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## A Dyadic Longitudinal Study of Child Maltreatment and Sexual Well-Being in Adult Couples: The Buffering Effect of a Satisfying Relationship

Marie-Pier Vaillancourt-Morel <sup>a\*</sup>, E. Sandra Byers <sup>b</sup>, Katherine Péloquin <sup>a</sup>, and Sophie Bergeron <sup>a</sup>

<sup>a</sup>Department of Psychology, Université de Montréal; <sup>b</sup>Department of Psychology, University of New Brunswick

### ABSTRACT

This study examined the contribution of child maltreatment (CM) to trajectories of couples' sexual well-being, and whether relationship satisfaction moderates these associations. Using a sample of 269 mixed-sex couples followed over one year, dyadic latent growth curve models showed both actor and partner effects. In terms of actor effects, women's emotional neglect was associated with lower initial levels of sexual satisfaction, and most types of women's CM were related to a sharper decrease over time in sexual satisfaction. Men and women's emotional abuse and neglect, and women's sexual abuse, were associated with lower initial levels of sexual function. Men and women's emotional neglect and women's emotional abuse were related to higher initial levels of sexual distress. Women's sexual abuse was associated with a steeper increase in sexual distress. In terms of partner effects, women's emotional neglect was associated with lower initial levels of partner sexual satisfaction, and women's emotional abuse and neglect, with lower initial levels of partner sexual function. Greater relationship satisfaction buffered some of these negative effects. Given that sexual well-being requires a context in which the individual feels safe, all forms of CM may affect sexual well-being, although a satisfying relationship may buffer some of these effects.

Sexual well-being is a major component of overall quality of life and relationship adjustment (Kashdan et al., 2018; McNulty et al., 2016). Yet, more than 50% of individuals report not being fully satisfied with the sexual aspects of their relationship, and sexual satisfaction typically declines over the course of a relationship (McNulty et al., 2016; Mulhall et al., 2008). Research focusing on risk and protective factors underlying this decline in couples' sexual well-being is limited in scope as studies to date have mainly examined proximal psychosocial factors (Muisse et al., 2013, 2012), neglecting to consider distal factors such as child maltreatment (CM). CM is thought to affect 40% to 50% of the general population and around 80% of those seeking sex and couple therapy (Berthelot et al., 2014; MacDonald et al., 2016). Although there is a growing body of cross-sectional work focusing on the associations between CM and sexual well-being (Pulverman et al., 2018), most studies to date have neglected to consider the broader relationship context in which sexual activities typically occur. Thus, although sexuality is an integral component of most couple relationships (Dewitte, 2014; Kim et al., 2017), we know little about the effect of CM on the sexual well-being of both partners over time within the context of romantic relationships. The current study examined the associations between CM and initial levels and trajectories over one year of three dimensions of own and partner's sexual well-being—sexual satisfaction, sexual distress, and sexual

function—as well as whether relationship satisfaction moderated these associations.

### Childhood Maltreatment and Sexual Well-Being in Adulthood

CM refers to all types of abuse and neglect experienced by a child under 18 years of age in the context of a relationship of responsibility, trust or power (World Health Organization, 2016). This includes sexual, physical, and emotional abuse as well as physical and emotional neglect. Trauma conceptualizations (Briere & Scott, 2014; Finkelhor & Browne, 1985) and developmental perspectives such as attachment theory (Bowlby, 1969) support the negative effect that CM may have on the unfolding of sexuality from childhood to adulthood. Overall, these theoretical models suggest that when the child's environment is not reliably available and supportive, as in neglecting or abusive families, the child may form a model of self as shameful or flawed, and of others as unresponsive or abusive (Briere, 2002; Mikulincer & Shaver, 2016). These distorted representations of self and others as well as the intense negative feelings experienced during CM (e.g. powerlessness, fear) would then be re-evoked in intimate relationships, including in the sexual realm in adulthood (Briere, 2002; Diamond et al., 2007; Finkelhor & Browne, 1985). Given that sexual well-being requires a context where one feels safe to experience the vulnerability inherent in intimate sexual

**CONTACT** Marie-Pier Vaillancourt-Morel  Marie-Pier.Vaillancourt-Morel@uqtr.ca  Department of Psychology, Université de Montréal, Montréal, Québec H3C 3J7, Canada

\*Present address: Department of Psychology, Université du Québec à Trois-Rivières, Pavillon Michel-Sarrazin, 3600 rue Sainte-Marguerite, C.P. 500, Trois-Rivières, Québec, Canada. Phone number: +1 (819) 376-5011 #3543. E-Mail: Marie-Pier.Vaillancourt-Morel@uqtr.ca

interactions, all forms of CM may affect sexual well-being in adulthood.

Cross-sectional studies to date provide support for the proposed negative associations between both sexual and nonsexual types of CM and a wide spectrum of negative sexual outcomes. A meta-analysis revealed that physical and emotional abuse and neglect are significantly associated with risky sexual behavior for men and women (Norman et al., 2012). Studies indicated that sexual, emotional, and physical abuse are associated with more negative emotions during sexual arousal (e.g., fear, anger, disgust), lower sexual function and satisfaction, and higher levels of sexual withdrawal (Lemieux & Byers, 2008; Najman et al., 2005; Schloredt & Heiman, 2003; Seehuus et al., 2015). A recent review indicated that 25 to 59% of women with a history of childhood sexual abuse reported sexual dysfunction (Pulverman et al., 2018). However, empirical studies to date are generally limited to samples of individuals (mostly women) and include both single and partnered participants without considering the role of relationship status (Bigras et al., 2017; Lemieux & Byers, 2008). Yet, given that CM is a relational trauma and that sexuality is largely embedded in, and influenced by, romantic relationships, the intimate nature of couple relationships may shape the effects of CM on sexual well-being (Vaillancourt-Morel, Godbout et al., 2016). Moreover, most empirical work has focused narrowly on a single abuse type, primarily sexual abuse, and the associations between neglect and sexual satisfaction, function, and distress remain largely unexamined. Thus, the distinctive effects of different types of CM on sexual satisfaction, function, and distress in romantic relationships remains unclear.

### **Childhood Maltreatment and Sexual Well-Being in Romantic Relationships**

A handful of studies have examined the CM-sexual well-being associations specifically in romantic relationships (Corsini-Munt et al., 2017; DiLillo et al., 2009; Vaillancourt-Morel, Dugal, et al., 2016; Vaillancourt-Morel et al., 2015). However, they suffered from important methodological shortcomings, limiting the conclusions that can be drawn. Vaillancourt-Morel et al. (2016) found that, in a sample of 686 participants currently involved in a dating, cohabiting, or married relationship, childhood sexual abuse was associated with higher levels of sexual compulsivity and sexual avoidance. This cross-sectional study assessed only one type of CM and sampled individuals rather than couples. Including both partners allows for the examination of the associations between an individual's CM and their partner's sexual well-being (i.e., partner effects). Secondary trauma theory (Nelson & Wampler, 2000) suggests that an individual's CM may also have a negative effect on their partner, with some partners showing traumatic responses that mimic those of the victims. Investigating these partner effects for couples' sexual well-being is relevant given the inherently interpersonal nature of sexuality (Dewitte, 2014). Corsini-Munt et al. (2017) studied 49 women with genito-pelvic pain and their romantic partners and found that men and women's CM was related to their own lower sexual function, but unrelated to their partners' sexual function. Although the authors examined the associations between an individual's CM and

their partner's sexual well-being, they used only a global CM score that did not distinguish between different forms of CM and sampled women reporting a sexual dysfunction, limiting the generalizability of the findings. Moreover, these two cross-sectional studies are characterized by descriptive snapshots taken at a specific time point. Sexual outcomes following CM may evolve over the course of relationships, even in a short period of time, as a result of specific positive and negative interactions between partners. Measuring the evolution of both partners' sexual well-being prospectively can provide key information about the impact of CM at a specific time point (i.e., effects on initial levels) as well as the stability of these effects over time as the relationship progresses (i.e., effects on trajectories).

In a sample of 202 newlywed couples, DiLillo et al. (2009) examined the effects of CM on the trajectories of two sexual outcomes, sexual frequency and sexual satisfaction, using a two-year longitudinal design. CM was unrelated to initial levels or trajectories of either sexual frequency or sexual satisfaction. However, they used one-item measures of satisfaction and frequency and, despite the inclusion of couples, partner effects were not examined. The current study addressed the methodological shortcomings of past research by using a longitudinal dyadic design—including a dyadic data analytic strategy—to examine the associations between five types of CM and the trajectories of three indicators of partners' sexual well-being.

### **Relationship Satisfaction as a Moderator**

Research indicates that the negative outcomes of CM are not universal, with some individuals who have experienced CM reporting healthy sexual well-being at different periods of their development (Fava et al., 2018). Thus, it is important to identify moderators that may alter the trajectory and promote resilience in individuals who have experienced CM and their partners. These moderating variables may represent potentially important targets for intervention. In particular, although representations of self and others tend to be relatively stable over time, they are open to revision in light of other significant experiences, particularly with romantic partners (Waters et al., 2000). Hence, a relationship that meets one's needs and expectations (i.e., high relationship satisfaction) may become a corrective emotional experience that buffers or moderates the negative associations between CM and sexual well-being.

There is some evidence to support this view. Brewin et al. (2000) showed in their meta-analysis that lack of social support was the strongest risk factor for posttraumatic stress disorder in populations exposed to trauma in adulthood. In a community sample of 60 women, Whiffen et al. (1999) found that sexual abuse was associated with depressive symptoms for individuals who did not feel intimate with their partners, but not for those reporting a high level of intimacy. Evans et al. (2014) studied 193 newlyweds and found that exposure to intimate partner violence in childhood was not associated with adult trauma symptoms when men received high levels of positive support from a spouse; however, it was associated with symptoms for men who received high levels of negative support such as criticizing or withdrawing from the

partner. To our knowledge, no study to date has examined whether the quality of the relationship with a partner moderates the associations between CM and either partner's sexual well-being.

### Current Study

The first objective of this study was to use a longitudinal dyadic design to examine, in men and women, the contribution of five types of CM to initial levels and trajectories of three indicators of their own and their partner's sexual well-being: sexual satisfaction, sexual distress, and sexual function. Based on trauma and attachment theories (Bowlby, 1969; Briere & Scott, 2014; Finkelhor & Browne, 1985) as well as on cross-sectional studies that reported negative associations between CM and sexual well-being (Bigras et al., 2017; Lemieux & Byers, 2008; Najman et al., 2005; Schloretdt & Heiman, 2003; Seehuus et al., 2015), we predicted that all types of CM would be associated with lower initial levels of participants' own and their partners' sexual well-being, as well as with a greater decline in sexual well-being over time. The second objective was to examine whether relationship satisfaction moderated these associations. Because high levels of intimacy (Whiffen et al., 1999) and positive support from a spouse (Evans et al., 2014) have been shown to moderate the association between CM and adult trauma symptoms, we predicted that the negative associations between CM and sexual well-being would be significant at lower levels of relationship satisfaction but not at higher levels of relationship satisfaction, demonstrating the protective effect of being in a satisfying romantic relationship.

## Method

### Participants and Procedure

Couples were recruited in 2016 via online advertisements (e.g., social media, classified advertisement web sites), e-mail lists, and posters or flyers distributed in various locations in the province of Quebec, Canada. Interested participants were contacted by a research assistant for a brief telephone interview to determine their eligibility to participate. To be eligible, both partners had to be at least 18 years of age and together for at least six months. To include all relationship styles and because couples not living together are not that different from cohabiting and married couples (Forste & Tanfer, 1996; Waite & Joyner, 2001), non-cohabiting, cohabiting, and married couples were included. Couples were excluded if the woman was pregnant at Time 1, given changes in sexuality during pregnancy and the postpartum period. Pregnancy at other time points was assessed and included as a covariate in all models. Partners from eligible couples independently accessed a hyperlink to complete a consent form and self-report questionnaires hosted by Qualtrics Research Suite. Six months and one year later, couples in which both partners completed measures at Time 1 were contacted by e-mail to complete Time 2 and Time 3 questionnaires, respectively. Each partner received a Can\$10 gift card after completing each survey and was eligible to win a Can\$100 gift card if they completed all time points. All procedures were approved by our University Research Ethics Board.

Of the 470 interested couples who contacted our team, 28 (6.0%) ultimately declined to participate, 27 (5.7%) did not meet eligibility criteria, and 102 (21.7%) had only one partner who completed the Time 1 survey. The remaining 313 (66.6%) couples were invited for follow-up. Because trajectories over time were distinguishable by participant gender and we only had eight same-sex couples, we restricted the analysis to the 305 mixed-sex couples. Of these 305 couples, 36 (11.8%) had separated at the Time 3 assessment. Data from these 36 couples were excluded as they could not be handled using the missing-at-random assumption because the separation could be associated with the couple's sexual well-being over time, resulting in a sample size of 269 couples. At Time 1, compared with couples who separated ( $M = 2.57$  years,  $SD = 1.64$ ), intact couples ( $M = 5.33$  years,  $SD = 4.71$ ) reported a significantly longer relationship duration,  $t(303) = 6.96$ ,  $p < .001$ ,  $\eta^2 = .04$ , and a relationship status that suggested more commitment, i.e., a higher proportion cohabiting or married, 38.9% versus 74.3%, respectively,  $\chi^2(1) = 19.07$ ,  $p < .001$ , Cramer's  $V = .25$ . Men ( $M = 25.92$  years,  $SD = 6.13$ ) and women ( $M = 25.00$  years,  $SD = 4.92$ ) who had separated were also significantly younger than men ( $M = 29.85$  years,  $SD = 8.20$ ) and women ( $M = 27.67$  years,  $SD = 6.72$ ) from intact couples, men:  $t(302) = 2.77$ ,  $p = .006$ ,  $\eta^2 = .03$ ; women:  $t(303) = 2.30$ ,  $p = .022$ ,  $\eta^2 = .02$ . There were no other significant differences between separated and intact couples on sociodemographic variables, Time 1 sexual outcomes, or CM.

Of these 269 couples, at the time of first data collection, 25.7% ( $n = 69$ ) of couples were not living together, 56.1% ( $n = 151$ ) were cohabiting, and 18.2% ( $n = 49$ ) were married. Couples were together for an average of 5.33 years (range: 0.5 to 28.83;  $SD = 4.71$ ). On average, men were 29.85 years of age (range: 18 to 73;  $SD = 8.20$ ) and women were 27.67 years of age (range: 19 to 58;  $SD = 6.72$ ). Most men (76.2%;  $n = 205$ ) and women (74.7%;  $n = 201$ ) described their cultural identity as Canadian, whereas 13.0% ( $n = 35$ ) of men and 16.0% ( $n = 43$ ) of women reported they identified as European, and 10.4% ( $n = 28$ ) of men and 9.3% ( $n = 25$ ) of women identified with a range of other cultural identities (i.e., Indigenous, First Nations, American, Latin American, Middle Eastern, African, Asian, Australian, Carribean, Maghreb, Moroccan, or mixed cultural identity). On average, men reported 15.56 years of education ( $SD = 3.02$ ) and women, 16.82 years ( $SD = 2.93$ ), which is the equivalent of a bachelor's degree.

## Measures

### Child Maltreatment

CM was measured at Time 1 using the 25-item short form of the Childhood Trauma Questionnaire (CTQ; Bernstein et al., 2003). This measure retrospectively assesses the extent of five types of CM with five items for each type of CM: physical, emotional, and sexual abuse as well as physical and emotional neglect over the entire "growing up" period, without reference to specific ages. In the CTQ, physical abuse refers to bodily assaults on a child by an older person that posed a risk of, or resulted in, injury (e.g., *I was punished with a belt, a board, a cord, or some other hard object*). Emotional abuse refers to verbal assaults on a child's sense of worth or well-being, or any humiliating, demeaning, or threatening behavior (e.g., *People*

in my family said hurtful or insulting things to me). Sexual abuse refers to sexual contact or conduct between a child and an older person, including explicit coercion (e.g., *Someone threatened to hurt me or tell lies about me unless I did something sexual with them*). Physical neglect refers to failure of caretakers to provide for a child's basic physical needs, including food, shelter, clothing, safety, and health care (e.g., *I had to wear dirty clothes*). Emotional neglect refers to the failure of caretakers to meet children's basic emotional and psychological needs, such as love, encouragement, belonging, nurturance, and support (e.g., *I felt love*; Bernstein & Fink, 1998). Participants were instructed to think about these experiences in their own family and rated each item on a five-point scale ranging from *never true* (1) to *very often true* (5). Scores were summed to obtain a total score ranging from 5 to 25 for each five-item subscale, with higher scores indicating higher frequency of this type of CM. The CTQ has good internal consistency (Cronbach's  $\alpha = .81$  to  $.95$ ), measurement invariance across four samples, including a community sample, good temporal stability over a 2- to 6-month interval ( $r = .79$  to  $.95$ ), and good convergent validity with a structured trauma interview (Bernstein et al., 1997, 2003). In the present sample, the ordinal coefficient alpha for the five-item subscales varied between  $.79$  for physical neglect to  $.98$  for sexual abuse for men and between  $.82$  for physical neglect to  $.98$  for sexual abuse for women.

### Relationship Satisfaction

At Time 1, the 32-item Couple Satisfaction Index (CSI; Funk & Rogge, 2007) was used to assess participants' subjective global satisfaction with their current romantic relationship, without any reference to sexual satisfaction (e.g., *How well does your partner meet your needs?*). One global item uses a seven-point scale, whereas the other 31 items use a variety of six-point scales. Items were summed to obtain a total score ranging from 0 to 161, with higher scores indicating greater relationship satisfaction. The CSI demonstrates good internal consistency (Cronbach's  $\alpha = .84$  to  $.98$ ; Graham et al., 2011), and correlates highly with other measures of relationship satisfaction (Funk & Rogge, 2007). In the present study, Cronbach's  $\alpha$  was  $.96$  for both women and men.

### Sexual Satisfaction

At each time point, the Global Measure of Sexual Satisfaction (GMSEX; Lawrance et al., 2019) was used to evaluate participants' subjective global satisfaction with their sexual relationship with their partner. It includes five items rated on seven-point bipolar scales: good-bad, pleasant-unpleasant, positive-negative, satisfying-unsatisfying, and valuable-worthless. Items were summed to provide a total score (5 to 35), where higher scores reflect greater sexual satisfaction. This scale demonstrates good internal consistency (Cronbach's  $\alpha = .96$ ), good 3-month test-retest reliability ( $r = .78$  to  $.84$ ), and good convergent validity with other sexual satisfaction measures (Lawrance & Byers, 1992, 1995). In the present study, Cronbach's  $\alpha$  was  $.93$  at all time points for men and between  $.91$  and  $.95$  for women.

### Sexual Function

At each time point, women's sexual function in the previous four weeks was measured with the Female Sexual Function

Index (FSFI; Rosen et al., 2000), a 19-item scale that assesses sexual desire, arousal, lubrication, orgasm, satisfaction, and pain (e.g., *Over the past 4 weeks, how would you rate your level (degree) of sexual desire or interest?*). Scores obtained in these sexual domains were summed and multiplied by a respective factor that homogenizes the influence of each dimension to form a total score ranging from 2 to 36, with a higher score indicating better sexual function. The FSFI has excellent internal reliability (Cronbach's  $\alpha = .97$ ) and good 4-week test-retest reliability ( $r = .88$ ; Rosen et al., 2000). In the present study, Cronbach's  $\alpha$  was  $.94$  at all time points. At each time point, men's sexual function in the past four weeks was measured with the International Index of Erectile Function (IIEF; Rosen et al., 1997), a 15-item scale that assesses sexual desire, erectile function, orgasmic function, intercourse satisfaction, and overall sexual satisfaction (e.g., *Over the past 4 weeks, how often were you able to get an erection during sexual activity?*). Items were summed to provide a total score ranging from 5 to 75, with a higher score indicating better sexual function. The IIEF has good internal consistency (Cronbach's  $\alpha = .91$  to  $.96$ ), good 4-week test-retest reliability ( $r = .82$ ), and adequate convergent validity with clinical interviews (Rosen et al., 1997). In the present study, Cronbach's  $\alpha$  varied between  $.82$  and  $.84$ .

### Sexual Distress

At each time point, sex-related personal distress was measured with the Female Sexual Distress-Revised (FSD-R) which has been validated with men (DeRogatis et al., 2008; Santos-Iglesias et al., 2018). Participants rated 13 items that assess how often a sexual problem has bothered them or caused distress during the past 30 days (e.g., *feeling sexually inadequate, bothered by low desire*) on a five-point frequency scale (0 = *never*, 4 = *always*). Items were summed to obtain a total score ranging from 0 to 52 with higher scores indicating more sexual distress. The FSD-R demonstrates good internal consistency (Cronbach's  $\alpha = .88$ ), good 28-day test-retest reliability (ICC =  $.88$ ), and adequate convergent validity with sexual bother and concerns (DeRogatis et al., 2008; Santos-Iglesias et al., 2018). In the present study, Cronbach's  $\alpha$  was  $.94$  or  $.95$  for men and  $.94$  or  $.96$  for women.

### Data Analysis

Descriptive analyses were computed using the Statistical Package for the Social Sciences (SPSS 25.0) to examine sample characteristics, gender differences, and associations between the study variables. We conducted dyadic latent growth curve models (LGCM) within a structural equation model (SEM; Kenny et al., 2006) using *Mplus* 8.0 (Muthén & Muthén, 1998–2017). These LGCM were tested within an Actor-Partner Interdependence Model (APIM; Kenny et al., 2006), i.e., a model that includes actor effects controlling for partner effects and partner effects controlling for actor effects. Within-dyad tests of distinguishability (Kenny et al., 2006) on unconditional latent growth curve models (i.e., model that constrained intercept and slope fixed and random effect estimates to be equal compared with the freely estimated model) revealed that participant gender significantly distinguished the three models:

sexual satisfaction:  $\Delta\chi^2(4) = 9.47, p = .050$ ; sexual function:  $\Delta\chi^2(4) = 507.91, p < .001$ ; sexual distress:  $\Delta\chi^2(4) = 28.30, p < .001$ . Thus, all models are presented for distinguishable dyads. From the 269 couples, 264 couples completed questionnaires at Time 2 (98.1%) and 259 couples at Time 3 (96.3%). Attrition not due to separation and score-level missing data were handled using Full Information Maximum Likelihood (FIML; Muthén & Muthén, 1998–2017). 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). Overall model fit was tested by considering several fit indices: nonstatistically significant chi-square value; a comparative fit index (CFI) of .95 or higher; a root mean square error of approximation (RMSEA) below .06; and, a standardized root-mean-square residual (SRMR) below .08 (Kline, 2015).

First, as a preliminary step, three unconditional dyadic LGCM were computed to examine fixed- and random-estimates of intercept and slope for all sexual outcomes. The intercept represents the level at the beginning of the study and the slope represents the trajectory from Time 1 to Time 3. Second, to examine the association between each type of CM and the sexual outcomes (objective 1), five conditional dyadic LGCM were performed for each sexual outcome. These LGCM tested each CM separately as time-invariant covariates with fixed effects to predict participants' own and their partner's intercept (initial levels) and slope (trajectories) variance when present. These conditional models controlled for the effects of men and women's intercept levels on their own and their partner's trajectories over time. Third, to test for the moderating role of relationship satisfaction (objective 2), the interaction between each partner's CM and their own relationship satisfaction was added to each dyadic LGCM. When the interaction term was significant, simple slope tests were used to examine if the association between CM and sexual well-being was significant at lower levels of relationship satisfaction but not at higher levels of relationship satisfaction. Thus, simple slope tests were used to report the associations (simple slopes) at low ( $-1SD$ ) and high levels ( $+1SD$ ) of relationship satisfaction. For all LGCM, continuous predictors (i.e., type of CM, relationship satisfaction) were centered across men and

women (i.e., subtracting the mean of the entire sample from each person's individual value so that the mean of the entire sample was zero). As this study included a wide range of relationship duration (range from six months to 28.83 years) as well as couples reporting being pregnant at Time 2 or Time 3, we added relationship duration (centered) and pregnancy status (effect coded;  $-1 =$  not pregnant at Time 2 or Time 3;  $1 =$  pregnant at Time 2 or Time 3;  $n = 23$ ) as covariates in all conditional models.

## Results

### Descriptive Statistics

Means and standard deviations for CM, relationship satisfaction, sexual satisfaction, sexual function, and sexual distress are presented in Table 1 for men and women. To examine potential gender differences, we conducted paired *t* tests (gender as the repeated measure for the couple). Results, presented in Table 1, indicated that women reported significantly higher levels of emotional abuse and sexual abuse as well as significantly higher levels of sexual distress at all time points compared to men. In order to determine whether different forms of CM are distinct, we examined the bivariate correlations between types of CM. They ranged from  $r(269) = .18, p = .004$  to  $r(269) = .59, p < .001$  for men and from  $r(269) = .30, p < .001$  to  $r(269) = .74, p < .001$  for women, suggesting that different types of CM co-occur, but that they are sufficiently distinct to justify considering them apart.

### Unconditional Dyadic Latent Growth Curve Models

Unconditional dyadic LGCM fixed and random estimates of intercepts and slopes for all sexual outcomes were computed and are presented in Table 2. They provided good fit indices:  $\chi^2(4) = 4.42-5.29, p = .162-.352$ ; CFI = 1.00; RMSEA = 0.02–0.05 [CI = 0.00–0.13]; SRMR = 0.02. Sexual satisfaction declined significantly over time for men and women. Sexual function and sexual distress declined significantly over time for men, but remained stable for women, meaning that men reported worsening sexual function, but less sexual distress, over time. Random

**Table 1.** Means and standard deviations of childhood maltreatment, relationship satisfaction, and sexual well-being in men and women.

Variable	Men		Women		<i>t</i>	<i>p</i>
	<i>M</i> ( <i>SD</i> )	Range	<i>M</i> ( <i>SD</i> )	Range		
Physical abuse	5.85 (1.94)	5–17	5.84 (2.19)	5–22	0.06	.954
Emotional abuse	6.99 (3.23)	5–24	7.79 (3.94)	5–24	–2.87	.004
Sexual abuse	5.27 (1.50)	5–20	5.99 (3.09)	5–25	–3.75	<.001
Physical neglect	6.42 (2.29)	5–18	6.44 (2.52)	5–22	–0.13	.899
Emotional neglect	9.73 (4.31)	5–25	9.38 (4.09)	5–24	1.05	.294
Relationship satisfaction	133.73 (20.55)	47–161	135.18 (21.44)	38–161	–1.18	.238
Sexual satisfaction T1	30.07 (5.22)	5–35	30.12 (4.93)	6–35	–0.02	.981
Sexual satisfaction T2	30.11 (5.21)	5–35	29.50 (6.16)	5–35	1.10	.272
Sexual satisfaction T3	29.05 (5.93)	5–35	28.50 (6.87)	5–35	0.32	.753
Sexual function T1	66.65 (6.47)	32–75	28.53 (5.13)	10.8–36		NA
Sexual function T2	66.40 (6.83)	36–75	28.72 (5.03)	10.9–36		NA
Sexual function T3	65.46 (7.07)	33–75	28.21 (5.22)	9.2–36		NA
Sexual distress T1	10.02 (9.41)	0–52	11.92 (10.31)	0–47	–2.73	.007
Sexual distress T2	7.95 (9.54)	0–41	11.00 (11.28)	0–50	–3.61	<.001
Sexual distress T3	7.49 (9.00)	0–52	11.47 (11.60)	0–52	–4.62	<.001

*N* = 269. T1 = Time 1. T2 = Time 2. T3 = Time 3. NA = non applicable as sexual function in men and women were assessed with different measures.

**Table 2.** Unconditional dyadic latent growth curve models of sexual outcomes.

	Intercept		Slope	
	Mean	Variance	Mean	Variance
<b>Sexual satisfaction</b>				
Men	30.30***	8.75**	-0.51***	1.90
Women	30.18***	17.54***	-0.78***	4.32*
<b>Sexual function</b>				
Men (IIEF)	66.71***	30.24***	-0.64***	1.46
Women (FSFI)	28.63***	14.22***	-0.15	0.13
<b>Sexual distress</b>				
Men	9.65***	50.28***	-1.05***	1.12
Women	11.66***	86.70***	-0.25	20.71***

*N* = 269. IIEF = International Index of Erectile Function. FSFI = Female Sexual Function Index.

\**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

estimates of the intercept were all significant, indicating variability in the initial levels. Random estimates of the slope were significant only for women's sexual satisfaction and distress, indicating that there was variability among women in their patterns of change over time. There was little variability in all of the slopes for men and in the slope of sexual function for women, suggesting that they followed a similar pattern of change over time.

### Conditional Dyadic Latent Growth Curve Models

To examine which types of CM were associated with sexual outcomes (objective 1), men and women's CM scores were included as predictors of their own and their partner's intercept and slope for each sexual outcome in separate models. Relationship duration and pregnancy status were included as covariates in all models.

For sexual satisfaction, the five models predicting the intercept for men and women and the slope for women provided good fit indices:  $\chi^2(23) = 21.51-27.47$ ,  $p = .236-.550$ ; CFI = 0.99-1.00; RMSEA = 0.00-0.03 [90%CI = 0.00-0.06]; SRMR = 0.04-0.05. The results are presented in Table 3. The slope for men was not predicted, as the variance was not significant in the unconditional model. Women's emotional

neglect was associated with lower initial levels (i.e., intercepts) of their own and their partner sexual satisfaction. Women's emotional abuse, sexual abuse, physical neglect, and emotional neglect were associated with a steeper decrease over time in their own sexual satisfaction (i.e., slopes).

For sexual function, the five models predicting the intercept for men and women provided good fit indices:  $\chi^2(28) = 23.99-29.56$ ,  $p = .384-.682$ ; CFI = 1.00; RMSEA = 0.01-0.01 [90%CI = 0.00-0.05]; SRMR = 0.03-0.04. Results are presented in Table 4. The slopes for men and women were not predicted, as the variance was not significant in the unconditional model. Men and women's emotional abuse and emotional neglect were associated with lower initial levels of men's sexual function. Women's emotional abuse, sexual abuse, and emotional neglect were associated with lower initial levels of their own sexual function.

For sexual distress, the five models predicting the intercept for men and women and the slope for women provided good fit indices:  $\chi^2(22) = 13.88-28.21$ ,  $p = .169-.906$ ; CFI = 0.99-1.00; RMSEA = 0.00-0.03 [CI = 0.00-0.06]; SRMR = 0.02-0.03. Results are presented in Table 5. The slope for men was not predicted as variance was not significant in the unconditional model. Men's emotional neglect was associated with higher initial levels of their own sexual distress. Women's emotional abuse and emotional neglect were associated with higher initial levels of their own sexual distress. Women's sexual abuse was associated with a steeper increase in their own sexual distress over time.

### Conditional Dyadic Latent Growth Curve Models with Moderation Analysis

To test the moderating role of relationship satisfaction (objective 2), we examined whether the effect of men and women's CM on the intercept and slope of their own and their partner's sexual outcomes varied according to their own levels of relationship satisfaction. Relationship duration and pregnancy status were included as covariates in all models.

**Table 3.** Conditional dyadic latent growth curve models for the associations between men and women's childhood maltreatment and sexual satisfaction.

	Men			Women					
	Intercept			Intercept			Slope		
	b(SE)	<i>p</i>	$\beta$	b(SE)	<i>p</i>	$\beta$	b(SE)	<i>p</i>	$\beta$
<b>Model 1</b>									
Men physical abuse	-0.03 (0.16)	.849	-.02	0.03 (0.17)	.872	.01	-0.24 (0.12)	.058	-.20
Women physical abuse	-0.10 (0.15)	.491	-.07	0.04 (0.13)	.765	.02	-0.08 (0.09)	.362	-.08
<b>Model 2</b>									
Men emotional abuse	-0.11 (0.08)	.203	-.10	0.08 (0.08)	.320	.06	0.09 (0.05)	.086	.12
Women emotional abuse	-0.12 (0.07)	.061	-.14	-0.09 (0.08)	.231	-.08	<b>-0.10 (0.04)</b>	<b>.027</b>	<b>-.17</b>
<b>Model 3</b>									
Men sexual abuse	0.23 (0.20)	.257	.10	0.01 (0.24)	.967	.003	-0.03 (0.12)	.808	-.02
Women sexual abuse	-0.08 (0.07)	.261	-.07	0.07 (0.08)	.392	.05	<b>-0.20 (0.07)</b>	<b>.002</b>	<b>-.28</b>
<b>Model 4</b>									
Men physical neglect	-0.14 (0.11)	.195	-.10	-0.05 (0.14)	.704	-.03	-0.05 (0.09)	.543	-.05
Women physical neglect	-0.10 (0.10)	.312	-.08	-0.003 (0.10)	.976	-.002	<b>-0.15 (0.07)</b>	<b>.035</b>	<b>-.16</b>
<b>Model 5</b>									
Men emotional neglect	-0.09 (0.06)	.129	-.11	-0.05 (0.06)	.371	-.05	0.01 (0.04)	.899	.01
Women emotional neglect	<b>-0.14 (0.07)</b>	<b>.046</b>	<b>-.17</b>	<b>-0.14 (0.07)</b>	<b>.038</b>	<b>-.14</b>	<b>-0.13 (0.05)</b>	<b>.004</b>	<b>-.23</b>

Note. *N* = 269. b = unstandardized coefficient. SE = standard error.  $\beta$  = standardized coefficient. Relationship duration and pregnancy status were included as covariates. Coefficients in bold are significant at  $p < .05$ .

**Table 4.** Conditional dyadic latent growth curve models for the associations between men and women's childhood maltreatment and sexual function.

	Men			Women		
	Intercept			Intercept		
	b(SE)	<i>p</i>	$\beta$	b(SE)	<i>p</i>	$\beta$
<b>Model 6</b>						
Men physical abuse	0.40 (0.24)	.098	-.14	-0.15 (0.17)	.377	-.08
Women physical abuse	-0.35 (0.25)	.158	-.14	-0.06 (0.13)	.637	-.04
<b>Model 7</b>						
Men emotional abuse	<b>-0.24 (0.11)</b>	<b>.038</b>	<b>-.14</b>	0.08 (0.07)	.206	.07
Women emotional abuse	<b>-0.23 (0.11)</b>	<b>.045</b>	<b>-.16</b>	<b>-0.22 (0.08)</b>	<b>.004</b>	<b>-.23</b>
<b>Model 8</b>						
Men sexual abuse	0.01 (0.38)	.988	.002	0.21 (0.21)	.305	.09
Women sexual abuse	-0.22 (0.12)	.068	-.13	<b>-0.27 (0.09)</b>	<b>.001</b>	<b>-.23</b>
<b>Model 9</b>						
Men physical neglect	-0.25 (0.17)	.136	-.10	-0.11 (0.12)	.351	-.07
Women physical neglect	-0.30 (0.17)	.071	-.14	-0.13 (0.12)	.262	-.09
<b>Model 10</b>						
Men emotional neglect	<b>-0.25 (0.09)</b>	<b>.006</b>	<b>-.20</b>	-0.04 (0.06)	.504	-.05
Women emotional neglect	<b>-0.28 (0.11)</b>	<b>.009</b>	<b>-.21</b>	<b>-0.23 (0.07)</b>	<b>.001</b>	<b>-.24</b>

*N* = 269. *b* = unstandardized coefficient. SE = standard error.  $\beta$  = standardized coefficient. Relationship duration and pregnancy status were included as covariates. Coefficients in bold are significant at *p* < .05.

The results of the moderation analysis for sexual satisfaction are presented in Table 6. The associations between women's physical abuse, women's emotional abuse, and women's emotional neglect and initial levels of their male partner's sexual satisfaction were moderated by their own relationship satisfaction. The association between women's emotional abuse and their own slope of sexual satisfaction was moderated by their own relationship satisfaction.

The results of the moderation analysis for sexual function, and sexual distress are presented in Table 7. The associations

between women's physical abuse, women's emotional abuse, and women's emotional neglect and initial levels of their male partner's sexual function were moderated by their own relationship satisfaction. The association between men's sexual abuse and initial levels of their own sexual function was moderated by their own relationship satisfaction.

The results of the moderation analysis for sexual distress are presented in Table 8. The associations between women's physical abuse and emotional abuse and initial levels of their male partner's sexual distress were moderated by their own relationship satisfaction. The association between men's sexual abuse and initial levels of their own sexual function was moderated by their own relationship satisfaction. The association between women's sexual abuse and their own slope of sexual distress was moderated by their own relationship satisfaction.

For the significant interactions, simple slope tests are presented in their respective tables and showed that the nature of the moderation was similar in all cases. That is, the associations between CM and sexual well-being were significant at low levels of relationship satisfaction (1 SD below the mean), but not at high levels (1 SD above the mean). The significant interaction between women's physical abuse and relationship satisfaction for partner's sexual satisfaction is depicted in Figure 1 as an example of this common pattern.

## Discussion

Using a one-year longitudinal dyadic design, the present study examined in a sample of community couples: (1) the associations between five types of CM and sexual well-being, including inter-partner associations; and, (2) whether the quality of the romantic relationship moderated the associations between CM and either partner's sexual well-being. Beyond the complex findings related to these aims, one-year trends indicated that sexual satisfaction declined in men and women, sexual function declined in men only, and paradoxically, sexual distress also declined in men. These declines have also been reported for sexual and marital satisfaction

**Table 5.** Conditional dyadic latent growth curve models for the associations between men and women's childhood maltreatment and sexual distress.

	Men			Women					
	Intercept			Intercept			Slope		
	b(SE)	<i>p</i>	$\beta$	b(SE)	<i>p</i>	$\beta$	b(SE)	<i>p</i>	$\beta$
<b>Model 11</b>									
Men physical abuse	0.33 (0.28)	.236	.09	0.20 (0.38)	.605	.04	-0.02 (0.12)	.894	-.01
Women physical abuse	0.19 (0.28)	.513	.06	0.06 (0.26)	.820	.01	-0.07 (0.12)	.572	-.03
<b>Model 12</b>									
Men emotional abuse	0.20 (0.14)	.147	.09	-0.05 (0.17)	.771	-.02	-0.15 (0.08)	.061	-.11
Women emotional abuse	0.16 (0.13)	.214	.09	<b>0.40 (0.18)</b>	<b>.024</b>	<b>.17</b>	0.11 (0.08)	.162	.10
<b>Model 13</b>									
Men sexual abuse	0.07 (0.42)	.879	.01	-0.43 (0.48)	.373	-.07	-0.15 (0.13)	.223	-.05
Women sexual abuse	0.18 (0.13)	.179	.08	0.24 (0.32)	.447	.08	<b>0.25 (0.12)</b>	<b>.047</b>	<b>.17</b>
<b>Model 14</b>									
Men physical neglect	0.19 (0.22)	.395	.06	0.19 (0.29)	.522	.05	-0.11 (0.14)	.446	-.05
Women physical neglect	0.40 (0.21)	.053	.15	0.15 (0.26)	.573	.04	0.002 (0.13)	.987	.001
<b>Model 15</b>									
Men emotional neglect	<b>0.31 (0.12)</b>	<b>.008</b>	<b>.19</b>	0.08 (0.15)	.598	.04	-0.09 (0.07)	.195	-.09
Women emotional neglect	0.19 (0.13)	.155	.11	<b>0.42 (0.15)</b>	<b>.005</b>	<b>.19</b>	0.03 (0.07)	.631	.03

*N* = 269. *b* = unstandardized coefficient. SE = standard error.  $\beta$  = standardized coefficient. Relationship duration and pregnancy status were included as covariates. Coefficients in bold are significant at *p* < .05.



**Table 6.** Conditional dyadic latent growth curve models for the associations between men and women's childhood maltreatment and sexual satisfaction moderated by relationship satisfaction.

	Men		Women			
	Intercept		Intercept		Slope	
	b(SE)	p	b(SE)	p	b(SE)	p
Men physical abuse	-0.01 (0.14)	.927	0.17 (0.11)	.129	-0.22 (0.13)	.097
Women physical abuse	<b>-0.26 (0.12)</b>	<b>.027</b>	-0.02 (0.12)	.893	-0.20 (0.13)	.118
Men RS	<b>0.12 (0.02)</b>	<b>&lt;.001</b>	0.03 (0.02)	.076	-0.02 (0.02)	.306
Women RS	-0.003 (0.02)	.824	<b>0.11 (0.02)</b>	<b>&lt;.001</b>	0.00 (0.02)	.982
M physical abuse * RS	-0.003 (0.01)	.603	0.002 (0.01)	.715	-0.002 (0.01)	.776
W physical abuse * RS	<b>0.01 (0.01)</b>	<b>.020</b>	-0.001 (0.01)	.843	0.01 (0.01)	.099
<b>Simple slope tests</b>						
W physical abuse – low RS	<b>-0.56 (0.24)</b>	<b>.018</b>	-	-	-	-
W physical abuse – high RS	0.04 (0.07)	.558	-	-	-	-
Men emotional abuse	-0.03 (0.06)	.658	<b>0.14 (0.06)</b>	<b>.014</b>	0.10 (0.05)	.052
Women emotional abuse	-0.06 (0.04)	.155	-0.01 (0.06)	.905	<b>-0.10 (0.04)</b>	<b>.017</b>
Men RS	<b>0.12 (0.02)</b>	<b>&lt;.001</b>	0.03 (0.02)	.063	-0.01 (0.02)	.461
Women RS	-0.01 (0.01)	.324	<b>0.11 (0.02)</b>	<b>&lt;.001</b>	-0.002 (0.02)	.906
M emotional abuse * RS	0.002 (0.003)	.413	0.01 (0.003)	.058	0.00 (0.002)	.861
W emotional abuse * RS	<b>0.01 (0.003)</b>	<b>.001</b>	0.001 (0.003)	.839	<b>0.01 (0.002)</b>	<b>.018</b>
<b>Simple slope tests</b>						
W emotional abuse – low RS	<b>-0.24 (0.08)</b>	<b>.002</b>	-	-	<b>-0.22 (0.07)</b>	<b>.003</b>
W emotional abuse – high RS	<b>0.12 (0.05)</b>	<b>.027</b>	-	-	0.02 (0.06)	.770
Men emotional neglect	-0.03 (0.05)	.560	0.01 (0.05)	.852	-0.01 (0.04)	.830
Women emotional neglect	<b>-0.10 (0.04)</b>	<b>.020</b>	-0.05 (0.06)	.405	<b>-0.12 (0.05)</b>	<b>.009</b>
Men RS	<b>0.13 (0.02)</b>	<b>&lt;.001</b>	0.03 (0.02)	.074	-0.01 (0.02)	.576
Women RS	-0.02 (0.01)	.109	0.10 (0.02)	<b>&lt;.001</b>	-0.004 (0.02)	.828
M emotional neglect * RS	-0.003 (0.002)	.197	0.001 (0.003)	.622	-0.002 (0.002)	.264
W emotional neglect * RS	<b>0.01 (0.002)</b>	<b>&lt;.001</b>	0.002 (0.002)	.374	0.002 (0.003)	.437
<b>Simple slope tests</b>						
W emotional neglect – low RS	<b>-0.27 (0.07)</b>	<b>&lt;.001</b>	-	-	-	-
W emotional neglect – high RS	0.07 (0.06)	.236	-	-	-	-

Note.  $N = 269$ . M = men. W = women. RS = relationship satisfaction. b = unstandardized coefficient. SE = standard error. Low =  $-1$  standard deviation. High =  $+1$  standard deviation. Relationship duration and pregnancy status were included as covariates. Coefficients in bold are significant at  $p < .05$ .

as well as frequency of sex and support the need to better understand risk and protective factors underlying couples' sexual well-being over time (DiLillo et al., 2009; McNulty et al., 2016).

### Associations between CM and Sexual Well-Being in Romantic Relationships

While being cautious not to oversimplify our complex findings, at a macro level, the results suggest that all types of CM may be negatively related to at least one aspect of adult sexual well-being in romantic relationships, albeit in some cases, only for individuals with lower levels of relationship satisfaction. Although not all types of CM were consistently related to the three dimensions of sexual well-being examined in this study, even a small association with one dimension is noteworthy considering the elapsed time between these negative experiences and sexual well-being in adulthood. Thus, not all individuals who have experienced CM will report these negative outcomes, but all types of CM, including neglect, may have a negative association with sexual well-being.

The findings also shed light on key aspects of men and women's CM that appear to have the most significant associations with their own sexual well-being, specifically, sexual abuse and emotional trauma (i.e., abuse and neglect). Past cross-sectional studies have particularly emphasized the negative associations between sexual abuse and sexual outcomes (Easton et al., 2011; Najman et al.,

2005; Noll et al., 2003). Our results support these findings in that women's sexual abuse was related to their own lower initial levels of sexual function and their own lower sexual satisfaction and higher sexual distress over time, and men's sexual abuse was associated with their own lower initial levels of sexual function and higher initial levels of sexual distress for those reporting lower levels of relationship satisfaction. Sexual abuse may specifically shape a child's sexual attitudes and behaviors via early sexualization and juxtaposition of traumatic feelings with sexual ones, which continue into adulthood (Finkelhor & Browne, 1985). Although emotional trauma has often been disregarded as a potential predictor of sexual well-being in previous studies (Behl et al., 2003), our findings highlight its negative associations with sexual well-being. Indeed, women's emotional abuse and neglect were related to their own lower initial levels of sexual function and higher initial levels of sexual distress, as well as with their own lower sexual satisfaction over time, and emotional neglect was related to their own lower initial levels of sexual satisfaction. For men, emotional abuse was associated with their own lower initial levels of sexual function, and emotional neglect was associated with their own lower initial levels of sexual function and higher initial levels of sexual distress. Emotional abuse and neglect are related to maladaptive self-representations, including feeling defective or shameful, and high self-criticism (Gibb et al., 2001; Wright et al., 2009). These self-representations may explain the negative effects of emotional abuse and neglect on sexual well-

**Table 7.** Conditional dyadic latent growth curve models for the associations between men and women's childhood maltreatment and sexual function moderated by relationship satisfaction.

	Men		Women	
	Intercept		Intercept	
	b(SE)	p	b(SE)	p
Men physical abuse	-0.31 (0.19)	.109	-0.02 (0.12)	.845
Women physical abuse	<b>-0.68 (0.21)</b>	<b>.001</b>	-0.29 (0.15)	.058
Men RS	<b>0.11 (0.02)</b>	<b>&lt;.001</b>	0.02 (0.02)	.203
Women RS	0.01 (0.02)	.592	<b>0.07 (0.02)</b>	<b>&lt;.001</b>
M physical abuse * RS	0.01 (0.01)	.551	0.01 (0.01)	.299
W physical abuse * RS	<b>0.03 (0.01)</b>	<b>.001</b>	<b>0.02 (0.01)</b>	<b>.019</b>
<b>Simple slope tests</b>				
W physical abuse – low RS	<b>-1.31 (0.40)</b>	<b>.001</b>	<b>-0.62 (0.29)</b>	<b>.030</b>
W physical abuse – high RS	-0.06 (0.09)	.550	0.05 (0.06)	.469
Men emotional abuse	-0.15 (0.11)	.150	<b>0.13 (0.06)</b>	<b>.037</b>
Women emotional abuse	-0.16 (0.10)	.106	<b>-0.18 (0.06)</b>	<b>.005</b>
Men RS	<b>0.12 (0.02)</b>	<b>&lt;.001</b>	0.03 (0.02)	.094
Women RS	-0.01 (0.02)	.765	<b>0.06 (0.02)</b>	<b>&lt;.001</b>
M emotional abuse * RS	0.00 (0.004)	.970	0.00 (0.004)	.955
W emotional abuse * RS	<b>0.01 (0.003)</b>	<b>.018</b>	0.01 (0.003)	.095
<b>Simple slope tests</b>				
W emotional abuse – low RS	<b>-0.33 (0.15)</b>	<b>.028</b>	-	-
W emotional abuse – high RS	0.01 (0.09)	.951	-	-
Men sexual abuse	-0.18 (0.21)	.409	0.23 (0.15)	.135
Women sexual abuse	-0.18 (0.12)	.127	<b>-0.28 (0.07)</b>	<b>&lt;.001</b>
Men RS	<b>0.14 (0.02)</b>	<b>&lt;.001</b>	0.03 (0.02)	.050
Women RS	0.01 (0.02)	.681	<b>0.07 (0.02)</b>	<b>&lt;.001</b>
M sexual abuse * RS	<b>0.03 (0.01)</b>	<b>.009</b>	0.01 (0.01)	.410
W sexual abuse * RS	0.004 (0.01)	.490	0.01 (0.01)	.057
<b>Simple slope tests</b>				
M sexual abuse – low RS	<b>-0.72 (0.21)</b>	<b>&lt;.001</b>	-	-
M sexual abuse – high RS	0.37 (0.37)	.317	-	-
Men emotional neglect	<b>-0.17 (0.09)</b>	<b>.042</b>	-0.01 (0.06)	.912
Women emotional neglect	<b>-0.23 (0.09)</b>	<b>.015</b>	<b>-0.17 (0.06)</b>	<b>.003</b>
Men RS	<b>0.12 (0.02)</b>	<b>&lt;.001</b>	0.03 (0.02)	.050
Women RS	-0.01 (0.02)	.536	<b>0.06 (0.02)</b>	<b>.001</b>
M emotional neglect * RS	-0.001 (0.004)	.855	-0.003 (0.003)	.380
W emotional neglect * RS	<b>0.01 (0.003)</b>	<b>.044</b>	0.002 (0.003)	.408
<b>Simple slope tests</b>				
W emotional neglect – low RS	<b>-0.36 (0.13)</b>	<b>.006</b>	-	-
W emotional neglect – high RS	-0.11 (0.09)	.263	-	-

Note.  $N = 269$ . M = men. W = women. RS = relationship satisfaction. b = unstandardized coefficient. SE = standard error. Low = - 1 standard deviation. High = + 1 standard deviation. Relationship duration and pregnancy status were included as covariates. Coefficients in bold are significant at  $p < .05$ .

being, as they may lead to feeling unworthy of sexual pleasure, high levels of performance anxiety, and difficulties in expressing sexual preferences (Diamond et al., 2007). These results are in line with past findings as well as attachment and trauma theories suggesting that emotional maltreatment might be the core factor underlying the negative effects of CM (Briere & Scott, 2014; Riggs, 2010).

The short-term longitudinal design of our study provided some evidence that some detrimental effects of CM on sexual well-being in romantic relationships may emerge over time as the relationship progresses. For women, almost all types of CM were associated with a steeper decline in their sexual satisfaction over time. Moreover, women's sexual abuse was associated with a steeper increase over time in their sexual distress, but only for women with lower levels of relationship satisfaction. Longitudinal findings of DiLillo et al. (2009) showed no association between men and women's CM and sexual satisfaction over time. This

parallels our results for men, but contrasts the negative associations found for women. Differences between our results and those of DiLillo et al. (2009) may reflect our use of a diverse sample of community couples compared with their homogenous sample of newlyweds, a period in which sexual satisfaction may be more inflated. Moreover, our multi-item assessment of sexual satisfaction may be more sensitive to individual variations than their one-item measure. Our findings of negative associations between CM and sexual well-being over time suggest that as the relationship evolves, intimacy deepens and conflicts emerge, which may trigger traumatic reactions that were not apparent early in the relationship (MacIntosh, 2017). Thus, the traumatic response that emerges over time, particularly in an unsatisfying relationship, may particularly impede women's sexual well-being as relationship tension and mood have been shown to affect women's sexuality in particular (Bodenmann et al., 2007; Fortenberry et al., 2005).

### Associations between CM and Partners' Sexual Well-Being

Despite the interpersonal context of sexuality (Dewitte, 2014), researchers have rarely investigated how one individual's sexual well-being may be affected by their partner's CM. The present study yielded novel findings concerning partner associations. Specifically, the findings showed that for women reporting low relationship satisfaction, physical abuse and emotional abuse were associated with initial levels of their male partner's sexual satisfaction, function, and distress and that emotional neglect was related to initial levels of their male partners' sexual satisfaction and function. Our results are in line with theoretical and clinical analyses of the secondary trauma effects of CM on romantic partners (Nelson & Wampler, 2000) and with past studies reporting lower relationship satisfaction in partners of CM victims (Corsini-Munt et al., 2017; Whisman, 2014). CM may be associated with partners' sexual well-being via feelings that parallel the victim's emotional responses (e.g., helplessness or rage toward the aggressor), which may in turn alter the erotic climate leading to less satisfying sexual interactions (De Silva, 2001). The partners may also experience sexual exchanges as less pleasurable and gratifying because the victim is having a less positive experience such as less pleasure or not being in the moment during sexual interactions (Byers, 1999; De Silva, 2001).

### Relationships Satisfaction as a Moderator

We also examined whether the associations between CM and sexual well-being varied depending on an individual's overall feelings about their romantic relationship. Some of the significant associations between CM and sexual well-being became nonsignificant at higher levels of victims' relationship satisfaction (i.e., women's emotional abuse and sexual satisfaction over time, women's sexual abuse and sexual distress over time). Other associations between CM and sexual well-being only emerged for victims reporting lower levels of relationship satisfaction.

**Table 8.** Conditional dyadic latent growth curve models for the associations between men and women's childhood maltreatment and sexual distress moderated by relationship satisfaction.

	Men		Women			
	Intercept		Intercept		Slope	
	b(SE)	p	b(SE)	p	b(SE)	p
Men physical abuse	0.33 (0.25)	.183	0.01 (0.28)	.985	-0.08 (0.12)	.510
Women physical abuse	<b>0.42 (0.21)</b>	<b>.044</b>	0.15 (0.31)	.632	0.13 (0.18)	.489
Men RS	<b>-0.19 (0.03)</b>	<b>&lt;.001</b>	<b>-0.10 (0.04)</b>	<b>.010</b>	<b>0.07 (0.03)</b>	<b>.004</b>
Women RS	0.03 (0.02)	.292	<b>-0.13 (0.04)</b>	<b>&lt;.001</b>	-0.02 (0.02)	.247
M physical abuse * RS	0.003 (0.01)	.850	-0.002 (0.02)	.872	-0.01 (0.01)	.230
W physical abuse * RS	<b>-0.03 (0.01)</b>	<b>.007</b>	-0.003 (0.01)	.845	-0.01 (0.01)	.063
<b>Simple slope tests</b>						
W physical abuse – low RS	<b>0.95 (0.38)</b>	<b>.014</b>	-	-	-	-
W physical abuse – high RS	-0.10 (0.13)	.432	-	-	-	-
Men emotional abuse	0.10 (0.12)	.420	-0.13 (0.16)	.404	-0.13 (0.08)	.128
Women emotional abuse	0.07 (0.10)	.493	0.28 (0.16)	.078	0.13 (0.08)	.083
Men RS	<b>-0.20 (0.03)</b>	<b>&lt;.001</b>	<b>-0.10 (0.04)</b>	<b>.011</b>	<b>0.07 (0.03)</b>	<b>.010</b>
Women RS	0.04 (0.03)	.120	<b>-0.11 (0.04)</b>	<b>.002</b>	-0.02 (0.02)	.458
M emotional abuse * RS	0.00 (0.01)	.918	0.002 (0.01)	.795	0.004 (0.004)	.360
W emotional abuse * RS	<b>-0.01 (0.004)</b>	<b>.004</b>	-0.01 (0.01)	.324	-0.003 (0.004)	.359
<b>Simple slope tests</b>						
W emotional abuse – low RS	<b>0.30 (0.15)</b>	<b>.048</b>	-	-	-	-
W emotional abuse – high RS	-0.16 (0.11)	.131	-	-	-	-
Men sexual abuse	0.45 (0.30)	.138	-0.37 (0.36)	.302	-0.33 (0.32)	.308
Women sexual abuse	0.15 (0.13)	.231	0.25 (0.31)	.427	<b>0.29 (0.11)</b>	<b>.012</b>
Men RS	<b>-0.22 (0.03)</b>	<b>&lt;.001</b>	<b>-0.10 (0.04)</b>	<b>.005</b>	<b>0.07 (0.03)</b>	<b>.022</b>
Women RS	0.03 (0.03)	.263	<b>-0.13 (0.04)</b>	<b>.001</b>	-0.03 (0.02)	.188
M sexual abuse * RS	<b>-0.03 (0.01)</b>	<b>.022</b>	-0.02 (0.02)	.355	0.01 (0.03)	.776
W sexual abuse * RS	-0.01 (0.01)	.087	-0.01 (0.01)	.429	<b>-0.01 (0.01)</b>	<b>.045</b>
<b>Simple slope tests</b>						
M sexual abuse – low RS	<b>1.11 (0.43)</b>	<b>.010</b>	-	-	-	-
M sexual abuse – high RS	-0.22 (0.41)	.594	-	-	-	-
W sexual abuse – low RS	-	-	-	-	<b>0.58 (0.22)</b>	<b>.008</b>
W sexual abuse – high RS	-	-	-	-	-0.01 (0.15)	.937

Note.  $N = 269$ . M = men. W = women. RS = relationship satisfaction. b = unstandardized coefficient. SE = standard error. Low = -1 standard deviation. High = +1 standard deviation. Relationship duration and pregnancy status were included as covariates. Coefficients in bold are significant at  $p < .05$ .

Specifically, for women with lower levels of relationship satisfaction, physical abuse was associated with lower initial levels of own sexual function; for men at lower levels of relationship satisfaction, sexual abuse was associated with lower initial levels of own sexual function and greater distress. What is striking is that the protective role of women's own appraisal of their relationship satisfaction was important for some associations with

their male partner's sexual well-being. When women reported lower levels of relationship satisfaction, women's physical abuse, emotional abuse, and emotional neglect were associated with lower initial levels of their male partners' sexual satisfaction and function, and women's physical and emotional abuse were associated with higher initial levels of their male partners' sexual distress. Taken together, these findings suggest that a satisfying



**Figure 1.** Interaction between women's physical abuse and their own relationship satisfaction in the association with initial levels of their partner sexual satisfaction. \* $p < .05$ .

relationship may represent a corrective experience that challenges maladaptive views of self and others and buffers the negative effects of CM (Mikulincer & Shaver, 2016; Waters et al., 2000). This positive dyadic context may facilitate coping with trauma-related distress, including in the sexual realm, by promoting security, safety, and trust. On the other hand, a less satisfying relationship may further reinforce negative representations of self and others as well as distress, affecting victims' and their partners' sexual well-being.

### Limitations and Directions for Future Research

Despite the strengths of this study, the findings should be interpreted in light of some limitations. The correlational design makes it impossible to determine causal relations. Thus it is possible that third variables related to CM (e.g., delinquent peer environment, low socioeconomic status) accounted for the associations between CM and sexual well-being. In this study, we examined five types of CM and three sexual outcomes in separate models, adding relationship satisfaction in subsequent models. As dyadic LGCM are complex statistical analyses, no adjustment for multiple testing was applied. Thus the risk of type I errors may be inflated. Findings should be replicated in future studies. All of the data in this study were collected via self-report measures. Retrospective reports of CM may have introduced biases in recall. The generalizability of our results is potentially limited by our convenience sample of relatively young mixed-sex couples with a low ethnic diversity. These couples were together for a mean relationship duration of five years and, even though we controlled for relationship duration, the extent to which the results would apply to couples in longer term relationships remains unknown. These community couples also reported relatively high initial levels of sexual well-being which, despite some declines, stayed relatively high over the one-year period. The patterns of change may be different or more varied in couples together for a longer period, reporting lower initial levels of sexual well-being, or who present with more severe relationship distress; these latter couples may have been less likely to participate in our study. The couples were followed over one year, but future studies should examine the associations between CM and sexual well-being over longer periods, as other effects may arise. Our study did not address the mechanisms underlying the associations between types of CM and sexual well-being or how individual variables, such as emotion regulation or coping strategies, may moderate the associations between CM and sexual well-being. Future research should examine different mediating or moderating variables explaining the long-term associations between all types of CM and sexual well-being.

### Clinical Implications

The findings have implications for assessment and interventions designed to prevent and treat sexual dissatisfaction, dysfunction, and distress. That is, they suggest that it is important to assess all types of CM, including less overt types such as emotional abuse or neglect, and not just sexual abuse, because all types of CM may be related to sexual well-being. In addition, they suggest that it is important to assess both proximal factors (e.g., relationship

satisfaction) and more distal experiences (e.g., CM) that may be related to the development of lower sexual well-being. Assessment should also include how these CM may, over time, be associated with a more rapid decline in sexual satisfaction and a more rapid increase in sexual distress in romantic relationships. Moreover, as partners of CM victims may also struggle with the negative impact of their partner's CM on their own sexual well-being, the partner's experience should also be assessed and validated. Thus, couple therapy may represent a beneficial treatment option to address partners' sexual outcomes of CM. In light of our finding that relationship satisfaction tempers the consequences of CM on partners' sexual well-being, CM victims and their partners should be informed that lower sexual well-being is not inevitable and that proximal factors such as a satisfying relationship can ameliorate some potential negative impact on sexual well-being. Indeed, our findings suggest that sexual well-being may, in part, stem from an individual's and their partner's lifelong accumulation of negative—such as CM—and positive—such as a satisfying romantic relationship—experiences, that interact together in complex ways.

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### Data Deposition

The data that support the findings of this study are available from the corresponding author, MPVM, upon reasonable request.

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### ORCID

Marie-Pier Vaillancourt-Morel  <http://orcid.org/0000-0002-8634-3463>  
 E. Sandra Byers  <http://orcid.org/0000-0002-6511-6712>  
 Katherine Péloquin  <http://orcid.org/0000-0003-2680-3197>  
 Sophie Bergeron  <http://orcid.org/0000-0001-8601-761X>

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