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Testing a Multiple Mediator Model of the Effect of Childhood Sexual Abuse on Adolescent Sexual Victimization

Rikke H. Bramsen and Mathias Lasgaard
University of Southern Denmark

Mary P. Koss
University of Arizona

Mark Shevlin
University of Ulster

Ask Elklit
University of Southern Denmark

Jytte Banner
Aarhus University

The present study modeled the direct relationship between child sexual abuse (CSA) and adolescent peer-to-peer sexual victimization (APSV) and the mediated effect via variables representing the number of sexual partners, sexual risk behavior, and signaling sexual boundaries. A cross-sectional study on the effect of CSA on APSV was conducted, utilizing a multiple mediator model. Mediated and direct effects in the model were estimated employing Mplus using bootstrapped percentile based confidence intervals to test for significance of mediated effects. The study employed 327 Danish female adolescents with a mean age of 14.9 years (SD = 0.5). The estimates from the mediational model indicated full mediation of the effect of CSA on APSV via number of sexual partners and sexual risk behavior. The current study suggests that the link between CSA and APSV was mediated by sexual behaviors specifically pertaining to situations of social peer interaction, rather than directly on prior experiences of sexual victimization. The present study identifies a modifiable target area for intervention to reduce adolescent sexual revictimization.

There has been increased attention in recent years to the antecedents and correlates of peer sexual victimization in adolescence (Vézina & Hébert, 2007; Young & Furman, 2008). Nevertheless, reviewers have identified a paucity of studies focusing on sexual revictimization in adolescent populations. Although a history of child sexual abuse has shown to serve as a strong risk factor for sexual victimization later in life (Roodman & Clum, 2001), few studies have tested variables hypothesized to mediate the path from child sexual abuse (CSA) to subsequent adolescent peer-to-peer sexual victimization (APSV). Investigating the underlying dynamics that lead to increased vulnerability is an important precursor to providing effective interventions, as such information offers the potential to better ground and specifically target prevention initiatives to reach those individuals who are at greatest risk (Reid & Sullivan, 2009). The present study, therefore, set out to test a multiple mediator model of the effect of CSA on APSV.

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Correspondence concerning this article should be addressed to Rikke Holm Bramsen, University of Southern Denmark, Campusvej 55, 5230 Odense M., Denmark. Electronic mail may be sent to rhbramsen@health.sdu.dk.

Adolescent Sexual Victimization

Reports indicate that adolescents are disproportionately at risk of experiencing episodes of sexual victimization (Tjaden & Thoennes, 2006). Also, most adolescent assaults include a male peer perpetrator and take place in contexts of dating or social peer interaction (Small & Kerns, 1993; Young, Grey, & Boyd, 2009). Yet, the single strongest factor to increase risk of adolescent sexual victimization has shown to be a history of CSA (Gidycz, Coble, Latham, & Layman, 1993; Humphrey & White, 2000). For instance, Humphrey and White (2000) demonstrated that reports of CSA almost doubled the risk of adolescent sexual victimization. Although the link from CSA to later victimization is firmly established, the underlying dynamic driving this relationship is currently not well understood.

Before examining the literature on mediators of adolescent sexual revictimization, some methodological limitations in existing literature need mentioning. First, most studies have

inquired about victimization in childhood and adulthood, thereby dichotomizing adolescent victimization as either child abuse or an adult assault (see Arata, 2002, for critical review). Moreover, much of what is known about adolescent sexual revictimization rates stems from retrospective studies with young adult victims (Rich, Combs-Lane, Resnick, & Kilpatrick, 2004). Finally, advanced statistical methods such as growth, multilevel, and person-centered models have been largely underutilized in the scientific field of revictimization (Macy, 2008).

The Revictimization Process

As the revictimization phenomenon became established, researchers began to study and theorize about why this relationship exists. Consequently, several theoretical frameworks have been proposed, and although they differ in how to model the revictimization process, considerable overlap exists (see Grauerholz, 2000, for review). Overall, most revictimization studies focus on negative consequences of CSA, indicating that these effects create or increase vulnerability for sexual victimization later in life (Messman-Moore & Long, 2003).

Finkelhor and Browne (1985) introduced the concept of *traumatic sexualization*, an early well-developed theory on the link between CSA and increased risk of revictimization. The theory hypothesizes that experience of CSA may distort a child's concept of normal sexuality, resulting in increased sexual interaction and confusion about sexual norms and standards. The authors suggest that an abused child may come to view sex as a means of obtaining attention and affection, which leads to increased engagement in sexual activities that subsequently enhance risk of later victimization. Empirical research has supported the notion that episodes of CSA are followed by increased sexual activity (Noll, Trickett, & Putnam, 2003; Senn, Carey, & Vanable, 2008).

According to Messman-Moore and Long (2003), CSA and later victimization are linked via two separate mechanisms. These mechanisms are believed to derive from experiences of child sexual abuse and include factors that increase contact with potential perpetrators and variables that enhance the likelihood of a perpetrator to act in a sexually aggressive manner, respectively (Messman-Moore & Long, 2003). As such, CSA is assumed to result in increased sexual activity, which creates more opportunity for encountering a potential perpetrator, thereby enhancing risk of subsequent sexual victimization. Moreover, once a potential victim and perpetrator have crossed paths, a lack of ability to signal sexual boundaries and refuse sexual advances are suggested to increase the risk of being targeted by an aggressive perpetrator (see also de Bruijn, Burrie, & van Wel, 2006; Livingston, Testa, & VanZile-Tamsen, 2007).

Research has identified a significant relationship between CSA and high-risk sexual behaviors, including early sexual onset, more sexual partners, and risky and impulsive sexual acts (e.g., Noll et al., 2003; Raj, Silverman, & Amaro, 2000; Senn et al., 2008). In addition, sexual risk behaviors have been shown to be associated with adolescent sexual victimization (Howard & Wang, 2005). The function of signaling sexual boundaries as a potential mediator of the path from CSA to later adolescent revictimization (Messman-Moore & Long, 2003) has not been previously studied. However, several studies have stressed the role of low sexual refusal assertiveness (i.e., refusing unwanted sexual advances) as a crucial factor in the revictimization process among young adult women (e.g., Livingston et al., 2007).

Mediators

Specifically addressing adolescent sexual revictimization, Krahé, Scheinberger-Olwig, Waizenhöfer, and Kolpin (1999) found that the number of sexual partners mediated the relationship between CSA and subsequent sexual victimization among 281 German adolescents (17–20 years). Full mediation of the path from CSA to adolescent victimization was, however, not reached, indicating that the relationship was not exclusively attributable to the effect of number of sexual partners.

Using a prospective research design, Fergusson, Horwood, and Lynskey (1997) examined to what extent exposure to CSA was associated with increased sexual risk behavior and sexual revictimization during late adolescence (16–18 years). Findings from logistic regression analysis indicated a hypothesized temporal relationship in which exposure to CSA increased the likelihood of early onset sexual activity that, in turn, enhanced the likelihood of sexual risk-taking behaviors. Subsequently, this led to an increased risk of other adverse sexual outcomes in adolescence.

Concordantly, a more recent study investigated various potential mediating pathways between CSA and both adolescent (13–17 years) and adult (18 years and older) sexual revictimization (Fargo, 2009). Adolescent revictimization was assessed retrospectively through interviews with 147 adult women, of whom 59% had a documented history of CSA. Structural equation modeling indicated that the relationship between CSA and adolescent sexual victimization was mediated through adolescent risk-taking behaviors, including age of first alcohol use, illicit drug use, consensual sex, and episodes of running away from home. Moreover, risky sexual behaviors, specifically the number of sexual partners, engagement in prostitution, and problematic sexual behaviors and beliefs mediated the relationship between adolescent and adult revictimization (Fargo, 2009). The study further indicated that adolescent sexual revictimization depended on intermediate variables rather than directly on prior experiences of CSA, as no direct pathway between child sexual abuse and adolescent revictimization was found to exist at any point in the study.

The Present Study

Most research has failed to fully explain the dynamics and process that drive adolescent revictimization, and the present study therefore aimed to extend existing literature by addressing several of the gaps and limitations. This study set out to test the hypothesis of a mediated relationship between CSA and APSV. Mediators were selected to reflect adolescent social peer interaction that may be sensitive to the deleterious effects of CSA, including larger numbers of sexual partners, sexual risk behavior, and lower ability to signal sexual boundaries. The study specifically investigated mediating factors associated with young women's sexuality, as both theoretical and empirical research has indicated that differences in sexual behavior emerge as a

promising, yet not fully understood, mediating variable between CSA and subsequent revictimization (e.g., Arata, 2002; Finkelhor & Browne, 1985; Messman-Moore & Long, 2003). Moreover, to inform future prevention strategies, the study focused specifically on risk factors amenable to change.

Method

Participants and Procedure

The present sample was recruited from the middle region of Denmark, comprising a total of 327 female grade 9 students from 35 different schools (one participating class from each school). Respondents had a mean age of 14.9 years (SD = 0.5), and data were collected as part of the Danish Study on Adolescent Rape Prevention (DSARP; Wave 1). The questionnaire was completed during regular school hours, and the data collection was conducted either by the first author, two undergraduate students in psychology, or the schoolteacher, according to written standardized instructions. Respondents were informed about the objectives of the study, voluntariness of participation, anonymity, and the confidentiality of their responses. Moreover, the study received headmaster approval from all the participating schools, and schoolteachers provided informed consent for all students. In addition, the study protocol was approved by Aarhus University.

Denmark is situated in the Scandinavian region of Northern Europe and has a population of approximately 5.5 million citizens. The country is very homogeneous, has many dual-working families, a high divorce rate, and an extensive welfare system. In general, Danish adolescents are believed to have equal gender opportunities and liberal religious affiliations, with parents and communities displaying nonjudgmental attitudes and general acceptance of adolescent sexuality (Elklit, 2002a; Wellings & Parker, 2006).

Sexual education is mandatory in Danish public schools, yet there is no standard curriculum, and the subject does not have fixed hours. Therefore, sexual education is dependent on teachers' efforts and thus varies widely in quality and quantity, with Danish government reports showing that, in fact, sexual education is very sparse (Helweg-Larsen, Andersen, & Plauborg, 2010). Moreover, most teaching resources are spent on providing information on sexually transmitted infections and contraception. Thus, we decided that it was not necessary to control for sexual education in the present study.

In general, collecting information on adolescent sexuality is acceptable in Danish school settings, although survey length is governed by time constraints of both the academic curriculum and the developmental age of the participants. Moreover, research has shown that adolescents in general, as well as vulnerable subgroups (i.e., previously abused adolescents), do not experience discomfort when answering a survey on sexuality and sexual abuse (Priebe, Bäckström, & Ainsaar, 2010).

Measures

Child sexual abuse. Retrospective reports on child sexual abuse were obtained using Kessler, Sonnega, Bromet, Hughes, and Nelson's (1995) CSA item from the National Comorbidity Survey. The CSA item stated: "Have you ever experienced childhood sexual abuse?" employing a two-point (yes/no) format. The present CSA item has previously been employed and shown to be suitable in a Danish youth sample (Elklit, 2002b).

Adolescent peer sexual victimization. The female version of the Sexual Experience Survey (SES; Koss & Oros, 1982) was employed to measure respondents' experience of APSV. The SES collects information on unwanted sexual activity based on behaviorally specific descriptions of acts and tactics. Studies have indicated satisfactorily psychometric properties of the scale (e.g., Koss & Gidycz, 1985) and have demonstrated that the SES provides a format that can be used outside a U.S. context to collect information on unwanted sexual activity (Krahé, Reimer, Scheinberg-Olwig, & Fritsche, 1999). The original scale comprises 12 items rated on a two-point scale (yes/no), which was the same response format used in the present study. Prior to the present study, the SES was adapted to Danish using a translation-back-translation procedure. Also, the scale was subsequently piloted on a sample of 37 age-matching students. All ambiguous items were discussed, which led to minor revisions of the Danish translation. In addition, to reflect the extant literature (e.g., Abbey, Parkhill, & Koss, 2005), one item was added to the original version of the SES to capture sexual victimization when ability to object or resist was impaired by alcohol or drugs. The added item was phrased: "Have you ever had unwanted sex with a boy while so drunk or stoned that you couldn't put up resistance" (item 13). Moreover, to obtain information on peer assault the term "man" was changed to "boy." Based on selected items, data were used to separate participants into two categories reflecting (a) no experience of APSV and (b) experience of APSV. Sexual victimization was defined as unwanted sexual intercourse subsequent to verbal pressure, force, threat of force, or when ability to consent was impaired by drugs or alcohol, respectively (items 3–6, 10–13). Other types of sexual victimization (e.g., kissing or petting, item 7; attempted victimization, items 8–9) were not included in the present analysis. Finally, because the SES was used to establish a dichotomous status variable, internal consistency was not calculated.

Mediators. Three mediating variables were assessed, including number of sexual partners, sexual risk behavior, and signaling sexual boundaries. The number of sexual partners was assessed by asking the participants to state their total lifetime number of consensual sexual partners. Sexual risk behavior and the signaling of sexual boundaries were assessed by the Adolescent Sexual Coercion Risk Scale (ASCRS; Bramsen, Lasgaard, Elklit, & Koss, 2010). The scale consists of 17 items answered on a 6-point Likert scale ranging from 1 (*disagree strongly*) to 6 (*agree strongly*) Instructions for the ASCRS require the respondents to decide how much they agree with statements concerning the likelihood of displaying certain behaviors and statements concerning awareness and signaling of sexual and personal boundaries, respectively. The Risk Behavior subscale (seven items) measures various sexual behaviors in different risk situations (e.g., going home or having sex with a guy that the

girl does not know well). High scores indicate a strong likelihood of engaging in sexual risk behaviors. The Signaling Sexual Boundaries subscale (10 items) measures reflections on assertiveness of sexual communication (e.g., tell when a guy has crossed the line). Low scores reflect a lack of awareness and ability to signal sexual and personal boundaries. Both subscales showed acceptable internal consistency: Risk Behavior (Cronbach's $\alpha = .74$) and Signaling Sexual Boundaries (Cronbach's $\alpha = .86$).

Results

Data Analytic Plan

The analysis estimated the direct effect of CSA on APSV and the indirect effects of CSA on APSV that are mediated by variables representing the number of sexual partners, sexual risk behavior, and signaling of sexual boundaries. This multiple mediator model is presented in Figure 1. Prior to data analysis, the data were screened for errors. The percentage of missing values was small (0.0%–3.7%). Thus, the Expectation Maximization algorithm, which has been demonstrated to be an effective method of dealing with missing data (Bunting, Adamson, & Mulhall, 2002), was used to impute missing data.

As seen in Figure 1, the model specified direct effects from CSA to the mediating variables: number of sexual partners (a1), sexual risk behavior (a2), and signaling of sexual boundaries (a3). The model also specified effects of the mediating variables on APSV (b1 to b3). Each of these direct effects was estimated along with the three mediated effects (a1b1, a2b2, and c1c2). In Figure 1, the path c′ represents the effect of CSA on APSV while controlling for the mediated effects. Prior to analyzing the mediation model, the direct effect of CSA on APSV was estimated (i.e., path c); the difference in the estimate for path c and path c′ indicates the strength of the mediation. Full mediation is evident when c is statistically significant, but becomes nonsignificant after the inclusion of the mediators.

The overall model was tested using the approach proposed by Preacher and Hayes (2008) that allows multiple mediators to be included in the analysis. This approach was used because of the low power associated with the Sobel test (MacKinnon, Warsi, & Dwyer, 1995). The model was specified and estimated using Mplus 6.00 (Muthén & Muthén, 1998–2010) based on maximum likelihood estimation and 1,000 bootstrap draws. Although maximum likelihood estimation provides estimates that are not biased under conditions of nonnormality and small samples (Finch, West, & MacKinnon, 1997), the associated test statistics such as standard errors may be incorrect (Bollen, 1989). Therefore, the statistical significance of the mediated effects was calculated using bootstrapped, bias-corrected, and accelerated percentile-based confidence intervals (Efron, 1987; Efron & Tibshirani, 1993). An indirect effect is considered to be statistically significant if zero is not within the 95% confidence intervals.

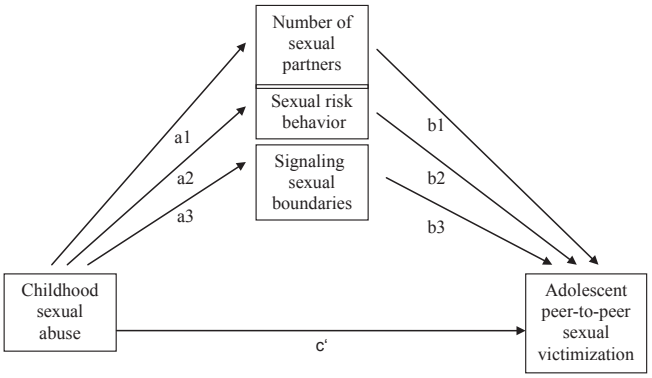

Figure 1. Childhood sexual abuse, adolescent peer-to-peer sexual victimization, and mediators.

The means and standard deviations of the variables are shown in Table 1. The self-report based prevalence of CSA was 5.6% ($n = 18$) in the sample, whereas the reported prevalence of APSV was 15.9% ($n = 52$). The percentages for sex partners were as follows: 70% reported 0 sex partners, 15% reported 1, and 15% reported 2 or more (range 0–7).

The direct effect (c) between CSA and APSV was positive and statistically significant ($B = .49$, CI = 0.21–0.71, $p < .05$) with no mediators in the model. When the effects of the mediators were included in the model, the direct path (c′) was lower and nonsignificant ($B = .17$, CI = −0.01 to −0.37, $p < .05$), which indicated full mediation. The unstandardized estimates from the mediation model are reported in Table 2. The regression coefficients of the effects of CSA on the hypothesized mediators were all positive and statistically significant, whereas two of three of the regression coefficients of the hypothesized effects of the mediators on APSV were significant (i.e., the number of sexual partners and sexual risk behavior). The effect of signaling sexual boundaries was not significant.

Table 3 shows the mediated effects of CSA on APSV. The indirect effects associated with the mediating variables of number of sexual partners and sexual risk behaviors were positive and statistically significant. Contrast analysis indicated that the indirect effect through number of sexual partners was significantly higher than the indirect effects for sexual risk behavior (contrast = .27, $SE = 0.07$, $p < .05$) and signaling sexual boundaries (contrast = .22, $SE = 0.078$, $p < .05$).

Discussion

This study investigated potential mediating pathways between child sexual abuse and adolescent peer sexual victimization. In confirmation of previous literature, CSA was significantly associated with adolescent sexual victimization (Humphrey & White,

Table 1. *Means and Standard Deviations for the Variables in the Mediated Model of Childhood Sexual Abuse and Adolescent Peer-to-Peer Sexual Victimization*

Variable	Mean (*SD*)
Childhood sexual abuse	0.06 (0.23)
Adolescent peer-to-peer sexual victimization	0.16 (0.37)
Number of sexual partners	0.76 (1.5)
Sexual risk behavior	17.22 (5.9)
Signaling sexual boundaries	19.6 (7.6)

Note. $N = 327$.

Table 2. *Coefficients for the Mediation Model of Childhood Sexual Abuse and Adolescent Peer-to-Peer Sexual Victimization*

Mediator	Path a (*SE*)	Path b (*SE*)
Number of sexual partners	2.29* (0.59)	0.12* (0.02)
Sexual risk behavior	6.03* (1.54)	0.01* (0.00)
Signaling sexual boundaries	5.45* (2.95)	−0.00 (0.00)

Note. *SE* = standard error.
*$p < .05$.

Table 3. *Indirect (Mediated) Effects of Childhood Sexual Abuse on Adolescent Peer-to-Peer Sexual Victimization*

	Product of coefficients			BC 95% CI	
Mediator	Point estimate	*SE*	Z	Lower	Upper
Number of sexual partners	0.27*	0.08	3.59	0.13	0.43
Sexual risk behavior	0.05*	0.03	2.09	0.02	0.12
Signaling sexual boundaries	−0.00	0.02	−0.26	−0.05	0.02

Note. *SE* = standard error; BC = bias corrected; CI = confidence interval.
*$p < .05$.

2000). However, when the mediators (i.e., number of sexual partners, sexual risk behavior, and signaling sexual boundaries) were included in the model, the direct path from CSA to APSV was no longer statistically significant, indicating that APSV was dependent on intermediate factors rather than directly on CSA. This is somewhat surprising given that the current study does not give a complete picture of adolescent revictimization, as the study only includes a narrow age range of adolescents and a limited number of mediation factors, respectively.

Specifically, number of sexual partners and sexual risk behaviors fully accounted for the relationship between child sexual abuse and adolescent sexual victimization, whereas signaling sexual boundaries did not. Moreover, results suggested that larger number of sexual partners was a stronger mediator than displaying sexual risk behaviors and lacking ability to signal sexual boundaries, respectively.

Only two of the three hypothesized mediators were found to explain the link between CSA and APSV. Child sexual abuse was significantly associated with higher number of sexual partners, a strong likelihood of engaging in sexual risk behaviors, and a lack of awareness and ability to signal sexual boundaries, respectively. In accordance with the theory of traumatic sexualization (Finkelhor & Browne, 1985) and other research (Senn et al., 2008), CSA was linked with higher sexual activity in the present study. Also, results indicated that a history of child sexual abuse was associated with lower ability to signal sexual boundaries or refuse unwanted advances, consistent with the work by Livingston et al. (2007). Subsequently, higher sexual activity (i.e., large number of sexual partners and a strong likelihood of engaging in sexual risk behaviors) was related to APSV, supporting the theory proposed by Finkelhor and Browne (1985). Also, results to some extent substantiated the hypothesis presented by Messman-Moore and Long (2003) that refers to factors which create more opportunity for encountering a potential perpetrator. As victims of CSA are exposed to a greater number of sexual partners and engage in more risky behaviors, the impact of such mediators may simply be explained by rules of probability (Koss & Dinero, 1989). Thus, as exposure increases, the chance of victimization increases. Moreover, present findings were consistent with the study conducted by Krahé, Scheinberger-Olwig, et al. (1999), in which a larger number of sexual partners partially mediated the path from CSA to sexual victimization in late adolescence. Because of the cross-sectional nature of the present study, time-ordered findings should, however, be interpreted with caution. Also, these novel study results require replication in a larger sample, possibly including participants at the end of their adolescence.

It is intuitively appealing to assume that girls who show poor sexual communication skills may be vulnerable to potential perpetrators. However, the present study did not indicate a link between lower ability to signal sexual boundaries and APSV. In comparison, Livingston et al. (2007) identified a relationship between lower sexual refusal assertiveness and experiencing unwanted sex, whereas Koss and Dinero (1989) indicated no correlation between poor sexual communication and sexual victimization. Such inconsistencies in the literature may be explained by variations in definition and measurement. Accordingly, the present study was the first of its kind to specifically address the function of signaling sexual boundaries as a risk factor of APSV. Another explanation of the results is purely methodological. Possibly, results may be explained owing to effect size problems or measurement limitations (i.e., failure to demonstrate existing relationships because of small study samples or poor measurement). In any case, the present findings suggest that the link between CSA and APSV is complex and demands continued exploration.

Previous research has largely failed to disaggregate the contributors to the revictimization process. For instance, Fargo (2009) documented that a construct of adolescent risk-taking behaviors (i.e., age of first alcohol use, illicit drug use, consensual sex, and episodes of running away from home, respectively) explained the link from CSA to adolescent sexual victimization. Yet, Fargo (2009) provided no information on which specific factor in the construct of risk-taking behaviors offered the strongest mediator. The present study conducted contrast analysis, which showed that the indirect effect of number of sexual partners was significantly stronger than the indirect effects of sexual risk behavior and signaling sexual boundaries, respectively. Investigating which dynamics best explains the path from CSA to APSV provides important information to target future intervention programs specifically addressing adolescent revictimization. Moreover, additional mediators need testing, as revictimization is assumed to be determined by multiple factors in various settings (Grauerholz, 2000). The present study thus contributes to the growing body of evidence to reach a comprehensive understanding of the underlying dynamics driving the revictimization process.

Study Limitations

Several limitations of the present study need to be addressed. First, CSA was assessed retrospectively using a two-point single item. Although a single question to measure CSA is commonly

used (e.g., Daigneault, Hébert, & McDuff, 2009), behavior-specific multi-item measures may lead to more accurate results (Hulme, 2007). Moreover, the present study failed to provide a clear operational definition of CSA and included no details on onset, frequency, and abuse severity. Overall, these study limitations may possibly be related to the low percentages obtained for abuse history. Also, results may be further impacted, as it has been indicated that more severe levels of CSA lead to a higher risk of later sexual revictimization (Classen, Palesh, & Aggarwal, 2005).

Second, the reliance on adolescent self-report on private matters including sexual victimization and risky behaviors may be compromised because of individual definitions of what constitutes sexual assault (Koss et al., 2007) and also which behaviors are regarded socially desirable or undesirable, respectively (Brener, Billy, & Grady, 2003). However, employing the SES is regarded as best practice, as it collects violence severity information based on behavior-specific descriptions of acts and tactics, and it is therefore recommended as a measurement tool in revictimization research (Macy, 2008). Still, future studies should strive to employ the most recent version of the SES (Koss et al., 2007) to improve the validity and reliability of the scale. Also, the new version of the SES provides more complete information on sexual victimization, as it includes measures on frequency and severity of the assault (Koss et al., 2007). Consequently, instead of using the SES to establish a dichotomous status variable, future studies would benefit from employing more detailed information from the SES to more thoroughly investigate nuances of the revictimization process.

Third, it is interesting to note that a total of 15.9% reported experiencing APSV. Although Denmark is regarded largely gender equal, gender-based violence is still widespread among Danish youth. However, aspects of cultural norms specifically pertaining to Danish adolescents may possibly influence sexual practices, and concerns should therefore be raised about the generalizability of the present study results outside a Danish sample. Also, as most research has been conducted with North American samples, studies outside a U.S. context should therefore be encouraged.

Fourth, the study specifically tapped into peer-to-peer sexual assault of girls, as they have shown to be at higher risk of sexual violence, compared to same-aged boys (Tjaden & Thoennes, 2006). The present findings thus only pertain to a female revictimization process. However, future studies would profit from a more gender neutral approach to emphasize the reality that boys also experience sexual revictimization (Aosved, Long, & Voller, 2011).

Fifth, the study was based on a relatively low sample size, which limits generalizability and reliability of the study. Also, it investigated revictimization, specifically pertaining to young adolescence. The current study, therefore, does not give a complete picture of adolescent sexual revictimization.

Finally, the direction of relationship between experiences of adolescent sexual victimization and displaying risk-related behaviors could not be established because of the cross-sectional nature of the study. Further research on adolescent revictimization would benefit from a longitudinal approach to establish a better understanding of the temporal sequence of the underlying factors of sexual revictimization.

Practical Implications

With these limitations in mind, the present study contributes to the literature by testing a multilevel mediator model of adolescent sexual revictimization specifically pertaining to situations of social peer interaction. Previous research has indicated that prevention of revictimization requires improving traditional sexual assault reduction programs, as those have failed to demonstrate effectiveness among women who have experienced CSA (Hanson & Gidycz, 1993). Future risk reduction programs may therefore need to extend curriculum to include components specifically tailored to victims of CSA (Messman-Moore & Long, 2003). The current findings indicate that focusing initiatives on sexual activity, and, specifically large numbers of sexual partners, may have the potential to reduce prevalence of APSV among young adolescent girls with a history of CSA.

It is, however, important to note that no single factor or set of factors can explain the occurrence of sexual revictimization, which is believed to stem from complex interactions among personal, interpersonal, and sociocultural factors and processes, respectively (Grauerholz, 2000). The investigated mediators are therefore to be placed within a larger context of factors driving sexual revictimization. Also, study findings are strictly applicable to young female adolescents. Although sexual assault is always the responsibility of the perpetrator, helping to identify risk factors amenable to change may empower young girls (Arata, 2002) and help to reduce the circle of victimization.

Keywords: female adolescents; sexual abuse victims; peer-to-peer sexual abuse; traumatic sexualization; sexual risk behavior; sexual boundaries; Denmark

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