# SEXUAL MEDICINE REVIEWS

**REVIEWS** 

# Child Maltreatment and Couples' Sexual Health: A Systematic Review

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#### **ABSTRACT**

**Introduction:** Childhood maltreatment (CM) is an interpersonal trauma reported by 35% to 40% of individuals in population-based studies in North America. It refers to physical, sexual, and emotional abuse, as well as physical and emotional neglect. Although there is a growing body of cross-sectional work focusing on associations between CM and sexual health, most studies have ignored the broader relationship context in which sexuality is experienced.

**Objectives:** The current review sought to systematically and critically appraise all studies that reported on the association between CM and couples' sexual health, to inform clinical care and recommendations for research.

**Methods:** The electronic literature search was conducted using PubMed, PsycNET (PsycINFO, PsychArticles), Medline, CINAHL, and Eric for peer-reviewed journal articles published before September 2021. Eligible studies had to report on the association between any form of CM and any dimension of sexual health in couples or individuals in a romantic relationship.

**Results:** In total, 13 studies (18 articles) were included in this systematic review: 4 studies pertained to clinical couples and 9, to community couples; 2 studies used a longitudinal design and 11, a cross-sectional design; 3 studies examined CM as a whole, 2 studies examined multiple subtypes of CM separately, 1 study examined both CM as a whole and its subtypes separately, whereas the other 7 studies focused on childhood sexual abuse. Results indicated that studies using valid measures of sexual health outcomes found significant associations between CM and worse outcomes — including declines over time — in both clinical and community samples. Mediators and moderators of these associations were also identified.

Conclusions: Findings provide preliminary support for the role of CM in couples' sexual health. There is a need for future longitudinal studies involving both members of the couple, valid and multidimensional measures of sexual health, and potential mediators and moderators. Bergeron S, Bigras N, Vaillancourt-Morel M-P. Child Maltreatment and Couples' Sexual Health: A Systematic Review. Sex Med Rev 2022;XX:XXX—XXX.

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Key Words: Childhood Maltreatment; Childhood Sexual Abuse; Couple; Cyadic; Sexual Health

#### INTRODUCTION

Childhood maltreatment (CM) is an interpersonal trauma reported by 35% to 40% of individuals in population-based studies in North America<sup>1,2</sup> and 80% of those seeking sex and couple therapy.<sup>2,3</sup> CM refers to physical, sexual, and emotional abuse, as well as physical and emotional neglect occurring in a close relationship between a primary caregiver and a child.<sup>4,5</sup> Several high-quality studies — some of which espoused a

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longitudinal design with an assessment of maltreatment in childhood, close to its time of occurrence — indicated that CM is associated with a host of negative consequences, including depression, posttraumatic stress, substance abuse, increased inflammatory burden, poorer economic, and educational outcomes, adult re-victimization, and an overall increase in morbidity and mortality. 6-8 By contrast, although 58% of women and 52% of men seeking sex therapy report at least 4 forms of CM, the associations between CM as a whole (ie, all abuse and neglect dimensions) and sexual health are still poorly understood. In fact, very little work has focused on CM's impact on sexuality beyond at-risk sexual behavior (eg, unprotected sex). 10 In addition, most research has examined the contribution of childhood sexual abuse (CSA) exclusively, 11 despite growing evidence that different forms of CM tend to co-occur, 2,12 with more than 78% of individuals who experienced 1 form of CM also

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reporting at least 1 other adverse experience. Importantly, when this co-occurrence of traumas, or poly victimization, is taken into account, associations between individual CM subtypes (eg, CSA) and trauma symptoms are greatly reduced or eliminated, emphasizing the need to examine CM as a whole. The Further, most research to date focused solely on women, and gender diversity. Nevertheless, evidence to date suggests that some forms of CM, particularly sexual abuse, are associated with greater sexual dysfunction and lower sexual satisfaction in adulthood. The Yet while many CM survivors may experience significant challenges in their sexual lives, others report a satisfying sexuality, suggesting that some protective factors, or moderators of the CM — sexual health association, may contribute to more resilient pathways.

Although there is a growing body of cross-sectional work, including reviews, focusing on CM-sexuality associations, 14,21,22 most studies have ignored the broader relationship context in which sexuality is experienced. Specifically, research to date has espoused an intra-individual approach to the examination of the role of CM in adult sexual health and included both single and partnered participants without considering the role of relationship status or the influence of one partner's CM on the other partner's sexual health. <sup>23,24</sup> This is a significant gap in knowledge given that both CM and sexuality are interpersonal experiences, shaped by repeated interactions between 2 individuals sharing a relational bond. In fact, the intimate nature of couple relationships may further modify the effects of CM on sexuality. 25,26 In his Self-Trauma model, Briere<sup>27</sup> proposed that the threat and breach of trust involved in CM may lead to difficulties with emotion regulation (ie, processes by which emotional reactivity is modulated to enable adaptive function in stressful situations), particularly in intimate relationships. CM could impact the capacity to self-regulate in the emotionally evocative, dyadic interactions encountered in sexual relationships, such as the experience of sexual desire, arousal and orgasm, which in turn could affect couples' sexual health. 28 CM could also impact sexual health via the attachment system.<sup>29</sup> Indeed, CM is a relational trauma that could lead to disrupted expectations and assumptions about romantic relationships, including the safety and vulnerability required for the experience of satisfying partnered sexual activities.<sup>30</sup> Attachment perspectives 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.<sup>31</sup> These distorted representations of self and others as well as the intense negative feelings experienced during CM (eg, powerlessness, fear) could be re-evoked in adult intimate relationships, including in sexual interactions. 27,32,33

Listening to the other's trauma stories could also play a role in the non-traumatized partner's sexual health. In a qualitative examination of the effects of disclosing CSA to one's romantic partner, participants reported at least 1 experience in which disclosure led to a negative consequence in their sexual relationship. 34 Such effects could be further compounded in cases where both partners have experienced CM, which studies to date suggest might be a fairly common occurrence. For instance, in a population-based sample of couples, one partner reporting child-hood physical abuse increased the likelihood by 2.4 times that the other partner also reported childhood physical abuse. 35 These dual-trauma couples could face additional challenges in regulating their sexuality as a cohesive, united team. Taken together, theoretical formulations and empirical findings to date point to the dyadic, negative impact of CM on couples' sexual health — yet this question has been heretofore under-studied.

## **Current Study**

Much of our current knowledge on the associations between CM and sexual health is based on cross-sectional studies focusing on CSA among women, irrespective of their relationship status.<sup>1</sup> The associations between an individual's CM as a whole and/or its different subtypes - including neglect - and the evolution over time of both partners' sexual health, as well as mediating and moderating mechanisms that could inform prevention and intervention, have received less attention. The current review sought to systematically search for all studies that reported on the association between CM and couples' sexual health, with a view to informing recommendations for their clinical care and future research. Specifically, we aimed to review published studies that measured CM in couples and/or individuals currently in a romantic relationship. We conceptualized sexual health broadly, based on the World Health Organization's definition: "...sexual health as a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity". 36 We included studies that examined cognitive, affective, behavioral and interpersonal dimensions of sexual health, including but not limited to sexual function/dysfunction, sexual satisfaction and sexual distress (see below - Inclusion and Exclusion Criteria).

# **METHOD**

#### Literature Search

This systematic review adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement (PRISMA).<sup>37</sup> The electronic literature search was conducted using PubMed, PsycNET (PsycINFO, PsychArticles), Medline, CINAHL, and Eric for peer-reviewed journal articles published before September 2021. The search strategy included combinations of 3 keywords related to (i) CM (ie, child\* maltreatment, child\* trauma, child\* abuse, neglect, child\* sexual abuse, child\* physical abuse, child\* emotional abuse, and child\* psychological abuse), (ii) sexual health (ie, sexual\*, sexuality, sexual wellbeing, sexual health, sexual satisfaction, sexual dysfunction, sexual function, and sexual distress), and (iii) couple (ie, couple, dyadic, romantic relationship, intimate relationship, actor-partner

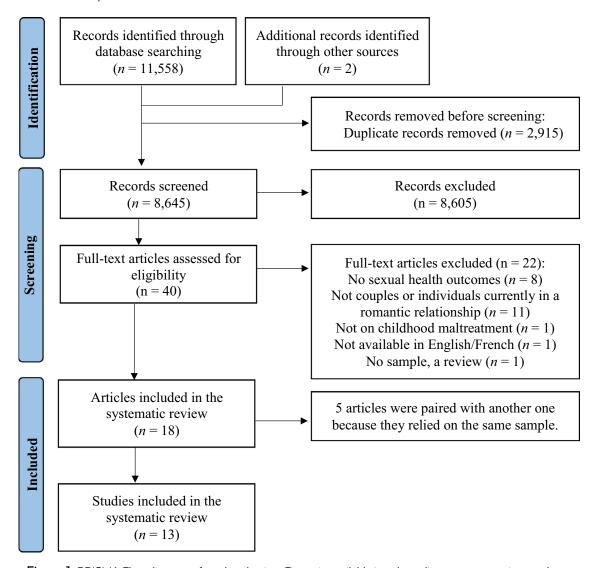


Figure 1. PRISMA Flow diagram of study selection. Figure is available in color online at www.smr.jsexmed.org.

interdependence model, dyadic analyses). All titles, abstracts, and full texts were independently screened by 2 research assistants and disagreements were discussed with the last author until consensus. Then, the reference lists of selected articles, relevant systematic and narrative reviews, and the google scholar profile of researchers in this research area were hand-searched for additional articles that had not been found in the main search. These searches were conducted in August and September 2021.

Each step of the process of study selection is presented in the PRISMA flow diagram in Figure 1. The search resulted in 11,558 articles. After removal of duplicates, 8,643 articles remained, which were imported into Endnote to facilitate the screening process. Following an independent screening of titles and abstracts by 2 research assistants, 38 articles deemed eligible for full-text assessment. Following full-text independent assessment by the same 2 research assistants and the last author, 16 articles were included. An additional 2 articles were identified through hand searching. Overall, 18 articles met inclusion

criteria. 5 articles were paired with another because they relied on the same sample (ie, 3 studies each yielded 2 articles, and 1 study yielded 3 articles) and will be presented together. Thus, 13 studies were included in this systematic review.

#### Inclusion and Exclusion Criteria

Eligible studies had to report the association between any form of CM and any dimension of sexual health. The studies were considered eligible when including a sample or a subsample consisting of couples or individuals currently in a romantic relationship (in some studies only 1 partner in a couple was recruited). Thus, studies including all participants regardless of their relationship status were included only if they reported the associations separately for participants currently in a romantic relationship. Participants could be of any age and CM had to have occurred before 18 years of age. All areas of sexual health were included, although sexual violence was not considered a

component of sexuality, a form of intimate partner violence and was not included. Studies selected had to be written in English or French, published in a peer-reviewed journal, and no date limiters were applied (up to the time of article search, before September 2021).

#### **RESULTS**

In total, 13 studies (18 articles) were included in this systematic review: 4 studies pertained to clinical couples and 9, to community couples; 2 studies used a longitudinal design and 11, a cross-sectional design; 3 studies examined CM as a whole, 2 studies examined multiple forms of CM separately, 1 study examined both CM as a whole and its subtypes separately, whereas the other 7 studies focused on CSA exclusively. Lastly, 4 studies included both members of the couple, whereas the other 9 only sampled individual participants who were in a romantic relationship. A summary of sample sizes, participant characteristics, study designs, CM measures, sexual health outcomes and findings is presented in Table 1.

#### Definitions and Measurement of CM

Three studies examined CM as a whole, without distinguishing what type of abuse or neglect was experienced. 41,42,46 They used the total score of the validated and widely used Childhood Trauma Questionnaire (CTQ), 53 which is designed to measure CM in adults, along a continuum of severity. According to the CTQ, childhood emotional abuse (CEA) involves any humiliating, demeaning, or threatening behavior, that is, verbal assaults on a child's sense of self-worth. Childhood physical abuse (CPA) refers to bodily assaults perpetrated by an adult or older person on a child that posed a risk of or resulted in, injury. CSA is defined as any sexual contact/conduct between a child younger than 18 years of age and an adult or older person. Childhood emotional neglect (CEN) involves the failure of caretakers to meet children's basic emotional and psychological needs, including love, belonging, nurturance, and support. Childhood physical neglect (CPN) is rather the failure of caretakers to provide for a child's basic physical needs, including food, shelter, clothing, safety, and health care. 53 2 studies used the subtypes of CM separately, including CEA, CSA, CPA, CEN, and CPN. 43,48 Lastly, 1 study examined both CM as a whole and also the 5 subtypes of CM in separated articles. 50,51

A total of 7 studies examined the associations between CSA exclusively and sexual health. 4 studies used standardized measures to examine CSA and defined it as follows: (i) 1 or more sexual experiences that involved attempted and/or completed vaginal, oral, or anal intercourse before the age of 14, <sup>39,40</sup> (ii) sexual contact or conduct that occurred before the age of 14 perpetrated by an adult/older adolescent, <sup>44</sup> (iii) sexual victimization experienced before the age of 13 years <sup>45</sup> or (iv) any sexual act between a child under 16 years of age and a person 5 or more years older, or in a position of authority, with or without the

presence of physical force or violence and with or without the "consent" of the child. 17,25,49

The other 3 studies used investigator-derived questions to evaluate CSA, 26,38,47,52 whereby it was defined as (i) any unwanted sexual contact or any sexual experiences for which individuals could not provide consent (eg, someone 5 years older, authority position) prior to age 18,26,38 (ii) unwanted, physical sexual contact (ranging from genital touching to penetration) while the victim was considered a child by legal definition (age 14 or younger) and the sexual contact was considered abusive by the victim, 52 or using a rather vague definition, such as (iii) sexual abuse being reported in relation to perpetrator, type and frequency of abuse with no indication of the victim's age at the time of abuse.<sup>52</sup> In sum, although studies focusing on CM as a whole or on its subtypes all used the same standardized, well validated measure - the CTQ - studies focusing on CSA exclusively used varying definitions, age ranges and both validated and investigator-derived measures, limiting the reliability and validity of their findings.

## Community Couples

Most studies (k = 9 studies) on the associations between CM and sexual health were conducted among community samples of either couples or individuals in a romantic relationship. 2 studies included both members of the couple (ie, dyadic studies), whereas 7 were comprised of individuals in romantic relationships.

Dyadic Studies. In the first published longitudinal dyadic study in the field, DiLillo et al<sup>43</sup> examined the associations between CM and trajectories of sexual frequency and satisfaction over 2 years across 3 time points (baseline: Time 1, 12 months: Time 2, and 24 months: Time 3) among 202 newlywed couples. Results showed that CM was not significantly related to mean levels or trajectories of sexual frequency and sexual satisfaction over 2 years. However, the main focus of this study was on relationship functioning, with assessment of sexuality limited to 1item, unidimensional measures of satisfaction and frequency. In addition, early marriage years represent an atypical period for couples' sexuality, given relationship satisfaction tends to be high during this period and sexual frequency declines as relationship duration increases.<sup>54</sup> Lastly, dyadic effects were not tested, such that the effects of 1 partner's CM on the other partner's sexuality are unknown.

In the other longitudinal dyadic study in the field, Vaillancourt-Morel et al<sup>50,51</sup> used validated measures of sexuality to examine the associations between CM and sexual health among a community sample of 365 mixed gender/sex couples followed over 6 months<sup>50</sup> and in a second article, a subsample of 269 mixed gender/sex couples followed over 1 year across 3 time points (baseline: Time 1, 6 months: Time 2, and 12 months: Time 3).<sup>51</sup>

In the first article published with this study, Vaillancourt-Morel et  $al^{50}$  examined the dyadic longitudinal associations

Child Maltreatment and Couples' Sexual Health

**Table 1.** Summary of studies assessing associations between childhood maltreatment (CM) and couples' sexual health

			Type			Sexual health	
Author	Sample	Design	of CM	CM measure	Sexual health outcomes	measure	Major findings
1.1 Baumann et al. <sup>26</sup>	320 men and women currently in an intimate relationship recruited in the community aged 18 y and older ( $M_{age}$ = 29.6, $SD$ = 10.9)	Cross-sectional	CSA	Investigator- derived questions	Sexual difficulties (ie, concerns and dysfunctional sexual behaviors)	TSI-2	Greater CSA was related to higher levels of sexual difficulties.
1.2 Girard et al. <sup>38</sup>	448 self-identified heterosexual women currently involved in a romantic relationship (M <sub>age</sub> = 28.4 y, SD = 9.4)	Cross-sectional	CSA	Investigator- derived questions	Sexual anxiety	MSQ	Greater CSA was associated with higher sexual anxiety.
2.1 Cohen & Byers <sup>39</sup>	596 women in a same- gender/sex relationship of at least 12 mo and aged 18 y and older ( $M_{age}$ = 34.5 y, SD = 10.7)	Cross-sectional	CSA	CSAQ	Sexual satisfaction, sexual esteem, sexual anxiety, negative automatic thoughts during sex, sexual desire, non-genital sexual frequency, genital sexual frequency	GMSEX SS SAI SMQ SDI FSAS	Greater CSA was positively related to higher negative thoughts during sexual activity, but not to sexual satisfaction, sexual esteem, sexual anxiety, sexual desire, and non-genital and genital sexual frequency.
2.2 Crump & Byers <sup>40</sup>	299 sexual minority women in a non-cohabiting dating relationship ( $M_{age}$ = 28.4 y, $SD$ = 9.2)		CSA	CSAQ	Sexual satisfaction, sexual esteem, sexual anxiety, negative automatic thoughts during sex, sexual desire, non-genital sexual frequency, genital sexual frequency	GMSEX SS SAI SMQ SDI FSAS	Women with CSA involving attempted or completed vaginal/ oral/anal sexual penetration reported significantly lower sexual desire and satisfaction and more frequent negative automatic thoughts during sex than did women who reported CSA involving sexual fondling and women who reported no history of CSA. No significant differences were found between women who reported CSA and those without a CSA history on their frequency of genital or nongenital sexual activity, duration of sexual encounters, sexual esteem, and sexual anxiety.
3. Corsini-Munt et al. <sup>41</sup>	49 couples in which the woman had genito-pelvic pain (provoked vestibulodynia)	Cross-sectional	Cumulative score of CM including CEA,	СТQ	Sexual function Sensory and affective components of pain	FSFI/IIEF MPQ-SF	Men and women's greater CM were related to their own lower sexual function but not to their partner's sexual function.

Table 1. Continued

Author	Sample	Design	Type of CM	CM measure	Sexual health outcomes	Sexual health measure	Major findings
	$(M_{age} \text{ women} = 27.8 \text{ y},$ $SD = 6.1; M_{age} \text{ men} = 30.0 \text{ y}, SD = 6.5)$		CPA, CSA, CEN, CPN				Women's and their partner's CM were significantly related to women's higher affective pain during intercourse but were not significantly related to sensory pain during intercourse.
4. DiLillo et al. <sup>42</sup>	174 college students (117 women and 57 men) involved in heterosexual dating relationships $(M_{age} = 19.9 \text{ y}, SD = 1.9)$	Cross-sectional	Cumulative score of CM including CEA, CPA, CSA, CEN, CPN	СТQ	Dysfunctional attitudes about sex, reactions to sexual activity	Items adapted from unpublished measures	Women's greater CM was associated with greater negative reactions to sexual activity as well as greater negative sexual attitudes. Men's CM was not significantly related to any of the negative reactions to sexual activity or sexual attitudes.
5. DiLillo et al. <sup>43</sup>	202 newlywed couples ( $M_{age}$ women = 25.8 y, $SD$ = 3.9; $M_{age}$ men = 27.2 y, $SD$ = 4.1)	Longitudinal, 3 time points over 2 y	CEA CPA CSA CN	CAMI CTQ	Frequency of partnered sexual activity, sexual satisfaction concerning partnered activity	SHF	Greater CPA and neglect severity were associated with decreased frequency of partnered sexual activity in men (at T1). Sexual, physical and psychological abuse as well as neglect were unrelated to initial levels and trajectories of frequency and satisfaction concerning partnered activity in both husbands and wives.
6. Dunlop et al. <sup>44</sup>	401 chronically depressed outpatients either married or in a serious relationship ( $M_{age}$ = 44.2 y, $SD$ = 12.4)	Cross-sectional	CSA	СТQ	Sexual dysfunction	ASEX	No significant associations were found between CSA and sexual dysfunction in outpatients either married or in a serious relationship.
7. Moyano & Sierra <sup>45</sup>	561 Spanish adults (228 men and 333 women) aged between 18 and 50 y old in a heterosexual relationship for at least 6 mo ( $M_{age}$ women = 28.7 y, $SD$ = 6.9; $M_{age}$ men = 32.6 y, $SD$ = 7.9)	Cross-sectional	CSA	JVÖ	Positive and negative sexual cognitions (ie, intimate, exploratory, dominance, submission, and impersonal sexual cognitions)	SSCC	For men and women, CSA alone was not associated with significant differences in both positive and negative sexual cognitions compared with men and women without CSA history.

Table 1. Continued

Author	Sample	Design	Type of CM	CM measure	Sexual health outcomes	Sexual health measure	Major findings
8. Rellini et al. <sup>46</sup>	192 young adult women all involved in a relationship $(M_{age} = 21.8 \text{ y}, SD = 3.7)$	Cross-sectional	Cumulative score of CM including CEA, CPA, CSA, CEN, CPN	СТQ	Sexual satisfaction	SSS	Greater CM was associated with lower levels of sexual satisfaction.
9. Sarwer & Durlak <sup>47</sup>	359 married adult women who sought sex therapy with their spouses $(M_{age} = 40.5 \text{ y}, SD = 9.0)$	Cross-sectional	CSA	Investigator- derived questions	Sexual dysfunction	Interviews based on DSM-III-R guidelines	Women with a history of CSA reported higher levels of sexual dysfunction than women without a history of CSA.
10. Shi <sup>48</sup>	107 heterosexual couples in which both had experienced childhood trauma seeking couple therapy ( $M_{age}$ women = 28.0 y; $M_{age}$ men = 30.0 y, $SD$ not reported)	Cross-sectional	CEA CPA CSA CEN CPN	СТQ	Sexual difficulties (ie, concerns and dysfunctional sexual behaviors)	TSI-2	Women's greater CPN was associated with their male partner's higher levels of sexual difficulties. Men's greater CPA and CSA were associated with their female partner's higher levels of sexual difficulties.
11.1 Vaillancourt- Morel et al. <sup>17</sup>	686 adults currently involved in an intimate relationship ( $M_{age} = 27.5 \text{ y}$ , $SD = 9.2$ )	Cross-sectional	CSA	ESE	Sexual avoidance, sexual compulsivity	SAS SCS	Men and women's greater CSA were related to higher levels of sexual compulsivity and sexual avoidance.
11.2 Vaillancourt- Morel et al. <sup>49</sup>	669 adults currently involved in an intimate relationship ( $M_{\text{age}} = 27.6 \text{ y}$ , $SD = 9.2$ )	Cross-sectional	CSA	ESE	Sexual compulsivity	SCS	Greater CSA severity was associated with higher levels of sexual compulsivity.
11.3 Vaillancourt- Morel et al. <sup>25</sup>	333 adults cohabiting and 94 married adults ( $M_{age}$ = 27.1 y, $SD$ = 8.9)	Cross-sectional	CSA	ESE	Sexual avoidance, sexual compulsivity	SAS SCS	In cohabiting individuals, greater CSA severity was related to higher levels of sexual compulsivity and avoidance. In married individuals, greater CSA was related to higher levels of sexual avoidance but was not significantly related to sexual compulsivity.
12.1 Vaillancourt- Morel et al. <sup>50</sup>	365 Mixed gender/sex couples in a relationship for at least 6 mo ( $M_{age}$ women = 27.7 y, $SD$ = 6.5; $M_{age}$ men = 29.5 y, $SD$ = 7.9)	Longitudinal, 2 time points over 6 mo	Cumulative score of CM including CEA, CPA, CSA, CEN, CPN	СТQ	Sexual satisfaction	GMSEX	Men and women's greater CM were negatively associated with their own levels of sexual satisfaction but not with their partner's.

Table 1. Continued

Author	Sample	Design	Type of CM	CM measure	Sexual health outcomes	Sexual health measure	Major findings
12.2 Vaillancourt- Morel et al. <sup>51</sup>	269 mixed-gender/sex couples in a relationship for at least 6 mo ( $M_{age}$ women = 27.7 y, $SD$ = 6.7; $M_{age}$ men = 29.9 y, $SD$ = 8.2)	Longitudinal, 3 time points over 12 mo	CEA CPA CSA CEN CPN	CTQ	Sexual satisfaction, sexual function, sexual distress	GMSEX FSFI/IIEF FSD-R	Women's greater CEN was associated with their own and their partner's lower initial levels (Time 1) of sexual satisfaction. Women's greater CEA, CSA, CPN, and CEN were associated with a steeper decrease over 1 y in their own sexual satisfaction. Men and women's greater CEA and CEN were associated with lower initial levels of men's sexual function. Women's greater CEA, CSA, and CEN were associated with lower initial levels of their own sexual function. Men's greater CEN was associated with higher initial levels of their own sexual distress. Women's greater CEA and CEN were associated with higher initial levels of their own sexual distress. Women's greater CSA was associated with a steeper increase in their own sexual distress over 1 y.
13. Weingourt <sup>52</sup>	94 women aged 21 y and older in mixed or samegender/sex relationship ( $M_{age}$ not reported)	Cross-sectional	CSA	Investigator- derived questions	Sexual satisfaction	ISS	Women with a history of CSA reported significantly lower sexual satisfaction in their current relationship than women who reported no history of CSA.

Notes. ASEX = Arizona Sexual Experiences Scale; CAMI = Computer-Assisted Maltreatment Inventory; CEA = child emotional abuse; CEN = child emotional neglect; CN = child neglect; CPA = child physical abuse; CPN = child physical neglect; CSA = Child sexual abuse; CSAQ = Child Sexual Abuse Questionnaire; CTQ = Childhood Trauma Questionnaire; ESE = Early Sexual Experiences Scale; FSAS = Frequency of Sexual Activities Scale; FSD-R = Female Sexual Distress — Revised; FSFI = Female Sexual Function Index; GMSEX = Global Measure of Sexual Satisfaction; IIEF = International Index of Erectile Function; ISS = Index of Sexual Satisfaction; JVQ = Juvenile Victimization Questionnaire; MPQ-SF = McGill Pain Questionnaire—Short Form; MSQ = Sexual Anxiety subscale of the Multidimensional Sexuality Questionnaire; SAI = Sexual Anxiety Inventory; SAS= Sexual Aversion Scale; SCS = Sexual compulsivity scale; SDI = Sexual Desire Subscale of the Sexual Desire Inventory; SHF = Sexual History Form; SMQ = Automatic Thought Subscale of the Sexual Modes Questionnaire; SS = Sexual Satisfaction Scale; TSI-2 = Trauma Symptom Inventory-2.

between CM and sexual satisfaction, and the mediating role of intimacy therein. Both men and women's greater CM were negatively associated with their own levels of sexual satisfaction but not with their partner's sexual satisfaction. Perceived partner responsiveness — a robust and theoretically-grounded component of intimacy defined as feeling cared for, validated and understood by one's partner<sup>55</sup> — mediated these associations, suggesting that the more each member of the couple reported CM, the less they felt understood by their partner and the less sexually satisfied they were.

In the second article published with this study, Vaillancourt-Morel et al<sup>51</sup> examined the dyadic longitudinal associations between CM and sexual satisfaction, distress, and function and the moderator role of relationship satisfaction. Greater levels of most types of women's CM were related to a sharper decrease over 1 year in their sexual satisfaction, and women's history of CSA was associated with a steeper increase in their sexual distress over 1 year. Some partner associations were also significant: women's CEN was related to their partner's lower initial levels of sexual satisfaction, and women's CEA and CEN were related to their partner's lower initial levels of sexual function. Importantly, greater relationship satisfaction buffered some of these negative effects, whereas at lower levels of relationship satisfaction, other negative effects of CM emerged. This suggests that a more proximal experience, that is, relationship satisfaction, could serve as a protective factor against the effects of the more distal experience of CM on couples' sexual health over 1 year. However, this study focused on community couples with relatively high relationship satisfaction, such that findings may not apply to clinical populations of couples consulting for sexual dysfunction.

Studies Among Women in Romantic Relationships. In community samples, only 1 study conducted among women examined CM as a whole in relation to their sexual health. Among 192 young adult women all involved in a romantic relationship, Rellini et al<sup>46</sup> showed that greater CM was correlated with lower sexual satisfaction, and that this association was mediated by greater emotion regulation difficulties. These findings support the Interpersonal Emotion Regulation Model of women's sexual dysfunction, whereby distal factors (eg, CM) impact emotion regulation, which in turn is associated with sexuality. The mediating role of emotion regulation difficulties also supports Briere's <sup>27</sup> Self-Trauma model, which proposes that CM may lead to impaired emotion regulation.

3 other articles examined associations between CSA and sexual health among women in romantic relationships, 1 of which involved sexual minority women. In a recent cross-sectional study conducted among 448 self-identified heterosexual women currently involved in a romantic relationship, Girard et al<sup>38</sup> investigated the associations between CSA and sexual anxiety. Results of path analyses showed that CSA was positively associated with sexual anxiety, corroborating findings from similar studies conducted among adolescent girls with or without a

partner. <sup>56</sup> Indeed, adolescents who are victims of CSA present a 3-fold increased risk of developing an anxiety disorder, and anxiety is one of the key psychosocial contributors to women's sexual dysfunction. <sup>57</sup> Increased anxiety, particularly sexual anxiety, may be one of the mechanisms via which CSA leads to greater sexual dysfunction.

An older study involved 94 women aged 21 years and older in mixed (n = 67) or same-gender/sex cohabiting relationships (n = 27). Independent of type of relationship or partner, women with a history of CSA reported significantly lower sexual satisfaction than women who did not report a history of CSA, <sup>52</sup> supporting the Self-Trauma model, <sup>27</sup> according to which unprocessed traumatic reactions can be triggered in adult attachment-based relationships, perhaps, especially in the context of sexual intimacy.

One study including 2 articles focused on CSA experiences in sexual minority women. 39,40 Cohen & Byers 39 conducted an online survey among 596 women in a same-gender/sex relationship of at least 12 months, of which 68% identified as lesbian, 11% as bisexual, 15% as queer, 4% as unlabeled, and 1% as not sure. Results indicated that CSA was positively related to higher negative thoughts during sexual activity, but not to sexual satisfaction, sexual esteem, sexual anxiety, sexual desire, or non-genital/genital sexual frequency. Interestingly, independent of CSA status, participants with higher relationship satisfaction reported higher sexual satisfaction, higher sexual esteem, fewer negative thoughts during sexual interactions, less anxiety during sex, higher sexual desire, and more frequent non-genital and genital sexual activities, supporting the importance of examining relationship factors. However, in this study, the authors did not examine whether relationship satisfaction moderated the link between CSA and sexual health. Nevertheless, given that relationship satisfaction was relatively high in this sample, the authors hypothesized that perhaps the CSA-sexual health association might be more salient in less relationally satisfied or single women. This is in fact what was found in a more recent study by Vaillancourt-Morel et al, 51 where more negative effects of CM emerged for those who reported lower relationship satisfaction. It is also possible that being in same-sex/gender relationships somehow contributed to a weaker association between CSA and sexuality for these women, given most CSA for girls occurs at the hands of a man.<sup>21</sup>

Using a subsample of the study on sexual minority women by Cohen & Byers,<sup>39</sup> Crump & Byers<sup>40</sup> investigated the role of CSA in the sexual health of 299 sexual minority women in a non-cohabiting dating relationship. They found that women with CSA involving attempted or completed vaginal/oral/anal sexual penetration reported significantly lower sexual desire and satisfaction as well as more frequent negative thoughts during sex than did women who reported CSA involving sexual fondling and those with no history of CSA. No significant differences were found between women who reported CSA and those without a CSA history on their frequency of genital/non-genital

sexual activity, duration of sexual encounters, sexual esteem, and sexual anxiety. Although findings indicate that women reporting more severe CSA (ie, involving penetration) were more likely to experience sexual difficulties, not all experiences of CSA were associated with sexual difficulties, and CSA was not associated with all types of sexual difficulties, suggesting that CSA does not uniformly negatively impact the sexual health of sexual minority women in a dating relationship.

Studies Among Women and Men in Romantic Relationships. Only 1 study conducted among women and men examined CM as a whole in relation to their sexual health. Using a sample of 174 college students (117 women and 57 men) involved in heterosexual dating relationships, DiLillo et al found that women's greater CM was associated with greater negative reactions to sexual activity (eg, disgust, fear, or shame) as well as greater negative sexual attitudes (eg, sex is power to control another person), and that this association was mediated by greater psychological distress. Men's CM was not significantly related to any of the negative reactions to sexual activity or sexual attitudes. The more severe CM reported by women in this sample may account for these gender differences, and corroborates findings of other studies in which greater CSA was associated with greater sexual anxiety. 38

The 3 remaining studies had to do with the role of CSA in the sexual health of men and women in a romantic relationship. In a sample of 320 men and women currently in an intimate relationship (using the same sample as Girard et al, <sup>38</sup> presented earlier among women), Baumann et al <sup>26</sup> examined CSA in relation to sexual difficulties (ie, concerns and dysfunctional sexual behaviors). Greater CSA was related to higher levels of sexual difficulties, and this association was moderated by lower relationship satisfaction, pointing to the potential buffering effect of a satisfying romantic relationship to counter the more distal influence of CSA or other adverse childhood events on sexual health. <sup>51</sup>

In a cross-sectional study involving 561 Spanish adults (228 men and 333 women) aged between 18 and 50 years old in a heterosexual relationship for at least 6 months, Moyano and Sierra examined the role of sexual abuse prior to age 13 (CSA) and sexual abuse as of age 13, as well as both combined, in positive and negative sexual cognitions (ie, intimate, exploratory, dominance, submission and impersonal sexual cognitions). For men and women, CSA alone was not associated with significant differences in positive and negative sexual cognitions relative to men and women without a CSA history. The timing of the abuse (in this case, prepubertal) may play a role in subsequent negative repercussions. Moreover, sexual cognitions may be too fine an outcome (as opposed to broader outcomes such as sexual satisfaction) to detect an association between CSA and sexual health.

In a series of articles using a cross-sectional design among men and women currently involved in an intimate relationship, Vaillan-court-Morel et al<sup>17,25,49</sup> investigated the associations between CSA and sexual avoidance and compulsivity. In the first article among

686 adults, they found that men and women's greater CSA were related to their own higher levels of sexual compulsivity and sexual avoidance.<sup>17</sup> In the second article among a subsample of 669 adults, Vaillancourt-Morel et al<sup>49</sup> found that, independent of gender, greater CSA severity was associated with both higher levels of sexual compulsivity and higher levels of extra-dyadic involvement. Further, higher levels of sexual compulsivity mediated the association between greater CSA and higher levels of extra-dyadic involvement. In the third article among a subsample of 333 cohabiting and 94 married individuals, Vaillancourt-Morel et al<sup>25</sup> found that the associations between CSA severity and sexual compulsivity and avoidance were moderated by relationship status: in married individuals, greater CSA was related to higher levels of sexual avoidance, but not to sexual compulsivity whereas in cohabiting individuals, greater CSA was related to higher levels of sexual compulsivity and avoidance. Findings suggest that relational status, namely level of commitment, could play a role in how CSA-related negative sexual sequelae manifest themselves in adulthood. Taken together, findings from this study (3 articles) support a dual-pathway model<sup>58</sup> whereby CSA could lead to both sexual inhibition (eg, sexual avoidance) and disinhibition (eg, sexual compulsivity).

# **Clinical Couples**

A small number of studies (k = 4 studies) on the associations between CM and sexual health involved clinical samples of either couples or individuals in a committed relationship. 2 studies included both members of the couple and 2 involved individuals in romantic relationships.

**Dyadic Studies.** Only 1 study espoused a dyadic framework involving both members of the couple and examining both actor (associations between one's own CM and sexuality outcomes) and partner (associations between one's own CM and partner's sexuality outcomes) effects<sup>41</sup> using the recommended Actor-Partner Interdependence Model (APIM). This study was conducted among 49 couples in which the woman was diagnosed with genito-pelvic pain/penetration disorder - a sexual dysfunction. CM was assessed using the global score of the CTQ.<sup>53</sup> Results indicated that women and partners' greater CM was associated with their own lower sexual function. Both women and partners' greater CM were associated with women's higher affective pain ratings. CM may complicate couples' adjustment to the sexual repercussions of genito-pelvic pain by leading to impaired emotion regulation, making it more challenging for both partners to cope with the threatening and distressing experience of pain during sexual activity.<sup>28</sup>

Among a sample of 107 heterosexual couples seeking couple therapy at a university outpatient clinic and in which both partners reported CM, the roles of different subtypes of CM in the experience of sexual difficulties was examined. Results showed that women's greater CPN was associated with their male partner's higher levels of sexual difficulties. Men's greater CPA and CSA

were associated with their female partner's higher levels of sexual difficulties. However, even if the results showed actor and partner effects, the authors did not use an Actor-Partner Interdependence Model, such that the interdependency of both partners' data was not taken into account. Nevertheless, findings support the potential dyadic effects of CM in individuals' sexuality.

# Studies Among Individuals in Romantic Relationships.

A cross-sectional study examined the association between CSA — measured using the 5-item sexual abuse subscale of the CTQ — and the sexual function of 401 chronically depressed outpatients who were married or in a serious relationship, representing a subsample of the total sample of 808 outpatients. <sup>44</sup> Results showed no significant direct association between CSA and sexual function in this clinical sample. It is possible that the more proximal effects of chronic depression on sexual function overshadowed the potential distal effects of CSA, given the well-documented and robust depression-sexual dysfunction association. <sup>59</sup>

The role of CSA in sexual dysfunction was also examined in a sample of 359 married women consulting a sex therapist with their spouse, of which 51% presented a sexual dysfunction based on DSM-III-R criteria. Of these, 68% were diagnosed with hypoactive sexual desire disorder, 18% with an orgasm disorder, and 13% with a sexual pain disorder (dyspareunia or vaginismus, now termed genito-pelvic pain/penetration disorder). CSA significantly discriminated between women with and without a sexual dysfunction. Among the factors associated with the CSA, such as age of onset or relation to the perpetrator, abuse involving penetration was the only factor that correctly discriminated between women with and without a sexual dysfunction. Findings of this study suggest that women having experienced CSA with penetration were at the greatest risk of reporting a sexual dysfunction.

#### DISCUSSION

The aim of this systematic review was to summarize and critically appraise the literature focusing on CM and couples' sexual health. Results indicated that studies using valid measures of sexual health outcomes found significant associations between CM and worse outcomes - including declines over time - in both clinical and community samples. Mediators and moderators of these associations were also identified. In some studies, greater difficulties with emotion regulation, including greater psychological distress, mediated the associations between greater CM and worse sexual health outcomes. 42,46,49 A dyadic mediator also emerged: perceived partner responsiveness, that is, feeling understood, cared for and understood by one's partner, whereby lower perceived partner responsiveness mediated the association between greater CM and lower sexual satisfaction.<sup>50</sup> Findings also pointed toward dyadic protective factors, that is, moderators: relationship satisfaction and commitment (ie, relationship status) buffered the association between CM and sexual health. 26,51 The interpretation of these findings is however limited as the evidence is derived from only a handful of studies that included both members of the couple, with the remaining evidence stemming from cross-sectional studies involving individuals in romantic relationships.

The most common finding across reviewed studies was that participants' greater CM was associated with their own lower sexual satisfaction, both cross-sectionally and over time.<sup>51</sup> This finding is only partly in line with previous results from studies on CSA in individuals - regardless of their relationship status which did not find consistent associations between CSA and sexual satisfaction. 21 This difference could be explained by the fact that sexual satisfaction is a more dyadic outcome, as it captures each partner's subjective evaluation of the positive and negative dimensions of their global sexual relationship, 60 as opposed to measures of sexual function, which often focus on more objective dimensions of one's own sexuality over a short period of time (eg, last 4 weeks - Female Sexual Function Index). 61 This finding also supports the need to examine CM as a whole and per subtype, in addition to examining sexual health from a multidimensional viewpoint, encompassing sexual function, satisfaction, and distress.

In clinical couples in particular, greater CM was associated with both greater sexual difficulties<sup>48</sup> and worse sexual function<sup>41,47</sup> in oneself, but also in one's partner. In community couples, CM was also associated with women's greater increase in sexual distress over time.<sup>51</sup> Mechanisms that could explain these associations include negative self-schema or self-representations that can lead to feeling unworthy of sexual pleasure, 62 poorer emotion regulation, 63 greater trait anxiety<sup>56</sup>, and sexual anxiety.<sup>38</sup> Difficulties with emotion regulation were in fact identified as a mediator between CM and different sexual health outcomes in 3 studies in the present review. 42,46,49 This is consistent with the Interpersonal Emotion Regulation Model of women's sexual dysfunction, 28 which proposes that interpersonal factors acting at both the distal (eg, CM) and proximal levels (eg, sexual motivation) reciprocally influence couples' emotion regulation surrounding their sexual relationship. Difficulties regulating negative emotions, in particular, that is, emotional awareness, expression, and experience could, in turn, affect each partner's sexual health. This model may also explain dyadic effects, whereby one partner's CM affects the other partner's sexual health.

Importantly, CM may impair the capacity for intimacy, as suggested by trauma theories, <sup>4</sup> but also by recent findings concerning the CM-attachment link. <sup>64,65</sup> Indeed, 1 of the reviewed studies <sup>50</sup> showed that the more each member of the couple reported CM, the less they perceived their partner to be responsive (ie, the less they felt understood, cared for and validated by the partner) and the less sexually satisfied they were. Another study by the same authors, using a dyadic daily diary methodology over 35 days and 1-year follow-up, found that a person's greater CM was related to higher day-to-day variability in their own and their partner's perceived partner responsiveness, and a person's greater CEN was associated with a sharper decrease over 1 year in their own perceived partner responsiveness. <sup>66</sup> This points toward a robust association between CM and later deficits in perceived partner

responsiveness - a central dyadic process  $^{55}$  which is also associated with sexual function, independent of CM.  $^{67,68}$ 

Greater relationship satisfaction and commitment (ie, relationship status) also buffered the association between CM and sexual health, such that it was weaker for individuals who were more satisfied with their romantic relationships<sup>26,51</sup> and led to a different sexuality outcome (sexual avoidance) when individuals were married relative to when they were simply cohabiting (sexual compulsivity). These findings provide additional support for the importance of examining dyadic protective factors and the relational context in studies on CM and sexual health, given the more proximal effects of relationship satisfaction and commitment that may protect against the distal, negative impact of CM, or modify how the negative sequelae will manifest.

# Limitations and Recommendations for Future Research

The present review on CM and couples' sexual health, although contributing novel findings, also highlights important methodological shortcomings. First, the majority of studies investigating couples' sexuality did not use samples including both partners and instead focused on samples of adults involved in relationships. This lack of dyadic samples prevents reaching an in-depth understanding of how both partners' experience of CM might unfold in their own and their partner's sexuality. Future studies aiming to examine couples' sexual health should involve both members of the dyad to capture the dynamic interplay between relational processes and sexuality in CM survivors.

The threshold chosen by researchers to determine what consists of a romantic relationship might also raise some concerns. Indeed, some studies used a sample of non-cohabiting sexual minority women, <sup>40</sup> some did not mention what threshold was used, <sup>48</sup> while others required couples to be in the first year of their marriage, suggesting a fairly long commitment to their relationship. <sup>43</sup> Yet, it is likely that depending on the length of the relationship <sup>69</sup> or level of commitment in association with a history of CM, <sup>25</sup> issues about sexuality arise and influence sexual indicators differently. Future studies would benefit not only from including both members of the couple, but also from specifying and including different relationship lengths.

Moreover, with the exception of DiLillo et al<sup>43</sup> and Vaillan-court-Morel et al<sup>50,51</sup> who published longitudinal studies (time-frame ranging from 2 time points over 6 months to 3 time points over 2 years), there is an over representation of cross-sectional studies. Despite providing an interesting snapshot of the associations between CM and sexuality in samples of adults involved in a relationship at a particular time, they especially emphasize the need to examine the longitudinal associations between CM and the sexual health over time, in specific life transitions or challenges (eg, birth of a child, loss of employment, chronic illness, retirement) and how these sexual repercussions develop across the lifespan.

It is worth mentioning that efforts were made in the last decade to be more inclusive of different types of CM. Although half of the studies examined CSA exclusively - a significant limitation - the other half integrated a cumulative score of CM and/ or examined various subtypes of CM separately, thereby moving the field forward. Not only does this need to be underlined because past research tended to associate sexual outcomes exclusively with CSA<sup>21</sup> but also because importantly, the latest, most rigorous studies demonstrate that 1 type of CM rarely happens alone. 70 Recent results showing specific actor and partner effects between, for example, women's greater CEN and their own and their partner's lower initial levels of sexual satisfaction, <sup>51</sup> support the need to examine the differential effects of each type of CM in association with various indicators of sexual health of both partners of the couple. Indeed, whether they consist of abuse or neglect, CM events are all relational experiences that are likely to be re-evoked or triggered in the context of couples' sexuality, but in potentially different manners.

While most studies used well-known and validated measures of CM such as the CTQ<sup>53</sup> that allows for comparisons between results, studies on CSA often relied on non-empirically validated, investigator-derived questions that preclude any comparisons between findings. As for sexual health outcomes, some studies relied on adapted items from unpublished measures<sup>42</sup> or clinical interviews based on DSM-III-R,<sup>47</sup> while others used sexuality outcomes from trauma measures. Future studies would benefit from using well validated measures of sexual health.

Finally, despite the inclusion of men in several samples, only about half of the reviewed studies examined sex/gender differences, limiting our understanding of men's sexuality as survivors of CM, and pointing toward the need to including more men in research protocols. In addition to the lack of results specific to men's experiences, few studies have included samples of sexual and gender diverse individuals, or at the very least, reported results accordingly. Indeed, only 1 study used a sample of women in a same-gender/ sex relationship<sup>39,40</sup> and 1 used a sample of women in mixed or same-gender/sex long-term relationships, 52 although these studies only focused on CSA. Futures studies should therefore not only over-sample for sexual and gender diverse individuals and couples, but also expand the range of CM they assess in such samples, as research tends to show that both CM and outcomes in sexual and gender diverse populations are more severe. 70 Lastly, similar recommendations apply to individuals and couples from ethnic diversities, who are at a greater risk of experiencing CM<sup>70</sup> as well as certain sexual difficulties, such as genito-pelvic pain/penetration disorder,<sup>71</sup> and to older individuals, for whom the experiences of CM may interact with increased health concerns and the effects of aging on sexual function. 72

#### Clinical Implications

Despite important limitations in the CM — couples' sexual health literature, findings to date nevertheless have clinical implications that may improve patient care. A first implication

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involves the assessment of CM in routine sexual health care, given its high prevalence, the common co-occurrence of different forms of CM, and their documented impact on couples' sexuality outcomes. Notwithstanding the usefulness of the focus on CSAsexual dysfunction associations until recently, 14 promoting high quality sexual health care for all CM survivors is long overdue. Second, there is a glaring need for couple interventions addressing both partners' sexual health, especially since studies to date show that one person's trauma can affect the other's sexual health. 41 Clinical insights and past work also suggest that partners may feel guilty expressing their sexual needs, in addition to feeling left out of individual treatments for trauma survivors, 73 further supporting the relevance of their involvement. There is also evidence that when disclosing past trauma, survivors' perceived partner emotional support to that disclosure are associated with their own and their partners' greater sexual satisfaction,<sup>7</sup> pointing toward potential benefits of couple approaches for both partners' sexual health. Although 1 couple therapy model for CM survivors has been developed (Developmental Couple Therapy for Complex Trauma),58 it has not yet been empirically validated and its focus prioritizes relationship dynamics rather than sexual health. Hence more work is needed to develop novel, trauma-informed couples' sexual health interventions.

#### CONCLUSION

Findings of this review provide preliminary support for the role of CM in couples' sexual health. However, considering that this emerging field is still in its infancy and that most studies to date espoused a cross-sectional design, future longitudinal studies involving both members of the couple, valid and multidimensional measures of sexual health, as well as potential mediators and moderators, are much needed to identify treatment targets and improve healthcare services for CM survivors presenting with sexual difficulties.

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#### **REFERENCES**

- 1. Cyr K, Chamberland C, Clement M-È, et al. Polyvictimization and victimization of children and youth: results from a populational survey. Child Abuse Negl 2013;37:814–820.
- MacDonald K, Thomas ML, Sciolla AF, et al. Minimization of childhood maltreatment is common and consequential: results from a large, multinational sample using the Childhood Trauma Questionnaire. PLOS One 2016;11:e0146058.
- Berthelot N, Hébert M, Godbout N, et al. Childhood maltreatment increases the risk of intimate partner violence via PTSD and anger personality traits in individuals consulting for sexual problems. J Aggress Maltreat Trauma 2014;23:982–998.
- 4. Briere J, Scott C. Principles of trauma therapy: A guide to symptoms, evaluation, and treatment. 2nd ed. Thousand Oaks, CA: Sage; 2014.
- 5. Gilbert R, Widom CS, Browne K, et al. Burden and consequences of child maltreatment in high-income countries. Lancet 2009;373:68–81.
- Miller GE, Chen E, Parker KJ. Psychological stress in childhood and susceptibility to the chronic diseases of aging: Moving toward a model of behavioral and biological mechanisms. Psychol Bull 2011;137:959–997.
- Latham RM, Quilter E, Arseneault L, et al. Childhood maltreatment and poor functional outcomes at the transition to adulthood: A comparison of prospective informant- and retrospective self-reports of maltreatment. Soc Psychiatry Psychiatr Epidemiol 2021;56:1161–1173.

- Lewis SJ, Koenen KC, Ambler A, et al. Unravelling the contribution of complex trauma to psychopathology and cognitive deficits: a cohort study. Br J Psychiatry 2021;219:448–455.
- Bigras N, Godbout N, Hebert M, et al. Cumulative adverse childhood experiences and sexual satisfaction in sex therapy patients: What role for symptom complexity? J Sex Med 2017;14:444–454.
- Abajobir AA, Kisely S, Williams G, et al. Risky sexual behaviors and pregnancy outcomes in young adulthood following substantiated childhood maltreatment: Findings from a prospective birth cohort study. J Sex Res 2018;55:106–119.
- Rellini AH, Meston CM. Sexual desire and linguistic analysis: A comparison of sexually-abused and non-abused women. Arch Sex Behav 2007;36:67–77.
- 12. Scher CD, Forde DR, McQuaid JR, et al. Prevalence and demographic correlates of childhood maltreatment in an adult community sample. Child Abuse Negl 2004;28:167–180.
- Finkelhor D, Ormrod RK, Turner HA. Poly-victimization: A neglected component in child victimization. Child Abuse Negl 2007;31:7–26.
- Pulverman CS, Kilimnik CD, Meston CM. The impact of child-hood sexual abuse on women's sexual health: A comprehensive review. Sex Med Rev 2018;6:188–200.
- 15. Zwickl S, Merriman G. The association between childhood sexual abuse and adult female sexual difficulties. Sex Relation Ther 2011;26:16–32.
- **16.** Rellini AH. Review of the empirical evidence for a theoretical model to understand the sexual problems of women with a history of CSA. J Sex Med 2008;5:31–46.
- Vaillancourt-Morel M-P, Godbout N, Labadie C, et al. Avoidant and compulsive sexual behaviors in male and female survivors of childhood sexual abuse. Child Abuse Negl 2015;40:48– 59.
- 18. Bigras N, Godbout N, Briere J. Child sexual abuse, sexual anxiety, and sexual satisfaction: The role of self-capacities. J Child Sex Abus 2015;24:464–483.
- 19. Najman JM, Dunne MP, Purdie DM, et al. Sexual abuse in childhood and sexual dysfunction in adulthood: An Australian population-based study. Arch Sex Behav 2005;34:517–526.
- Fava NM, Bay-Cheng LY, Nochajski TH, et al. A resilience framework: Sexual health trajectories of youth with maltreatment histories. J Trauma Dissociation 2018;19:444–460.
- 21. Bigras N, Vaillancourt-Morel M-P, Nolin M-C, et al. Associations between childhood sexual abuse and sexual wellbeing in adulthood: A systematic literature review. J Child Sex Abus 2021;30:332–352.
- 22. Gewirtz-Meydan A, Opuda E. The impact of child sexual abuse on men's sexual function: A systematic review. **Trauma Violence Abus 2022;23:265–277.**
- 23. Lemieux SR, Byers ES. The sexual well-being of women who have experienced child sexual abuse. Psychol Women Q 2008;32:126–144.
- 24. Bigras N, Daspe M-È, Godbout N, et al. Cumulative childhood trauma and adult sexual satisfaction: Mediation by affect

- dysregulation and sexual anxiety in men and women. J Sex Marital Ther 2017;43:377–396.
- 25. Vaillancourt-Morel M-P, Godbout N, Sabourin S, et al. Adult sexual outcomes of child sexual abuse vary according to relationship status. J Marital Fam Ther 2016;42:341–356.
- 26. Baumann M, Bigras N, Paradis A, et al. It's good to have you: The moderator role of relationship satisfaction in the link between child sexual abuse and sexual difficulties. J Sex Marital Ther 2021;47:1–15.
- 27. Briere J. Treating adult survivors of severe childhood abuse and neglect: Further development of an integrative model. In: Myers JEB, Berliner L, Briere J, Reid T, Jenny C, editors. The APSAC handbook on child maltreatment. 2nd Edition Newbury Park, CA: Sage Publications; 2002. p. 175–202.
- Rosen NO, Bergeron S. Genito-pelvic pain through a dyadic lens: Moving toward an interpersonal emotion regulation model of women's sexual dysfunction. J Sex Res 2019;56:440–461.
- Baer JC, Martinez CD. Child maltreatment and insecure attachment: A meta-analysis. J Reprod Infant Psychol 2006;24:187–197.
- **30.** MacIntosh H, Vaillancourt-Morel M-P, Bergeron S. Sex and couple therapy with survivors of childhood trauma. In: Binik YM, Hall K, editors. Principles and practice of sex therapy. 6th edition New York, NY: The Guilford Press; 2020.
- 31. Mikulincer M, Shaver PR. Attachment in adulthood: Structure, dynamics, and change. 2nd New York: Guilford Press; 2016.
- **32.** Diamond D, Blatt SJ, Lichtenberg JD. Attachment & sexuality. New York: The Analytic Press; 2007.
- 33. Finkelhor D, Browne A. The traumatic impact of child sexual abuse: A conceptualization. Am J Orthopsychiatry 1985;55:530–541.
- 34. Del Castillo D, Wright MO. The perils and possibilities in disclosing childhood sexual abuse to a romantic partner. J Child Sex Abus 2009;18(4):386–404.
- 35. Whisman MA. Dyadic perspectives on trauma and marital quality. Psychol Trauma 2014;6:207–215.
- 36. World Health Organization. Defining sexual health: Report of a technical consultation on sexual health. Geneva: World Health Organization; 2006. Available at: http://www.who.int/reproductivehealth/publications/sexual\_health/defining\_sexual\_health.pdf. Accessed February 1, 2022.
- **37.** Page MJ, McKenzie JE, Bossuyt PM, et al. The PRISMA 2020 statement: N updated guideline for reporting systematic reviews. Br Med J 2021;372:n160.
- Girard M, Dugal C, Hébert M, et al. Is my sex life ok? The mediating role of sexual anxiety in the association between childhood sexual abuse and sexual coercion against women. J Child Sex Abus 2020;29:717–733.
- 39. Cohen JN, Byers ES. Minority stress, protective factors, and sexual functioning of women in a same-sex relationship. Psychol Sex Orientat Gend Divers 2015;2:391–403.
- 40. Crump L, Byers S. Sexual well-being of sexual minority women in dating relationships who have experienced

- childhood sexual abuse and/or adolescent and adult sexual victimization. Can J Hum Sex 2017;26:163–173.
- Corsini-Munt S, Bergeron S, Rosen NO, et al. A dyadic perspective on childhood maltreatment for women with provoked vestibulodynia and their partners: Associations with pain and sexual and psychosocial functioning. J Sex Res 2017;54:308–318.
- 42. DiLillo D, Lewis T, Loreto-Colgan AD. Child maltreatment history and subsequent romantic relationships. J Aggress Maltreat Trauma 2007;15:19–36.
- DiLillo D, Peugh J, Walsh K, et al. Child maltreatment history among newlywed couples: A longitudinal study of marital outcomes and mediating pathways. J Consult Clin Psychol 2009;77:680–692.
- 44. Dunlop BW, Hill E, Johnson BN, et al. Mediators of sexual functioning and marital quality in chronically depressed adults with and without a history of childhood sexual abuse. J Sex Med 2015;12(3):813–823.
- Moyano N, Sierra JC. Sexual cognitions in victims of childhood and adolescence/adulthood sexual abuse. Span J Psychol 2015;18:E47.
- **46.** Rellini AH, Vujanovic AA, Gilbert M, et al. Childhood maltreatment and difficulties in emotion regulation: Associations with sexual and relationship satisfaction among young adult women. J Sex Res 2012;49:434–442.
- Sarwer DB, Durlak JA. Childhood sexual abuse as a predictor of adult female sexual dysfunction: A study of couples seeking sex therapy. Child Abuse Negl 1996;20:963–972.
- **48.** Shi L. Trauma symptoms and relationship satisfaction: An examination of self and partner contribution in dual-trauma outpatient clinical couples. Am J Fam Ther 2021;49:1–15.
- Vaillancourt-Morel M-P, Dugal C, Poirier Stewart R, et al. Extradyadic sexual involvement and sexual compulsivity in male and female sexual abuse survivors. J Sex Res 2016;53:614–625.
- 50. Vaillancourt-Morel M-P, Rellini AH, Godbout N, et al. Intimacy mediates the relation between maltreatment in childhood and sexual and relationship satisfaction in adulthood: A dyadic longitudinal analysis. Arch Sex Behav 2019;48:803–814.
- 51. Vaillancourt-Morel M-P, Byers ES, Péloquin K, et al. A dyadic longitudinal study of child maltreatment and sexual well-being in adult couples: The buffering effect of a satisfying relationship. J Sex Res 2021;58:248–260.
- Weingourt R. A comparison of heterosexual and homosexual long-term sexual relationships. Arch Psychiatr Nurs 1998;12 (2):114–118.
- 53. Bernstein DP, Stein JA, Newcomb MD, et al. Development and validation of a brief screening version of the Childhood Trauma Questionnaire. Child Abuse Negl 2003;27:169–190.
- 54. Call V, Sprecher S, Schwartz P. The incidence and frequency of marital sex in a national sample. J Marriage Fam 1995:57:639–652.
- 55. Reis HT. Perceived partner responsiveness as an organizing theme for the study of relationships and well-being. In:

- Campbell L, Loving TJ, editors. Interdisciplinary research on close relationships: The case for integration. Washington, DC: American Psychological Association; 2012. p. 27–52.
- Santerre-Baillargeon M, Vézina-Gagnon P, Daigneault I, et al. Anxiety mediates the relation between childhood sexual abuse and genito-pelvic pain in adolescent girls. J Sex Marital Ther 2017;43:774–785.
- 57. Pâquet M, Vaillancourt-Morel M-P, Jodouin J-F, et al. Pain trajectories and predictors: A 7-year longitudinal study of women with vulvodynia. J Sex Med 2019;16:1606–1614.
- 58. MacIntosh H. Developmental couple therapy for complex trauma. 1st New York: Taylor and Francis; 2019.
- Clayton AH, El Haddad S, Iluonakhamhe J-P, et al. Sexual dysfunction associated with major depressive disorder and anti-depressant treatment. Expert Opin Drug Saf 2014;13:1361–1374.
- **60.** Lawrance K-A, Byers ES. Sexual satisfaction in long-term heterosexual relationships: The interpersonal exchange model of sexual satisfaction. **Pers Relatsh 1995;2:267–285.**
- Rosen RC, Brown C, Heiman JR, et al. The Female Sexual Function Index (FSFI): A multidimensional self-report instrument for the assessment of female sexual function. J Sex Marital Ther 2000;26:191–208.
- 62. Meston CM, Rellini AH, Heiman JR. Women's history of sexual abuse, their sexuality, and sexual self-schemas. J Consult Clin Psychol 2006;74:229–236.
- 63. Carvalho Fernando S, Beblo T, Schlosser N, et al. The impact of self-reported childhood trauma on emotion regulation in borderline personality disorder and major depression. J Trauma Dissociation 2014;15:384–401.
- 64. Godbout N, Dutton DG, Lussier Y, et al. Early exposure to violence, domestic violence, attachment representations, and marital adjustment. Pers Relatsh 2009;16:365–384.
- 65. Frias MT, Brassard A, Shaver PR. Childhood sexual abuse and attachment insecurities as predictors of women's own and perceived-partner extradyadic involvement. Child Abuse Negl 2014;38:1450–1458.
- Vaillancourt-Morel M-P, Rosen NO, Péloquin K, et al. Maltreatment in childhood and perceived partner responsiveness in adult romantic relationships: A dyadic daily diary and longitudinal study. Child Maltreat 2021. doi: 10.1177/10775595211057230. E-pub ahead of print.
- Bergeron S, Pâquet M, Steben M, et al. Perceived partner responsiveness is associated with sexual well-being in couples with genito-pelvic pain. J Fam Psychol 2021;35:628– 638.
- **68.** Birnbaum GE, Reis HT, Mizrahi M, et al. Intimately connected: The importance of partner responsiveness for experiencing sexual desire. J Pers Soc Psychol 2016;111:530–546.
- 69. Eastwick PW, Keneski E, Morgan TA, et al. What do short-term and long-term relationships look like? Building the relationship coordination and strategic timing (ReCAST) model. J Exp Psychol Gen 2018;147:747–781.

- 70. Kim H, Drake B. Cumulative prevalence of onset and recurrence of child maltreatment reports. J Am Acad Child Adolesc Psychiatry 2019;58:1175–1183.
- 71. Nguyen RH, Reese RL, Harlow BL. Differences in pain subtypes between Hispanic and non-Hispanic white women with chronic vulvar pain. J Womens Health (Larchmt) 2015;24:144–150.
- 72. Lindau ST, Schumm LP, Laumann EO, et al. A study of sexuality and health among older adults in the United States. N Engl J Med 2007;357:762–774.
- 73. Gewirtz-Meydan A. Treating sexual dysfunctions among survivors of child sexual abuse: An overview of empirical research. Trauma Violence Abuse 2022;23:840–853. doi: 10.1177/1524838020979842. E-pub ahead of print.
- 74. de Montigny Gauthier L, Vaillancourt-Morel M-P, Rellini A, et al. The risk of telling: A dyadic perspective on romantic partners' responses to child sexual abuse disclosure and their associations with sexual and relationship satisfaction. J Marital Fam Ther 2019;45:480–493.