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Cumulative childhood trauma and life satisfaction in men: The role of complex posttraumatic stress and its dimensions

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ABSTRACT

Background: Cumulative childhood interpersonal trauma (CCIT) a represents an endemic phenomenon with lasting and harmful effects. However, male victimization remains overlooked and even taboo. Complex post-traumatic stress disorder (C-PTSD) is increasingly recognized as a crucial factor in understanding the long-term impact of CCIT on well-being.
Objective: This study aimed to examine the role of C-PTSD and its specific dimensions of symptoms in the relationship between CCIT and life satisfaction in a clinical sample of men seeking mental health services.
Participants and setting: Data were collected from 399 men who sought help from a community organization due to psychological distress.
Methods: Upon admission, participants completed validated measures assessing CCIT, C-PTSD, and life satisfaction. A path analysis was conducted to investigate the contribution of the different dimensions of C-PTSD in the link between CCIT and life satisfaction.
Results: According to the thresholds of the questionnaires, 34.1 % of participants met the criteria for PTSD, 23.8 % met the diagnostic criteria for C-PTSD, and 52.4 % reported being dissatisfied with their lives. Path analysis results indicated that two dimensions of C-PTSD significantly mediated the relationship between CCIT and life satisfaction: negative self-concept ($\beta = -0.110$, $p = .000$; 95 % CI [−0.070, −0.160]) and interpersonal disturbances ($\beta = -0.075$, $p = .001$; 95 % CI [−0.036, −0.123]). The model explained 33.5 % of the variance in life satisfaction.
Conclusions: The findings highlight the central role of C-PTSD symptoms, particularly in identity and relational aspects, as key mechanisms related to adaptation. These results support the implementation of trauma-sensitive practices that address survivors' identity and relational disturbances to better meet the needs of male survivors.

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1. Introduction

Childhood interpersonal traumas are not only widespread (Stoltenborgh et al., 2015), but are also associated with long-lasting and harmful effects that severely impact survivors' quality of life (Carr et al., 2020; Strathearn et al., 2020). The repetitive or chronic nature of cumulative childhood interpersonal trauma (CCIT) amplifies these effects, often leading to complex psychological, emotional, and physical issues (Finkelhor et al., 2007). While Post-Traumatic Stress Disorder (PTSD) has been recognized as a primary key mechanism linking childhood interpersonal trauma and long-term negative effects (Dye, 2018; Maercker & Horn, 2013; Strelchuk et al., 2022), there has been limited research specifically examining its impact on life satisfaction. This gap is especially evident for male survivors of CCIT, who are an underrepresented group in studies of interpersonal trauma (Depraetere et al., 2020). However, studies show that during childhood, boys may be exposed to as much trauma as girls (Finkelhor et al., 2015). In fact, boys tend to be exposed to many traumatic interpersonal experiences such as assault (56.1 %), maltreatment (25.2 %), and sexual assault (3 to 17 %; Finkelhor et al., 2015). In the past decade, Complex Post-Traumatic Stress Disorder (C-PTSD) has been introduced in the literature and added to the International Classification of Diseases (ICD-11; Karatzias, Cloitre, et al., 2017). Researchers have highlighted that PTSD does not reflect the constellation of impairments in multiple domains that interpersonal traumas can create (Karatzias, Shevlin, et al., 2017). C-PTSD accounts also for the profound and multifaceted effects of cumulative trauma, such as emotional dysregulation, challenges in self-identity, and difficulties in forming and maintaining relationships (Briere, 2002; ICD-11, WHO, 2018). Thus, the different dimensions of C-PTSD (i.e., re-experiencing, avoidance, hyperarousal, affect dysregulation, negative self-concept and disturbances in relationships; ICD-11, WHO, 2018) may serve as crucial mechanisms in explaining the link between CCIT and life satisfaction.

1.1. Cumulative childhood interpersonal trauma and life satisfaction

Cumulative childhood interpersonal trauma (CCIT) refers to the accumulation of multiple traumatic experiences over time. Rather than exposure to a single event, CCIT involves repeated or chronic exposure to different forms of childhood interpersonal trauma, such as sexual, physical, and psychological abuse, physical and psychological neglect, witnessing interparental physical and psychological violence, and peer bullying (Godbout et al., 2009). Studies have systematically highlighted the common co-occurrence of childhood interpersonal trauma and the detrimental effect of their cumulative experience (Hodges et al., 2013). Empirical evidence supports a dose-response model, showing that CCIT is more harmful than a singular traumatic event, even when considering the specific characteristic of each form of trauma (Briere et al., 2016). The cumulative nature of these experiences intensifies their effects, leading to complex and severe psychological and physical outcomes (Briere & Scott, 2015). The negative effects of CCIT in adulthood are well-documented across all major life domains, including physical and mental health (e.g., poor self-rated health, alcohol and drug use, psychological diagnosis; Hughes et al., 2017; Nemeroff, 2016), and sexual and relational functioning (Dugal et al., 2023; Villeneuve et al., 2024), which are related to lower life satisfaction (Hughes et al., 2017). Life satisfaction encompasses how closely one's life aligns with their ideal, their overall contentment with life conditions, the sense of having achieved important life goals, and the feeling that they would not wish to change their life (Diener et al., 1985). It is a key indicator of psychological well-being correlated with several measures of mental health and is a good reflection of an individual's general state (Pavot & Diener, 2008).

Sacchi et al.'s longitudinal study Sacchi et al. (2020) showed that traumatic load predicted life satisfaction trajectories, with greater exposure to trauma associated with unstable patterns of improvement and a decline in life satisfaction over time. Although most studies have focused on older individuals, lifetime trauma has been found to be associated with decreased life satisfaction in large representative or nationwide studies from the United States (Krause, 2004; Yang & Hedeker, 2020). Among young Canadian adults, experiences of sexual and physical abuse were related to lower life satisfaction (Tanaka et al., 2014). Although these findings highlight the impacts of childhood interpersonal trauma on survivors' life satisfaction, further research is needed, particularly to identify the mechanisms underlying these associations, especially in male survivors, a population significantly understudied (Depraetere et al., 2020). Understanding the determinants of life satisfaction is crucial for informing effective policymaking and improving public health services by identifying key factors that may enhance well-being.

1.2. C-PTSD as a mechanism explaining the links between CCIT and life satisfaction

C-PTSD typically arises from exposure to CCIT and may serve as a mechanism explaining the link between CCIT and lower life satisfaction. In fact, CCIT can lead to a wide range of debilitating symptoms (e.g., internalizing and externalizing psychopathology, relationship issues; Jaffee, 2017) many of which manifest through C-PTSD (Godbout et al., 2018). These symptoms can result in significant challenges in experiencing feelings of accomplishment, fulfillment, and a sense of purpose, ultimately leading to reduced life satisfaction. C-PTSD has been discussed extensively in clinical and scientific literature as a framework to address the unique symptomatology and clinical presentation observed in individuals who have endured prolonged, repeated trauma, particularly of an interpersonal nature such as CCIT (Cloitre et al., 2014; Herman, 1992; Milot et al., 2018). Traditional PTSD criteria, i.e. re-experiencing (e.g., intrusive memories, flashbacks, nightmares), avoidance (e.g., thoughts or memories of the trauma, or activities, situations or people reminiscent of the trauma), and persistent perceptions of heightened current threat (e.g., hypervigilance, startle reaction; ICD-11, WHO, 2018) have been found insufficient to fully capture the complex array of symptoms and impairments associated with CCIT exposure. The recognition of C-PTSD underscores the understanding that individuals subjected to prolonged trauma may develop a distinct set of symptoms beyond those outlined in traditional PTSD criteria.

According to the 11th revision of ICD (ICD-11, WHO, 2018), C-PTSD is a disorder that may develop following exposure to trauma, typically prolonged or repetitive interpersonal trauma, such as repeated childhood sexual or physical abuse. C-PTSD is characterized

by the three classic categories of PTSD symptoms, in addition to three additional categories of symptoms known as disturbances in self-organization (DSO): (1) problems in affect regulation, (2) beliefs about oneself as diminished, defeated or worthless, accompanied by feelings of shame, guilt or failure related to the traumatic event, and (3) difficulties in sustaining relationships and in feeling close to others (ICD-11, WHO, 2018). DSO symptoms highlight the profound and pervasive impact of CCIT on psychological and emotional well-being.

Several studies have provided evidence that individuals with PTSD report lower levels of life satisfaction compared to individuals with other psychiatric conditions or without diagnosable conditions (e.g., Karatzias et al., 2013; Lamoureux-Lamarche et al., 2016). Additionally, the presence of PTSD symptoms has been linked to functional difficulties in various aspects of life including family, work, financial, relationships, and school achievement (Pietrzak et al., 2010). However, preliminary findings suggest that C-PTSD symptoms are even more frequent, severe and debilitating than PTSD symptoms in survivors exposed to multiple traumas (Karatzias, Shevlin, et al., 2017) and may thus represent crucial pathways in the association between trauma and life satisfaction. Although a handful of studies have investigated the mechanisms involved in the link between PTSD and life satisfaction, to our knowledge, none have examined PTSD or C-PTSD symptoms as a mediator between traumatic experience and life satisfaction, and studies on those variables are lacking in male survivors. Studies suggest that interpersonal trauma is related to DSO (i.e., Bigras et al., 2015), which can significantly affect various aspects of survivors' lives, including their overall life satisfaction. On the interpersonal level, symptoms of C-PTSD are related to lower quality of relationships with significant others (Bachem et al., 2021; Dorahy et al., 2013). For example, difficulties in sustaining relationships and in feeling close to others can prevent one from developing or maintaining stable relationships or make them experience loneliness (Dagan & Yager, 2019). Additionally, problems with affect regulation may result in outbursts and irritability, which are known to have a major impact on interpersonal functioning (Poole et al., 2018) and individual well-being (Aldao et al., 2010). Furthermore, emotions such as guilt and shame, which often arise from a negative self-concept (Ford et al., 2006), are frequently linked to relational distress in trauma survivors (Dorahy et al., 2013, 2017). A study conducted by Cyr et al. (2021) found that individuals with fewer symptoms of C-PTSD and PTSD reported better life satisfaction, while those with higher levels of C-PTSD symptoms, particularly those with significant exposure to CCIT, reported lower life satisfaction compared to those with high PTSD symptoms alone. However, this study was conducted among a sample of women and did not specifically assess which C-PTSD symptoms were most impactful on life satisfaction. Investigating which dimension of C-PTSD acts as an intermediary variable in the association between cumulative trauma and life satisfaction is needed for advancing theoretical knowledge and clinical practice in trauma psychology, as it could offer cues for the enrichment of efficient interventions.

1.3. Male survivors of cumulative childhood interpersonal trauma

Trauma, particularly interpersonal trauma, is still under-researched in men. While men are represented in studies of PTSD resulting from armed conflicts (e.g., Bachem et al., 2021; Pietrzak et al., 2010), they are rarely the focus of research on the impact of childhood interpersonal trauma. This lack of attention to their traumatic experiences poses a problem for research and clinical literature, since men face particular challenges influencing their post-traumatic trajectories. Masculinity traits like toughness, emotional suppression, and self-reliance are linked to a higher risk of PTSD, as they hinder cognitive-emotional processing of trauma and discourage seeking treatment (Christiansen & Berke, 2020). Commitment to hegemonic masculine ideals and masculine gender-role stress have previously been associated with anxiety and PTSD symptoms (Christiansen & Berke, 2020). Interpersonal victimization, particularly against men, remains highly stigmatized, complicating both the research and treatment of male survivors. This stigma is notably rooted in traditional gender norms and maintained through masculine socialization, making it difficult for male survivors to acknowledge their vulnerability and experiences (Thomas & Kopel, 2023). As a result, many men are reluctant to report their experiences or seek help, leading to underreporting and a lack of data that hinders research.

1.4. The present study

The present study aims to bridge significant gaps in the existing literature by investigating the role of C-PTSD symptoms (i.e., re-experiencing, avoidance, persistent perceptions of heightened threat, problems in affect regulation, beliefs about oneself as diminished, defeated or worthless, and difficulties in sustaining relationships and in feeling close to others) in the relationship between CCIT and life satisfaction, specifically among men survivors seeking help. Pinpointing the most salient C-PTSD symptoms in explaining the link between CCIT and lower life satisfaction is essential for gaining a deeper understanding of the mechanisms through which early trauma is related to life satisfaction and for identifying potential impactful intervention targets. The present study hypothesized that exposure to CCIT would be associated with higher C-PTSD symptoms and that specific dimensions of C-PTSD will significantly relate to lower life satisfaction.

2. Method

2.1. Participants and procedure

The final sample for this study included 399 men, aged between 18 and 87 years ($M = 41.161$, $SD = 12.978$). Detailed socio-demographic characteristics are presented in Table 1.

Participants were recruited from a larger funded project studying male victimization, conducted from February 2022 to February 2024. Over 10 community organizations offering mental health services (e.g., individual and group intervention) to men across

Québec, Canada, participated in this partnership. Men seeking mental health services in these organizations were systematically invited to complete a self-reported questionnaire via the secure Qualtrics platform at the time of their admission. The questionnaire took approximately 45 min to complete. With the participants' written consent, a summary of each participant's responses was sent to their practitioner to guide their intervention. Participants were informed that their decision to engage or decline participation in the study would not impact their access or the quality of the care they received. Inclusion criteria were: 1) to self-identify as male; 2) to be seeking mental health services in a community organization; 3) to be able to complete the questionnaire in French or English; 4) to be at least 18 years old and 5) to complete at least 70 % of the measures of interest. Of all the participants who completed the questionnaire at their admission, 97.86 % ($n = 399$) agreed to participate into the study. All procedures were approved by the Institutional Review Board of the University of Montréal.

2.2. Measures

2.2.1. Sociodemographic characteristics

Sociodemographic characteristics were collected on age, gender identity, sexual orientation, education, ethnicity, individual annual income, occupation, and relationship status.

2.2.2. CCIT

CCIT was assessed using the Childhood Cumulative Trauma Questionnaire (CCTQ; Godbout et al., 2017), which examines typical acts of omission and commission across multiple forms of maltreatment experienced before the age of 18. The CCTQ consists of 16 items evaluating seven types of CCIT (e.g., physical and psychological abuse, physical and psychological neglect, physical and psychological interparental violence, and bullying). The eighth type, childhood sexual abuse (CSA), is measured using three custom items.

Table 1
Sociodemographic Characteristics (n = 399).

Characteristics	*n*	Participants (%)
Gender		
Men	386	96.7
Other (e.g., non-binary, queer)	13	3.3
Sexual orientation		
Heterosexual	348	87.2
Homosexual	17	4.2
Bisexual/Pansexual	23	5.7
Asexual	1	0.3
Queer	1	0.3
Other	9	2.3
Age group		
18–29	90	22.5
30–49	201	50.3
50–69	101	25.3
70 and more	7	1.9
Birthplace		
Canada	358	89.7
Other	41	10.3
First language		
French	369	92.7
English	13	3.3
Spanish	7	1.8
Other (e.g., Creole, German, Arab)	9	2.3
Occupation		
Student	18	4.5
Full- or part-time worker	233	58.5
Retired	27	6.8
Unemployed	45	11.3
Work stoppage	58	14.5
Other	17	4.3
Education		
Primary school	33	8.3
High school	193	48.4
College/professional	98	24.6
University	73	18.3
Rather not say or missing	2	0.4
Individual annual income		
CAD$19,999 or less	62	15.6
CAD$20,000 - CAD$39,999	109	27.3
CAD$40,000 - CAD$59,999	103	25.9
CAD$60,000 - CAD$79,999	40	10.1
Rather not say or missing	47	9.3

Participants were asked to respond to all CCIT items based on a "typical year" before the age of 18, using Likert scales ranging from "never" (0) to "every day or almost" (7). Dichotomous scores were created to indicate the presence or absence of each type of childhood interpersonal trauma, with participants needing to have answered "at least once in a typical year" to indicate the presence of trauma. Cumulative trauma was calculated by summing these dichotomous scores, yielding a range from 0 to 8 traumas. The CCTQ has demonstrated good psychometric qualities in previous studies (e.g., α = 0.90; Bigras et al., 2017). In the current study, the items related to CCT showed a good internal consistency (α = 0.89).

2.2.3. C-PTSD

Symptoms of C-PTSD were measured using the 13-items International Trauma Questionnaire (ITQ; Cyr et al., 2022; Cloitre et al., 2018), which measures the symptoms of PTSD and C-PTSD and functioning impairment level. The ITQ was developed in accordance with the organizational principles of ICD-11, as set out by the World Health Organization. It comprises two main scales (PTSD and DSO) and six subscales divided into 12 items -(1) re-experiencing, (2) avoidance, (3) hyperarousal, (4) affect dysregulation, (5) negative self-concept and (6) disturbances in relationships- corresponding to the six symptom groups that form the C-PTSD diagnosis. A 13th item evaluates the level of functioning impairment. Items are responded to on a Likert scale from "not at all" (0) to "extremely" (4). Continuous scores for each of the six symptoms and for the two dimensions are calculated by summing participants' responses, with higher scores indicating higher symptom levels. Validation studies have shown good psychometric properties (Cyr et al., 2022; Hyland et al., 2017; Shevlin et al., 2017). In the current study, the PTSD items related to PTSD (α = 0.83) as well as the CPTSD (α = 0.85) items showed good internal consistency.

2.2.4. Life satisfaction

Life satisfaction was measured using the Satisfaction with Life Scale (SWLS; Diener et al., 1985), which comprises five items designed to assess global satisfaction, based on one's own criteria, focusing on two main components: emotional (items 1 and 2) and cognitive (items 3, 4, and 5) satisfaction with one's life. Participants are asked to indicate their degree of agreement with five items using a seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Total score range 5 to 35, with higher score reflecting higher satisfaction (Pavot & Diener, 1993). The SWLS has been shown to be a valid and reliable measure of life satisfaction, with good psychometric properties (Blais et al., 1989). In the current study, the items related to life satisfaction (α = 0.88) showed a good internal consistency.

2.3. Data analytical strategy

Descriptive analyses and correlations were conducted using SPSS v28 for the sample distribution, means, standard deviations, Cronbach's alpha coefficients (α), and associations between all study variables. The hypothesized path analysis models were then tested in M*plus*, v. 8.4 (Muthén & Muthén, 2015), which is robust to non-normality through the use of Maximum Likelihood Estimation with Robust Standard Errors (MLR) and accounted for missing data (<5 %) using Full Information Maximum Likelihood (FIML). Model fit was examined using the chi-square (χ^2) statistic and the ratio of chi-square to degrees of freedom (χ^2/df), the Root Mean Square Error of Approximation (RMSEA; Steiger, 1990), the Standardized Root Mean Square Residual (SRMR), the Comparative Fit Index (CFI; Bentler, 1990), and the Tucker–Lewis Index (TLI; Bentler & Bonett, 1980). Goodness-of-fit of the theorized model was determined by the combination of a non-significant χ^2 statistic ($p < .05$) and a ratio of chi-square to degrees of freedom less than three, a RMSEA value <0.06, a SRMR value <0.08, and CFI and TLI values >0.90 (Hoyle & Panter, 1995; Hu & Hu & Bentler, 1999).

To examine the indirect role of C-PTSD between CCT and life satisfaction, direct and indirect effects were computed using 95 % bootstrap confidence intervals (1000 resamples). The model was first tested using the two main scores (PTSD and DSO) as latent variables and then re-tested using the six subscales to examine specific effects (i.e., re-experiencing, avoidance, sense of threat, affect dysregulation, negative self-concept, and interpersonal disturbances). For all tested pathways, standardized direct, specific indirect, total indirect and total effects were estimated. To assess whether the associations were robust to potential confounds, age, education, gender, annual income, and relationship status were entered as covariates in both models.

Table 2
Bivariate correlations and descriptive statistics among the study variables (n = 399).

Variables	1	2	3	4	5	6	7	8
1. CCIT	–							
2. Re-experiencing	0.19**	–						
3. Avoidance	0.23**	0.64**	–					
4. Sense of threat	0.20**	0.50**	0.52**	–				
5. Affect dysregulation	0.25**	0.39**	0.39**	0.44**	–			
6. Negative self-concept	0.30**	0.40**	0.39**	0.39**	0.47**	–		
7. Interpersonal disturbances	0.35**	0.34**	0.38**	0.42**	0.55**	0.59**	–	
8. Life satisfaction	−0.23**	−0.25**	−0.29**	−0.29**	−0.302**	−0.54**	−0.470**	–
Mean	4.01	2.66	3.03	3.62	3.43	3.45	4.00	3.82
SD	2.31	2.38	2.49	2.53	1.97	2.84	2.35	1.87

Note. *CCIT* = Cumulative childhood interpersonal trauma. *SD* = Standard Deviation. **$p < .01$. ***$p < .001$.

3. Results

3.1. Descriptive statistics

Bivariate correlations and descriptive statistics of childhood trauma in our sample are shown in Table 2. Participants reported an average of exposure to four types of childhood interpersonal trauma ($M = 4.01$, $SD = 2.33$). Most experienced at least one type of trauma (92.2 %, $n = 378$), and 82.3 % ($n = 338$) reported experiencing two or more types of traumas. The most common type of trauma exposure was psychological neglect (72.7 %), followed by psychological abuse (60.7 %).

Moreover, based on the measure's cutoff score, 34.1 % met the criteria for PTSD (i.e., endorsement of one of each PTSD symptom clusters, plus functional impairment), 23.8 % of participants met the diagnostic criteria for C-PTSD (i.e., PTSD plus endorsement of one of each DSO, plus functional impairment; Cloitre et al., 2018), and 52.4 % reported being dissatisfied with their lives. Additionally, 40.2 % of participants fulfilled the diagnostic criteria for the DSO symptoms without meeting the criteria for classic PTSD symptoms.

3.2. Main data analyses

Results from the first model using the two main scores (PTSD and DSO) as latent variables indicated that more CCIT was indirectly related to decreased life satisfaction through the dimension of DSO (β = −0.273, $p = .000$, 95 % CI [−0.394, −0.187]). However, no significant indirect effect was found through the dimension of PTS. The final model explained 39.3 % of the variance of life satisfaction ($R^2 = 0.393$). The coefficients and percentages of variance explained for each dimension are presented in Fig. 1. The fit indices indicated a good fit for the model ($\chi^2 = 92.260$ ($df = 34$), $p = .000$; RMSEA = 0.066, 90 % CI [0.050; 0.082], CFI = 0.945, TLI = 0.921; $\chi^2/df = 2.714$, SRMR = 0.058).

The model was then re-tested using the six subscales (i.e., re-experiencing, avoidance, sense of threat, affect dysregulation, negative self-concept, and interpersonal disturbances; see Fig. 2) to examine their specific effects in the link between CCIT and life satisfaction. Results indicated that CCIT was indirectly related to less life satisfaction through negative self-concept (β = −0.110, $p = .000$; 95 % CI [−0.070, −0.160]) and interpersonal disturbances (β = −0.075, $p = .001$, 95 % CI [−0.036, −0.123]). The final model explained 33.5 % of the variance in life satisfaction ($R^2 = 0.335$). The coefficients and percentages of variance explained for each dimension are presented in Fig. 2. The fit indices indicated that the data were a good fit for the model ($\chi^2 = 21.754$ ($df = 7$), $p = .0028$, RMSEA = 0.073, 90 % CI [0.039; 0.108], CFI = 0.986, TLI = 0.930, $\chi^2/df = 3.108$, SRMR = 0.046).

Multicollinearity was assessed and found not to be an issue. To assess whether the associations were robust to potential confounds

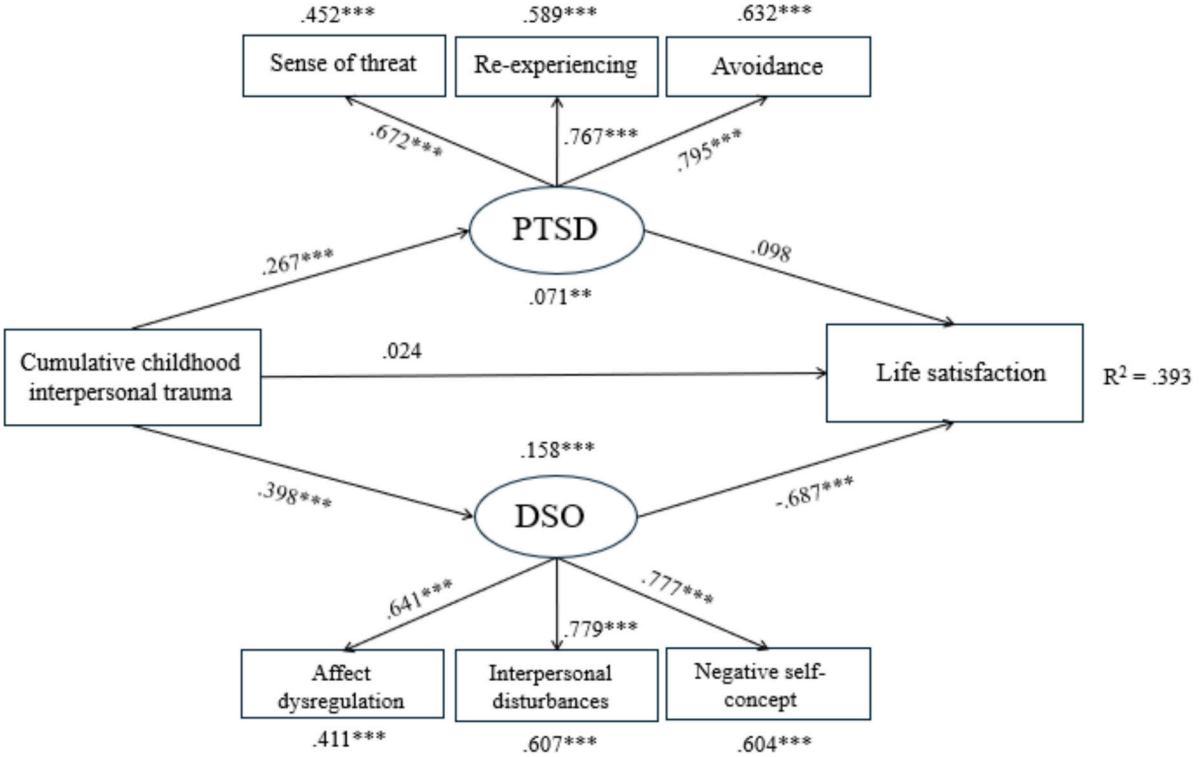

Fig. 1. Path analysis of the role of two dimensions of complex posttraumatic stress between cumulative childhood interpersonal trauma and life satisfaction.
Note. PTSD = Posttraumatic Stress Disorder, DSO = Disruption of self-organization *$p < .05$. **$p < .01$. ***$p < .001$.

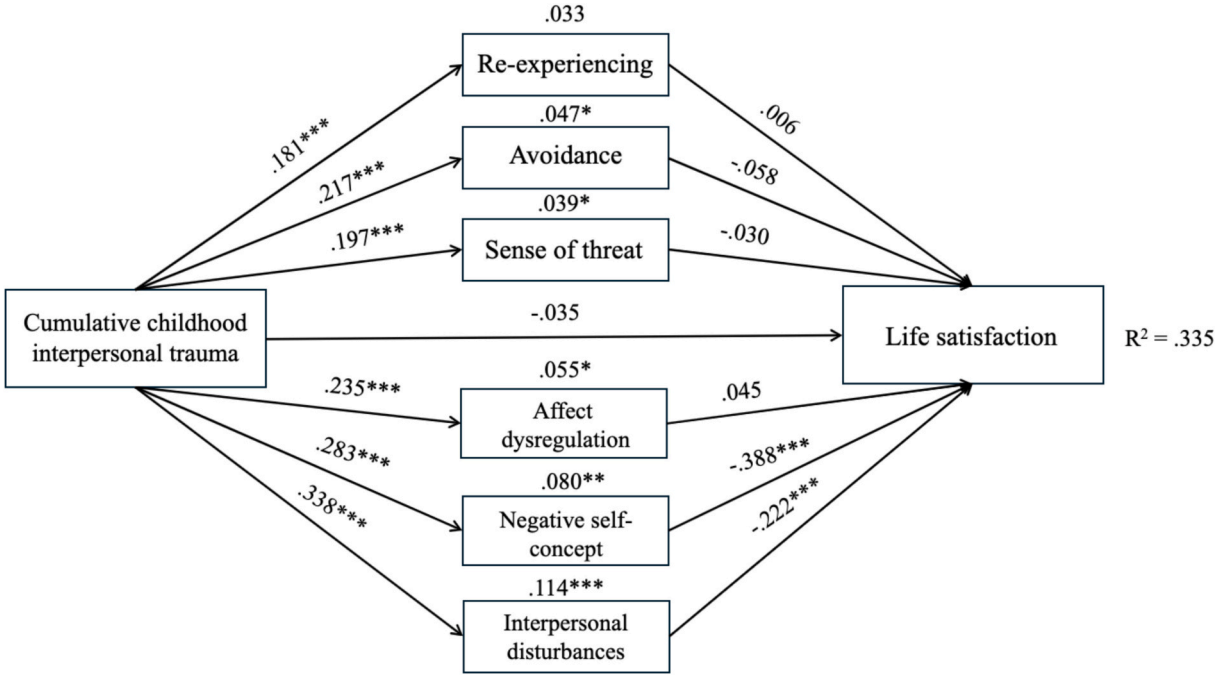

Fig. 2. Path analysis of the role of the six symptoms of complex posttraumatic stress between cumulative childhood interpersonal trauma and life satisfaction.
Note. *p < .05. **p < .01. ***p < .001.

(i.e., age, education, gender, individual annual income, relationship status), these variables were entered as covariates in both models. The covariates were not related to the outcome and their inclusion in the model did not change the significance or magnitude of the observed links.

4. Discussion

The objective of this study was to investigate the role of C-PTSD symptoms in the association between CCIT and life satisfaction in men seeking help. In line with the first hypothesis, results showed that CCIT is related to an increase in all C-PTSD symptoms. Moreover, our results indicated that CCIT is more linked to DSO symptoms than PTSD symptoms. A major contribution of this study is the finding showing the significant role of two specific DSO symptoms – negative self-concept and interpersonal disturbances – in relation to lower victims' life satisfaction. Findings suggest that, when they are all accounted for, negative self-concept and relational disturbances are more strongly associated with lower life satisfaction than the classic PTSD symptoms.

4.1. Negative self-concept as a mechanism linking CCIT and lower life satisfaction

This study's findings highlighted the profound link between CCIT and negative self-concept, which is in turn related to lower life satisfaction among men. Negative self-perceptions, including beliefs about oneself as diminished, defeated, or worthless, coupled with feelings of shame, guilt, or failure in the aftermath of traumatic experiences can deeply impact an individual's self-esteem and self-worth (Pereira et al., 2021). Shame and guilt stemming from interpersonal traumas have also been linked to higher symptoms of depression and anxiety in trauma survivors (Aakvaag et al., 2016). These negative self-perceptions and emotions can create a persistent negative internal narrative that hinders recovery and growth by preventing disclosure or help seeking (Feiring & Taska, 2005). A persistent sense of failure and unworthiness may create barriers to experiencing positive emotions and overall well-being, potentially explaining their role in the link between exposure to interpersonal trauma and reduced life satisfaction. Specifically, internalized negativity can lead to chronic stress, mental health issues or lack of availability to embrace life experiences/opportunities, which may impede one's ability to achieve a life aligned with their ideals, pursue their goals or find joy in daily activities, ultimately contributing to lower life satisfaction.

Beyond these immediate effects, CCIT may lead to a more fundamental disruption of one's core identity and sense of purpose (Kouvelis & Kangas, 2021). Survivors may experience a fractured sense of self, where they feel disconnected from themselves, become entrapped in ruminations or struggle to envision a positive future, which may hinder posttraumatic growth toward life satisfaction (Triplett et al., 2012). These disruptions can result in a loss of direction or purpose, making it challenging for survivors to set meaningful goals or pursue fulfilling activities, thereby significantly diminishing their life satisfaction.

Additionally, internalized negativity associated with a negative self-concept may create a self-fulfilling prophecy. Survivors might

withdraw from social interactions (Ozdemir & Sahin, 2020) or avoid opportunities for personal growth, further reinforcing their negative self-beliefs and perpetuating feelings of inadequacy. This cycle of negative reinforcement can deepen their sense of hopelessness, making it increasingly difficult to achieve a satisfying life.

4.2. Interpersonal disturbances as a mechanism linking CCIT and life satisfaction

This study's findings also underscored the critical role of interpersonal disturbances (i.e. difficulties in sustaining relationships and forming close connections with others) in linking CCIT to lower life satisfaction in men. Healthy relationships are essential for emotional support, a sense of belonging, and overall well-being (Grevenstein et al., 2019). Their importance underscores the crucial role that interpersonal connections play in life satisfaction. This finding is in line with previous research that has shown the positive impact of family and peer relationships on life satisfaction, with romantic relationships being particularly strong predictors of well-being (Grevenstein et al., 2019; Guarnieri et al., 2015). However, interpersonal trauma can erode trust, increase fear of intimacy, and lead to withdrawal from social interactions (Bell et al., 2018; Dugal et al., 2016). This isolation and lack of meaningful connections can result in feelings of loneliness and alienation (Dagan & Yager, 2019), depriving individuals of the emotional nourishment and support networks needed for a fulfilling life. Consequently, the inability to maintain close relationships can significantly diminish life satisfaction by undermining one of the fundamental sources of happiness and resilience (Grevenstein et al., 2019; Lucas & Dyrenforth, 2006).

Additional mechanisms may further explain this link. First, CCIT can disrupt attachment patterns, leading to insecure attachment that persist into adulthood, making it difficult for survivors to form secure, trusting relationships (Baumann et al., 2024), and ultimately diminishing life satisfaction (Shahyad et al., 2011). Moreover, survivors may withdraw from social interactions as a protective mechanism, leading to prolonged social isolation (Dagan & Yager, 2019) that limits opportunities for personal growth and the benefits of social support, further reducing life satisfaction.

4.3. Practical implications

The results of the present study carry significant clinical implications for male survivors of CCIT. The prominent role of DSO symptoms in the link between CCIT and life satisfaction indicates that these symptoms should be evaluated and possibly targeted by clinical intervention. An important proportion (40.2 %) of participants met the diagnostic criteria for DSO symptoms, and only the DSO symptoms were related to lower life satisfaction in an integrative model taking into account PTSD and DSO symptoms of C-PTSD. This may mean that some individuals experience significant distress due to disturbances in self-organization without exhibiting the core symptoms of traditional PTSD. These results emphasize the need for a nuanced understanding of C-PTSD, because its clinical diagnosis and treatment approaches, particularly for individuals whose symptoms align more closely with DSO disturbances rather than classic PTSD symptoms.

Currently, the treatments of choice for trauma, whether interpersonal or not, are therapies targeting PTSD symptoms (APA, 2017). These therapies, often manualized, use a variety of techniques to seek to reduce the classic symptoms of PTSD, such as exposure techniques to reduce avoidance, and relaxation techniques to reduce reactivity (Rauch et al., 2012; Scotland-Coogan & Davis, 2016). However, these approaches may not be fully effective or appropriate for male survivors of CCIT, as they do not directly address the DSO symptoms that appear to play a more significant role in reducing life satisfaction.

According to our findings, PTSD symptoms alone are not the primary contributors to lower life satisfaction in male survivors. Instead, DSO symptoms—such as negative self-concept and interpersonal disturbances—are more closely associated with lower life satisfaction. This indicates a need for interventions that go beyond traditional PTSD treatment paradigms to focus specifically on the complex self-organization issues that arise in C-PTSD. For example, interventions with a focus on rebuilding a positive self-concept and improving relational functioning could be beneficial. To achieve this, clinicians must possess a thorough understanding of C-PTSD and its impact on the individual's identity, relationships, and overall well-being. Mentalization-based treatment (MBT), dialectical behavior therapy (DBT), and mindfulness-based approaches (Choi-Kain et al., 2016; Swenson & Choi-Kain, 2015) might be useful for childhood interpersonal trauma survivors. These techniques could be adapted to treat trauma survivors (Courtois & Ford, 2014). However, implementing these interventions effectively requires additional training for clinicians, as they demand a more nuanced understanding of the complex psychological processes involved in C-PTSD, compared to the more straightforward techniques often used in PTSD treatment (Cloitre et al., 2012). Given the complexity of C-PTSD and its potential impact on life satisfaction, there is a pressing need for specialized training programs and resources for clinicians. These programs should focus on providing mental health professionals with the tools necessary to address the intricate and multifaceted nature of DSO symptoms.

Furthermore, integrating trauma-informed care principles into all levels of treatment can enhance the effectiveness of interventions for male survivors of CCIT. Trauma-informed care emphasizes understanding, recognizing, and properly responding to the effects of all types of trauma, and it prioritizes creating a therapeutic environment that promotes safety, empowerment, and healing (SAMHSA, 2014). Clinicians working with this population should be trained not only based on trauma-informed principles but also in the specific needs of male survivors, who may face unique barriers to recovery, such as societal stigma, difficulties in expressing vulnerability, and challenges in seeking help.

4.4. Limitations and further studies

The results of this study should be interpreted in light of its limitations. Firstly, the cross-sectional design limits the ability to

establish causality between CCIT, complex trauma-PTSD symptoms and life satisfaction. Additionally, the reliance on self-reported measures may introduce biases, such as those stemming from the stigmatization of male victimization or social desirability. Furthermore, the men in the sample did not complete measures assessing the presence of other mental health disorders (such as anxiety or depression) which could act as confounders in the relationship between CCIT and life satisfaction. Future research should aim to include a more comprehensive assessment of mental health conditions in men seeking mental health services to better account for their potential confounding effects in this relationship. Another limitation is the specific nature of the sample, which consisted of men seeking help in a community organization specialized in male victimization. This context may suggest a clinical profile that differs from male victims in the general population, as not all male survivors seek help. Research on male victims who do not seek help from specialized organizations is also essential to capture a broader understanding of the experiences and life satisfaction of men outside the clinical population. This could help in identifying unique challenges and needs among men who may not access formal support systems, further informing the development of targeted interventions and prevention efforts. Future research should include more diverse samples, considering factors such as sexual orientation, cultural background, and socio-economic status to determine whether the findings can be generalized across different populations. Moreover, as the study was conducted exclusively in men, caution should be exercised in interpreting the findings as specific to males. Further research is needed to determine whether similar patterns are observed across other genders. Finally, further studies should examine the specific characteristics of the trauma experiences (e.g., timing of the trauma, age and duration, context, disclosure and reaction to disclosure) as well as the interplay of different types of trauma to provide a more detailed understanding of their impacts.

5. Conclusion

The findings of this study indicate that CCIT is associated with lower life satisfaction, with negative self-concept and relational disturbances emerging as key mechanisms underlying this link. These identity and relational issues appear to play a critical role in explaining the link between CCIT and lower life satisfaction in adulthood among men. Disruptions in self-worth and the ability to form meaningful and trusting relationships—both fundamental to a fulfilling life—may be central to this process. This could explain why disturbances in identity and relationships have a more profound effect on adult adjustment than the traditional PTSD dimensions of re-experiencing, avoidance, and hyperarousal, and even beyond challenges with emotional regulation. The disruption of identity and relational aspects may lead to ongoing difficulties in self-perception and interpersonal interactions, which may impede the healing process and complicate efforts to regain a sense of normalcy and well-being in adult life. Therefore, interventions should not only focus on managing PTSD symptoms and enhancing emotional regulation, but also prioritize identity reconstruction and fostering healthy relationships.

CRediT authorship contribution statement

Natacha Godbout: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Shalie-Emma Vaillancourt:** Writing – review & editing, Writing – original draft, Project administration, Methodology, Investigation, Conceptualization. **Marie-Jeanne Ledoux-Labelle:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis. **Ateret Gewirtz-Meydan:** Writing – review & editing, Writing – original draft. **Marie-Pier Vaillancourt-Morel:** Writing – review & editing, Writing – original draft. **Audrey Brassard:** Writing – review & editing, Writing – original draft. **Martine Hébert:** Writing – review & editing, Writing – original draft.

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Declaration of competing interest

None.

Authors reviewed and edited the content as needed and take full responsibility for the integrity and accuracy of all material in their manuscript.

Data availability

Data will be made available on request.

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