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Longitudinal Associations Between Childhood Sexual Abuse, Silencing the Self, and Sexual Self-Efficacy in Adolescents

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Abstract
Sexual self-efficacy—the belief in one's ability to engage in desired and to refuse unwanted, sexual activities and behaviors—is an important feature in promoting adolescent sexual health and well-being. One factor that may affect the development of sexual self-efficacy is child sexual abuse. However, little is known about the processes underlying the relation between child sexual abuse and sexual self-efficacy. Using longitudinal data from a sample of 739 adolescent girls and boys aged between 14 and 18 years, we examined the mediational role of two "silencing the self" attitudes and behaviors in romantic relationships—self-silencing, i.e., inhibiting fulfilling one's own needs, and divided self, i.e., presenting an outer compliant self—in the associations between child sexual abuse severity and two dimensions of sexual self-efficacy: the ability to set clear sexual limits and the ability to use sexual protection. Results of path analysis showed that child sexual abuse severity was associated with more self-silencing and more divided self. In turn, self-silencing was associated with lower protection use self-efficacy, whereas divided self was associated with lower limit-setting and protection use self-efficacy. Thus, self-silencing strategies in romantic relationships mediated the associations between child sexual abuse severity and lower sexual self-efficacy. The overall findings may inform the development of prevention/intervention programs that target the enhancement of an integrated sense of self in intimate relationships to promote assertive strategies in sexual situations.

Keywords Child sexual abuse · Silencing the self · Sexual self-efficacy · Sexual protection · Sexual limits

Introduction

Adolescence is a critical developmental period in which physical growth reaches its peak, the sense of identity ripens, and experiences with romantic relationships begin (Rice & Dolgin, 2005). An important component of adolescence involves the emergence of sexuality, which includes the development of sexual curiosity, sexual desires and preferences, and sexual self-concept (Kar, Choudhury, & Singh, 2015). In sexuality, adolescents also face challenges related to contraception and condom use to manage unintended pregnancies and sexually transmitted infections (STIs), choosing to engage in sexual activities or not, and communicating their sexual limits. Thus, they must develop sexual self-efficacy—the belief in one's ability to engage in desired, and to refuse unwanted, sexual activities, and handle a sexual context appropriately, including discussing the use of contraceptive and protection methods (Rostosky, Dekhtyar, Cupp, & Anderman, 2008)—as well as sexual assertiveness—the ability to do so when the situation happens. Among a sample of adolescent and young adult American women, almost 20% perceived that they never have the right to refuse to have sexual intercourse or to ask questions to their partner about their sexual health (Rickert, Sanghvi, & Wiemann, 2002). Self-efficacy is an important factor in how assertive adolescents can be in sexual situations and how they are likely to react when negotiating contraception or condom use, and setting their sexual limits. Failure to develop sexual self-efficacy may place adolescents at risk for unwanted or negative sexual experiences, unintended pregnancy, and STIs (Rickert et al., 2002; Rostosky et al., 2008).

Even if sexual self-efficacy is an important factor in promoting adolescent sexual health and well-being (Rostosky et al., 2008), only a handful of empirical studies have examined what may jeopardize its development. One factor that may affect adolescents' sexual self-efficacy is past sexual abuse. Research

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aimed at identifying psychorelational processes underlying the relation between child sexual abuse and sexual self-efficacy is critical to prevention efforts, yet is notably absent from the literature. Based on silencing the self theory (Jack, 1991), it is thought that the abuse could affect the victim's sense of self in future intimate relationships.

Child Sexual Abuse and Sexual Self-Efficacy

Child sexual abuse is a commonly occurring phenomenon with a worldwide prevalence estimated at 20% for girls and 10% for boys (Murray, Nguyen, & Cohen, 2014; Stoltenborgh, van Ijzendoorn, Euser, & Bakermans-Kranenburg, 2011). In the present study, child sexual abuse encompassed forced and unwanted sexual touching or intercourse occurring before 18 years of age whether with peers or adults. Over the course of adolescence, in Canadian and American samples, child sexual abuse is associated with maladaptive sexual decision-making and negative sexual outcomes such as early age at first intercourse, a higher number of sexual partners, STIs, and sexual revictimization, with abuse involving intercourse increasing the risk of negative outcomes (Jones et al., 2013; Loeb et al., 2002; Messman-Moore & Long, 2003; Thibodeau, Lavoie, Hebert, & Blais, 2017a, b). These findings suggest that adolescents with a history of sexual abuse, particularly abuse that involved penetration, may have low confidence in their ability to set boundaries in sexual situations. This hypothesis is in line with trauma theoretical perspectives, which propose that victimization experiences can result in feelings of powerlessness or learned helplessness, potentially leading the victim to believe that they are not able to assert or protect themselves in sexual situations (Briere & Scott, 2014; Finkelhor & Browne, 1985). As the victim's sexual boundaries have been violated during the abuse, this violation may impede the full development of their ability to communicate about or control aspects of their body or sexuality or, at least, affect the sense that they have the right and the competency to do so.

Prior studies using samples of American women reported a negative association between child sexual abuse and generalized self-efficacy, especially throughout adolescence (Diehl & Prout, 2002; Greene & Navarro, 1998; Lamoureux, Palmieri, Jackson, & Hobfoll, 2012). However, this general behavioral tendency may not consistently transfer to sexual situations, which is often particularly problematic for sexual trauma victims. Only a handful of studies have examined the association between sexual abuse and sexual self-efficacy. In a cross-sectional sample of 904 sexually active 14–26-year-old American women of family planning clinics, victims of sexual abuse or assault were twice as likely to feel that they could never make their own decisions about sexual activity. However, in this same study, lifetime history of sexual abuse was not significantly associated with 12 other indicators, including feeling that they could refuse sexual advances if no protection was used, and telling a partner that he/she was being too rough (Rickert et al., 2002). In a cross-sectional sample of 328 adolescent Canadian girls under Child Protective Services care, child sexual abuse was negatively associated with perceived ability to communicate about their sexuality and contraception practices, but not with three other areas of self-efficacy: perceived control over sexual activity, perceived control over contraception use in passionate situations, and perceived ability to purchase and to use contraception (Hovsepian, Blais, Manseau, Otis, & Girard, 2010). In a sample of 937 American women aged between 18 and 30, Livingston and Testa (2007) showed that those with a history of sexual abuse prior to age 14 did not report more difficulty refusing unwanted sexual advances, whereas those with a sexual abuse after age 14 did. In one of the rare studies including men, but examining sexual assertiveness, not self-efficacy, Morokoff et al. (2009) reported that, in American women, sexual abuse at age 14 or younger was a significant negative predictor of the ability to initiate use of condoms or refuse sex in which condoms would not be used. This association was nonsignificant in men.

These inconsistent findings may be explained by the examination of different types of sexual self-efficacy (e.g., refusal and protection use), inclusion of mixed age groups, and adult retrospective reports of childhood or adolescent victimization. Adolescence provides the ideal period for identifying emerging sexual and identity difficulties and preventing their crystallization, while limiting victimization recall bias. The effect of sexual abuse on sexual self-efficacy may be different in adolescents, given all the changes that occur in the sexual and social realm during this critical developmental window (Kar et al., 2015).

Self in Intimate Relationships as a Mediator

The inconsistent associations between sexual abuse and sexual self-efficacy may also be due, in part, to unexamined mediating variables. In order to feel confident in one's ability to be assertive in general, as in sexual situations, a clear self-definition with an inner continuity in needs, values, and desires—a current stable identity and sense of self—is required (Blustein & Palladino, 1991; Wolf, 1982; Yousefi & Moghadam, 2015). Impairment in the development of sexual self-efficacy in the aftermath of child sexual abuse may be, in part, explained by disturbances in the development of the child or adolescent's sense of self, particularly in relation to an intimate or romantic partner.

Theoretical frameworks suggest that abuse leads the child to direct his attention toward external threats rather than internal processes, inhibiting the developmental task of self-awareness, necessary to one's sense of self and expressing one's needs, thoughts, and desires (Briere, 1996; Briere & Scott, 2014; Cole & Putnam, 1992; Harter, 1999, 2012). Thus, child sexual abuse would interfere with the task of identity formation, preventing the achievement of a stable and autonomous self. Indeed, empirical research has consistently reported the disruptive impact of child sexual abuse on self-worth, perception

of control over one's life, and a consistent sense of identity or self (Bigras, Godbout, & Briere, 2015; Briere & Elliott, 1994; Ensink, Berthelot, Biberdzic, & Normandin, 2016; Putnam, 1990).

A stable and clear sense of self may be particularly important for adolescents in romantic relationships, as it requires the ability to both stand together and apart, to unite with the partner while keeping one's own individuality (Shulman & Connolly, 2013; Shulman & Knafo, 1997). Jack (1991) developed the silencing the self theory to conceptualize difficulties with negotiating the self in intimate relationships. Originally applied to depressed women (Jack & Dill, 1992), this theory describes how suppressing certain thoughts, feelings, and actions which contradict one's partner's wishes may lead to a loss of self and a sense of division between an outer false self and an inner self. The Silencing the Self Scale organized this theoretical construct in sets of attitudes and behaviors including: (1) self-silencing, the tendency to inhibit fulfilling one's own needs, and expressing oneself to avoid conflict, and (2) divided self, the tendency to present an outer compliant self while an inner self grows angry and hostile (Jack & Dill, 1992).

Given disturbances in the sense of self reported in child sexual abuse victims, the context of an intimate relationship may place them at high risk of inhibiting or splitting their self to prioritize and meet their partners' needs or desires. In a sample of 109 women and 83 men recruited in Canada or the USA, Whiffen, Thompson, and Aube (2000) reported no significant association between child sexual abuse and the total scale of silencing the self, whereas Arata and Lindman (2002) reported a significant association in 364 undergraduate American women. Even if some clinical studies have noted that child sexual abuse victims tend to place the needs of others before their own in intimate relationships (Gelinas, 1983), the association between sexual abuse and self-silencing strategies in intimate relationships remains to be clarified. In a cross-sectional study, Bigras, Godbout, Hébert, Runtz, and Daspe (2015) reported an indirect association between child sexual abuse and sexual anxiety through its association with identity impairment in Canadian men and women. Not yet demonstrated, however, is whether the relationship between child sexual abuse and subsequent difficulties with sexual self-efficacy may be explained by silencing the self attitudes and behaviors in intimate relationships.

Current Study

The present study sought to add to the understanding of the negative effects of child sexual abuse severity on sexual self-efficacy in adolescents. The first objective was to investigate the associations between child sexual abuse severity and two dimensions of sexual self-efficacy: confidence in the ability to set clear sexual limits and confidence in the ability to use sexual protection. We hypothesized that child sexual abuse severity would be negatively related to limit-setting and protection use sexual self-efficacy. The second objective was to examine the mediational role of two sets of silencing the self attitudes and behaviors in romantic relationships—self-silencing and divided self—in the associations between child sexual abuse severity and the two dimensions of sexual self-efficacy. We hypothesized that child sexual abuse would be positively associated with both self-silencing and divided self, which would in turn be associated negatively with limit-setting and protection use sexual self-efficacy. A longitudinal methodology was used to test these mediation associations, to apply temporal precedence while decreasing shared variance and hence the probability of inflated relations (Kraemer, Kiernan, Essex, & Kupfer, 2008). Moreover, because past studies have reported that age is correlated with sexual self-efficacy (Rostosky et al., 2008) and given that condom use practices differ between individuals with same- versus different-sex partners (Eisenberg, 2001), age and sexual minority status were added as control variables in the mediation model.

Method

Participants

Participants were adolescents from the Youths' Romantic Relationships (YRR) survey, a longitudinal study on youth's victimization experiences and romantic relationships. The sample included 8194 adolescents enrolled in Grades 10 through 12 from high schools in the province of Quebec, Canada. A total of 34 public and private high schools were randomly selected from an eligible pool from the Quebec Minister of Education, Recreation and Sports. Research assistants presented the study to students in 329 classes of these 34 selected high schools. The overall response rate, defined as the ratio of the number of students who decided to participate and the number of solicited students, was 99%, ranging from 90% to 100% between classes. For the present study, the analytical sample included adolescents who accepted to participate at Wave 4, which included 1078 participants, for a response rate of 13.2%.

High attrition rates are frequent in surveys on sex-related issues with adolescents (Zimmer-Gembeck & Helfand, 2008), but this very low response rate was probably in part due to the online completion at Wave 4 compared with the in-class completion at Waves 1 and 2. Attrition analyses were conducted to explore differences between Wave 4 noncompleters and completers on Wave 1 variables. Results showed that, compared with noncompleters, completers were younger, $t(8138) = 5.91$, $p < .001$; $\eta = .004$, comprised of more girls, $\chi^2(1) = 191.76$, $p < .001$; Cramer's $V = .152$, fewer students with parents native-born Quebecers or Canadian, $\chi^2(1) = 29.07$, $p < .001$; Cramer's $V = .060$, and more Grade 10 and fewer Grade 11 students, $\chi^2(2) = 10.27$, $p = .006$; Cramer's $V = .006$. The two groups did not differ significantly on proportion of childhood sexual abuse

history, $\chi^2(1) = .12$, $p = .729$, Cramer's $V = .004$. Participants who had never had a romantic relationship at Wave 2 were excluded due to their ineligibility to complete the Silencing the Self Scale as it was designed for participants who already had a romantic relationship. Among the 1078 participants, 739 (68.6%) already had a relationship (i.e., had a boy/girlfriend based on adolescents' definition) prior to Wave 2 and were included in the present study.

The final analytic sample consisted of 549 girls (74.3%) and 190 boys (25.7%) aged between 14 and 18 years old ($M = 15.27$, SD=.97) at Wave 1. At this time, 34.5% were in Grade 10 ($n = 255$), 35.7% in Grade 11 ($n = 264$), and 29.8% in Grade 12 ($n = 220$). Most participants reported that their parents were native-born Quebecers or Canadian (82.8%, $n = 612$) and that the more often spoken language at home was French (91.6%, $n = 677$). A total of 81.1% of their mothers ($n = 599$) and 84.7% of their fathers ($n = 626$) were employed. Although all participants had a relationship prior to Wave 2, 34.1% of participants reported being in a relationship at Wave 1 ($n = 252$) and 33.8% at Wave 2 ($n = 250$). At Wave 1, 37.1% already had a consensual sexual relationship ($n = 274$). Most participants indicated that they were attracted only to individuals of a different sex (74.6%, $n = 551$), whereas 2.3% reported only a same-sex attraction ($n = 17$), 12.3% a bisexual attraction ($n = 91$), 4.2% reported being uncertain or attracted to no one ($n = 31$), and 6.6% did not answer ($n = 49$).

Procedure

Data for this longitudinal study were drawn from a larger research project. Other publications using this database are available at http://martinehebert.uqam.ca/en/. Papers have been published using Wave 1 and Wave 2 data. In the present study, we focused on Wave 4, in which the sexual self-efficacy measure was included for the first time. No other analyses involved Wave 4 data or the variables of the current study: self-silencing and sexual self-efficacy. At baseline, self-administered questionnaires were completed in a specific period allowed in class in the fall of 2011. Then, data were gathered every 6 months over a period of 2 years, from 2011 to 2013, for a potential of five waves. Thus, for the present study, there were 1.5 years between Wave 1 and Wave 4. For follow-ups, participants were invited to complete the questionnaires in school (Wave 2) or online after the first year given class composition changes each year and some students moved to other schools (Wave 3 and following). For the present study, participants completed measures assessing sociodemographic information and child sexual abuse severity at Wave 1, the Silencing the Self Scale at Wave 2, and the Sexual Self-Efficacy Scale at Wave 4. As an incentive, adolescents were offered a chance to enter a draw of various prizes at each completion (e.g., iPads, iPods). The questionnaires took approximately 40 min to complete. Prior to survey completion, all participants gave their informed consent. The Institutional Review Board of the Université du Québec à Montréal approved this project including that consenting adolescents aged 14 years and older could participate in the study without parental consent.

Measures

Sociodemographic Information

At Wave 1, participants completed a sociodemographic questionnaire, with questions about gender, age, parents' cultural background, spoken language, and parents' occupation. Participants also indicated to which gender they were sexually attracted to, which was recoded into a sexual minority indicator where 0 = only or mainly by individuals of a different sex and 1 = only or mainly by individuals of the same sex, by both sexes, nobody, or uncertain. At each wave, they indicated whether they currently or in the past had a boy/girlfriend based on their definition.

Child Sexual Abuse

At Wave 1, two questions adapted from Finkelhor, Hotaling, Lewis, and Smith (1990) and used in past surveys (Tourigny, Hébert, Joly, Cyr, & Baril, 2008) assessed the presence and severity of child sexual abuse. In the present study, child sexual abuse included any unwanted sexual touching before Wave 1, thus prior to the period between 14 and 18 years of age, perpetrated by a member of the immediate or extended family, a known person outside the family (excluding a boyfriend or girlfriend to avoid confounding with dating violence), or a stranger without age-gap criteria. The first item evaluated unwanted sexual touching: "Have you ever been touched sexually when you did not want to or been obligated, manipulated, blackmailed, or physically forced to touch sexually." The second item assessed unwanted sexual intercourse: "Excluding the sexual touching mentioned in the previous item, have you ever been obligated, manipulated, blackmailed, or physically forced to have sexual intercourse with penetration (oral, vaginal or anal penetration)." Dose–response relationships have been reported between the intrusive nature of the perpetrated behaviors and several outcomes (Berthelot, Godbout, Hébert, Goulet, & Bergeron, 2014; Dube et al., 2005). The superiority of severity composite scores over binary variables has also been demonstrated (Loeb, Gaines, Wyatt, Zhang, & Liu, 2011). Thus, a child sexual abuse severity score was derived to reflect the most severe type of abuse experienced: no abuse (0), unwanted sexual touching only (1), and unwanted sexual intercourse with or without unwanted sexual touching (2).

Self-Silencing

At Wave 2, a short version of the Silencing the Self Scale (Jack, 1991; Jack & Dill, 1992) was used to assess schemas about

the suppression of the identity or the self in the context of intimate relationships. The present study included two subscales: (1) three items for self-silencing, which is the extent to which respondents inhibited fulfilling their own needs and expressing themselves to avoid conflict (e.g., "I don't speak my feelings in an intimate relationship when I know they will cause disagreement") and (2) four items for divided self, which is the extent to which respondents felt a division between an outer compliant "false" self while the inner self was oppositional and angry (e.g., "I find it harder to be myself when I am in a close relationship than when I am on my own"). Participants were asked to respond, in regard to their intimate relationships in general, how strongly they agreed with each statement on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree)* with higher scores indicating stronger beliefs and behaviors of silencing the self. Studies within different populations indicated acceptable internal consistency including in adolescents (Cronbach's $\alpha = .74$ to .90), test–retest reliability ($r = .88$ to .93), and construct validity (Harper, Dickson, & Welsh, 2006; Jack & Dill, 1992; Thompson, 1995). In the current sample, Cronbach's alphas were .64 for self-silencing and .77 for divided self.

Sexual Self-Efficacy

At Wave 4, we used the Limit-Setting subscale and the Protection Use subscale of the Sexual Self-Efficacy Scale from a Canadian Sexual Health Indicators Survey (Public Health Agency of Canada, 2012; Smylie et al., 2013). Limit-setting self-efficacy included three items that assess the belief in one's ability and competency to set clear sexual limits and refuse sexual activity if not desired (e.g., "I feel confident I would be able to refuse sexual activity with someone I'm not comfortable with"). Protection use self-efficacy included four items concerning the perceived ability to use condoms or a sexual protection (e.g., "I feel confident I could stop to put protection on myself or my partner, even in the heat of passion"). All items were rated on a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*) and summed to provide a subscale score ranging from 3 to 15, with higher scores indicating greater confidence in these sexual situations. These subscales showed good internal consistency (Cronbach's $\alpha = .79$ to .88; Smylie et al., 2013). In the current sample, Cronbach's alphas were .69 for the Protection subscale and .80 for the Limit-Setting subscale.

Statistical Analyses

Descriptive and correlation analyses were computed using the Statistical Package for the Social Sciences (SPSS 24.0) to describe sample demographic characteristics, examine mean gender differences as well as associations between study variables. Then, path analyses were computed using M*plus* version 8.0 to examine the hypothesized indirect over time associations. Because study variables were naturally non-normally distributed, the maximum likelihood parameter estimates with standard errors and Chi-square test statistics that are robust to non-normality were used (MLR; Muthén & Muthén, 1998–2017). The highest frequency of missing data was 18.0% for self-silencing, and missings were treated using full information maximum likelihood (FIML; Muthén & Muthén, 1998–2017). Based on Kline's (2015) guidelines, overall model fit was tested by considering together several fit indices: the Chi-square statistic, the comparative fit index (CFI), the root-mean-square error of approximation (RMSEA), and the standardized root-mean-square residual (SRMR). Indicators of good fit are a nonstatistically significant Chi-square value, a CFI value of .95 or higher, a RMSEA value below .06, and a SRMR value below .08 (Kline, 2015). Following Preacher and Hayes (2008) recommendations, 95% bootstrap confidence intervals with 10,000 resamples were conducted to examine the significance of indirect effects.

Results

Preliminary Analyses

At Wave 1, 13.0% ($n = 90/695$) of the sample reported child sexual abuse, 15.6% ($n = 81/518$) of girls and 5.1% ($n = 9/177$) of boys, with 26.7% ($n = 24/90$) of these cases including penetration. Means and SD for study variables as well as bivariate correlations between study variables are shown in Table 1. Child sexual abuse severity was positively associated with self-silencing and divided self and negatively associated with limit-setting self-efficacy. Self-silencing and divided self were negatively associated with limit-setting and protection use self-efficacy.

Mediation Model

The hypotheses of the present study were that child sexual abuse would be related to lower limit-setting and protection use self-efficacy (hypothesis 1) and that self-silencing and divided self would play a mediational role in the associations between child sexual abuse severity and limit-setting and protection use self-efficacy (hypothesis 2). A path analysis model was tested to examine the direct associations between child sexual abuse severity and limit-setting and protection use self-efficacy and the indirect associations via self-silencing and divided self. Age and being a sexual minority were included as covariates. Covariances between self-silencing and divided self and between limit-setting and protection use self-efficacy were included as they are subscales of the same concept. The fit of this model could be improved, $\chi^2(3) = 14.41$, $p = .002$; RMSEA = .07, 90% CI (.04–.11); CFI = .96; SRMR = .03. Based on modification indices (MI), covariances between child sexual abuse severity and age (MI = 5.28) as well as between child sexual abuse severity and being a sexual minority (MI = 8.72) were added,

Table 1 Means, standard deviations, and correlations for the main study variables

	n	*M* (SD)	1	2	3	4
1. Childhood sexual abuse Wave 1	695	.16 (.45)	–			
2. Self-silencing Wave 2	606	9.42 (4.09)	.14***	–		
3. Divided self Wave 2	609	9.80 (5.39)	.10*	.44***	–	
4. Limit-setting SE Wave 4	661	13.32 (2.25)	−.12***	−.14***	−.19***	–
5. Protection use SE Wave 4	661	16.71 (3.06)	−.07	−.19***	−.18***	.48***

SE self-efficacy

*$p < .05$; ***$p < .001$

as these associations were theoretically relevant and in line with past studies. This mediation model provided a better fit to the data, $\chi^2(1) = .126$, $p = .723$; RMSEA = .00, 90% CI (.00–.07); CFI = 1.00; SRMR = .01.

Results of the final model, shown in Fig. 1, indicated that child sexual abuse severity was positively associated with self-silencing and divided self. In turn, self-silencing was negatively associated with protection use self-efficacy, whereas divided self was negatively associated with limit-setting and protection use self-efficacy. The direct association between child sexual abuse severity and limit-setting self-efficacy, which was significant before the inclusion of mediators ($\beta = -.13$, $p = .008$), was smaller after inclusion of mediators ($\beta = -.10$, $p = .046$). The direct association between child sexual abuse severity and protection use self-efficacy was nonsignificant before ($\beta = -.06$, $p = .213$) and after the inclusion of mediators ($\beta = -.03$, $p = .615$).

Bootstrapping analyses indicated that the negative indirect effect of child sexual abuse severity on limit-setting self-efficacy through divided self was significant (indirect effect = −.09, 95% bootstrap CI −.20 to −.02), whereas the indirect effect through self-silencing was nonsignificant (indirect effect = −.04, 95% bootstrap CI −.14 to .02). The negative indirect effect of child sexual abuse severity on protection use self-efficacy through self-silencing and divided self was significant (respectively, indirect effect = −.13, 95% bootstrap CI −.30 to −.04; indirect effect = −.08, 95% bootstrap CI −.22 to −.01). The final model explained 5.8% of the variance in limit-setting self-efficacy as well as 5.7% in protection use self-efficacy.

Discussion

Adolescence is a sensitive developmental period to explore and understand sexuality, as well as a critical window for promoting sexual well-being and preventing adult sexual difficulties (Kar et al., 2015). Adolescents' views of themselves as able to assert their sexual limits and protect their sexual and reproductive health are important to help them prevent unwanted or unpleasant sexual activities and reduce potential adverse outcomes of sexual intercourse (e.g., STIs, unintended pregnancies; Rostosky et al., 2008). The present study shed light on what factors may affect adolescents' self-efficacy in sexual situations. The major finding is that silencing the self attitudes and behaviors in intimate relationships played a mediational role in the negative association between child sexual abuse severity and sexual self-efficacy in adolescents.

Partly in line with our first hypothesis, results showed that child sexual abuse severity was associated with lower limit-setting self-efficacy in sexual situations. However, child sexual

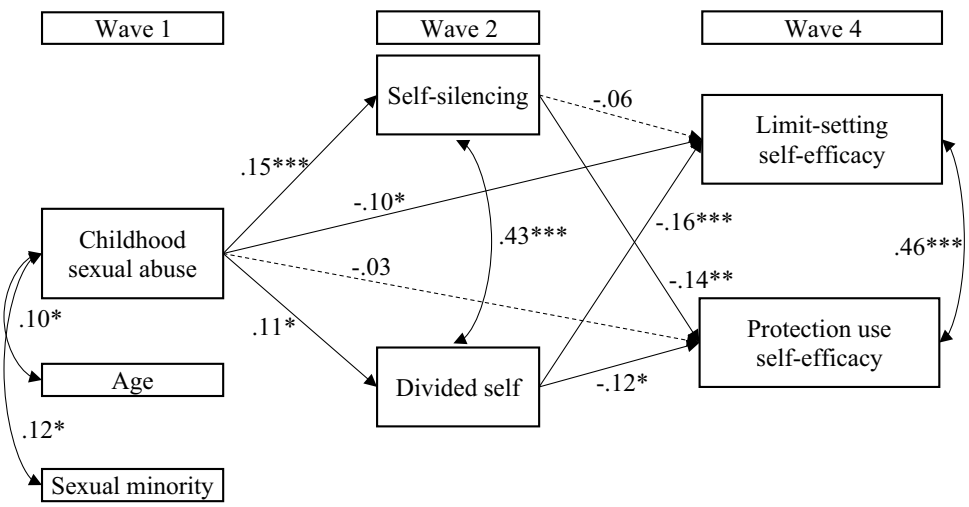

Fig. 1 Mediation model of the associations between childhood sexual abuse, self-silencing and divided self, and sexual self-efficacy. The regression coefficients are standardized scores. The effects of age and being a sexual minority on self-silencing, divided self, and sexual self-efficacy subscales were included, but not shown for clarity

abuse severity was not significantly directly associated with protection use self-efficacy. These results are consistent with those of Rickert et al. (2002), who reported that a lifetime history of sexual assault was associated with lower sexual assertiveness concerning refusal of intercourse, but not to assertiveness in regard to birth control or STIs. Livingston and Testa (2007) reported that difficulty refusing unwanted sexual advances was most affected by more recent sexual victimization, when both childhood and adulthood victimization were examined. In the current study, the significant association between child sexual abuse severity and sexual limit-setting self-efficacy may be explained by the use of an adolescent sample, where the negative effect may not have yet dissipated over time or been influenced by other positive/negative experiences. This significant negative effect of child sexual abuse is consistent with trauma theories, which hold that given the betrayal of trust and violation of sexual boundaries involved in sexual victimization, victim beliefs about their rights or ability to refuse unwanted sex may be distorted or influenced by learned powerlessness or hopelessness (Briere, 2002; Finkelhor & Browne, 1985). Feeling confident in one's ability to set sexual boundaries may thus represent a specific challenge for adolescent victims of child sexual abuse, given their limits have not been respected in past sexual experiences.

Partly in line with the mediational model expected in our second hypothesis, results showed that child sexual abuse severity was associated with greater silencing the self attitudes and behaviors in intimate relationships. Child sexual abuse has been consistently associated with identity impairment (Bigras, Godbout, & Briere, 2015; Briere & Elliott, 1994; Putnam, 1990) and romantic relationship difficulties (DiLillo et al., 2009; Vaillancourt-Morel et al., 2015), but the association with silencing the self in intimate relationships was less supported and characterized by inconsistent results (Arata & Lindman, 2002; Whiffen et al., 2000). The current finding supports that of Arata and Lindman who reported a significant association between child sexual abuse and total scores on Silencing the Self scale. However, this is, to our knowledge, the first study to suggest that child sexual abuse is associated with silencing the self attitudes and behaviors in adolescents' romantic relationships.

Trauma theories may help understand these findings. As reported by many trauma theorists (Briere & Scott, 2014; Cole & Putnam, 1992), child sexual abuse may hinder the appropriate development of victims' construction of self. In sexual abuse, the perpetrator distorts the child's perception of the world and of the self. Children face many challenges after the abuse, including the need to focus on the external environment, rather than the self, to prevent potential threats, and the need to comprehend the meaning of the abuse in the context of their overall identity development. The self of child sexual abuse victims may be infused with shame, self-blame, and secrecy, leading to negative self-evaluations and difficulty trusting their own perceptions and needs. In romantic relationships, this shattered self may lead victims to be unable to recognize their own internal states, hence becoming reliant on the feedback from their partner in relation to what they need, want, and feel, or to adopt an alien self into the fragmented self-structure (Sanderson, 2006). The abuse may also lead to representations of others and the world as bad/dangerous, where the characteristics of the perpetrator are projected onto the romantic partner, being now perceived as dangerous (Elliott, 1994; Stovall & Craig, 1990). These mental representations of others may necessitate protective strategies where inhibiting or splitting their self represents an automatic response to appease the imagined perpetrator. Thus, in the context of a romantic relationship, victims may use both self-silencing and divided self as ways to cope with the effect of the abuse on the construction of self-with-others. Even if these interpretations are in line with the current study's findings, future research should examine these assumptions.

Third, partly in line with our second hypothesis, results showed that child sexual abuse severity was related to lower protection use self-efficacy via more self-silencing and more divided self attitudes and behaviors, whereas child sexual abuse severity was related to lower limit-setting self-efficacy via more divided self attitudes and behaviors. Thus, following childhood sexual abuse, disturbances in the self and their associated attitudes and behaviors lead victims to feel less confident in their ability to refuse unwanted sexual advances and use sexual protection. The mediational role of silencing the self attitudes and behaviors is in line with Zurbriggen and Freyd (2004) proposition of different possible mental mechanisms linking abuse experiences and sexual outcomes associated with sexual self-efficacy. These theoretical propositions included the mediating roles of lack of access to one's internal self or negative cognitions about the self. However, only divided self mediated the association with lower limit-setting self-efficacy. Self-silencing is more common and frequent than divided self and represents the tendency to inhibit self-expression and action (Jack & Dill, 1992; Ussher & Perz, 2010). The frequencies of these coping strategies may explain the nonsignificant association between self-silencing and limit-setting self-efficacy. Not feeling confident in one's ability to refuse unwanted sexual advances may require deeper and less common silencing the self attitudes and behaviors such as divided self. In addition, self-silencing attitudes and behaviors in the aftermath of child sexual abuse may impede the support and healing possible in romantic relationships (Evans, Steel, Watkins, & DiLillo, 2014), which in turn may manifest as difficulties to feel able to protect oneself sexually.

Limitations and Future Studies

Interpretation of the present findings should be tempered by the consideration of certain potential limitations. First, the correlational design and the lack of statistical control for other potential

third variables make it impossible to determine causal relations. Sexual abuse often occurs in deficient family environments, delinquent peer environments, or in co-occurrence with other forms of childhood maltreatment, with some heritable traits in children also being related to higher risk of some adverse childhood events. These factors could also lead to similar identity and self-efficacy difficulties. Child sexual abuse is uniquely associated with an increased risk for adverse outcomes, including sexual risk behaviors, over and above the effects of other types of child maltreatment and controlling for family background using twin studies (Nelson et al., 2002; Noll et al., 2018; Senn & Carey, 2010; Thibodeau et al., 2017a). Even if these rigorous studies suggest a unique effect of child sexual abuse, future studies should control for genetic factors and prior family and peer environments, as child sexual abuse may only be correlated with—rather than causative of—later identity and sexual difficulties. The causal direction between the self in a relationship and sexual self-efficacy also remains to be clarified in future follow-ups from childhood to adolescence. Moreover, although silencing the self attitudes and behaviors as well as sexual self-efficacy may change across time or across romantic or sexual partners, the effect of childhood sexual abuse on these patterns of change remains understudied. Thus, studies examining how identity formation and self-efficacy development may evolve over the course of sexual victims' history are needed.

Second, even if this sample was drawn from a large representative sample of Quebec high school students, it was restricted to adolescents who indicated they had a boyfriend or a girlfriend prior to Wave 2, which limits the generalizability of our findings to adolescents with romantic relationships in high school. The generalizability is also limited by the high attrition rate between Wave 1 and Wave 4. Analyses showed that boys, students from ethnic minorities, and older participants were more likely to drop out. The gender and age differences in participation are similar to those of other sex-related research (Zimmer-Gembeck & Helfand, 2008). Generalizability may also be affected by the somewhat lower rates of child sexual abuse (16% in girls and 5% in boys) compared with those from meta-analyses (Stoltenborgh et al., 2011). However, our definition is considered narrow as it includes only contact sexual acts—which usually leads to lower prevalence rates (contact abuse: 6% for men and 13% for women; Barth, Bermetz, Heim, Trelle, & Tonia, 2013)—that are considered unwanted or forced by the victim and not based on age-gap criteria—which also decreases rates, particularly for boys (self-defined abuse: 7% in women and 4% in men; Vaillancourt-Morel et al., 2016). Moreover, these rates are for Time 1, thus for sexual abuse that occurs before approximately 15 years of age, whereas estimates in past studies are often for abuse until 18 years of age, not necessarily considered as unwanted sexual acts but legally defined as such based on age-gap criteria. Future research should replicate our findings with a representative sample of adolescents and a broader definition of childhood sexual abuse. A larger sample would also allow the examination of potential gender differences which was limited in our sample by the high attrition rate combined with the lower frequency of child sexual abuse, both particularly salient in boys, leading to lower variance in the sexual abuse variable in boys.

Third, all data in this study were collected via self-report measures, which have some inherent biases and are dependent on individuals' self-perceptions as shown by the low agreement between prospective and retrospective measures of childhood sexual abuse (Baldwin, Reuben, Newbury, & Danese, 2019). Our self-efficacy measure was also centered on preventing what is unwanted rather than promoting a positive view of adolescents as sexual beings, able to assert their sexual needs. Thus, our study focused on containment of risk associated with sexual activity rather than promoting adolescents' sexual development. Future studies should assess sexual self-efficacy as both being able to enjoy the positive and avoid the negative from sexual experiences. Furthermore, the present study examined adolescents currently in intimate relationships using an intra-individual approach. Future studies should consider a dyadic perspective and seek to understand sexual decision-making in different relational contexts, including one-night stands and committed romantic relationships. Indeed, relational factors may have a significant impact on adolescent sexual self-efficacy. Finally, child sexual abuse may also interact with the environment (e.g., parental support; Godbout, Briere, Sabourin, & Lussier, 2014) and genetic factors (Tyrka, Burgers, Philip, Price, & Carpenter, 2013) to predict outcomes which were not taken into account in the present study.

Theoretical and Clinical Implications

This study expanded on previous studies of childhood sexual abuse and sexual self-efficacy by focusing on a large adolescent school sample, as well as two dimensions of sexual self-efficacy and two sets of silencing the self attitudes and behaviors in intimate relationships. The prospective nature of this study, with childhood sexual abuse being measured at Wave 1, silencing the self at Wave 2, and sexual self-efficacy at Wave 4, lends greater predictive power to the findings. Our results showed that two silencing the self attitudes and behaviors were highly relevant and explained how childhood sexual abuse may limit sexual self-efficacy through complex effects on a clear and stable sense of self in intimate relationships. Specifically, results shed light on how the silencing the self theory (Jack, 1991) may help explain sexual self-efficacy difficulties of adolescent victims of sexual abuse in childhood. Building on past trauma theories (Briere & Scott, 2014; Cole & Putnam, 1992), findings of the present study suggest that the effects of the abuse on the development of self may be at the center of a deeper understanding of childhood sexual abuse's impact on sexual outcomes.

Identifying this theoretically grounded pathway through which childhood sexual abuse could influence sexual

self-efficacy is critical to informing prevention and treatment efforts. Even if this study was centered on preventing what is unwanted rather than promoting a positive view of adolescents as sexual beings, a comprehensive education about sexuality should find the right balance between helping these adolescents to recognize the warning signs of inappropriate sexual advances and of at-risk sexual activities and promoting a positive view of a pleasurable sex life where their own sexual needs and desires are respected and fulfilled (Fortenberry, 2016). Early interventions targeting the coordination of an integrated sense of self in which a sense of individuality and continuity allows for assertive strategies in intimate relationships may reduce victims' difficulties with sexual self-efficacy and possibly the high risk of revictimization and at-risk sexual behaviors. Abuse-focused therapy, such as self-trauma therapy (Briere, 2002; Briere & Scott, 2014), should include self-development and reinforcement of the victims' previous and current right to self-determinism (Cole & Putnam, 1992). This may allow the victims to develop a growing sense of personal identity and reduce distorted relational schemas underlying self-silencing strategies in intimate relationships (Briere, 2002). These interventions may be of particular importance for adolescents, as they are in a development period in which identity is at the heart of their sexual health and well-being.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

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