

**Breaking the Cycle:**

**Mentalizing Moderates and Mediates the Link between Childhood Sexual Abuse and Satisfaction  
with Adult Romantic Relationships**

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### Abstract

Background: Childhood sexual abuse (CSA) is a significant risk factor with consistently demonstrated negative implications for satisfaction with adult romantic relationships. Yet, research on risk and protective factors in this context is scarce, particularly among well-functioning adults. Objective: Addressing this gap, the present study focused on the potential mediating and moderating roles of *mentalizing* or reflective functioning, i.e., the capacity to understand oneself and others in terms of intentional mental states. We investigated whether impairments in mentalizing underlie the association between CSA and relationship satisfaction and whether robust mentalizing can buffer the CSA-relationship satisfaction link. Method: A sample of 667 individuals engaged in a meaningful romantic relationship was drawn from a larger sample obtained in an online convenience survey. A mediation and moderation model was examined using PROCESS. Results: The results confirmed our integrative model - the association between CSA and satisfaction with romantic relationships was mediated by impairments in mentalizing (uncertainty about mental states) and was simultaneously moderated by robust mentalizing (certainty about mental states). These effects were shown even when controlling for age, gender, education, and psychopathological symptoms. Conclusions: These findings highlight the importance of mentalizing, a key transdiagnostic factor. Reduced mentalizing is a risk factor for harmful impact of CSA on romantic relationships, while greater mentalizing abilities can be a significant resilience factor protecting CSA survivors. This study supports the potential contribution of mentalization-based interventions with survivors of CSA at risk for dissatisfaction with romantic relationships.

**Keywords:** Child sexual abuse; mentalizing; reflective functioning; romantic relationship satisfaction; resilience.

### Clinical Impact Statement

Childhood sexual abuse has been consistently linked with decreased satisfaction with adult romantic relationships. We examined mentalizing as both a vulnerability and a resilience dimension in the association between childhood sexual abuse and adult romantic relationship satisfaction among a non-clinical sample. Mentalizing plays a significant role, not only explaining the link between childhood sexual abuse and

dissatisfaction with romantic relationships, but also mitigating the harmful impact of childhood sexual abuse on relationship satisfaction. Identifying resilience mechanisms may support the development of new counseling strategies to prevent the onset and recurrence of difficulties in romantic relationships among childhood sexual abuse survivors.

### **Breaking the Cycle: Mentalizing Moderates and Mediates the Link between Childhood Sexual Abuse and Satisfaction with Adult Romantic Relationships**

Child sexual abuse (CSA) is recognized as a risk factor for adult romantic relationships (for review see Nielsen et al., 2018; Zamir, 2021). This study aims to investigate the link between CSA and satisfaction with romantic relationships, utilizing transdiagnostic models. These models offer a comprehensive framework for understanding psychological functioning through fundamental processes that may underline it, manifested in transdiagnostic risk and protective factors. Particularly, it involves specifying the mechanisms that link distal transdiagnostic factors to the adult functioning they predict via proximal factors (i.e., mediators) and protective factors (moderators). Accordingly, for CSA to be considered relevant both theoretically and practically as a transdiagnostic factor, it is essential to elucidate how CSA, as a distal transdiagnostic risk factor, affects adult psychological functioning (e.g., maladaptation in romantic relationships) by identifying potential proximal factors (mediators) and protective factors (moderators) (McLaughlin et al., 2020; Nolen-Hoeksema & Watkins, 2011). Aligned with these models, the present study focuses on the role of *mentalizing*—the capacity to understand one’s actions and those of others in terms of mental states— as a proximal mediator and a moderator in the association between CSA and satisfaction with romantic relationships. In the next section, we will discuss the link between CSA and romantic relationships, introduce the concept of mentalizing- its development and potential alteration by CSA, and present earlier evidence on the potential mediating and moderating role of mentalizing in this link.

### **Child Sexual Abuse and Satisfaction with Romantic Relationships**

Child sexual abuse is highly prevalent among both clinical populations and nonclinical samples, including well-functioning individuals (Lev-Wiesel et al., 2018; Pan et al., 2021). It is considered a key transdiagnostic risk factor for the development of psychopathology (McLaughlin et al., 2020; Nolen-

Hoeksema & Watkins, 2011). In recent years, there has been a growing awareness that alongside the well demonstrated impact of CSA on the development of diverse psychological difficulties in adulthood, CSA is also linked with broad and long-term interpersonal ramifications (Nolen-Hoeksema & Watkins, 2011). One of the most harmful aspects of CSA is its effects on romantic relationships, manifested in abusive relationships, sexual assaults, dating violence, and emotional and sexual revictimization (for review see Nielsen et al., 2018; Zamir, 2021), as well as in the more subtle yet widespread negative implications on satisfaction with romantic relationships (e.g., Fitzgerald, 2021; Lassri et al., 2018).

The association between CSA and decreased relationship satisfaction can be explained through various perspective. CSA is considered as a relational and developmental trauma, capable of disrupting the developmental trajectory by exerting cascading effects on regulatory processes, cognitive functions, and interpersonal functioning (Ensink et al., 2017; Ensink et al., 2020). Also, CSA most often violates basic trust in others. It is thus not surprising that CSA survivors may fear romantic relationships and even anticipate interpersonal trauma rather than seeing them as a benevolent interaction (Lassri et al., 2018; Ornduff et al., 2001). Despite their need for intimacy and connection, CSA survivors may feel scared of or overwhelmed by closeness, exhibit poor communication, and rely on autonomy and avoidance (i.e., attachment deactivation strategies) to cope with negative affect arising from relational distress (Lassri et al., 2018; MacIntosh et al., 2019). This dynamic results in ambivalent, chaotic, stressful, and ultimately, unsatisfying romantic relationships (e.g., Lassri et al., 2018; MacIntosh et al., 2019; for review see Nielsen et al., 2018).

Due to the importance of satisfying romantic relationships for emotional well-being (Gómez-López et al., 2019), it is important to further decipher the psychological underpinnings of the impact of CSA on romantic relationships. Nonetheless, while accumulative evidence has confirmed the consistent negative impact of CSA on the quality of romantic relationships (Nielsen et al., 2018; Zamir, 2021), studies investigating potential mediators are relatively rare and have primarily focused on negative psychological processes. Furthermore, although it is even more important to identify protective factors that may buffer the harmful impact of CSA on relationships, allowing satisfying romantic relationships despite a history of CSA, there is hardly any research on the role of protective factors in this context, especially among well-

functioning adults (Nielsen et al., 2018). Identifying risk and resilience factors may translate into individual and couple therapeutic interventions with CSA survivors struggling with relationship distress and dissatisfaction that may harm their well-being (Gómez-López et al., 2019; Nielsen et al., 2018). In line with transdiagnostic models that aim to identify fundamental processes underlying psychological functioning, this study explores the role of mentalizing, serving both a potential proximal mediator, underpinning the link between CSA and relationship satisfaction, and a moderator, possibly mitigating this link.

### **Mentalizing as a Potential Mediator and Moderator of the Link between CSA and Satisfaction with Romantic Relationships**

Mentalizing, or reflective functioning is the capacity to understand others' and one's own behavior in terms of mental states, including thoughts and feelings (Luyten et al., 2020). It has been identified as a key transdiagnostic factor essential for psychological and interpersonal functioning. Specifically, impairments in mentalizing have been shown to underlie the development of psychological and behavioral difficulties, whereas robust mentalizing buffers their development. This multifaceted and complex phenomenon is related to social cognition, considered fundamental not only for understanding, anticipating, and predicting others' behavior, but also for fostering social connections and flexibly navigating in the ever-changing social world. Consequently, it is essential for interpersonal functioning, particularly in the context of romantic relationships (Luyten et al., 2020; MacIntosh et al., 2019).

Taken from a developmental perspective, the ability to effectively mentalize is regarded as a prewired capacity evolving within the context of early attachment relationships with a caregiver (Luyten et al., 2017). Caregivers' capacity to mentalize the child, manifested in their optimal responsiveness, may foster the child's secure attachment and allow the gradual development of the child's own mentalizing capacity, subsequently contributing to emotion regulation and interpersonal functioning (Luyten et al., 2020). Parental mentalizing capacities play a pivotal role in promoting their child's healthy socio-emotional development (Camoirano, 2017). The child-caregiver relationship thus serves as a crucial "learning environment" in which the child can acquire the capacity to explore their own and others' behavior in terms of mental states, thereby developing their own mentalizing capacities (Schwarzer et al., 2021).

Conversely, experiencing developmental trauma, particularly sexual abuse during childhood, can shake the child's sense of security and influence their perceptions of self and others, impairing the development of mentalizing (Ensink et al., 2017; Ensink et al., 2020). The intrusive and overwhelming experience of CSA potentially betrays trust that others, particularly attachment figures, are able to protect the child. Instead, the child's family members or other close social networks may be seen as those who did not recognize the abuse or were unwilling to help (Ensink et al., 2017; Karakurt & Silver, 2014). The actual threat within the intentional stance of the abuser may translate into the child becoming reluctant to take the perspective of others, as curiosity about others' mental states may expose the child to their malevolent and harmful intentions. This is especially relevant in the context of intrafamilial abuse, and even more so in the unique relational dynamic when the sexual abuse is repeatedly perpetrated by a familiar figure or trusted caregiver (Ensink et al., 2017; Fonagy & Target, 2006; Li et al., 2020; MacIntosh, 2013a). This situation creates a toxic relational environment, where a caregiver, unable to mentalize the child—meaning to adopt the child's perspective, needs, and mental state, and treat them as a separate psychological agent—may impede the child's ability to feel understood and recognized as an intentional agent and thereby to mentalize themselves as well as others (Fonagy & Target, 2006).

Shutting down or losing interest in thinking about one's own and others' mental states as a defense mechanism may protect the child in the short term within the abusive context. But it may not be adaptive in the long term, since the capacity to mentalize is a central developmental milestone for establishing a sense of stability and coherence of the self. Instead, feelings of badness, presumably connected to experiences of abuse are felt to be part of, but not integrated within the self (the *alien self* parts) and may dominate the child's self-experience (Bateman & Fonagy, 2015; Fonagy & Target, 2006; Lassri et al., 2018). Consequently, CSA may deprive the child of the resilience arising from the capacity to understand interpersonal situations (Ensink et al., 2020). Fonagy and Target (2006) suggested that CSA survivors may be vulnerable in terms of the longitudinal implications of the trauma, given their lesser ability to cope with it, and their difficulty in finding healthier relationships in the future.

In consistence, a growing body of evidence has demonstrated that impaired mentalizing acts as a

central underlying mechanism in the link between different forms of child abuse and adult psychological and behavioral functioning. Thus, impairments in mentalizing mediate the link between child abuse and diverse symptoms - personality disorder (Chiesa & Fonagy, 2014), posttraumatic-stress symptomatology (Huang et al., 2020), self-harm and suicidality (Stagaki et al., 2022), non-affective psychotic disorders (Weijers et al., 2018), and psychopathology during pregnancy (Berthelot et al., 2019). Mentalizing is a key mediator in the association between emotional abuse and adult depressive symptoms (Li et al., 2020) and potential for aggression (Schwarzer et al., 2021). Children's mentalizing capacities partially mediate the relation between CSA and depressive symptoms and externalizing and sexualized behaviors (Ensink et al., 2017). These studies thus point to mentalizing as a significant proximal transdiagnostic risk factor, linking child abuse, a distal transdiagnostic factor, and adult psychopathology.

Nonetheless, it is still unclear whether impairments in mentalizing may also mediate the association between CSA and satisfaction with romantic relationships and whether robust mentalizing can moderate this association. Clinical observations have provided initial support for mentalizing as an underlying mechanism in the distress in romantic relationships exhibited among ten CSA survivors and their partners undergoing couples Emotion-Focused Therapy (MacIntosh, 2013b). The couples in this study who reported significantly more satisfaction with their relationship following therapy showed less impairment in mentalizing (e.g., unreflective, rigid, and external focus mentalizing) and more positive mentalizing (e.g., mental exploration, awareness of mental states, and regulated affect) than those reporting no improvement in relationship satisfaction (MacIntosh et al., 2019). In a clinical sample, mentalizing mediated the link between adult attachment and interpersonal distress (Hayden et al., 2019).

The role of mentalizing has also been implicated as a moderator in the link between childhood neglect and attachment insecurities among adolescents (Borelli et al., 2015). Thus, the link between neglect and insecure attachment was only significant with less mentalizing capacity, but not at high levels of mentalizing (Borelli et al., 2015). This finding supports our assumptions that mentalizing may mitigate the effects of maltreatment on subsequent functioning. Also, serving as a protective factor among mother–father dyads, fathers' capacity to mentalize their partners buffered the persistence of maternal depressive

symptoms, as well as the link between maternal prenatal depression and permissive parenting (Goldstein et al., 2022). Nevertheless, the moderating role of mentalizing has yet to be tested in the link between CSA and adult intimate relationships.

### **The Current Study**

This study is based on evidence that CSA is a major risk factor both for dissatisfaction with adult romantic relationships and for impairments in mentalizing. Previous findings also confirm mentalizing as a key factor in the effect of child abuse on adult psychological functioning and emphasized its necessity for adaptive interpersonal functioning. In light of these findings, the current study aims to examine the role of mentalizing as a potential mediator and moderator in the relation between CSA and satisfaction with romantic relationships among a non-clinical sample of adults, while controlling for the confounding effects of psychopathology and demographic characteristics. This is especially important given that psychopathology is linked with both CSA (McLaughlin et al., 2020) relationship satisfaction (Whisman & Baucom, 2012), and as demographic characteristics have been linked with relationship satisfaction (Mirecki et al., 2013). Consistent with previous studies in this field (e.g., Huang et al., 2020; Li et al., 2020; Schwarzer et al., 2021; Stagaki et al., 2022), mentalizing capacities will be operationalized via the Reflective Functioning Questionnaire, a widely used scale assessing certainty and uncertainty about mental states (RFQ; Fonagy et al., 2016). In this context, robust mentalizing is represented by *certainty about mental states* while impairments in mentalizing are represented by *uncertainty*. We hypothesize that impairments in mentalizing, implicated in *uncertainty about mental states* (mentalizing-uncertainty) mediate the negative link between CSA and satisfaction with romantic relationships, whereas robust mentalizing, implicated in *certainty about mental states* (mentalizing-certainty) buffers this link. These hypotheses are summarized in a conceptual model simultaneously addressing both mediation and moderation effects.

## **Method**

### **Participants and Procedure**

The sample was drawn from a larger project with 914 participants focusing on the impact of childhood experiences and stressful life events on adult well-being (Lassri & Gewirtz-Meydan, 2022). An



online survey was distributed in Israel from May to August 2020 via social media (i.e., Facebook, WhatsApp) and through a snowball technique. Inclusion criterion for the study was being older than 18 years. By clicking on a link to the anonymous survey accessible through the Qualtrics system, potential participants were first directed to an information page and a consent form, which then led to the survey. On completion of the survey, participants were provided with the researchers' contact information, as well as details of online resources and telephone hotlines for mental health difficulties. All participants were invited to take part in a raffle for twenty \$30 gift vouchers. All instruments and procedures were approved by the Paul Baerwald School of Social Work and Social Welfare, The Hebrew University of Jerusalem Ethical Review Board.

The current study examined 667 individuals who reported being in a meaningful romantic relationship. Of these 667 participants ( $M_{(age)} = 31.81$ ,  $SD_{(age)} = 9.79$ ), the vast majority (611) described themselves as women (91.6%), 52 as men (7.8%), and 4 as other (0.6%). Most of the sample described themselves as heterosexual (83.5%), engaging in a relationship with a person from the opposite gender (90.1%). The majority of the sample were secular (71.7%) and Jewish (95.2%). More than half held an academic degree (75.8%), reported very good or excellent health (87.5%), and did not have children (65.5%). Nearly half the sample earned above-average income (49.9%), namely, more than \$5500, the average monthly gross income for a family in Israel in 2023 (Israel Central Bureau of Statistics, 2023).

### **Measures**

*Demographic characteristics included gender, age, marital/intimate relationship status, socioeconomic status, education, religion and religiosity, and health status.*

*Child Sexual Abuse (CSA)* was assessed by the Childhood Trauma Questionnaire (CTQ; Bernstein et al., 1994), a 28-item retrospective self-report questionnaire. Participants are asked to specify on a 5-point Likert scale how often they experienced certain events during childhood/adolescence. (1=never, 5=frequently). The CTQ yields five subscales: sexual abuse, emotional abuse, physical abuse, emotional neglect, and physical neglect. It is valid for both clinical and nonclinical populations and has good psychometric properties—high internal consistency and test–retest reliability, and robust convergence with

the Childhood Trauma Interview (Bernstein et al., 1994). In this sample, we used the sexual abuse subscale, with Cronbach's  $\alpha = .92$ .

*Mentalizing – certainty and uncertainty about mental states* was assessed by the short version of Reflective Functioning Questionnaire (RFQ8; Fonagy et al., 2016), a reliable and valid instrument for assessing individuals' self-reported tendencies to consider mental states as relevant to understanding their own and others' behavior. The RFQ8 uses 7-point Likert-type scales (1= completely disagree, 7= completely agree) that yield two subscales: certainty (mentalizing-certainty) and uncertainty (mentalizing-uncertainty). Both subscales were initially intended to assess maladaptive features of mentalizing (Fonagy et al., 2016), but empirical data from community samples have shown that the certainty subscale reflects an adaptive facet of genuine mentalizing, whereas the uncertainty subscale taps into significant clinical impairments in mentalizing (Schwarzer et al., 2021). In this sample, Cronbach's were .76 for uncertainty and .81 for certainty.

*Satisfaction with romantic relationship* was assessed using the Dyadic Adjustment Scale-4 (DAS-4; Sabourin et al., 2005), an extensively researched instrument for the assessment of relationship satisfaction. The 4-item version scale based, developed, and validated according to the original 32-item Dyadic Adjustment Scale (DAS-32). Participants are asked to estimate their satisfaction with their relationship (e.g., "In general, how often do you think things between you and your partner are going well?"). The DAS-4 was shown to be informative at all levels of couple satisfaction and as effective as DAS-32 in predicting couple separation, but less affected by socially-desirable responses, and less time consuming. The underlying latent construct measured by the DAS-4 was also very stable over a two-year period (Sabourin et al., 2005). In this sample, Cronbach's  $\alpha = .75$ .

*Psychopathology* was assessed using the short version of the Brief Symptom Inventory, an 18-item scale assessing psychological symptoms within the past month (BSI-18; Derogatis & Fitzpatrick, 2004), on a 5-point Likert scale (0= not at all to 4= frequently). The BSI-18 yield depression, anxiety, and somatization subscales, and a global severity index (GSI). In this sample, we used the GSI, with Cronbach's  $\alpha = .92$ .

### **Analytical Strategy**

Missing data analysis indicated that 0 % to 18.7 % of values were missing across variables. Little's Missing Completely at Random (MCAR) test (Collins et al., 2001) indicated that these data were missing completely at random,  $\chi^2_{(70)} = 74.18, p = .34$ . Therefore, missing data were replaced with maximum likelihood (ML) estimations based on all variables in the model using the Statistical Package for Social Science (SPSS) 27. Next, a series of zero-order correlations between the study variables were performed. The mediation and moderation model was then tested using the PROCESS macro in IBM SPSS (Hayes, 2012, 2022). PROCESS is a regression-based approach considered the most powerful test in other mediation conditions (Hayes et al., 2017). It provides ordinary least squares regression-based path analysis comparable to structural equation modeling (SEM) but enables further useful statistics and safeguards against irregular sampling distributions (Hayes et al., 2017). PROCESS requires a minimum of 78 participants (Fritz & Mackinnon, 2007). Moderation effects tend to be small (Aguinis et al., 2005), therefore, based on the use of G\*Power software, a minimum of 158 participants is required to achieve sufficient power (80%) at  $\alpha = 0.05$  (Faul et al., 2007). As our sample size was  $N = 667$ , the current study had sufficient power.

We used the PROCESS macro model 5, which calculates regression analyses and allows combining mediation and moderation analyses within a single model. In this model, CSA served as an independent variable, mentalizing-uncertainty as mediating variable, mentalizing-certainty as a moderator, and satisfaction with romantic relationships was dependent variable. For the mediation hypothesis we assessed the magnitude of the indirect effect of the predictor on the outcome via the mediator. For the moderation hypothesis we added an interaction term (CSA x mentalizing-certainty) in the regression analyses. To examine the significance of all effects we calculated 5,000 bootstrapped samples to estimate the 95% bias-corrected and accelerated confidence intervals (CI) of the effects (Hayes, 2022). When zero is not in the 95% CI, one can conclude that the effects are significantly different from zero at  $p < .05$  (two-tailed).

As suggested by Hayes (2022), all the predictors were mean-centered prior to the analyses to facilitate the interpretation of the main effects. Using the PROCESS macro we also probed the interaction at three values of mentalizing-certainty, a standard deviation above the mean, the mean, and a standard deviation below the mean. This showed whether the association between CSA and relationship satisfaction

changed at different levels of mentalizing-certainty. Last, to assess potential bias by multicollinearity, the variance inflation factor (VIF) index and tolerance scores were used as indicators (tolerance < 0.2 and VIF > 2.5 were considered an indication for multicollinearity).

## Results

### Preliminary Analysis

Table 1 provides means, standard deviations, and Pearson correlations of the study variables. All variables were significantly linked with each other. CSA was negatively correlated with satisfaction with romantic relationships and with mentalizing-certainty, and positively correlated with mentalizing-uncertainty. Satisfaction with romantic relationships was negatively linked with mentalizing-uncertainty and positively linked with mentalizing-certainty. Mentalizing-uncertainty and mentalizing-certainty were negatively correlated. VIF and tolerance indices revealed that the regression analyses did not meet the criteria for multicollinearity and were therefore not biased by it (VIF and tolerance scores were: .97 and 1.03 for CSA, .63 and 1.6 for mentalizing-certainty, and .62 and 1.6 for mentalizing-uncertainty).

### Mediation and Moderation Analyses

The results of the model testing mediation by mentalizing-uncertainty and moderation by mentalizing-certainty in the link between CSA and relationship satisfaction are presented in Figure 1 and Table 2. All were tested simultaneously using PROCESS. The first fitting with the research hypotheses showed a significant indirect effect via mentalizing-uncertainty. That is, the association between CSA and relationship satisfaction was mediated by mentalizing-uncertainty (standardized indirect effect =  $-.02$ , BootSE =  $.01$ ; CI:  $-.044$ ,  $-.004$ ). Figure 1 and Table 2 show that CSA was significantly associated with elevated mentalizing-uncertainty, which in turn, was negatively associated with satisfaction with romantic relationships. Second, a two-way interaction between CSA and mentalizing-certainty predicting relationship satisfaction was statistically significant. This interaction is presented in Figure 2, which was generated using the Plot option in the PROCESS program. Table 2 also details the results of probing this interaction with PROCESS. It was found that the association between CSA and relationship satisfaction was mitigated by mentalizing-certainty. Specifically, CSA was negatively associated with relationship satisfaction only at low

levels of mentalizing-certainty (1 SD below the mean), whereas this link was non-significant with average and high mentalizing-certainty (1 SD above the mean). Sensitivity tests were also conducted, controlling for age, gender, education (years), and levels of psychopathology as covariates. The pattern of the research findings remained consistent; namely, the link between the CSA and relationship satisfaction was mediated by mentalizing-uncertainty and moderated by mentalizing-certainty, even in the presence of these covariates. Nonetheless, age was negatively linked with both mentalizing-uncertainty ( $B = -.004$ ,  $SE = .002$ ,  $t = -2.14$ ,  $p = .03$ ; CI:  $-.01$ ,  $-.0003$ ) and satisfaction with romantic relationship ( $B = -.08$ ,  $SE = .01$ ,  $t = -7.16$ ,  $p < .000$ ; CI:  $-.11$ ,  $-.06$ ) and psychopathology was positively linked with mentalizing-uncertainty ( $B = .23$ ,  $SE = .03$ ,  $t = 9.03$ ,  $p < .000$ ; CI:  $.18$ ,  $.28$ ) and negatively linked with satisfaction with romantic relationships ( $B = -.50$ ,  $SE = .16$ ,  $t = -3.17$ ,  $p = .002$ ; CI:  $-.80$ ,  $-.19$ ).

#### Data Openness

All data are available in: [https://osf.io/npvh5/?view\\_only=35869f34e453427e8b1670a29881a4c7](https://osf.io/npvh5/?view_only=35869f34e453427e8b1670a29881a4c7).

#### Discussion

We have examined an integrative mediation and moderation model focusing on the role of mentalizing, a well-established transdiagnostic factor, in the association between CSA and satisfaction with romantic relationships in adulthood. We were able to confirm the hypotheses that the association between CSA and satisfaction with romantic relationships is mediated by impairments in mentalizing-uncertainty about mental states and is simultaneously moderated by robust mentalizing-certainty about mental states. CSA was associated with elevated mentalizing-uncertainty, which was, in turn, associated with less satisfaction with romantic relationships. The direct negative link between CSA and satisfaction with romantic relationships was moderated by mentalizing-certainty; that is, it was significant only under low mentalizing-certainty, but under average to high mentalizing-certainty, CSA was not associated with relationship satisfaction. These mediation and moderation effects of mentalizing in the association between CSA and relationship satisfaction remained significant after controlling for levels of psychopathological symptoms (i.e., depression, anxiety, somatization), age, gender, and education. To the best of our knowledge, this is the first study to demonstrate both the mediating and moderating effects of mentalizing

in the association between CSA and satisfaction with adult romantic relationships.

We confirmed that CSA is a significant risk factor for subsequent dissatisfaction with romantic relationships. This link was found among a large non-clinical sample that included mostly highly educated, healthy individuals – a relatively under-represented population in the field of CSA (Lassri et al., 2018; Lassri et al., 2023). While consistent with prior research findings (Nielsen et al., 2018; Zamir, 2021), our study goes beyond by expanding the understanding of this association and providing an integrative model, suggesting a mechanism for this association, emphasizing the roles of impaired and robust mentalizing. As hypothesized, the association between CSA and satisfaction with romantic relationships was mediated by impairments in mentalizing. This indirect link agrees with a growing body of evidence for impaired mentalizing as a significant proximal transdiagnostic risk factor mediating the link between child abuse, a distal transdiagnostic factor, and psychological functioning (e.g., Chiesa & Fonagy, 2014; Ensink et al., 2017; Huang et al., 2020; Li et al., 2020; Stagaki et al., 2022). Moreover, our findings strengthen preliminary findings of mentalizing capacities as the mechanism underlying relationship distress and satisfaction among CSA survivors undergoing couple therapy (MacIntosh, 2013b; MacIntosh et al., 2019).

As a developmental trauma, CSA disrupts the child's developmental trajectory, impacting their emotional and metacognitive functions, such as the capacity to mentalize (Ensink et al., 2020). Child sexual abuse may also shake up a person's sense of security and influence their perceptions of self and others (Ensink et al., 2017). It is thus not surprising that CSA is associated with impaired mentalizing, that is, with elevated uncertainty in using mental states as a reliable source of information to assist in understanding one's own behavior or that of others. Given the abusive caregiver's impaired ability to mentalize the child in cases where the sexual abuse is perpetrated by a trusted caregiver that the child depends on to achieve their capacity to mentalize, CSA may result in a child being unable to feel recognized and attempting to protect oneself by shutting down or losing interest in thinking about their own mind and those of others (Ensink et al., 2017). This defense mechanism may assist the child in dealing with harmful events and with the negative intentions of others, as well as with their own feelings of betrayal, either by the abuser or by other close social networks that were unable to keep them safe (Ensink et al., 2017). These impairments in

mentalizing may, however, translate into confusion and difficulty in dealing with relational distress throughout their lifespan (Hayden et al., 2019), ultimately derailing their satisfaction with romantic relationships (McLaughlin et al., 2020). We will now further elaborate on this complex dynamic.

Taken from a developmental perspective, Fonagy and Target (2006) suggested that in an early trauma characterized by abusive relationships, such as in CSA, the child internalizes not only the adult's unbearable emotions but also their own unbearable image – as reflected by the adult. This painful foreign image must then be externalized for the child to achieve a bearable and coherent self-representation. They conceptualized the resulting incoherence within the self-structure as the *alien self*. As per Fonagy and Target (2006), once internalized and lodged within the self-representation, this hostile, alien image must be expelled, not only because it does not match the legitimate self, but also because it is persecutory. Arguably, such introjects must be constantly externalized into a significant other, frequently a romantic partner, serving as an attachment figure (Hazan & Shaver, 1987), who is experienced negatively, regardless of one's intentions. This dynamic has catastrophic consequences for interpersonal abilities and affect regulation that, in turn, may translate into stressful and unsatisfying romantic relationships presumably via impaired mentalizing (MacIntosh, 2013b; MacIntosh et al., 2019).

As mentalizing is dynamic, influenced by relational context and attachment-related arousal (Luyten et al., 2020), it is only natural that the ability to keep robust mentalizing can be jeopardized in a relationship when the partner serves as a meaningful attachment figure (Hazan & Shaver, 1987). Perceptions of the self and others may be quite accurate under conditions of low arousal, but when arousal levels rise, as during relational distress, mentalizing deficits may become more pronounced, and manifest into “prementalizing modes”, subsequently translated into elevated dissatisfaction with the relationship (Bateman & Fonagy, 2015). In other words, in their interactions with their partners, CSA survivors with elevated mentalizing-uncertainty may tend more to regress to prementalizing modes that are strongly associated with elevated psychological distress and interpersonal problems (Luyten et al., 2020). During prementalizing modes individuals may experience heightened emotions and lose the ability to see the perspective of others, including their partner (psychic equivalence- concrete). They may believe that their perception of an

interpersonal interaction, conflict, or a misunderstanding with their partner is the ultimate truth, viewing their interpretations of their partner's words, looks, tone of voice, etc., as the only reality (e.g., "I know exactly what you're thinking...") and exhibiting minimal curiosity about their partner's perspective and/or intentions. They may also consider only observable actions and behavior as "real" (teleological mode- action and outcomes-oriented), and therefore interpret behaviors or the lack of them as the sole source of information for others' intentions (e.g., "if you care about me, you should..."). CSA survivors are also characterized by the tendency to dwell on cognitive or affective narratives that are not connected to an objective reality (pretend mode- dissociated), becoming defensive, emotionally disconnected, and withdrawing or avoiding intimate communication, pretending that "everything is fine, I am not angry" and denying strong emotions. The tendency to regress to prementalizing modes may leave CSA survivors feeling misunderstood, frustrated, betrayed, and unsatisfied in their relationship. Also, given the dyadic, interactive nature of romantic relationships, mentalizing difficulties can also be frustrating for the partner who may feel misunderstood, judged, and wrongfully perceived negatively, further stressing the relationship.

Notably, although we demonstrated a significant association between CSA and mentalizing-uncertainty, its strength was relatively modest. This fits previous studies suggesting that although CSA may impede the child's ability to mentalize (Ensink et al., 2017; Fonagy & Target, 2006), other experiences and relational contexts, including significant interpersonal relationships with peers, teachers or other adults, may mitigate the impairment of mentalizing. Moreover, benevolent experiences within significant relationships may also support the development of robust mentalizing (mentalizing-certainty), which in turn can buffer against the development of psychopathologies (Luyten et al., 2017). In the current study, the presence of robust mentalizing significantly buffered the effect of CSA on relationship satisfaction. This suggests that while mentalizing-uncertainty is indeed a risk factor for relationship dissatisfaction, elevated mentalizing-certainty may be a meaningful resilience factor protecting CSA survivors from the potentially harmful impact of CSA on satisfaction with their romantic relationship. As mentalizing plays a central function in the interpretation and anticipation of others' actions (Goldstein et al., 2022; Hayden et al., 2019), it is possible that CSA survivors with moderate to high mentalizing-certainty can more easily reflect



on how they perceive relational-related stressors. This capacity may provide them with the flexibility to respond more adaptively, allowing better self-care and nurturing of others, in a way that mitigates the harmful impact of CSA on romantic relationships, as found in this study. For individuals with low mentalizing-certainty, CSA is indeed negatively correlated with relationship satisfaction. This significant moderation effect of mentalizing is consistent with a previous study which showed that robust mentalizing may buffer the implications of childhood maltreatment (Borelli et al., 2015).

Lastly, our mediation-moderation model was confirmed while controlling for psychopathology and demographic characteristics. Consistent with previous studies, mentalizing-uncertainty, being a risk factor for mental health disorders was indeed linked with psychopathology (Luyten et al., 2020). Mentalizing-uncertainty was also negatively linked with age, suggesting that individuals tend to better regulate their emotions and gain a more nuanced understanding of themselves and others as they age. Psychopathology was linked with lower satisfaction with romantic relationships, potentially given its impact on emotion regulation and communication dynamics within relationships (Whisman & Baucom, 2012).

### **Limitations and Future Research Directions**

Due to the data collection method, the convenience sample used, consisting mostly of healthy, educated, Jewish women, may not be representative. Also, the study was based on self-report measures, which could introduce response biases, especially for sensitive items such as recalling CSA. Moreover, despite the broad acceptance of the RFQ8 (Fonagy et al., 2016), recent studies have criticized its validity in assessing mentalizing (Horváth et al., 2023; Müller et al., 2022). Therefore, future research should include additional tools to assess mentalizing capacities. Further, the design of the present study was cross-sectional, preventing dissection of causal relationships between the study variables. Longitudinal studies are required to further determine the direction of the associations found in this study. Research on the link between mentalizing and adult romantic relationships among CSA survivors could benefit from integrating a dyadic perspective and conflict resolution paradigms. This would allow consideration of mutual influences and specific couple dynamics, especially given the dynamic nature of mentalizing capacities in the context of attachment-related arousal inherent in intimate dyads. Also, further research should consider contextual

and relationship-specific factors, including relationship duration and stage in the family life cycle, which might have influenced the results obtained. For instance, stress during parenting stages may impede mentalizing, potentially heightening relationship dissatisfaction (Abreu-Afonso et al., 2022). Finally, further research among clinical samples is needed before applying the results to a clinical population.

### **Clinical Implications**

Satisfying romantic relationships constitute a meaningful interpersonal resource, which is positively associated with well-being (Gómez-López et al., 2019). Thus, the risk for dissatisfaction with romantic relationships among survivors of CSA is an issue that should be addressed in therapy to facilitate their well-being. Our integrative mediation and moderation model confirmed mentalizing as a potential risk and protective factor in the link between CSA and satisfaction with adult romantic relationships. This allows a better understanding of the psychological dynamics developing against the background of CSA, providing insights for assessment and intervention. That moderate to high mentalizing-certainty about mental states mitigates the effect of CSA on relationship satisfaction provides a sufficient goal for intervention. This is cause for optimism, as intervention programs to enhance mentalizing capacity can indeed increase individuals' robust mentalizing (Malda-Castillo et al., 2019), especially among patients with traumatic history (Smits et al., 2022). Professionals working with CSA survivors may thus benefit from using therapeutic interventions enhancing mentalization on self and others (Ensink et al., 2017), both in individual and within couple therapy (MacIntosh, 2013b; MacIntosh et al., 2019). As many CSA survivors initially seek individual therapy, and given that the predominant therapeutic approaches for treating sexual trauma are individualized (MacIntosh et al., 2019), it is important to efficiently address relational difficulties within this framework. The enhancement of mentalizing abilities holds significance for CSA survivors, offering valuable insights into how they reflect on their own as well as their partner's intentional mental states, especially during relational distress where prementalizing modes becomes more dominant. By fostering mentalizing skills individuals are equipped to navigate and cope with relational challenges (Luyten et al., 2020).

Notably, CSA survivors frequently experience difficulties in establishing therapeutic alliances (Miller et al., 2015; van der Kolk et al., 2005) and in forming *epistemic trust* in their therapist (defined as the

minimal conditions essential for the sufficient transfer of knowledge from one individual with pertinent information available to another for whom that information is important; Fonagy et al., 2015). A strong therapeutic alliance and epistemic trust are essential for therapists to assist CSA survivors. This becomes especially evident when discussing the partner's point of view, whether in individual therapy or couple therapy where therapists are required to reflect and acknowledge both minds/perspectives, which may further jeopardize survivors' tendency to establish epistemic trust. Learning to rely on robust mentalizing and learning under epistemic trust may protect individuals from distress-affected arousal through the development of an integrated view of the self (Fonagy et al., 2015). This issue should be directly addressed within the context of the therapeutic relationships. Validating CSA survivors' perspectives and accepting their difficulties in trusting, while reflecting on their state of mind in a mentalizing, non-judgmental therapeutic stance, may advance the therapeutic alliance and enhance mentalizing. This may be essential for calibrating one's mind through others, a process that potentially improves reappraisal of past and current distressing events (Fonagy et al., 2015). Although impairments in mentalizing may hinder the therapeutic relationship, they may provide an important opportunity to directly address the difficulties that disrupt interpersonal functioning, communication, and ultimately, the relationship satisfaction among survivors of CSA and their partners. Lastly, as research on couple therapy with CSA survivors is still in its infancy, distressed couples may struggle without receiving sufficient therapeutic support to help them resolve, restore, and heal themselves in their relationships (MacIntosh et al., 2019). Arguably, a mentalizing approach in couple therapy may help both partners to remain open and curious and to reflect on each other's intentions, even during relational stress (MacIntosh, 2013a).

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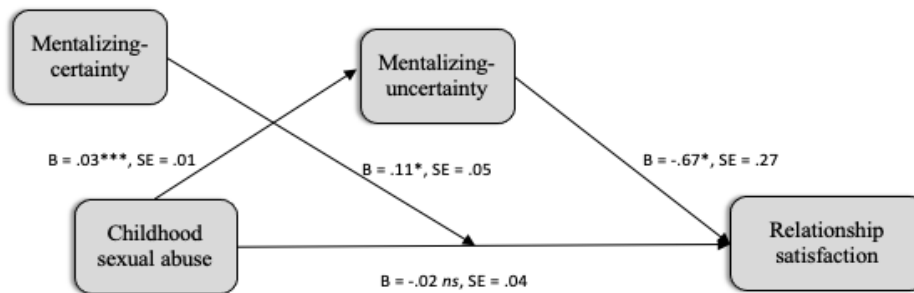
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**Figure 1**

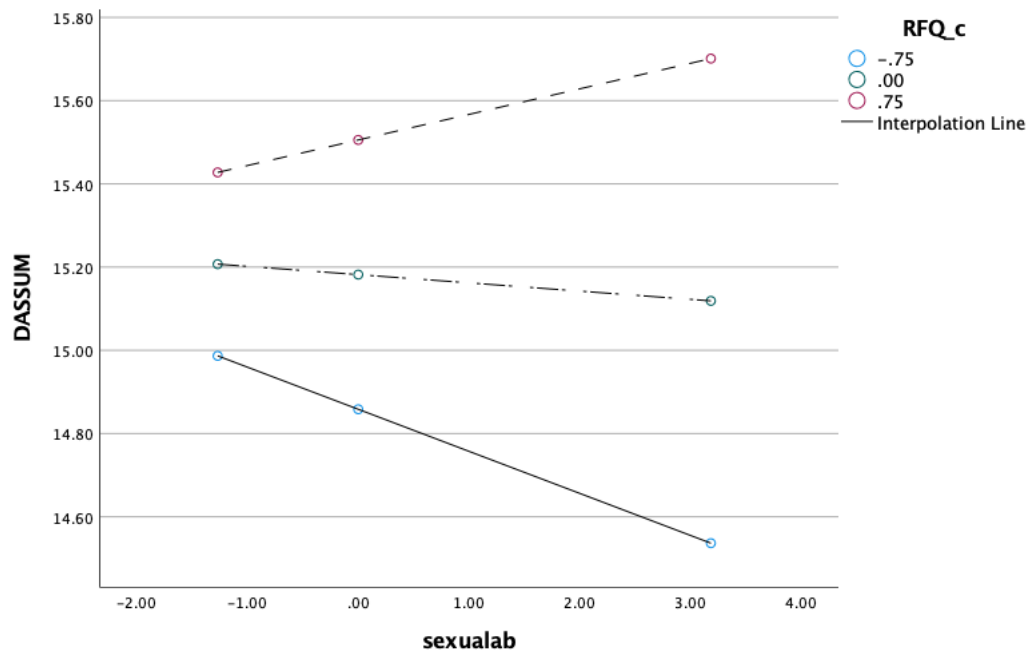
*An Integrative Mediation and Moderation Model*



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

**Figure 2**

*Childhood Sexual Abuse and Romantic Relationship Satisfaction At Different Levels (-1 SD, Mean, +1 SD) Of Mentalizing-Certainty.*



*Note.* sexualab— childhood sexual abuse, DASSUM— romantic relationship satisfaction, RFQc— mentalizing-certainty

**Table 1***Descriptive Statistics and Correlational Matrix*

Variables	<i>M</i>	<i>SD</i>	<i>Range</i>	1	2	3	4
1. Childhood sexual abuse	6.27	3.18	5-25	—			
2. Mentalizing-uncertainty	.45	.50	0-3	.17***	—		
3. Mentalizing-certainty	1.3	.75	0-3	-.12**	-.61***	—	
4. Romantic relationship satisfaction	15.15	2.85	3-20	-.10*	-.20***	.19***	—

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

**Table 2***Mediation and Moderation Analyses*

Predictor	B	SE	t	p	LLCI	ULCI
<b>Prediction of Mediator: Mentalizing-uncertainty</b>						
Constant	.45	.02	23.24	.000	.41	.49
Childhood sexual abuse	.03	.01	4.49	.000	.02	.04
<b>Dependent variable (Y): Romantic relationship satisfaction</b>						
Constant	15.48	.16	95.31	.000	15.17	.15.80
Childhood sexual abuse	-.02	.04	-.52	.60	-.09	.06
Mentalizing-uncertainty	-.67	.27	-2.47	.01	-1.21	-.14
Mentalizing-certainty	.43	.18	2.37	.02	.07	.79
Childhood sexual abuse × Mentalizing-certainty	.11	.05	2.14	.03	.01	.21
[Model $R = .24$ ; $R^2 = .06$ ; MSE = 7.71, $F_{[4,662]} = 10.05$ ; $p < .000$ ]						
<b>The effect of Childhood sexual abuse on Romantic relationship satisfaction (Y) at different levels of the moderator Mentalizing-certainty</b>						
[ $R^2$ change = .01; $F_{[1,662]} = ; p = .03$ ]						
Mentalizing-certainty		BootSE	t	P	BootLLCI	BootULCI
M-1 SD	-.10	.04	-2.48	.01	-.18	-.02
M	-.02	.04	-.52	.60	-.09	.06
M+1 SD	.06	.06	.96	.34	-.06	.19