**62.2**	**53.9**
Black, non-Hispanic	**15.1**	**14.5**	**23.6**
Other race, non-Hispanic	**6.3**	**5.4**	**8.9**
Hispanic, any race	**26.1**	**17.4**	**12.3**
Don't know/refused	**0.2**	**0.5**	**1.2**
Family structure			
Two-parent family[c]	**73.1**	**64.2**	**36.0**
Stepparent or partner family[d]	**6.8**	**10.0**	**20.2**
Single-parent family	**17.5**	**21.1**	**32.8**
Other adult caregiver	**2.7**	**4.7**	**11.1**

Note: Values are derived from weighted data.
[a]Boldface indicates that values are significantly different across victimization group at $p<0.05$.
[b]SES is a composite based on the sum of the standardized household income and standardized parental education scores; low: <1 SD below sample M; middle: M±1 SD; high: >1 SD above sample M.
[c]Child lives with two biological or adoptive parents.
[d]Child lives with one biological parent plus partner (spouse or nonspouse).

low-victimization group, and more than 20% of the poly-victims.

Poly-victims also experience very high levels of the most dangerous and serious forms of victimization compared to other child victims. As shown in Table 2, almost 79% of the poly-victim group but only 18% of the other victimized children reported some type of maltreatment. Similarly, 86% of poly-victims witnessed family violence compared to 20% of other victims. Sexual victimization and sexual assault were also far more likely to be experienced by the poly-victim group (55% and 23%, respectively) than by the other victimized children (8% and 3%, respectively). It is also important to note that high percentages of the children exposed to particular individual types of victimization can also be categorized as poly-victims. For example, 53% of all children identified in the survey as victims of sexual assaults and 55% who were victims of physical abuse also qualified as poly-victims (analyses not shown).

Given that the victimization profile of poly-victims includes many of the types of violence and abuse that are of greatest concern to researchers and clinicians, a goal of the current study was to assess the extent to which poly-victimization might help account for the effects often associated in the literature with these individual forms of victimization. To this end, an examination was made of the effects of specific categories of exposure on level of symptoms, with and without the total number of victimization types controlled. As shown in Table 3, although all forms of victimization were significantly and positively associated with symptom levels (controlling for demographics), the inclusion of poly-victimization substantially reduced the association for each specific form. For example, there is an 85% reduction in the size of the nonstandardized regression coefficient for physical assault and an 80% reduction for maltreatment when the total number of victimizations is controlled. In several cases, the effect of the individual type or category of victimization is no longer significant when poly-victimization is taken into account.

Table 2. Exposure to specific victimization types by victimization level (% unless otherwise indicated)

	Victimization level	
Victimization type	Victims (1–10 types)	Poly-victims (>10 types)
Physical assault	73.3	100.0
Property	47.0	93.6
Maltreatment	18.2	78.6
Peer–sibling	79.2	96.1
Sexual victimization	7.8	55.4
Sexual assault	3.0	22.9
Witness family violence	20.4	85.7
Exposure to community violence	51.4	97.5
Physical abuse	6.1	51.2
Bullying	26.0	59.9

Table 3. Effect of poly-victimization on trauma symptoms

	Trauma symptoms	
Measure	**b (SE)**	**β**
Poly-victimization	0.13 (0.003)	0.57*
Any physical assault		
Model without PV	0.67 (0.031)	0.32*
Model with PV	0.10 (0.034)	0.05*
Any property victimization		
Model without PV	0.65 (0.031)	0.32*
Model with PV	0.09 (0.033)	0.04*
Any maltreatment		
Model without PV	0.88 (0.039)	0.35*
Model with PV	0.18 (0.042)	0.07*
Any peer–sibling victimization		
Model without PV	0.67 (0.032)	0.32*
Model with PV	0.15 (0.033)	0.07*
Any sexual victimization		
Model without PV	0.88 (0.052)	0.27*
Model with PV	0.02 (0.052)	0.01
Any sexual assault		
Model without PV	0.91 (0.079)	0.18*
Model with PV	0.06 (0.072)	0.01
Any exposure to family violence		
Model without PV	0.04 (0.037)	0.35*
Model with PV	0.12 (0.041)	0.05*
Any witness community violence		
Model without PV	0.56 (0.034)	0.28*
Model with PV	−0.06 (0.035)	−0.03
Any physical abuse		
Model without PV	0.94 (0.054)	0.27*
Model with PV	0.05 (0.055)	0.02

Note: Regression coefficients are from multiple regression models controlling for age, gender, race/ethnicity, family structure, and SES.
*Significant in multivariate model at $p<0.01$
PV, poly-victimization

In additional analyses (not shown), a more conservative approach was used by removing from the poly-victimization count all victimizations within the individual index category. In all cases, the effects of the specific category or type were still greatly reduced when poly-victimization was taken into account. The coefficient for maltreatment, for example, was reduced by about 60%, and the sexual victimization coefficient was reduced by 78%, when the total number of other victimization exposures was controlled. These results suggest that much of the presumed influence of particular victimization types may instead be due to the underlying influence of exposure to multiple forms of victimization.

The dominant influence of poly-victimization can also be seen by comparing the symptom scores of respondents who were victims of specific forms of victimization depending on whether or not they were also in the poly-victimization group. An additional goal was to contrast poly-victims with children who had experienced chronic victimization of a specific type but not poly-victimization. Youth who experienced high chronic victimization (over the median frequency) of a particular aggregate type typically had significantly higher symptom levels than those experiencing less chronic victimization of that type. In all cases, however, respondents who were also poly-victims reported the highest symptom levels, substantially above those experiencing even chronic levels of a single type. These analyses were repeated, focusing on individual victimizations of a particularly serious nature, including sexual assault and physical abuse. Again, those in the poly-victimization category had substantially higher levels of symptoms than even those who experienced chronic frequencies of these serious victimizations (analyses not shown). These findings suggest that multiple victimization involving different types is more detrimental to child mental health than repeat victimization of a single, even serious, type.

Discussion

The findings of this research underscore the importance of considering a wide array of potential victimization types when assessing children's lifetime exposure levels. Poly-victims—children exposed to a large number of different forms of victimization—comprise a substantial portion of children who would be identified by screening for an individual victimization type, such as sexual assault or witnessing parental violence. For example, almost 40% of all children who experienced any maltreatment episode in their lifetime had experienced 11 or more additional victimization types. Among those exposed to sexual victimization, 50% were also poly-victims.

Findings also show that (1) experiencing many different forms of victimization is more highly related to trauma symptoms than experiencing repeated victimizations of a single type; and (2) lifetime exposure to multiple victimizations substantially accounts for the effects of individual victimization types.

These findings suggest that past research concerned with single forms of victimization, such as sexual assault, community violence, or maltreatment may have overestimated the unique association between these specific forms of victimization and negative outcomes. Moreover, studies that focus on single forms of victimization are likely to underestimate the full burden of victimization that children experience and to incorrectly specify the risk profiles of victims. Findings also suggest that assessing multiple exposures of a single form of victimization, such as accounting for multiple incidents of sexual assault, is perhaps less important than assessing the co-occurrence of different victimization types. Consistent with studies[23,38] that document the long-term cumulative effects of child adversity on adult well-being, this study shows that exposure to multiple forms of victimization becomes evident in childhood, having damaging mental health consequences even at early stages of the life course.

Specifying the psychosocial processes that underlie the powerful effects of poly-victimization remains an important research objective. It seems likely that exposure to many different forms of victimization reflects substantial adversity across multiple contexts of children's lives. Thus, poly-victims are likely to experience victimization by peers at school, by family members at home, and by a variety of individuals within their neighborhoods and communities. For such children, victimization represents more of a life condition than a set of events. Widespread cross-context victimization is also likely to damage children's potential for resiliency. Thus, poly-victimization not only represents the accumulation of substantial stressors but also is likely to produce deficits in social and personal resources that would normally help to moderate the negative effects of victimization.

Research is also needed to specify the social and behavioral mechanisms that lead to poly-victimization. It may be that, for some children, poly-victimization arises directly from dangerous environmental contexts, such as high-crime neighborhoods and violent households, having far-reaching effects for the youth who reside there. For other children, emotional and behavioral problems that emerge from early victimization may create a generalized susceptibility to additional victimization across multiple contexts of the child's life.[39]

The current study was intended to highlight the issue of multiple victimization exposure in children by identifying a group of serious poly-victims. This strategy allowed for a concrete description of the victimization risk and mental health profile of children who experience the highest levels of victimization. Such analyses are useful from a public health standpoint in that they delineate a particular high-risk group that may be of greatest importance for intervention efforts. However, a few caveats are warranted. First, the cumulative effects of multiple victimization appear to be fairly linear, suggesting that a broad approach to reducing the breadth of victimization exposure is likely to be beneficial for all victimized children. Second, the definition and identification of serious poly-victims should be refined to take account of the age of the population being considered. Because they have had less opportunity to accumulate victimizations over time, studies that focus on younger children may need to employ a lower criterion for poly-victimization.

A few additional limitations of this research should be acknowledged. First, the study focused exclusively on victimization experiences. It is possible that unmeasured factors associated with poly-victimization, such as nonvictimization stressors, lack of social support, or problematic parenting styles, could account for part of its powerful influence on trauma symptoms. Second, although the nonresponse analyses were encouraging, the potential for bias still exists. To the extent that nonresponse is greater among children who have been exposed to multiple types of victimization and/or who exhibit more symptoms, the distribution of victimization and its associations with symptomatology may not be accurately represented.

Overall, the findings of this study suggest the need for a more comprehensive approach to child victimization than has been typical of the field to date. It is argued that future research and clinical practice would benefit from more extensive assessments of victimization exposure, ones that take into account a wider array of different types of victimization. With respect to research, attention to poly-victimization would allow a more accurate appraisal of the impact of child victimization and a better understanding of how different forms of victimization may cluster within and across the various contexts of children's lives. With respect to practice, assessing multiple forms of victimization would permit the identification of the most at-risk children and encourage treatment that targets the full range of victimizations to which children are exposed. Indeed, interventions that focus on specific victimization histories, such as sexual abuse, without attention to children's complete victimization profile, may fail to identify the contexts placing children at the greatest risk.

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 2006-JW-BX-0003 awarded by the Office of Juvenile Jus-

tice and Delinquency Prevention, Office of Justice Programs, U.S. Department of Justice). The total amount of federal funding involved is $2,709,912. Points of view or opinions in this document are those of the authors and do not necessarily represent the official position or policies of the U.S. Department of Justice.

No financial disclosures were reported by the authors of this paper.

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Appendix

Supplementary Data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.amepre.2009.11.012.