

The Social Context of Violence: A Study of Repeated Victimization in Adolescents and Young Adults

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Abstract

Multiple factors may influence the risk of exposure to childhood violence and repeated victimization, although most research has focused on individual rather than contextual factors. Moreover, it is unclear whether family background factors associated with exposure to childhood violence also are associated with revictimization in young adulthood. This article investigates individual and contextual factors associated with childhood abuse and revictimization. Data from a community telephone survey, collected at two different time points ($N = 1,011$, 16–33 years of age), were used. Logistic regression analysis was applied to analyze family background factors in childhood violence–exposed cases and non-exposed controls. Similar analyses were conducted for the relationship of individual and contextual variables in the revictimized and the non-revictimized groups. The adjusted analyses showed that social problems

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(≥ 2 or more social problems: odds ratio [OR] = 2.89, 95% confidence interval [CI] = [1.41, 5.94]) and frequent binge drinking (OR = 1.21, 95% CI = [1.05, 1.40]) were significantly associated with repeated victimization whereas social support decreased the odds (OR = 0.74, 95% CI = [0.55, 0.99]). Family problems and low family cohesion growing up (although measured at Wave 2) were significantly associated with childhood exposure to violence, but not with revictimization. Our findings emphasize that it is useful to separate factors associated with childhood abuse from factors related to revictimization to identify current ecological aspects that can be addressed to prevent further abuse.

Keywords

child abuse, revictimization, sexual assault, violence exposure, socioecological model, contextual factors, prospective study

Introduction

Exposure to childhood violence is a matter of great public health concern. On the individual level, violence in childhood is associated with physical and psychological health problems, whereas on the societal level, consequences include increased health care costs, social welfare usage, and productivity loss (Annerbäck, Sahlqvist, Svedin, Wingren, & Gustafsson, 2012; Brown, Fang, & Florence, 2011; Chartier, Walker, & Naimark, 2010; Felitti et al., 1998; Gellert, Townsend, & Keating, 2010; Strøm et al., 2013). Moreover, revictimization in adulthood appears to amplify these negative outcomes (Barnes, Noll, Putnam, & Trickett, 2009; Desai, Arias, Thompson, & Basile, 2002; Koenen & Widom, 2009; Trickett, Noll, & Putnam, 2011). Several factors may impact the risk of childhood exposure to violence and later revictimization, although most prior research has focused on individual rather than contextual factors (Classen, Paresh, & Aggarwal, 2005; Cloitre, Scarvalone, & Difede, 1997; Grauerholz, 2000; Miron & Orcutt, 2014). In addition, it is unclear whether family background factors related to childhood violence also are associated with later revictimization. The current article investigates individual and contextual characteristics that might associate with exposure to violence during childhood (physical or psychological violence from parents, violence between parents, neglect, and/or sexual abuse) and to re-experiencing victimization in the future. By focusing on the individual's environment and social relationship, we hope to address some of the critique toward the field of "victim-blaming."

According to Bronfenbrenner (1977), individuals are nested within social systems (family, school, peer group, community, and society) that are reciprocal in nature. Belsky (1980) developed an ecological model to explain the etiology of child maltreatment, which Heise (1998) applied to explain violence against women. Based on this work, Grauerholz (2000) proposed a socioecological model to explain sexual revictimization by focusing on how factors at each ecological level contribute to an individual's revictimization. Building on Grauerholz's model, the current article focuses on the individual's personal history (the ontogenetic level), family background factors, social support (the microsystem), and the individual's social position (the exosystem) as potential predictors of revictimization in a broader sense. Factors on the macro level (e.g., overreaching institutional patterns of a culture or subculture) may also be of importance for revictimization, but was not addressed in this study.

At the ontogenetic level, which represents the individual's personal history, experiencing childhood violence may influence a person's behavior and social relationships (Anda et al., 2006; Grauerholz, 2000, Kim & Cicchetti, 2010). This may result in poor mental and physical health, suicidality (Anda et al., 2004; Pratchett & Yehuda, 2011), risky sexual behavior, substance abuse, dissociative disorders, low self-esteem, feelings of powerlessness, stigmatization, and social isolation (Grauerholz, 2000). Consequently, these factors may shape an individual's life and potential relationships with abusers and may thus be key to understanding revictimization (Grauerholz, 2000).

One of the factors that have received much research attention is alcohol abuse or excessive drinking. Alcohol intake has been hypothesized to relieve stress and to help an individual numb or avoid the negative feelings and memories associated with abuse (Messman-Moore & Long, 2003). Several studies have found that the risk for sexual assault increases with alcohol abuse, particularly as alcohol intoxication might impair the ability to judge situations or to engage in escape behavior (Grauerholz, 2000; Messman-Moore & Long, 2003). Nonetheless, it remains unclear whether alcohol abuse serves as an independent predictor for revictimization (Merrill et al., 1999; Messman-Moore & Long, 2003; Pedersen, 2001; Testa, Hoffman, & Livingston, 2010) or if it is part of an indirect relationship between risky sexual behavior and revictimization (Fargo, 2009).

The microsystem level may relate to the family system in which the childhood violence occurred, or within the family or intimate relationship in which the revictimization occurs. Conditions that are likely to characterize families of abuse victims include family breakdown, disorganization and dysfunction, unsupportive parents, and patriarchal structure (Grauerholz, 2000). Research has shown that adverse family background is related to both initial abuse and

later revictimization (Pittenger, Huit, & Hansen, 2016; Swanston et al., 2002). However, these studies only looked at children or youth (Kellogg & Hoffman, 1997; Swanston et al., 2002) and also included family violence as part of the family background measure (Kellogg & Hoffman, 1997). Finkelhor, Ormrod, and Turner (2007) found that family problems (alcohol abuse, imprisonment, unemployment, and family disruption) predicted the onset of poly-victimization but not the persistence of poly-victimization. Thus, it is unclear how having an adverse family background relate to revictimization in young adulthood. The stigmatization associated with previous abuse, and possibly also lack of social skills, may result in delinquent or deviant peer associations that may increase the chances of further victimization and represents models of risky behavior (Gifford-Smith & Brownell, 2003; Grauerholz, 2000). Conversely, having a strong family cohesion may contribute to higher self-esteem, psychological well-being, and healthy relationships (Bolger & Patterson, 2003; Gallagher, 2012; Thompson, Flood, & Goodwin, 2006; Wentzel, 1998). Studies that have examined protective factors for revictimization have found that social support reduces the risk of revictimization (Banyard, Williams, Siegel, & West, 2002; Bender, Cook, & Kaslow, 2003; Collins, 1998; Pittenger et al., 2016).

Furthermore, micro-level factors must be understood in relation to the exo-system, which is defined as the surrounding social structures that may impact an individual and his or her environment, such as the community or neighborhood environments (Bronfenbrenner, 1977). Grauerholz argues that a person's lack of social power within the exosystem contributes to vulnerability within the microsystem. Social power can be understood as an individual's resources in terms of, for example, income, education, status, and knowledge. Childhood victims are more likely to be socially disadvantaged (Smith, 2005; Strøm et al., 2013; Strøm, Thoresen, Wentzel-Larsen, Sagatun, & Dyb, 2014; Zielinski, 2009), which reduces their social power and potentially contributes to a vulnerability to victimization (Grauerholz, 2000). But not much is known about such social problems and revictimization, for example, being dependent on social welfare, which may represent being marginalized and on the "sidelines" of society (Hyggen & Hammer, 2013; Strøm et al., 2014). This in turn may shape the types of interactions a person has on the microsystem level and may lead to more dysfunctional peer and partner relationships (Grauerholz, 2000). It might be reasonably to hypothesize that an accumulation of social problems would lead to an increased risk of revictimization.

Although few studies have empirically investigated revictimization according to the socioecological model, there are a number of studies that have included the broader social context in their analyses. For example, Banyard et al. (2002) studied individual as well as contextual factors, such as poverty, family of origin difficulties, and social support in relation to re-experiencing abuse in African American women. Some studies have focused on perpetration

and social norms that may support such behavior (Gidycz, 2011), while others have shown how multiple ecological factors may affect the sexual assault victims' psychological sequelae. (Campbell, Dworkin, & Cabral, 2009). Specifically using the socioecological model, Fargo (2009) found in a small sample ($N = 147$) of sexual abuse victims and non-victims that the relationship between childhood and adolescent victimization was mediated by adolescent risk-taking behavior, whereas the relationship between adolescent and adult victimization was mediated by risky sexual behavior. Moreover, Fargo showed that a negative family environment not only increased the risk of child abuse but also continued to indirectly affect the risk of victimization into adulthood. Arata (2000) studied the relationship between childhood abuse and revictimization in a college sample ($N = 221$) that focused mainly on individual level variables. However, she also included the relationship to the perpetrator, which belongs to the micro level in the Grauerholz (2000) model. Nonetheless, the study found only that ontogenic variables (severity of the abuse, posttraumatic stress disorder [PTSD], self-blame, and high-risk sexual behavior) mediated the association between childhood abuse and revictimization.

It is of importance for prevention and clinical work to identify potential individual and contextual factors that might explain why some childhood-exposed individuals are more at risk of revictimization than others. Moreover, previous literature has mainly focused on one type of violence, namely, childhood sexual abuse and its association with sexual revictimization. However, there is evidence that the different types of childhood abuse is overlapping and that childhood abuse may lead to re-exposure to multiple types of violence (Finkelhor et al., 2007; Thoresen, Myhre, Wentzel-Larsen, Aakvaag, & Hjemdal, 2015), thus a broader focus on revictimization is necessary.

The overall aim of this study was to investigate both individual and contextual factors associated with childhood victimization and later revictimization. We used data from a large study of exposure to violence in a community sample. We first investigate which family background factors discriminate between childhood violence-exposed cases and non-exposed controls at Wave 1. Then, we investigate whether these factors along with additional individual and contextual factors associate with revictimization in the childhood violence-exposed cases at Wave 2.

Method

Participants and Procedure

This study includes two waves of data; the population study titled, "Violence and rape in Norway" (Wave 1) and its follow-up data (Wave 2). The baseline survey was conducted by phone interviews in the second and third quarter of

2013 and included two random samples that were drawn from the General Population Registry of Norway. Respondents were 4,527 adults aged 18 to 75 years and 2,062 adolescents aged 16 and 17 years. The adult sample had a response rate of 42.9%, whereas the youth sample had a response rate of 61.7%. The participants at Wave 1 received a letter about the study, which included information about follow-up studies (see Thoresen et al., 2015, for more details about the procedure at Wave 1). The study was approved by the Regional Committee for Medical and Health Research Ethics in South-East Norway.

The sample for Wave 2 was drawn from participants at Wave 1 who had consented to a follow-up interview (91%, $N = 5,996$). The youngest participants were first contacted and the recruitment continued, increasing with age, until a quota of 500 respondents was obtained from each of the exposed and non-exposed groups, which resulted in the oldest enrolled participant at Wave 1 being 33 years of age. The exposed group was defined as those who had experienced childhood physical or psychological violence from parents, violence between parents, neglect, and/or sexual abuse. The non-exposed group had not reported exposure to any of these types of violence and was selected based on matching age and gender. The data for Wave 2 were collected by telephone interview 12 to 18 months after the baseline survey, that is, during the last quarter of 2014 and the first quarter of 2015, by the data collection agency Ipsos. A total of 2,549 individuals were contacted, including 869 (34.1%) cases and 1,680 (65.9%) controls. Of these, we were unable to reach 1,325 because of technical errors, no answer, incorrect registration information, incorrect numbers, or the informant had moved abroad or was travelling during the interview period. Of the 1,224 persons who answered the phone, 1,011 (82.6%) individuals participated, which constituted 39.7% of the individuals we attempted to reach.

Attrition analyses were conducted to test for differences in demographics and violence exposure between the respondents ($n = 1,011$) and the individuals who refused to participate ($N = 213$), and those we did not reach ($N = 1,325$) (see Appendix A). In summary, the respondents had a significantly higher prevalence of violence exposure than the individuals who could not be reached. However, there were small differences in gender, age, and violence exposure among the individuals who answered the phone.

Measures

Dependent variables. *Childhood violence* was measured at Wave 1 as violence occurring before the age of 18 years. It was defined as exposure to childhood physical or psychological violence from parents, violence between

parents, neglect, and /or sexual abuse. For more details about the measures of childhood violence, please see Thoresen et al. (2015).

Revictimization was measured at Wave 2 and defined as occurring when individuals exposed to childhood violence were exposed to sexual assault, physical violence, and/or controlling behavior from a partner during the period between Waves 1 and 2. Of the childhood-exposed victims, 159 were revictimized, wherein 86 persons were exposed to less severe physical violence, 60 were exposed to severe physical violence, 36 were exposed to controlling behavior, and finally 65 individuals were exposed to sexual abuse. However, the violence categories were not mutually exclusive and highly overlapping. Thoresen et al. (2015) conducted an analysis to check for potential overreporting of recent violence due to “telescoping effect” (distant events being recalled as more recent) but found that 91.8% of the sample reported a different violence category or a different perpetrator at Wave 2 compared to Wave 1. Of the remaining 13 cases (8.2%), eight cases (5.2%) reported the same type of recent victimization and the same perpetrator at both time points. Consequently, overreporting could not be excluded for these cases.

Sexual assault included forcible rape, as elucidated with the following question: “Has anyone ever forced you into: intercourse, oral sex, anal sex, or put fingers or objects in your vagina or anus by use of physical force or by threatening to hurt you or someone close to you?” (Thoresen et al., 2015). Other unwanted sexual experiences were measured using four questions: (a) “Have you at any time experienced unwanted sexual contact while you were so intoxicated that you could not stop what was happening?” (b) “Has a man or a woman fondled your genitals or made you touch their genitals by using physical force or by threatening to hurt you?” (c) Have you experienced being forced to commit sexual acts?” and (d) “Have you experienced other forms of sexual assault or abuse other than what we have asked you about?” Experiencing sexual abuse was defined as an affirmative response to any one of these questions.

Physical violence included both severe and less severe types of violence. *Less severe violence* included the following four specific types of violent acts (respondents were asked to ignore unintentional acts such as those that might have occurred in play or sports): (a) having been hit with a flat hand, (b) having hair yanked/pulled, (c) having been scratched, and/or (d) having been pinched hard. *Severe violence* was determined by the responses to the following six specific types of violent acts: (a) being hit with a fist or a hard object, (b) being kicked, (c) being strangled, (d) being beaten up, (e) being threatened with a weapon, and/or (f) being physically attacked in other ways. Being exposed to physical violence was defined as an affirmative response to at least one of these items.

Controlling behavior was determined by the answers to the following three questions: Has a boyfriend/girlfriend, partner, or spouse (a) controlled how you spent your time, (b) demanded that you account for where you have been at all times, and (c) was jealous or suspicious of your friends. All three questions had to be answered affirmatively for the individual to be considered to have been exposed to controlling behavior

Independent variables

Family Background Factors. *Family problems* was measured at Wave 2 and included five items: (a) poor financial situation in the family while growing up, (b) one or both parents were dependent on social welfare benefits, (c) parents had drug or alcohol problems, (d) did not live with both parents, and (e) parents had mental health problems.

Family cohesion was measured at Wave 2 and the respondents were asked to what degree they agreed with the following four statements using a response format on a 5-point scale ranging from *completely disagree* (1) to *completely agree* (5): (a) In my family, we agreed on what is important in life; (b) I enjoyed being with my family; (c) My family had a positive outlook for the future even if something tragic had occurred; and (d) In my family we supported one another. The items were taken from the HUNT study, which used four of the six original items derived from the validated Resilience Scale for Adolescents (READ; Soest, Mossige, Stefansen, & Hjemdal, 2010; Stensland, Thoresen, Wentzel-Larsen, Zwart, & Dyb, 2014). A mean score of the four items was calculated wherein a high score equals a high level of family cohesion. Cronbach's alpha was .86 for this measure.

Individual and Contextual Factors. *Binge drinking frequency* was measured at Wave 1 by asking how many times the respondent had been noticeably intoxicated over the past year, ranging from never to 1 to 2 times per week or more.

Perceived social support was measured by the Crisis Support Scale (Joseph, Williams, & Yule, 1992) at Wave 1 and included the following four questions with a response format on a 5-point scale ranging from *very often/always* (1) to *never* (5): (a) When you feel the need to talk, how often is someone willing to listen to you? (b) Are you able to talk about your thoughts and feelings? (c) Do people show you sympathy and support? (d) Is there someone who can give you practical help? A mean score of the four items was calculated, wherein a high score equals high levels of social support. The Cronbach's alpha was .80.

Social problems was measured at Wave 2 and included three items: (a) had been dependent on social welfare to manage, (b) had a partner/spouse who

have had drug or alcohol problems, and (c) had close friends who have been arrested or were in jail.

Statistical Analyses. Logistic regression analyses were used to estimate associations of sociodemographics and family background factors in childhood violence–exposed cases and non-exposed controls. Similar analyses were conducted for the revictimized and the non-revictimized groups. However in addition to the family background factors, social support, binge drinking and social problems were added to the analyses, and exposure to rape, severe physical abuse, and other sexual assaults occurring after 18 years at wave one were adjusted for. Univariable analyses were first conducted to test for the unadjusted associations, while Model 1 included all the contextual and individual level variables, after adjusting for gender and age. IBM SPSS statistics Version 22 was used for all analyses.

Results

Differences in Family Background Factors Between Childhood Violence–Exposed Cases and Non-Exposed Controls

The total sample ($N = 1,011$) consisted of 59.7% ($n = 604$) women, and the mean age was 21 years (Table 1). There were no significant differences between cases and controls with respect to gender and age. The individuals exposed to violence in childhood had a significantly, $\chi^2(1, N = 1011) = 48.47$, $p \leq .001$, higher prevalence of revictimization ($N = 159$, 31.5%) compared to the controls ($N = 67$, 13.2%). Moreover, the cases had significantly higher prevalence on all measures of risk factors related to family problems (please note that all family factors were measured at Wave 2). For example, 24.5% of the cases had parents who were dependent on social welfare compared with 10.1 % of the controls. An opposite pattern could be observed for the potentially protective factor, in which the cases had lower levels of family cohesion than the controls.

The adjusted model (Table 2) showed that an increase in family problems was significantly associated with violence in childhood, whereas family cohesion significantly reduced the odds of childhood violence.

Individual and Contextual Factors Associated With Revictimization Within Cases Exposed to Childhood Violence

Among the 505 individuals who were exposed to childhood violence at Wave 1, 159 (31.5%) reported revictimization during the period between Waves 1

Table 1. Differences in Family Background Factors Between Childhood Violence–Exposed Cases and Non-Exposed Controls (N = 1,011).

	Total N = 1,011		Controls n = 506		Cases n = 505		Unadjusted OR (95% CI)
	% (n)		% (n)		% (n)		
Gender							
Women	59.7 (604)		59.5 (301)		60 (303)		1.02 [0.79, 1.31]
Men	40.3 (407)		40.5 (205)		40 (202)		
Age	M = 21 SD = 5.25		M = 21 SD = 5.31		M = 21 SD = 5.20		1.00 [0.98, 1.03]
Family problems							
Poor financial situation in family while growing up	11.6 (117)		6 (30)		17.3 (87)		3.31 [2.14, 5.11]**
One or both parents were dependent on social welfare benefits	17.1 (167)		10.1 (50)		24.5 (117)		2.89 [2.02, 4.14]**
Parents had drug or alcohol problems	8.1 (82)		4.2 (21)		12.1 (61)		3.19 [1.91, 5.32]**
Did not live with both parents	29.2 (295)		21.1 (107)		37.2 (188)		2.21 [1.67, 2.92]**
Parents had mental health problems	17.3 (174)		7.3 (37)		27.3 (137)		4.77 [3.24, 7.03]**
Number of family problems							
0 (contrast)	54.8 (553)		67.3 (340)		42.2 (213)		
1	23 (232)		21.6 (109)		24.4 (123)		1.80 [1.32, 2.45]**
≥2	22.3 (225)		11.1 (56)		33.5 (169)		4.82 [3.40, 6.82]**
Family cohesion							
Mean score	M = 4.39 SD = 0.84		M = 4.69 SD = 0.49		M = 4.08 SD = 0.99		0.31 [0.25, 0.39]**

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

* $p \leq .05$. ** $p \leq .01$.

Table 2. Adjusted Logistic Regression Model of the Association Between Family Background Factors and Exposure to Violence in Childhood ($N = 1,011$).

	Model 1 Adjusted Odds Ratio (95% CI)	p Value
Gender (ref. category: man)	0.99 [0.45, 1.30]	.986
Age	0.99 [0.97, 1.02]	.273
Family problems		<.001
1 vs. 0	1.50 [1.08, 2.08]	.013
≥ 2 vs. 0	2.56 [1.79, 3.84]	<.001
Family cohesion	0.78 [0.73, 0.83]	<.001

Note. p value for Model 1, $\chi^2(5, N = 982) = 178.35, p \leq .001$. CI = confidence interval.

and 2. Gender did not differ significantly between the revictimized and non-revictimized groups, although younger participants had higher odds of revictimization (Table 3). In contrast to the analyses between cases and controls (Table 1), family problems and family cohesion did not differ significantly between revictimized and non-revictimized individuals. However, the revictimized group had a significantly higher frequency of binge drinking, lower social support at Wave 1 and social problems at Wave 2 occurred frequently.

Table 4 shows that the level of perceived social support and the frequency of binge drinking reported at Wave 1 as well as the accumulation of social problems at Wave 2 were significantly associated with revictimization within those exposed to childhood violence. A significant dose response relationship could be observed for social problems in which having two or more social problems led to a twofold increase in the odds for revictimization. For each unit increase in frequency of binge drinking, the odds of being revictimized increased by 21%, whereas perceived social support decreased the odds significantly. In contrast to childhood victimization (Table 1), family problems and family cohesion did not present significant differences between those who had been revictimized and those who had not.

Discussion

To prevent revictimization, it is important to identify those individual and contextual factors that may influence the development process that proceeds from childhood exposure to violence to further victimization. Little is known about the mechanisms leading to recurrent violence, and there is a dearth of studies that focus on ecological contextual factors, although there

Table 3. Associations of Family Background Factors, Social Support, Binge Drinking, and Social Problems in Revictimized and Non-Revictimized Cases.

	Total N = 505 % (n)	Not Revictimized n = 346	Revictimized n = 159	Unadjusted OR (95% CI)
Gender				
Women	60 (303)	59.2 (205)	61.6 (98)	1.11 [0.75, 1.62]
Men	40 (202)	40.8 (141)	38.4 (61)	
Age	M = 20.9, SD = 5.20	M = 21.5, SD = 5.50	M = 19.7, SD = 4.19	0.93 [0.89, 0.97]**
Family background factors				
Family problems				
Poor financial situation in the family growing up	17.3 (87)	18 (62)	15.8 (25)	0.86 [0.51, 1.42]
One or both parents were dependent on social welfare benefits	24.5 (117)	23.3 (76)	27 (41)	1.22 [0.78, 1.89]
Parents had drug or alcohol problems	12.1 (61)	12.5 (43)	11.3 (18)	0.89 [0.50, 1.61]
Did not live with both parents	37.2 (188)	35 (121)	42.1 (67)	1.35 [0.92, 1.99]
Parents had mental health problems	27.3 (137)	26.8 (92)	28.5 (45)	1.09 [0.71, 1.65]
Number of family problems				1.16 [0.931, 1.44]
0 (contrast)	42.2 (213)	43.9 (152)	38.4 (61)	
1	24.4 (123)	24.3 (84)	24.5 (39)	1.16 [0.71, 1.87]
≥2	33.5 (169)	31.8 (110)	37.1 (59)	1.34 [0.87, 2.06]
Family cohesion				
Mean score	M = 4.08, SD = 0.99	M = 4.09, SD = 0.98	M = 4.06, SD = 1.03	0.97 [0.80, 1.17]

(continued)

Table 3. (continued)

	Total N = 505 % (n)	Not Revictimized n = 346	Revictimized n = 159	Unadjusted OR (95% CI)
Individual and contextual factors				
Perceived social support				
Mean score		M = 3.30, SD = 0.74	M = 3.15, SD = 0.84	0.68 [0.53, 0.88]*
Binge drinking frequency				
Never	29.9 (149)	35.0 (120)	18.6 (29)	1.22 [1.08, 1.38]**
1-4 times in the past year	31.9 (159)	31.5 (108)	32.7 (51)	
5-10 times in the past year	16.0 (80)	14.0 (48)	20.5 (32)	
1 time a month in the past year	8.0 (40)	6.7 (23)	10.9 (17)	
2-3 times per month in the past year	9.6 (48)	8.5 (29)	12.2 (19)	
1-2 times per week in the past year	2.6 (13)	2.9 (10)	1.9 (3)	
More than two times per week in the past year	2.0 (10)	1.5 (5)	3.2 (5)	
Social problems				
Had been dependent on social welfare	11.7 (59)	10.7 (37)	13.8 (22)	1.34 [0.76, 2.35]
Had a partner/spouse who has had drug or alcohol problems	12.1 (61)	9.3 (32)	18.2 (29)	2.18 [1.27, 3.75]*
Had close friends who have been arrested or in jail	31.4 (156)	26.2 (89)	42.7 (67)	2.10 [1.41, 3.13]**
Number of social problems:				
0 (contrast)	59.8 (302)	65.3 (226)	47.8 (76)	
1	28.1 (142)	25.1 (87)	34.6 (55)	1.88 [1.23, 2.88]**
≥2	12.1 (61)	9.5 (33)	17.6 (28)	2.52 [1.43, 4.45]**

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

* $p \leq .05$. ** $p \leq .01$.

Table 4. Adjusted Logistic Regression Model of the Association Between Family Background Factors, Additional Individual and Contextual Factors, and Revictimization (N = 505).

	Model I Adjusted Odds Ratio (95% CI)	p Value
Gender (ref. category: man)	1.23 [0.78, 1.96]	.369
Age	0.89 [0.84, 0.93]	<.001
Family background factors		
Family problems		.962
1 vs. 0	1.07 [0.63, 1.83]	.796
≥2 vs. 0	1.00 [0.59, 1.70]	.989
Family cohesion	1.02 [0.96, 1.08]	.547
Individual and contextual factors		
Perceived social support	0.74 [0.55, 0.99]	.042
Binge drinking frequency	1.21 [1.05, 1.40]	.008
Social problems		.010
1 vs. 0	1.62 [0.98, 2.70]	.062
≥2 vs. 0	2.89 [1.41, 5.94]**	<.001

Note. p value for Model I, $\chi^2(9, N = 484) = 53.81, p \leq .001$. Adjusted for rape, severe physical abuse, and other sexual assaults occurring after 18 years at Wave 1.

have been calls in the field for such studies (Macy, 2008). This study contributes to current knowledge by identifying individual and contextual risk factors for revictimization by focusing on the individual’s environment and social relationships. As expected, we found that an accumulation of family problems and less family cohesion in childhood increased the risk of childhood violence. This is consistent with previous research that reports more family dysfunction among childhood victims of violence (Dube et al., 2001).

Neither family problems nor low family cohesion in childhood was significantly associated with revictimization, which may indicate that they relate to victimization per se but do not significantly associate with the risk for further revictimization. Having a family with low socioeconomic status or parents who struggle with substance abuse or mental health problems along with low family cohesion in childhood may constitute preexisting “baggage” that both the revictimized and the non-revictimized group carry. Thus, it may be important to emphasize that having a negative family background may be a general vulnerability factor for childhood victims of violence, and that

additional factors should be studied to understand the risk for recurrent violence. Notably, we found that social problems and frequent binge drinking were significantly associated with revictimization, whereas perceived social support served as a protective factor. A negative dose response relationship with social problems could also be observed. These results may indicate that for some childhood-exposed individuals, the negative spiral continues into adulthood in terms of having more social problems, less social support, and more problems with alcohol, which in turn makes these individuals more vulnerable to revictimization.

In line with Fargo (2009) and Arata (2000), our study confirms that multiple factors are associated with re-experiencing victimization. In addition, it suggests that it is useful to separate family background factors associated with childhood abuse from factors that relate to revictimization to identify current ecological factors that can be addressed to prevent further abuse.

In line with socioecological theory, our study indicates that factors on three of the ecological levels contributed to re-experiencing victimization. On the ontogenic level, our results showed that victims of childhood violence had a much higher likelihood of revictimization than non-victims, which is also well established in the literature (Barnes et al., 2009; Desai et al., 2002; Koenen & Widom, 2009; Trickett et al., 2011). According to Grauerholz (2000), experiencing violence in childhood may alter a person's social development by increasing the likelihood of engaging in risky behaviors such as substance abuse (Pittenger et al., 2016), although the association between alcohol use and revictimization has been mixed (Himelein, 1995; Kilpatrick et al., 1997; Merrill et al., 1999; Testa et al., 2010; Testa & Parks, 1996). We found that binge drinking was significantly associated with recurring violence within our sample of individuals who had been exposed to violence in childhood.

On the micro level, our findings indicate that individuals with higher levels of perceived social support at Wave 1 were less likely to be revictimized, which is consistent with the scarce literature that has examined social support and revictimization (Bender et al., 2003; Collins, 1998; Pittenger et al., 2016). This result emphasizes the importance of having a strong social network, which may prevent further victimization in violence-exposed children. By contrast, family problems and low family cohesion were significantly associated with childhood victimization but not with further victimization.

On the exo-level, our measure of social problems sought to capture a person's environment in terms of having low social power and belonging to a

dysfunctional network. This measure includes both variables at the micro- and exo-level, but as the ecological levels are both reciprocal and dynamic and continuously interact with and affect one another, it may be difficult to separate them empirically. According to the Grauerholz (2000) model, childhood victims of violence are more likely to be socially disadvantaged, which may lessen their social power and make them more vulnerable to recurrent violence. Our study confirmed this, as an accumulation of social problems was associated with revictimization.

In sum, these findings indicate that the ecological model may be useful for the study of revictimization by guiding our search for important factors on the different ecological levels that associate with revictimization.

Limitations

Although we conducted interviews at two points in time, only some of our variables may be understood as predictors. Family background factors and social problems were measured at Wave 2. The reason for this was the need to limit the telephone interview time at Wave 1, as the mapping of childhood violence was extensive. The associations between family background factors, social problems and violence in childhood, and revictimization are therefore tentative, and no causal inferences can be drawn.

This study may have been affected by selection bias, as only 39.7% of the individuals we attempted to reach at Wave 2 participated. The attrition analyses indicated that the participants had a higher prevalence of exposure to violence than the individuals who we did not reach. However, among the individuals answering the phone, we found no differences in exposure to violence between participants and the individuals who refused to participate. As with other prospective studies, revictimization was defined as violence occurring during the time period between Waves 1 and 2, in this case 12 to 18 months. It may be discussed whether this is a sufficient time period for studying repeated victimization. However, we did control for violence occurring after 18 years reported at Wave 1 so that we only accounted for this specific time period. In addition, the chronicity and severity of the abuse was not accounted for because of lack of statistical power. However, it is important to emphasize that this is an epidemiological study examining trends in groups and not individual stories, although being aware that this is a heterogenic group. Confounding factors that were not accounted for in this study may have been present, for example, other potential individual risk factors or contextual factors at the macro level. Only three of the four ecological levels were used as we did not have

macro-level measures. It is likely that the prevalence of childhood violence and revictimization will vary across cultures and subcultures, thus we must be careful with cross-cultural generalizations. Nonetheless, the relationship between victimization and revictimization may be less susceptible to cultural differences. Although longitudinal data were used herein, causality is difficult to determine because a common causal factor cannot be excluded.

Research Implications

There is a lack of theoretically based research that focuses on multiple risk factors, combining individual and contextual factors in one comprehensive model. Future research need to address the interplay between individual behavior and the social context to better gain an understanding of the potential pathways between exposure to childhood violence and subsequent victimization.

Clinical and Policy Implication

Current prevention efforts for revictimization have mainly focused on individual risk factors in terms of individual behavior. This study contributes to current knowledge by focusing on the reciprocal relationship between the individual and his or her surroundings, in line with socioecological theory. Accordingly, prevention programs should focus on individuals in relation to their social network and social power. These are two important factors that may reduce the risk of further victimization, if strengthened. A common and challenging task for clinicians who are treating violence-exposed clients is how to cope with patients' exposure to repeated victimization. Knowledge about the risk factors for revictimization provides clinicians with a tool to prevent revictimization among their clients.

Conclusion

Our findings show that both individual and contextual factors within the ecological model are associated with revictimization. Moreover, family background factors were only significantly associated with exposure to violence in childhood and not with revictimization. Thus, additional individual and ecological factors must be identified to develop prevention efforts that focus not only on individual behavior but also on an individual's social context to prevent further abuse.

Appendix

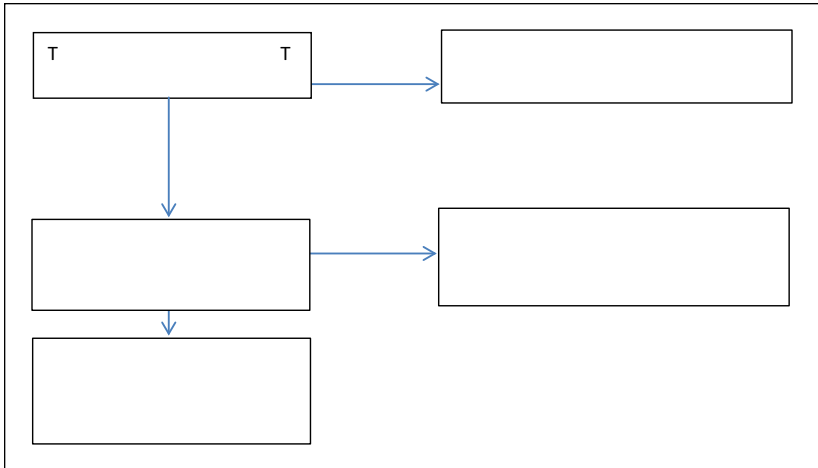


Figure 1. Flowchart for the follow-up study (T2).

^aIncludes technical errors, no answer, incorrect registrations, incorrect numbers, or the person had moved or was travelling during the interview period.

Note. T1 = Wave 1. T2 = Wave 2.

Attrition Analyses

The gender distribution was similar for the respondents and the individuals who could not be reached (Table A1). However, women answered the phone more frequently than men (Table A2). Thus, responders were more often female, although there were small differences between the genders with respect to refusing to participate (men; 51.2%, women; 48.8%). As the youngest participants were contacted first, the majority of the respondents and the individuals who could not be reached were between 16 and 24 years of age, while a smaller portion was between 25 and 33 years of age (Table A3). The same relationship was true for the respondents and the individuals who declined to participate. Hence, there was no significant relationship between age and participation (Table A4).

Among the individuals who answered the phone, there was no significant difference in the number of violence categories a person had been exposed to between the respondents and the individuals who refused to participate (Table A5). Nor was there a difference in exposure to violence between the participants and the individuals who refused to participate (Table A6). However, the respondents had a higher prevalence of violence exposure than the individuals who could not be reached (Table A7).

Table A1. Gender Distribution Among Respondents Compared to the Individuals Who Could Not Be Reached.

	Individuals Who Could Not Be Reached	Respondents	Total
Male	42.5% (563)	40.3% (407)	41.5% (970)
Female	57.5% (762)	59.7% (604)	58.5% (1,366)
	100% (1,325)	100% (1,011)	100% (2,336)

Note. $\chi^2 = 1.18$, $df = 1$, $p = .278$.

Table A2. Gender Differences Among the Individuals Who Refused to Participate and Respondents.

	Individuals Who Refused to Participate	Respondents	Total
Male	51.2% (109)	40.3% (407)	42.2% (516)
Female	48.8% (104)	59.7% (604)	57.8% (708)
	100% (213)	100% (1,011)	100% (1,224)

Note. $\chi^2 = 8.08$, $df = 1$, $p = .004$.

Table A3. Age Distribution Among Respondents Compared to the Individuals Who Could Not Be Reached.

	Individuals Who Could Not Be Reached	Respondents	Total
16-24 years	77.7% (1,026)	71.5% (723)	75.0% (1,749)
25-33 years	22.3% (295)	28.5% (288)	25.0% (583)
	100% (1,321)	100% (1,011)	100% (2,332)

Note. $\chi^2 = 11.57$, $df = 1$, $p < .001$.

Table A4. Age Distribution Among the Individuals Who Refused to Participate and Respondents.

	Individuals Who Refused to Participate	Respondents	Total
16-24 years	77.5% (165)	71.5% (723)	72.5% (888)
25-33 years	22.5% (48)	28.5% (288)	27.5% (336)
	100% (213)	100% (1,011)	100% (1,224)

Note. $\chi^2 = 3.13$, $df = 1$, $p = .077$.

Table A5. Number of Violence Exposure Categories^a During Childhood.

	Individuals Who Refused to Participate	Respondents
No exposure	52.1% (111)	50 % (506)
1	26.8% (57)	29.3% (296)
2	10.8% (23)	10.8% (109)
3	4.2% (9)	5.6% (57)
4	3.3% (7)	2% (20)
5	1.9% (4)	1.3% (13)
6	0.5% 1	0.7% (7)
7	0.5% 1	0.3% (3)
Total	100% (213)	100% (1011)

Note. $\chi^2 = 3.29, df = 7, p = .857$.

^aViolence exposure categories: any violence from parents, witnessing violence, psychological violence, neglect, sexual abuse, rape, and other forms of sexual abuse.

Table A6. Violence Exposure Among the Individuals Who Refused to Participate and Respondents.

	Individuals Who Refused to Participate	Respondents	Total
Not exposed to childhood violence	52.1% (111)	50% (506)	50.4% (617)
Exposed to childhood violence	47.9% (102)	50% (505)	49.6% (607)
	100% (213)	100% (1,011)	100% (1,224)

Note. $\chi^2 = 0.300, df = 1, p = .598$.

Table A7. Violence Exposure Among the Individuals Who Could Not Be Reached Compared to Respondents.

	Individuals Who Could Not Be Reached	Respondents	Total
Not exposed to childhood violence	80.2% (1,063)	50% (506)	67.2% (1,569)
Exposed to childhood violence	19.8% (262)	50% (505)	32.8% (767)
	100% (1,325)	100% (1,011)	100% (2,336)

Note. $\chi^2 = 236.795$, $df = 1$, $p < .001$.

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