

# Longitudinal associations between childhood maltreatment and sexual motivations in couples: The role of basic psychological needs

Journal of Social and  
Personal Relationships  
2024, Vol. 0(0) 1–23  
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DOI: 10.1177/02654075241230118

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## Abstract

Childhood maltreatment (CM) has been consistently associated with negative sexual outcomes in couples. Yet, its link with sexual motivation, which plays a key role in relational and sexual well-being, remains elusive. Based on self-determination theory, sexual motivations encompass intrinsic motivation, extrinsic motivation (i.e., integrated, identified, introjected, and external), and amotivation. This study examined the dyadic longitudinal associations between CM and these six sexual motivations, while considering the satisfaction of basic psychological needs (i.e., autonomy, competence, and relatedness) as potential mediators. Data from 309 cohabitating couples (50.8% cisgender women,  $M = 32.64$  years,  $SD = 9.59$ ), collected at three time points over 1 year, were analyzed using actor-partner interdependence mediation models. CM was not significantly related to intrinsic motivation. However, overall, a person's CM was indirectly associated with their own and their partner's extrinsic motivation (i.e., integrated, identified, introjected, and external) via their own satisfaction of basic psychological needs for autonomy, competence, and relatedness in the romantic relationship. A person's CM was also indirectly associated with their own amotivation via their own and their partner's satisfaction for autonomy and relatedness. Findings suggest that catering to basic

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psychological needs of couples with a CM history may facilitate healthier sexual dynamics through their associations with sexual motivation.

### **Keywords**

Basic psychological needs, childhood maltreatment, couple relationships, sexual motivations, trauma

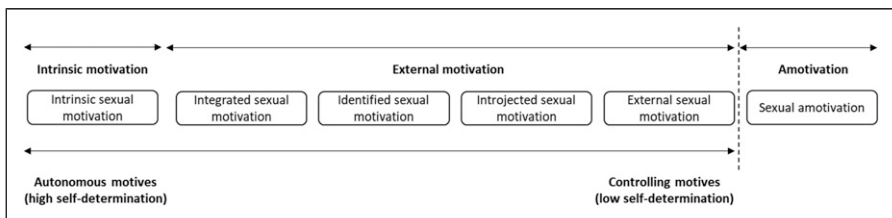
## **Introduction**

Childhood maltreatment (CM), involving all types of abuse or neglect, is a pervasive issue. In North America, prevalence rates of CM range from 25 to 40% in the general population (Cyr et al., 2013; MacDonald et al., 2016). Extensive research has established that CM has far-reaching and enduring effects on a person's psychological adjustment (Snow et al., 2022), interpersonal functioning (Alink et al., 2012), and sensorimotor experience (Maier et al., 2020). CM also has the potential to affect a person's sexual behavior, often leading to earlier sexual initiation (Abajobir et al., 2018) as well as higher sexual avoidance or compulsion (Vaillancourt-Morel et al., 2015). Moreover, in couples the repercussions of such experiences can extend beyond the individual's own experience of sexuality, as CM is also associated with greater sexual distress, lower sexual function, and lower relationship satisfaction for both partners (Vaillancourt-Morel et al., 2023). Notably, 80% of individuals seeking sex therapy have reported CM (Berthelot et al., 2014; MacDonald et al., 2016), with 58% of women and 52% of men reporting at least four types of abuse or neglect (Bigras et al., 2017). However, the repercussions of CM on couple's sexuality vary widely; while some couples with a CM history report significant sexual challenges, others experience minimal setbacks (Fava et al., 2018; Vaillancourt-Morel et al., 2021). This variability may stem in part from differences in sexual motivations. Indeed, the underlying reasons for pursuing certain behaviors—whether they are self-determined or are driven by internal or external pressures—exert a profound influence on the quality of a person's subjective experience and interpersonal relationships (Hope et al., 2019; Sheldon et al., 2004). Particularly in the realm of sexuality, self-determination over one's sexual life emerges as a pivotal factor in promoting sexual well-being (Gravel et al., 2016; Mitchell et al., 2021). To date, however, current understanding of associations between CM and motivations driving individuals' engagement in sexual activity within romantic relationships remains limited. Notably, the handful of studies investigating CM-sexual motivation associations focused on individuals, not couples, and used a cross-sectional design (Dugal et al., 2023; Gewirtz-Meydan & Lahav, 2021). Further examining sexual motivations in connection with CM in couples is essential to further enrich current perspectives on trauma's role in sexuality and relationship dynamics, pinpointing the potential mechanisms driving this relationship.

## Self-determination theory and motivations

Self-determination theory, as proposed by Deci and Ryan (Deci & Ryan, 2012; Ryan & Deci, 2008), outlines six forms of motivation that span the spectrum from complete autonomy to being predominantly influenced by internal or external demands and pressures. Building upon this framework, Gravel et al. (2016) adapted and operationalized these sexual motivations within the context of sexuality. As shown in Figure 1, the first sexual motivation, *intrinsic motivation*, is entirely self-determined, reflecting a sense of autonomy and volition and refers to engagement in sexual activity for the inherent pleasure and satisfaction derived from the experience itself. Conversely, extrinsic motivation focuses on contingent rewards and includes four motivation styles that range from being primarily self-determined and well internalized to being entirely controlled by internal or external factors. Notably, *integrated* and *identified* motivation are the more autonomous forms of extrinsic motivation. *Integrated motivation* represents sexual behaviors that are congruent with an individual's personal values and identity. This differs from intrinsic motivation, which is centered on engaging in activities for their inherent pleasure or enjoyment. In turn, *identified motivation*, involves engaging in sexual activities that are perceived to be important, but not necessarily personally meaningful. By comparison, *introjected* and *external motivation* are more controlled forms of extrinsic motivation that may compel individuals to act in ways that are incongruent with their sense of self. More specifically, *introjected motivation* denotes engagement in sexual behaviors driven by internal pressures, such as guilt or a desire for self-validation, and *external motivation* involves participating in sexual activities because of external pressures or rewards, such as the desire to avoid conflict. Finally, the last form of sexual motivation, *amotivation*, represents a complete lack of motivation or intention for sex, primarily stemming from a lack of feelings of efficacy over the behavior.

Cross-sectional and longitudinal studies conducted with individuals indicated that self-determined sexual motivations, which often correspond to *intrinsic*, *integrated*, and *identified* sexual motivations, are related to better sexual and orgasmic function (Wongsomboon et al., 2022), higher sexual assertiveness, greater relational and sexual satisfaction (Brunell & Webster, 2013), and lower sexual distress and negative affect during sex (Gravel et al., 2016). Conversely, individuals who reported engaging in sexual activities driven by controlled extrinsic motivations, such as temporarily alleviating personal insecurities or avoiding conflicts with their partner (i.e., *introjected* or *external*



**Figure 1.** Sexual motivation continuum based on self-determination theory.

sexual motivations), tend to report lower levels of sexual and relational well-being (Impett et al., 2005; Tóth-Király et al., 2019). Furthermore, two dyadic studies showed that a person's reasons for engaging in sexual interactions—whether autonomous or controlled—was related to both partners' sexual desire and satisfaction (Muise et al., 2013). These findings underscore the importance of self-determination in the sexual realm, gauged through sexual motivation, and thus the need to better understand the developmental factors that inform sexual motivation within couples.

### *Childhood maltreatment and sexual motivations*

As per self-determination Theory, adverse developmental experiences like CM can leave lasting impressions on individuals' motivations (Ryan & Deci, 2018). CM holds the potential to shape a person's cognitive schemas about themselves, others, and the world, thereby predisposing victims towards specific psychological responses, interpersonal patterns, and motivations (Briere & Runtz, 2002; Glaser, 2000). Limited research, primarily on childhood sexual abuse, suggests that victims tend to lean toward non-autonomous sexual motivations, namely by using sex to bolster self-esteem and regulate emotions (Gewirtz-Meydan & Lahav, 2021; Wekerle et al., 2017). Using a cross-sectional and individual-focused design, one study showed that CM was related to higher controlled sexual motivations, particularly introjected motivation (Dugal et al., 2023). While such studies hint at a link between CM and sexual motivation, further rigorous research using a longitudinal and dyadic design is imperative to thoroughly examine the extent to which CM is associated with both an individual's and their partner's sexual motivation, shedding light on shared dynamics within couples (Goff & Smith, 2005). In addition, gaining a deeper understanding of the underlying mechanisms necessitates the identification of potential mediators. Such knowledge is essential for developing targeted interventions aimed at promoting relational and sexual well-being for couples with a history of CM.

### *The mediating role of basic psychological needs satisfaction in the association between childhood maltreatment and sexual motivation*

Self-determination theory posits that motivations are anchored in the satisfaction of basic psychological needs for autonomy, competence, and relatedness (Deci & Ryan, 2008). *Autonomy* reflects the need for individuals to have volition and choice in their actions, aligning with their authentic interests and values. *Competence* entails feeling effective and capable, while *relatedness* encompasses the need for connection and care within relationships. Past studies underscore that these needs' satisfaction relates to a series of beneficial outcomes, including greater psychological well-being, effective interaction strategies, lower defensiveness, and higher sexual satisfaction (Hodgins & Liebeskind, 2003; Knee et al., 2002; Smith, 2007). In addition, there is growing evidence for the association between the satisfaction of basic psychological needs and sexual motivation in individuals and couples. In a daily diary study among 113 individuals, days marked by higher basic psychological needs satisfaction also showed higher autonomous sexual

motivation (Gravel et al., 2020). In a longitudinal dyadic study, higher need fulfillment during sexual interactions was also related to self-determined sexual motivation (Brunell & Webster, 2013). While more research is required to fully comprehend how basic psychological need fulfillment within romantic relationships correlates with both partners' sexual motivation over time, these results suggest that investigating their contribution could shed light on the mechanisms through which CM is related to sexual motivation.

CM is known to hold the potential to undermine the satisfaction of basic psychological needs (Gu et al., 2023). The violation of personal boundaries, fear-inducing environments, and disrupted attachments associated with CM can all contribute to a lack of internal resources necessary for their fulfillment (Kouvelis & Kangas, 2021). Therefore, it is plausible that challenges in meeting basic psychological needs in the aftermath of CM play a role in the relationship between CM and sexual motivation. Although the satisfaction of basic psychological needs may represent a plausible mediator, contributing to the diverse range of sexual outcomes among CM victims, longitudinal research is required to substantiate these hypotheses. Given that CM, basic psychological needs satisfaction, and sexuality are interpersonal in nature and contribute to shaping the overall interpersonal and sexual climate within the couple (Goff & Smith, 2005; Knee et al., 2002; Vaillancourt-Morel et al., 2023), including both partners' perspectives and experiences is necessary to draw a more integrated picture of the dyadic factors that can buffer or enhance negative consequences associated with CM. Such an approach is necessary to further pinpoint the specific needs of couples with a history of CM and to derive interventions that promote self-determined sexual motivations, with the overarching goal of enhancing both partners' sexual well-being.

### *The present study*

The present study adopted a dyadic longitudinal perspective to examine the associations between CM and six forms of sexual motivation (i.e., intrinsic, integrated, identified, introjected, external, amotivation), as well as the mediating role of basic psychological needs satisfaction (i.e., autonomy, competence, relatedness) in these associations. We hypothesized that higher levels of CM at Time 1 would be associated with lower satisfaction of basic psychological needs 6 months later (Time 2; lower autonomy, competence and relatedness), which, in turn, would be related to lower levels of intrinsic, identified, and integrated motivations and higher levels of introjected and external motivation, and amotivation one year later (Time 3).

## **Method**

### *Participants*

A convenience sample of cohabitating couples was recruited online through advertisements on platforms such as Facebook and Reddit and email lists. Out of the initial 602 couples who contacted the research team, 192 (31.89%) declined to participate or

reached out after recruitment closed, and 32 (5.32%) were deemed ineligible during screening. Among the 378 eligible couples, three (0.79%) failed two out of three attention-testing questions at Time 1, and 46 (12.17%) dropped out during the Time 1 survey. As a result, 329 couples were invited to participate in longitudinal follow-ups, but 20 couples (6.08%) had separated by the Time 2 or Time 3 assessments. Data from these 20 couples were excluded as they could not be handled using the missing-at-random assumption given the separation could be associated with the couple's sexual well-being over time, resulting in a final sample size of 309 couples (618 participants).

The sample ( $n = 618$ ) comprised 314 cisgender women (50.8%), 285 cisgender men (46.2%), 1 trans woman (0.16%), 3 trans men (0.48%), 13 nonbinary individuals (2.1%), and 2 individuals identifying with another cultural gender identity (e.g., Two-Spirit) (0.32%). Participants' age ranged from 19 to 70 years ( $M = 32.66$ , Median = 30.00,  $SD = 9.43$ ). Participants lived in North America and most identified as French Canadian (67.2%;  $n = 415$ ). A total of 12.1% identified as American ( $n = 75$ ), 7.3% as Western European ( $n = 46$ ), 3.7% as Canadian ( $n = 23$ ), 0.3% as Eastern European ( $n = 2$ ), 0.2% as First Nations ( $n = 1$ ), 1.9% as African ( $n = 12$ ), 0.5% as Asian ( $n = 3$ ), 0.8% as Middle Eastern ( $n = 5$ ), 3.6% as Latin American ( $n = 22$ ), 0.3% as Greek or Italian ( $n = 2$ ), 0.5% as Pakistani or Hindu ( $n = 3$ ), and 1.6% reported mixed cultural identities ( $n = 7$ ). On average, participants reported 16.2 years of education ( $SD = 3.24$ ). Specifically, 0.5% reported having an elementary education ( $n = 3$ ), 2.3% had uncompleted high school studies ( $n = 14$ ), 4.9% had completed high school ( $n = 30$ ), 27.2% had attended a college or trade school ( $n = 168$ ), the majority, 62.6%, reported university education ( $n = 386$ ), and 2.6% specified other forms of education ( $n = 16$ ). A total of 79.8% of the sample were working ( $n = 493$ ), 23.9% were studying ( $n = 148$ ), 0.6% were retired ( $n = 4$ ), 2.1% were receiving welfare benefits ( $n = 13$ ), 2.4% were unemployed or looking for a job ( $n = 15$ ), 0.6% reported staying at home ( $n = 4$ ) and 3.1% reported other occupations ( $n = 19$ ). Regarding personal income, 18.4% of respondents reported earning less than CAN\$39,000 annually ( $n = 165$ ), while 13.6% reported an average annual income of CAN\$40,000 to CAN\$59,000 CAD ( $n = 90$ ), 18.0%, of CAN\$60,000 to CAN\$79,000 ( $n = 123$ ), 14.2%, of CAN\$80,000 to CAN\$99,000 ( $n = 94$ ), and 35.3% reported an average annual income of over CAN\$100,000. A total of 73.9% of participants identified as heterosexual ( $n = 457$ ), 7.4% as gay/lesbian ( $n = 46$ ), 7.0% as heteroflexible people ( $n = 43$ ), 5.8% as bisexual people ( $n = 36$ ), 1.1% as queer people ( $n = 7$ ), 2.8% as pansexual people ( $n = 17$ ), 0.2% as questioning ( $n = 1$ ), and 0.9% as "other" or "none of the above" ( $n = 6$ ). Couples had been in their current relationships for one to 38.3 years ( $M = 7.25$ ,  $SD = 6.69$ ). Most couples were cohabiting without being married (69.4%;  $n = 429$ ), while 30.6% were married ( $n = 189$ ), and most couples did not have children (67.6%,  $n = 417$ ). On average, couples reported engaging in sexual activity 8.6 times per month ( $SD = 7.7$ ).

## **Procedure**

The present study was conducted as part of a larger longitudinal research project focused on investigating the impact of various sexual behaviors on couples' sexual well-being. Ethical approval for all study procedures was obtained from the Institutional Review

Board of [blinded for review]. 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 old, proficient in English or French, had cohabited for at least one year, and had engaged in sexual activity within the past three months. Once eligibility was confirmed, each partner independently accessed a unique hyperlink to provide informed consent and complete a series of self-report questionnaires on the Qualtrics Research Suite platform. In this survey, three attention-testing questions were included, and participants who failed two out of three of these questions were excluded from the study, with their data subsequently deleted. Participants who completed Time 1 were contacted via email and invited to participate in the follow-up assessment which were conducted six months (Time 2) and one year (Time 3) after Time 1. Each partner received a CAN\$10 gift card after completing each survey.

## Measures

**Childhood maltreatment.** The Childhood Trauma Questionnaire-Short-Form (CTQ; Bernstein et al., 2003) was used at Time 1 to assess CM. This 25-item measure retrospectively evaluated the extent of five distinct forms of CM with five items for each type: emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. Participants were instructed to think about these experiences, and they rated the frequency with which various events took place when they were growing up on a five-point scale ranging from *never true* (1) to *very often true* (5). Items were summed to obtain a total score ranging from 25 (indicating no CM) to 125, with higher scores indicating a greater extent of multiple chronic victimization. The CTQ exhibits robust psychometric properties, including good internal consistency ( $\alpha = .61$  to  $.95$ ) and high temporal stability over a 2- to 6-month interval ( $r = .79$  to  $.95$ ) (Bernstein et al., 2003; Paquette et al., 2004). In the current sample, Cronbach's  $\alpha$  was  $.73$ .

**Basic psychological needs satisfaction in relationships.** Participants' perceived satisfaction of their basic psychological needs for autonomy, competence, and relatedness within the context of their romantic relationship was assessed at Time 2 using the abbreviated version of the Basic Need Satisfaction in Relationships Scale (La Guardia et al., 2000). The 9-item measure assessed three factors (autonomy, competence, and relatedness), each consisting of three items. The autonomy subscale focused on participants' perception of volition in the presence of their partner (e.g., "When I am with my partner, I have a say in what happens, and I can voice my opinion"), the competence scale, on their feelings of efficacy when with their partner ("When I am with my partner, I feel capable and effective"), and the relatedness scale measured the extent to which participants felt cared for and connected with their partner ("When I am with my partner, I feel loved and cared about"). All items were rated on a seven-point Likert scale (1 = *not at all true*, 7 = *very true*). A total mean score was then calculated for each subscale to determine the overall satisfaction level for autonomy, competence, and relatedness needs, with higher scores indicating greater satisfaction of these needs. Internal consistency of the subscales was adequate within the sample, with coefficients ranging from  $.74$  to  $.82$ .

**Sexual motivation.** The Sexual Motivation Scale (Gravel et al., 2016) was used to measure six distinct forms of motivation for engaging in sexual activity. The measure comprises 24 statements associated with engaging in sexual behavior, which are grouped into six sexual motivations, each comprising four items. The sexual motivations are positioned along a continuum of self-determination ranging from fully autonomous to controlled reasons. These subscales encompass intrinsic (e.g., “because sex is fun”), integrated (e.g., “because sexuality is a meaningful part of my life”), identified (e.g., “because I think it is important to learn to know my body better”), introjected (e.g., “to prove to myself that I am sexually attractive”), external (e.g., “because I don’t want to be criticized by my partner”), and amotivation (e.g., “I don’t know; it feels like a waste of time”). Participants were instructed to rate each motive on a seven-point Likert scale, ranging from 1 = *does not correspond to me at all* to 7 = *corresponds completely*. A total mean score was then calculated for each subscale with higher scores indicating a higher degree of the corresponding motivation. The measure exhibits good reliability ( $\alpha = .81$  to  $.90$ ) (Gravel et al., 2016). In this sample, Cronbach’s alpha coefficients for the sexual motivations ranged between  $.79$  to  $.92$ .

### Statistical analyses

Descriptive analyses and bivariate correlations were examined using SPSS 28.0. Using *Mplus* 8.4 (Muthén & Muthén, 1998), six actor-partner interdependence mediation models (APIMeM; Ledermann et al., 2011) were conducted to examine the hypothesized associations between CM at Time 1, satisfaction of basic psychological needs in relationships (i.e., autonomy, competence and relatedness) at Time 2, and sexual motivations (i.e., intrinsic, integrated, identified, introjected, external, and amotivation) at Time 3. The APIM enables the examination of actor effects (an individual’s own scores on their own outcomes, while controlling for partner effects) and partner effects (an individual’s scores on their partner’s outcomes, while controlling for actor effects) (Kenny et al., 2006).

All models were estimated using the robust maximum likelihood method (MLR). Missing data ranged from 0% to 17.7% in the three data collection waves for the study variables. The full information maximum likelihood (FIML) method was employed to handle missing data, which were missing completely at random,  $\chi^2(33) = 36.75$   $p = .299$ . The sample consisted of both mixed-sex/gender and sexually or sex/gender-diverse couples, where gender or sex could not distinguish all partners within the dyads, such that the dyads were treated as indistinguishable. Consequently, we randomly designated each partner as “partner 1” or “partner 2” and all parameters, including means, variances, actor effects, and partner effects, were constrained to be equal between partners (Kashy et al., 2008). Based on preestablished guidelines (Marsh et al., 2005; Schermelleh-Engel et al., 2003), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI) and the Root mean square error of approximation (RMSEA) were used to evaluate the models. The suggested cut-off criteria for good fit are as follows: a CFI  $\geq .95$ , a TLI  $\geq .90$ , and a RMSEA  $\leq .05$ . To determine the significance of indirect effects, 95% bootstrap confidence intervals with 20,000 bootstrapping samples were used (Preacher & Hayes, 2008). To explore the potential moderating role of gender (0 = *men* and 1 = *women*) in the associations between



CM, basic psychological needs and sexual motivations, the interaction effects (CM\*gender and basic psychological needs\*gender) was included in the model. Simple slope tests were used to report the associations for women and men when the association between the interaction and outcome was significant. Although efforts were made to include as many gender-diverse participants as possible, the small sample size ( $n = 18$ ) limited our analysis to descriptive statistics reported in [Table S1](#).

## Results

### *Preliminary analyses*

Means ( $M$ ), standard deviations ( $SD$ ) as well as actor and partner bivariate correlations between CM, basic psychological needs satisfaction (i.e., autonomy, competence, relatedness), and sexual motivations are shown in [Table 1](#).

### *Actor-partner interdependence mediation models*

Six dyadic path analyses based on the APIMeM were conducted to assess the associations between CM, basic psychological needs satisfaction (i.e., autonomy, competence and relatedness), and each sexual motivation (i.e., intrinsic, integrated, identified, introjected, external, amotivation). Results including fit indices, which were all satisfactory, are reported in [Figure 2](#) except for results for intrinsic sexual motivation as a person's CM was not significantly related, both directly and indirectly, to their own and their partner's intrinsic motivation. Results revealed significant direct actor associations between CM and amotivation ( $\beta = .23, p < .001$ ) and introjected motivation ( $\beta = .12, p < .001$ ). Regarding direct partner effects, a person's CM was significantly related to their partner's amotivation ( $\beta = .19, p < .001$ ). In addition, CM was significantly associated with an individual's own, and their partner's basic psychological needs satisfaction. Specifically, a person's CM was associated with their own lower levels of autonomy ( $\beta = -.24, p < .001$ ), competence ( $\beta = -.29, p < .001$ ), and relatedness ( $\beta = -.22, p < .001$ ) as well as their partner's autonomy ( $\beta = -.14, p < .001$ ), competence ( $\beta = -.14, p < .001$ ) and relatedness ( $\beta = -.12, p < .001$ ). In turn, a person's autonomy was significantly associated with their own lower external motivation ( $\beta = -.22, p < .001$ ) and amotivation ( $\beta = -.13, p = .046$ ) and their partner's introjected motivation ( $\beta = -.16, p = .018$ ). Moreover, a person's competence was associated with their own higher integrated ( $\beta = .14, p = .020$ ) and identified ( $\beta = .15, p = .008$ ) motivation. Finally, a person's relatedness was associated with their own lower amotivation ( $\beta = .18, p = .007$ ), as well as their partner's higher integrated ( $\beta = .19, p = .008$ ), and identified ( $\beta = -.14, p = .048$ ) motivation. Overall, these models explained 12.1% of intrinsic motivation, 5.2% of integrated motivation, 4.3% of identified motivation, 9.1% of introjected motivation, 16.4% of external motivation, and 36.9% of amotivation.

Results of bootstrapped indirect effects revealed that a person's CM was related to their own lower integrated motivation through their own lower competence ( $b = -0.04, 95\%$  bootstrap CI  $[-0.077, -0.008]$ ) and their own lower relatedness ( $b = -0.02, 95\%$

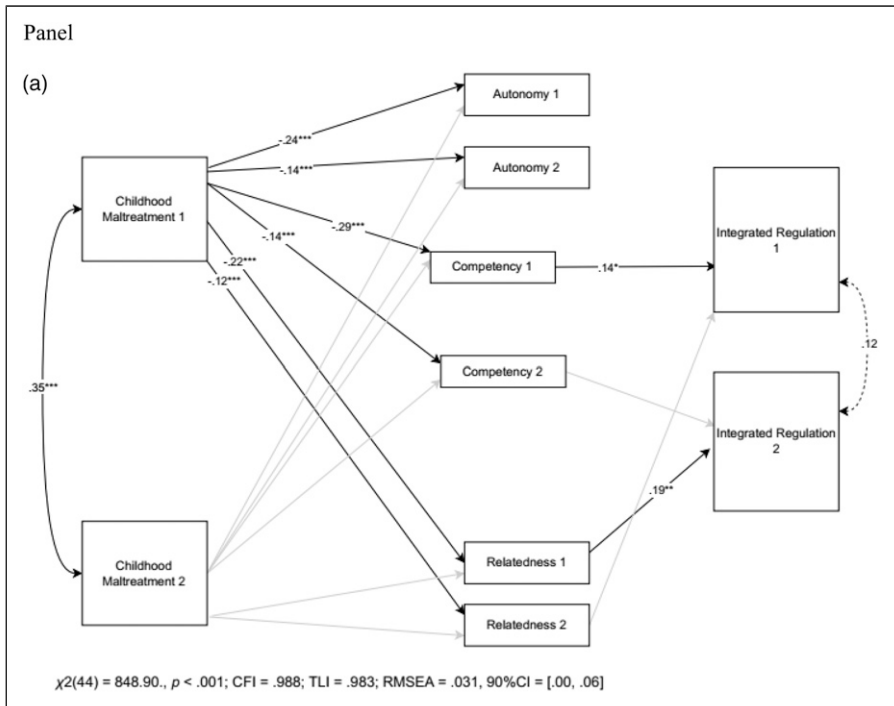
**Table 1.** Descriptive statistics of CM, satisfaction of basic psychological needs and sexual motivations.

	M (SD)	Range	1	2	3	4	5	6	7	8	9	10
1. CM T1	39.20 (16.32)	25–125	<b>.35**</b>	-.23**	-.25**	-.21**	-.12**	-.04	-.03	.14**	.21**	.39**
2. Autonomy T2	17.73 (3.34)	3–21	-.30**	<b>.33**</b>	.30**	.38*	.23**	.03	.04	-.22**	-.24**	-.35**
3. Competence T2	17.02 (3.39)	3–21	-.35**	.62**	<b>.35**</b>	.36**	.7**	.02	.03	-.18**	-.23**	-.32**
4. Relatedness T2	17.04 (3.68)	3–21	-.28**	.68**	.63**	<b>.52**</b>	.25**	.13**	.11*	-.14**	-.29**	-.36**
5. Intrinsic T3	23.03 (4.82)	4–28	-.19**	.23**	.26**	.28**	<b>.10*</b>	<.01	.11*	-.40	.02	-.18**
6. Integrated T3	18.38 (6.40)	4–28	.01	.02	.12**	.12**	.61**	<b>.13**</b>	.15**	.16**	.19**	.08
7. Identified T3	19.43 (5.30)	4–28	-.08	.06	.15**	.13**	.58**	.71**	<b>.26**</b>	.16**	.15**	<.01
8. Introjected T3	13.45 (6.48)	4–28	.21**	-.22**	-.22**	-.14**	.06	.33**	.36**	<b>.37**</b>	.26**	.22**
9. External T3	11.94 (5.48)	4–28	.22**	-.35**	-.30**	-.30**	-.29*	-.30**	.01	.50**	<b>.15**</b>	.23**
10. Amotivation T3	6.80 (4.84)	4–28	.44**	-.44**	-.45**	.58**	-.51**	-.17*	-.19**	.23**	.49**	<b>.44**</b>

Note. CM = child maltreatment. For descriptive statistics, daily measures were aggregated within-person across all diaries. Correlations presented below the diagonal represent the actor associations (i.e., the association between an individual X and their own Y), correlations presented above the diagonal represent the partner associations (i.e., the association between an individual X and their partner Y), and correlations in bold represent between partners correlations. \* $p < .05$ . \*\* $p < .01$ .

bootstrap CI [-0.051, -0.006]). In addition, a person’s CM was related to their partner’s lower integrated motivation via their own lower relatedness ( $b = -0.02$ , 95% bootstrap CI [-0.083, -0.012]) as well as their partner’s lower competence ( $b = -0.02$ , 95% bootstrap CI [-0.041, -0.004]) and relatedness ( $b = -0.01$ , 95% bootstrap CI [-0.039, -0.001]).

Regarding identified motivation, a person’s CM was associated with their own lower identified motivation via their own lower competence ( $b = -0.04$ , 95% bootstrap CI [-0.077, -0.012]). A person’s CM was also associated with their own lower identified motivation through their partner’s lower relatedness ( $b = -0.02$ , 95% bootstrap CI [-0.042, -0.001]). Moreover, a person’s CM was linked to their partner’s identified motivation through their partner’s lower competence ( $b = -0.02$ , 95% bootstrap CI [-0.042, -0.005]) and relatedness ( $b = -0.03$ , 95% bootstrap CI [-0.069, -0.001]).



**Figure 2.** Actor-partner interdependence models of the associations between childhood maltreatment at time 1, basic psychological needs satisfactions at Time 2, and sexual motivations at Time 3. *Note.* 1 = partner 1, 2 = partner 2. The regression coefficients are standardized scores. Direct actor and partner paths between CM, basic psychological needs and sexual motivations were estimated in the model. All covariances between variables were estimated in the model, but for the sake of clarity, they are not shown in the accompanying figure. The gray arrows depict duplicated effects, mirroring the same associations observed between analogous variables for both partner 1 and partner 2. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

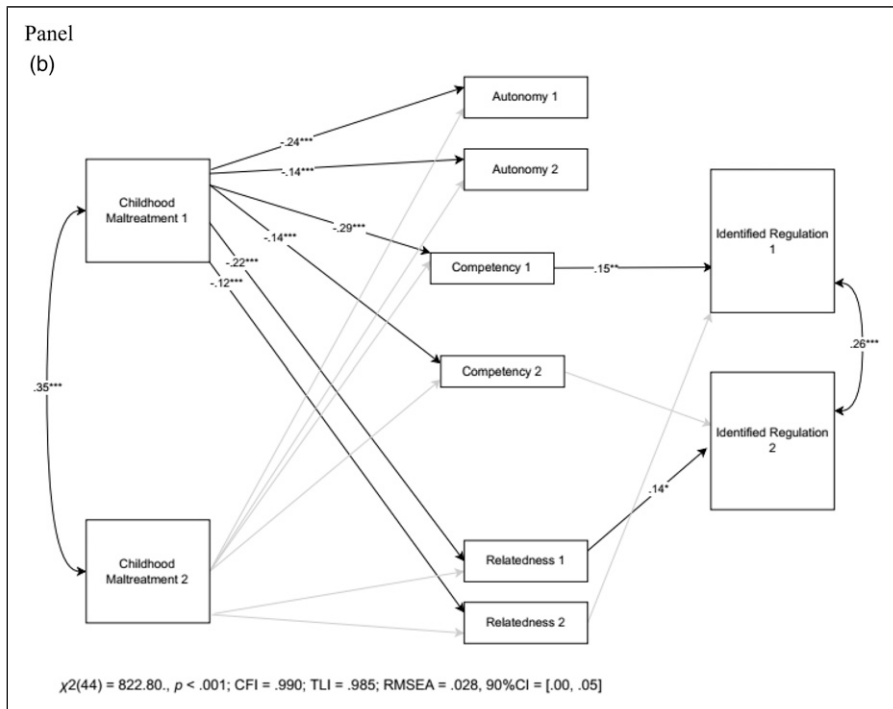


Figure 2. Continued.

Regarding introjected motivation, a person's CM was associated with their own higher introjected motivation through their own lower competence ( $b = 0.03$ , 95% bootstrap CI [0.001, 0.077]) and lower autonomy ( $b = 0.03$ , 95% bootstrap CI [0.000, 0.071]), as well as their partner's lower autonomy ( $b = 0.02$ , 95% bootstrap CI [0.003, 0.049]). In addition, a person's CM was positively related to their partner's introjected motivation through their own lower autonomy ( $b = 0.04$ , 95% bootstrap CI [0.007, 0.080]), as well as their partner's lower competence ( $b = 0.02$ , 95% bootstrap CI [0.001, 0.037]) and autonomy ( $b = 0.02$ , 95% bootstrap CI [0.000, 0.043]).

Regarding external motivation, a person's CM was associated with their own higher external motivation, through their own lower autonomy ( $b = 0.05$ , 95% bootstrap CI [0.023, 0.097]) and lower relatedness ( $b = 0.02$ , 95% bootstrap CI [0.001, 0.042]). In addition, a person's CM was related to their partner's higher external motivation through their partner's lower autonomy ( $b = 0.03$ , 95% bootstrap CI [0.011, 0.061]) and lower relatedness ( $b = 0.03$ , 95% bootstrap CI [0.001, 0.067]).

Regarding amotivation, a person's CM was associated with their own higher amotivation through their own lower autonomy ( $b = 0.03$ , 95% bootstrap CI [0.002, 0.068]) and their own lower relatedness ( $b = 0.04$ , 95% bootstrap CI [0.012, 0.078]). A person's CM was also linked to their partner's higher amotivation through their partners' lower

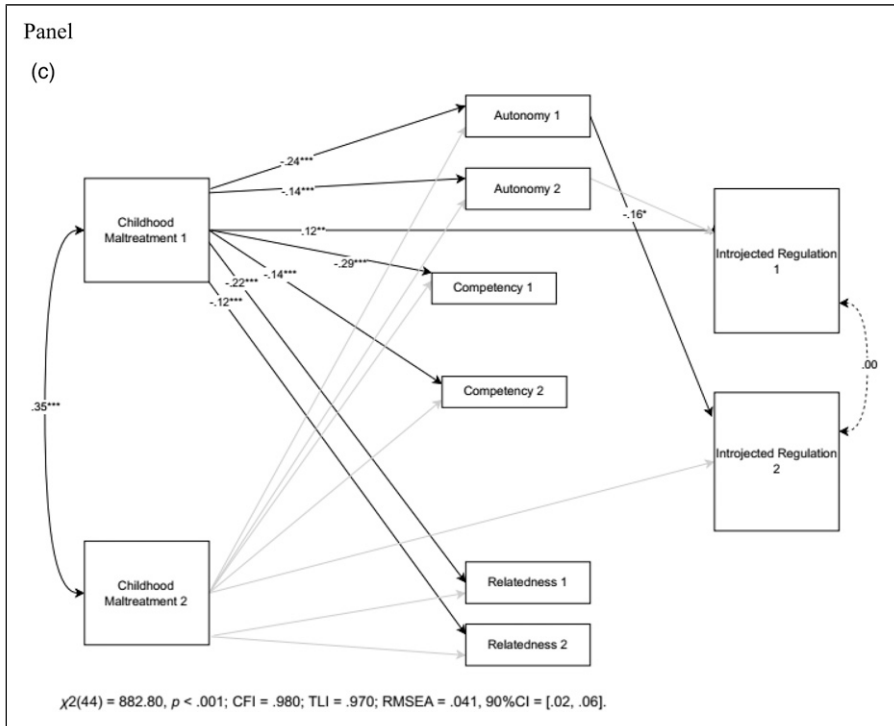


Figure 2. Continued.

autonomy ( $b = 0.02, 95\% \text{ bootstrap CI } [0.001, 0.043]$ ) and their partner’s lower relatedness ( $b = 0.02, 95\% \text{ bootstrap CI } [0.007, 0.047]$ ).

## Discussion

While the association between CM and negative sexual outcomes is well-established, (Bergeron et al., 2022; Bigras et al., 2021), little attention has been paid to sexual motivations, despite their integral role in shaping distinct subjective experiences and their implications for sexual and relational well-being (Muisse et al., 2013; Tóth-Király et al., 2019). Within a dyadic framework, the present study used a longitudinal design to examine the associations between CM at Time 1, basic psychological needs satisfaction 6 month later, and sexual motivations one year later. Overall, findings revealed that a person’s CM relates to both their own and their partner’s sexual motivation, mainly through its association with the satisfaction of basic psychological needs for autonomy, competence, and relatedness in the context of their romantic relationship.

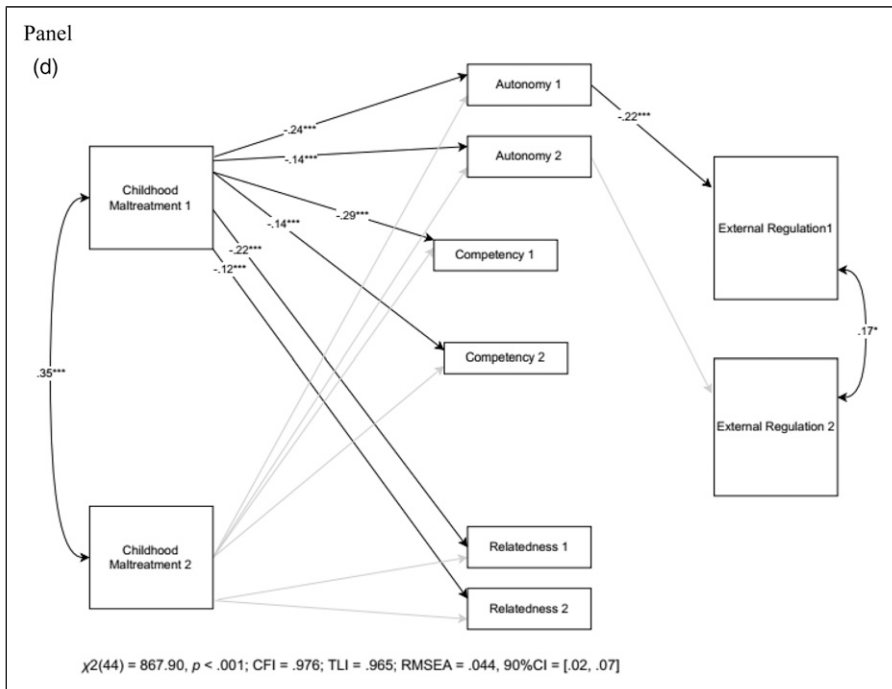


Figure 2. Continued.

### Direct associations between CM and sexual motivation

The findings showed that even after accounting for basic psychological needs satisfaction, CM is directly related to higher levels of both introjected motivation and amotivation, two forms of non-self-determined sexual motivations. Thus, individuals who have experienced greater CM are more likely to exhibit either a lack of intention to engage in sexual activity or engage in sexual activity driven by internal pressures, such as avoiding feelings of shame and guilt. These findings contribute to a deeper understanding of the increased prevalence of negative sexual outcomes among couples with a history of CM (Bergeron et al., 2022), as both introjected motivation and amotivation have been consistently linked to adverse outcomes across various aspects of life, including sexuality (Howard et al., 2020; Muise et al., 2013).

The findings of this study can be better understood by exploring the psychological impact of CM. Victims tend to internalize negative self-perceptions, often viewing themselves as unworthy or flawed, accompanied by a profound sense of helplessness and lack of control over their lives and well-being (Briere & Jordan, 2009; Ogen, 2021). Consequently, these individuals can find themselves in a constant state of shame and guilt, channeling self-directed anger inwards, a mechanism theorized to safeguard their relational bonds (Pearlman & Courtois, 2005). In light of this distorted self-perception,

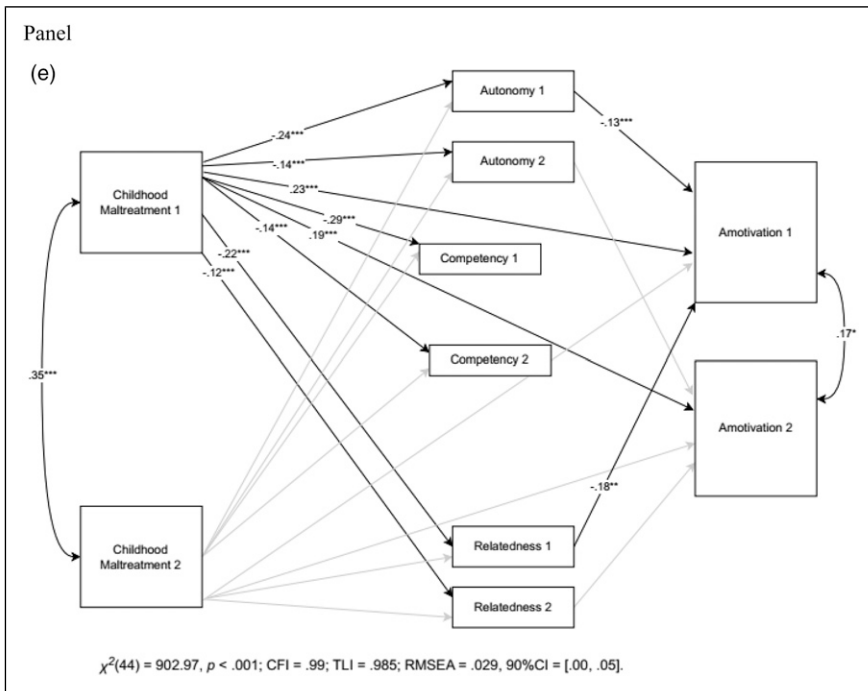


Figure 2. Continued.

individuals may seek validation and a sense of worthiness and relational security through sexual activities. Moreover, findings regarding amotivation also align with existing literature that discusses patterns of sexual avoidance commonly observed in individuals who have experienced CM, particularly in romantic relationships (Vaillancourt-Morel et al., 2015, 2016). It may be that in the aftermath of CM, the developed coping mechanisms such as emotional detachment or avoidance may manifest as sexual amotivation.

While previous research has reported mixed findings relative to the associations between a person’s CM and their partners’ sexuality (Vaillancourt-Morel et al., 2023), the present findings suggest that a person’s CM is related to their partner’s sexual motivation, specifically higher amotivation. Secondary traumatic stress theory suggests that the partner may indirectly bear the emotional burden of the potential trauma associated with CM, leading to a decrease in their motivation for sexual intimacy (Goff & Smith, 2005). Additionally, the dyadic processes commonly observed in couples with a CM history, such as lower partner responsiveness and negative relationship dynamics, can contribute to a lower investment in sexual intimacy (Dugal et al., 2020; Maneta et al., 2012; Riggs, 2010; Walker et al., 2011). Furthermore, it is plausible that the adaptation strategies developed during childhood and carried into adulthood may shape the partner selection process or influence the meaning ascribed to sexuality within the relationship.

### *The mediating role of basic psychological needs satisfaction*

The study revealed that most associations between CM and sexual motivations were indirect, underscoring the crucial role of basic psychological needs satisfaction in this complex relationship. Theory and previous research have shown that CM can thwart basic psychological needs, which in turn may have deterring effects on various areas of functioning (Gu et al., 2023; Ryan & Deci, 2018, p. 416). Results of the present study extend these established trends by indicating that a person's CM is not only associated with their own lower satisfaction of basic psychological needs for autonomy, competence and relatedness in the context of their romantic relationship, but also with their partner's satisfaction of these needs. In turn, basic psychological needs satisfaction in the relationship was positively associated with more autonomous forms of extrinsic motivation (i.e., integrated and identified), and negatively associated with more controlled forms of extrinsic motivation (i.e., introjected and identified) and amotivation. These findings are in line with the small body of research investigating the interplay between basic psychological needs satisfaction and sexual motivation (Brunell & Webster, 2013; Gravel et al., 2020).

Regarding the specific indirect associations, individuals who had higher levels of CM were less likely to exhibit autonomous, albeit extrinsic, sexual motivations (i.e., integrated and identified). First, CM was associated with a person's lower integrated motivation through its link to their own lower competence and relatedness. In addition, a person's CM was negatively associated with their partner's integrated motivation, via the individual's and their partner's lower competence and relatedness. When considering identified motivation, a person's CM was associated with their own lower identified motivation through their own lower competence and their partner's lower relatedness. Finally, a person's CM was associated with their partner's identified motivation through their partner's lower competence and relatedness. The results suggest that couples who experience greater relational challenges, namely feeling thwarted in one's need to feel capable and cared for in their current relationship, are less likely to identify and integrate sexuality as something personally significant in their life, relationship and sense of self. These findings reinforce and build on existing research that has highlighted the difficulties couples with a history of CM may face with both relational and sexual connection (Oseland et al., 2016).

The present findings also suggest that both individuals who have experienced CM and their partners may be more prone to engaging in sexual activities driven by the need to avoid negative self-evaluations (i.e., introjected motivation). Indeed, individuals with higher CM exhibited higher levels of introjected motivation, through their own lower competence and autonomy, as well as their partner's lower autonomy. Furthermore, a person's CM was positively associated with their partner's introjected motivation through their own lower autonomy, as well as their partner's lower competence and autonomy. These findings are consistent with previous research indicating that individuals who have experienced CM are more likely to report lower basic psychological needs satisfaction and exhibit lower self-determination in their sexual lives (Dugal et al., 2023; Gu et al., 2023). However, the present results offer a broader and longitudinal perspective on the



interplay between basic psychological needs satisfaction and sexual motivation within couples. In particular, results suggest that when couples with a history of CM face challenges in finding satisfaction in their abilities and experiencing a sense of choice within their relationship, it is likely that both partners will rely on internal pressure as their main source of sexual motivation, rather than enjoyment.

CM was also indirectly related to a greater likelihood to engage in sexual activities for the purpose of seeking external approval from others or to simply avoid sexual intimacy as a whole. Specifically, individuals with higher levels of CM and their partners reported higher levels of external motivation and amotivation through their own and their partners' lower levels of autonomy and relatedness. These results are in line with previous research showing that individuals who experienced CM, particularly sexual abuse, were likely to engage in sexual activities driven by external pressure such as to gain partner approval, peer pressure or to avoid conflict (Gewirtz-Meydan & Lahav, 2021; Layh et al., 2020). A lack of self-determination over one's sexual activities appears even more salient when partners in the relationship feel uncared for and experience the relationship as non-autonomy supportive. These results are consistent with prior research showing how many individuals who have experienced trauma and their partners may both feel disconnected, which can manifest by challenges in sexual intimacy or sexual avoidance (Oseland et al., 2016).

### *Limitations and future directions*

The present findings must be interpreted considering the study's limitations. The use of self-report measures may have introduced biases, including recall bias or social desirability, which could potentially affect the validity of the findings. Furthermore, despite employing a one-year longitudinal design, it is not possible to establish causality from the observed associations.

The study's limited sample, primarily consisting of cisgender, heterosexual individuals from Western backgrounds, poses challenges to the generalizability of the findings to more diverse populations, namely sexual minority groups and various ethnocultural communities. This limitation is further compounded by the absence of inquiries about disabilities, raising concerns about the applicability of the findings to more diverse populations, including individuals with disabilities. Additionally, the presence of self-selection bias in the study sample adds to these concerns regarding generalizability.

To enhance our understanding of the diverse effects of CM on sexual well-being, it is crucial to further investigate factors that may buffer the associations between CM and sexual motivations. These factors may include different phases in a couple's relationship, types of commitment (e.g., marriage) external social support, and any therapeutic interventions received. Moreover, in the present study, amotivation was conceptualized as arising from a lack of self-efficacy, while making choices regarding sexual behavior can be influenced by a range of self-determined or controlled motivations. Further investigation is warranted to gain a comprehensive understanding of these motivations through future studies. In addition to considering the satisfaction of basic psychological needs, it is imperative to explore additional factors such as emotion regulation, trauma-related sensorimotor reactions, and personality traits, which may shape the associations between CM and couples' sexuality.

### *Theoretical and clinical implications and conclusions*

Findings enrich the literature on the potential enduring implications of CM in couples by uncovering direct associations with sexual amotivation and engaging in sex as a coping mechanism to reduce personal discomfort—both of which are known to be related to lower relational and sexual well-being (Gravel et al., 2016; Wongsomboon et al., 2022). Addressing these deeply rooted motivations in both partners is critical for improving the quality of intimate relationships, enabling a shift towards more autonomous sexual motivations—a key component of overall wellbeing in individuals and couples (Gravel et al., 2020; Mitchell et al., 2021). In addition, the study underscores the significance of considering the effects of CM on partners and incorporating their perspective into interventions. Acknowledging their distinct challenges and experiences is essential to provide effective therapeutic support to both individuals and the couple. To this effect, the present study puts forth the relevance of addressing the satisfaction of basic psychological needs in both members of the couple, particularly in those affected by CM. For example, actively nurturing autonomy through the consideration of personal boundaries, promoting relatedness by targeting partner responsiveness, and fostering competence through the enhancement of communication skills like active listening can collectively contribute to fostering both partners' satisfaction of their basic psychological needs within their intimate relationships.

This consideration is crucial as these needs, when unmet, are linked to sexual motivations characterized by lower self-determination—be it introjected, external, or amotivation.

In addition, the study lends further empirical support to the use of self-determination theory in understanding the link between CM and sexual motivation in adult couples. This theoretical lens is useful for further understanding the interplay between individual psychological needs and relational dynamics, thereby contributing to a systemic understanding within self-determination theory. The present study also contributes to a more nuanced understanding of self-determination theory in the context of trauma and adult intimacy.

### **Acknowledgements**

The authors would like to thank Maude Massé-Pfister for her assistance with data collection.

### **Declaration of conflicting interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### **Funding**

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Marie-Pier Vaillancourt-Morel is supported by a Research Chair from the Université du Québec à Trois-Rivières and a career award from the Fonds de recherche du Québec – Santé (FRQ-S).

## Author's note

Results of this study were presented at the annual conference of the Canadian Sex Research Forum (2023) and the World Association for Sexual Health (2023).

## Open research statement

As part of IARR's encouragement of open research practices, the authors have provided the following information: This research was not pre-registered. The data used in the research cannot be publicly shared but are available upon request. The cannot be publicly shared but are available upon request.

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## Supplemental Material

Supplemental material for this article is available online.

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