

CHILDHOOD MALTREATMENT, PSYCHOPATHOLOGY SYMPTOMS AND LIFE SATISFACTION: EXPLORING THE MEDIATING ROLES OF PRIORITIZING POSITIVITY AND POSITIVE AFFECT

Maria Stoia¹, Lia-Ecaterina Oltean^{2,3}, and Aurora Szentágotai-Tătar^{2,3}*

¹ Evidence-Based Assessment and Psychological Interventions Doctoral School, Babeş-Bolyai University, Cluj-Napoca, Romania.

² The International Institute for the Advanced Studies of Psychotherapy and Applied Mental Health, Babeş-Bolyai University, Cluj-Napoca, Romania.

³ Department of Clinical Psychology and Psychotherapy, Babeş-Bolyai University, Cluj-Napoca, Romania.

Abstract

Childhood maltreatment (CM) is a robust predictor of adverse mental-health outcomes. The psychological mechanisms underlying this relationship represent a crucial area of research that has received great support in recent years. However, few studies have explored the potential mechanisms pertaining to positive psychology. In this study, we investigated two potential candidates: prioritizing positivity (PP) and positive affect (PA). More specifically, we sought (1) to investigate the associations between CM, PP, PA, and two mental health outcomes (i.e., psychopathology symptoms and life satisfaction), and (2) to test the mediating roles of PP and PA in the association between CM and the two mental health outcomes. Participants (268; M age = 31.9; SD = 10.6) completed self-report measures on all variables. Findings indicated that CM was positively associated with psychopathology symptoms and negatively associated with PP, PA, and life satisfaction. Moreover, PP partially mediated the relationship between CM and both mental health outcomes. The mediating effect on both outcomes was partially explained by PA. These findings provide novel contributions by bringing support to the mechanistic involvement of PP in the relationship between CM and mental health. Future studies could explore specific interventions that may target PP.

* Correspondence concerning this article should be addressed to Aurora Szentágotai-Tătar, Department of Clinical Psychology and Psychotherapy, Babes-Bolyai University, Republicii Street 37, Cluj-Napoca, 400015, Romania.
Email: auraszentagotai@psychology.ro

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Childhood maltreatment (CM) is a prevalent and severe form of adversity that occurs during childhood and adolescence or while growing up. It includes both abuse (physical, emotional, and sexual) and neglect (physical and emotional), inflicted by an adult in the household, such as a parent, caregiver, or a person older than the child (Bernstein et al., 2003; Felitti et al., 1998). Over the years, research has indicated that different types of CM co-occur frequently, with the prevalence of multi-type maltreatment reported to range between 24% and 95% (Debowska et al., 2017; Herrenkohl & Herrenkohl, 2009). Some researchers propose that the concurrent experience of both abuse and neglect may exert a distinct qualitative influence on clinical outcomes, differing from the effects observed when these forms of maltreatment occur in isolation or accumulate independently (Witt et al., 2016). Epidemiological studies show that CM is a global issue, with worldwide prevalence rates ranging between 12.7% and 36.3%, accounting for different types of maltreatment (for a review see Stoltenborgh et al., 2015). CM is linked to serious economic and health burdens across all income levels and across different cultures (Fang et al., 2012, 2015; R. Gilbert et al., 2009; Petruccelli et al., 2019).

Extensive research has consistently shown that CM is associated with increased lifelong and transdiagnostic risk for developing psychiatric disorders (Green et al., 2010; Jaffee, 2017; Keyes et al., 2012). Considerable attention has been paid to the relationship between CM and depression, as a number of reviews and meta-analyses have established a strong and robust association between the two (e.g., Infurna et al., 2016; M. Li et al., 2016; Muzi Li et al., 2023). Individuals with a history of CM are more likely to experience an early onset, a greater severity, and a more chronic and treatment-resistant course of depression (Nanni et al., 2012; Nelson et al., 2017). Similarly, meta-analytic data have also confirmed that CM significantly increases the overall risk for anxiety disorders (e.g., Gardner et al., 2019; M. Li et al., 2016), with some reviews specifically examining its impact on distinct disorders, such as social anxiety (J. Liu et al., 2023) and panic disorder (Zhang et al., 2023). Notably, experiencing multiple types of CM increases risk of depressive and anxiety disorders to a greater degree than experiencing a single type of CM (Debowska et al., 2017; Moore et al., 2015).

While the relationship between CM and psychopathology is well documented, its associations with positive mental health indicators, such as life satisfaction, remain less explored. As a key component of psychological well-being, life satisfaction reflects its cognitive dimension (i.e., judgements about one's life) (Kesebir & Diener, 2008). In a recent meta-analysis, CM was moderately associated with lower life satisfaction across developmental stages, gender, and culture (Yeo et al., 2024). This association has also been confirmed in studies employing clinical

samples, regardless of symptom severity (Kolar et al., 2024; Monteleone et al., 2023).

Expanding beyond the negative consequences of CM on mental health, recent efforts have focused on uncovering the psychological mechanisms underlying the impact of CM on mental health (McCrory et al., 2017; McLaughlin et al., 2020). Progress in this area holds important implications for refining preventive and therapeutic interventions targeted for this vulnerable population (Gee, 2022; Kirlic et al., 2020). Several mechanisms have received extensive support, such as emotion regulation (Miu et al., 2022), reward processing (Oltean et al., 2022), and maladaptive schemas (Pilkington et al., 2021), and more recent work has started to examine mechanisms pertaining to positive psychology (e.g., self-compassion, gratitude) (for a review see Stevenson, 2024). However, other positive psychological factors remain largely underexplored, warranting further investigation to better understand their role as potential mechanisms in the CM-related literature. Given the limited and heterogeneous literature, prioritizing positivity and positive affect¹ may serve as candidate mechanisms explaining the link between CM and mental health.

Prioritizing positivity (PP) is a behavioral tendency in which individuals intentionally structure their daily activities and environments to facilitate the experience of naturally occurring positive emotions (Catalino et al., 2014). For instance, when planning their schedules, individuals who prioritize positivity may choose to end their weekdays by engaging in a favorite hobby or spending time with loved ones. The common denominator of these behaviors is the inclination to pursue happiness in everyday life, despite significant individual variation (e.g., some people enjoy yoga, while others do not). PP has emerged as an alternative to the excessive pursuit of happiness, which tends to have counterproductive effects, leading to fewer positive emotions (Mauss et al., 2011) and more depressive symptoms (Ford et al., 2014). PP entails strategically planning one's day or week to incorporate pleasant activities, while maintaining a balance with responsibilities and daily obligations (Catalino et al., 2014). According to Gross's extended process model of emotion regulation (2015) and Quoidbach et al.'s (2015) application of the model to positive emotions, PP can be considered a positive emotion regulation strategy of situation-selection driven, by a hedonic emotion regulation goal. In simpler terms, individuals who employ PP actively and deliberately select contexts and actions that are likely to give rise to positive emotions, thus upregulating them. Drawing upon the situation selection process as a whole, PP could be considered a future-oriented, proactive strategy that incorporates elements of behavioral activation (i.e., seeking situations that might prove rewarding) (Webb et al., 2018). In line with these claims, one study showed that hedonic motivation (i.e., employing pleasure-seeking motives for

¹ From this point forward, the terms 'positive affect' and 'positive emotions' will be used interchangeably, as positive affect encompasses the experience of positive emotions, with the latter representing a more discrete form of affective experience (Russell et al., 2003).

various activities) indeed predicts PP (Passmore et al., 2018). One plausible link between CM and PP could stem from the reward processing field. A recent meta-analysis revealed that CM is associated with disruptions in reward learning (i.e., the capacity to discriminate situations that predict rewards) and reward valuation processes (i.e., the capacity to estimate the probability and benefits of potential rewards based on prior experience) (Oltean et al., 2022). Thus, individuals with a history of CM might have greater difficulties in employing PP because: (1) they would find it hard to identify and select activities that can elicit positive emotions, and (2) they would struggle with anticipating and valuing the positive emotions that an activity could bring. Another link between these two variables lends support from the executive functioning field. Specifically, CM is associated with executive functioning impairments (e.g., reduced cognitive flexibility and inhibitory control), which might negatively influence the planning and problem-solving processes needed to successfully prioritize positivity in daily life without neglecting other responsibilities (Rahapsari & Levita, 2024).

Previous cross-sectional studies have shown that PP predicts lower depressive symptoms (Catalino et al., 2014; Humphrey et al., 2022; Russo-Netzer, 2019). A similar association was found between PP and neuroticism (Catalino & Boulton, 2021), which is considered a risk factor for psychopathology (Kotov et al., 2010). The relationship between PP and psychopathology remains an underexplored area within the current body of research, necessitating further investigation. Conversely, numerous studies have demonstrated a positive association between PP and life satisfaction among community (Catalino et al., 2014; Russo-Netzer, 2019), student (Datu & King, 2016), and adolescent (Russo-Netzer & Shoshani, 2020) samples.

Positive affect (PA) can be described as the experience of a set of emotional states reflecting pleasant engagement with the environment. PA reflects neither a lack of negative affect (NA) nor the opposite of NA, but is a separate, independent dimension of mood (Watson & Tellegen, 1985). A growing body of evidence suggests that CM increases the risk of experiencing blunted PA in both childhood and adulthood. For instance, a recent meta-analysis revealed that maltreated children exhibit significantly lower levels of PA compared to non-maltreated children (Lavi et al., 2019). In studies focused on adults, CM predicts lower PA in both healthy (Arslan & Yıldırım, 2022) and clinical samples (Etter et al., 2013). This association remains significant across both Western (Somers et al., 2017) and Eastern (Xiang et al., 2021) cultures. Extensive findings indicate that diminished PA is a significant correlate of various forms of psychopathology (for a review see Watson & Naragon-Gainey, 2010). Aggregated evidence from review studies reveals that diminished PA is a robust predictor for both depression and anxiety, even after controlling for baseline values (Khazanov & Ruscio, 2016) and independent of NA (Naragon-Gainey et al., 2018). A similar link has also been found in adolescent samples (for a review see K. E. Gilbert, 2012). This particular PA dysfunction has been associated

with an early onset, increased chronicity, and poorer treatment responses for depressive and anxiety disorders, underscoring its clinical significance (Craske et al., 2024). In contrast, individuals who experience frequent and high PA report greater life satisfaction irrespective of the absence of NA (Cohn et al., 2009). According to the broaden-and-build theory developed by Fredrickson (1998, 2013), PA contributes to life satisfaction by broadening cognitive and behavioral repertoires and building resources for adapting to life's challenges, which in turn makes life more satisfying (Le Nguyen & Fredrickson, 2017). Nevertheless, a recent study has shown that lower PA has a mediating role in the relationship between CM and life satisfaction, suggesting that blunted PA might be an underlying mechanism through which CM hinders one's life satisfaction in adulthood (Xiang et al., 2021). The authors also indicated a chain mediating pathway between CM and life satisfaction, which included emotional intelligence as the first mediator and PA as the second.

Extant research has indicated an association between PP and PA, supporting the claim that higher levels of PP are indeed correlated with increased PA in both community and student samples (Catalino et al., 2014; Datu & King, 2016). Similar associations have also been found in the case of more discrete positive affective experiences (i.e., cheerfulness and gratitude) (Burzynska-Tatjewski et al., 2022; Chiesi et al., 2023). PP is also a correlate of subjective-happiness, measured as global self-evaluations of one's happiness relative to others (Machlah & Zięba, 2021; Russo-Netzer, 2019). This suggests that PP may influence more stable affective factors connected to PA. One study found that PP was associated with a greater increase in PA in older adults than in younger adults (Littman-Ovadia & Russo-Netzer, 2019), bringing more nuance to the relationship between the two variables. Despite this data, there are still significant gaps in the literature that could be addressed. For instance, no studies so far have investigated early life predictors of PP.

Building on the literature presented, the current study aims to (1) investigate the associations between CM, PP, PA, psychopathology symptoms, and life satisfaction, and (2) test the mediating role of PP and PA for associations of CM and two mental health indicators (i.e., psychopathology symptoms and life satisfaction).

Methods

Participants

A total of 268 participants were recruited from the community through announcements posted on various social media platforms (e.g., Facebook, Instagram). Participants ranged in age from 18 to 66 years ($M = 31.9$, $SD = 10.6$), with women representing the majority (88.81%).

Regarding educational attainment, a minority (15.7%) reported their highest level of education as high school or lower, while the remainder held a bachelor's

degree (44%), a master's degree (38.8%), or a doctoral or postdoctoral degree (1.5%). After providing informed consent, participants were asked to complete a sociodemographic form followed by measures assessing the variables of interest. Finally, in return for their involvement, participants were entered into an online drawing for a chance to win a voucher for popular retail stores or an online counseling session.

Instruments

Childhood Trauma Questionnaire-Short Form (CTQ-SF; Bernstein et al., 2003) was used to assess five domains of maltreatment occurring before the age of 18 years (emotional and physical neglect along with emotional, physical, and sexual abuse). This instrument consists of 28 items (rated on a 5-point Likert scale ranging from *1 = never true* to *5 = very often true*) divided across five subscales pertaining to each maltreatment domain. A total CM score was calculated by summing the scores of the five subscales. Examples of items include: "I felt that someone in my family hated me", "People in my family hit me so hard that it left me with bruises or marks", and "I didn't have enough to eat". The scale demonstrated excellent reliability in the present sample (Cronbach's $\alpha = 0.90$).

Prioritizing positivity scale (PPS; Catalino et al., 2014) was utilized to measure the extent to which participants prioritized implementing positive emotional experiences in their daily lives. A recent psychometric study conducted by the author of the scale recommended the use of the revised five-item version of PPS, as one of the items was found to be problematic (low factor loading, conceptually distinct from other items) (Catalino & Boulton, 2021). The revised scale has demonstrated satisfactory reliability, construct validity, and measurement invariance.

Participants rated their agreement on a 9-point scale (*1 = strongly disagree* to *9 = strongly agree*). A sample item in the scale is: "I structure my day to maximize my happiness". A total PP score was calculated by averaging the five items. The scale showed a very good reliability in the present sample (Cronbach's $\alpha = 0.88$).

Positive and Negative Affect Schedule-PA subscale (PANAS-PA; Watson et al., 1988) was used to evaluate PA (e.g., joy, enthusiasm, pride). The PA subscale consists of 10 items rated on a *1 (very slight or not at all)* to *5-point (extremely)* Likert scale. Items are summed up into a total score, where higher scores represent higher PA levels. Participants had to report the PA experienced over the last week. Cronbach's α coefficients indicated good reliability ($\alpha = 0.83$).

Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1992) is a 90-item self-report questionnaire that assesses psychological distress. This instrument consists of nine subscales; however, the present study focused only on the depression (e.g., feeling sad, feeling no interest in things) and anxiety (e.g., being restless,

worrying excessively) subscales. The extent to which each item had distressed participants during the past seven days was rated on a 5-point scale (0 = *not at all* to 4 = *extremely*). A total psychopathology score was computed by averaging the two subscales. This decision was made due to: (1) the high comorbidity between depression and anxiety (Lamers et al., 2011), (2) the aforementioned evidence that demonstrates similar relationships for both disorders and the other variables, and (3) the ability of the scale to capture global psychological distress. Cronbach's alpha coefficients indicated excellent reliability for both subscales, with values of 0.91 for the anxiety subscale and 0.88 for the depression subscale.

Satisfaction with Life Scale (SWLS; Diener et al., 1985) was used to measure overall life satisfaction. The Romanian version was utilized (Stevens et al., 2012), demonstrating satisfactory reliability. The scale consists of five items that reflect cognitive judgment of overall life satisfaction. Participants provided answers to show the extent to which they agree with statements concerning evaluations of their lives, ranging from 1 (*don't agree at all*) to 5 (*very much agree*). Responses were averaged, with higher scores indicating higher levels of life satisfaction. An example item is: "In most ways my life is close to my ideal". Cronbach's alpha coefficient indicated very good reliability ($\alpha = 0.88$).

Data Analysis

All statistical analyses were performed in SPSS. Descriptive statistics were computed for sociodemographic and other variables of interest. We performed Pearson correlations to test the associations between CM, PP, PA, psychopathology symptoms, and life satisfaction. Afterwards, serial mediation models were employed (Hayes, 2017) using bootstrapping procedures (5000 bootstrap samples) in order to test the potential mediating role of PP and PA in the relationship between CM and psychopathology, on one hand, and life satisfaction, on the other.

Results

Pearson Correlations

Significant correlations were observed between all the variables (see Table 1). As expected, CM was negatively correlated with PP, PA, and life satisfaction and positively correlated with psychopathology symptoms. We also found positive associations among PP, PA, and life satisfaction.

Table 2. Correlation matrix

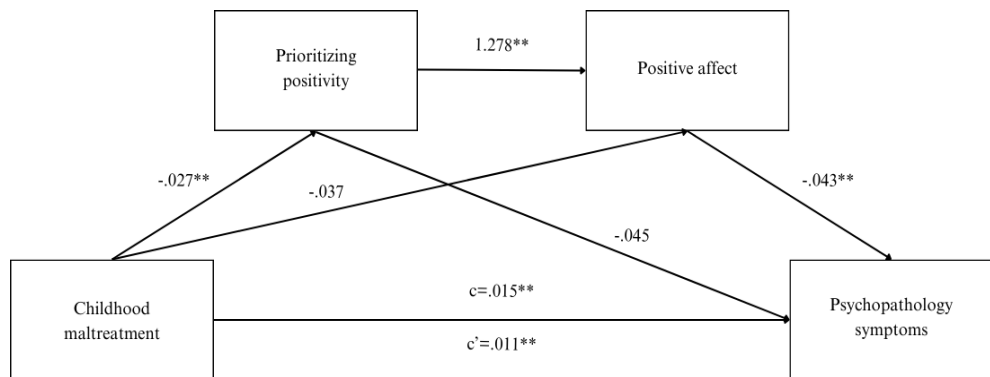
	Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1.	Childhood maltreatment	43.55	16.47	–				
2.	Prioritizing positivity	6.43	1.76	–.253**	–			
3.	Positive affect	35.44	6.55	–.181**	.368**	–		
4.	Psychopathology	1.28	0.81	.301**	–.277**	–.418**	–	
5.	Life satisfaction	24.41	6.88	–.376**	.513**	.500**	–.534**	–

Note. ** $p < .01$.

Mediation Models

The mediation model for the association between CM and psychopathology is presented in **Figure 1** along with the unstandardized regression coefficients for each specific relationship. As shown, CM significantly predicted psychopathology symptoms ($b = .015$, $SE = .003$, 95% CI [.009; .021], $p < .001$) and PP ($b = -.027$, $SE = .006$, 95% CI [–.040; –.015], $p < .001$), but it did not significantly predict PA ($b = -.037$, $SE = .023$, 95% CI [–.083; .009], $p = .112$). When PP and PA were included as mediators, the direct effect of CM on psychopathology remained significant but reduced ($b = .011$, $SE = .003$, 95% CI [.005; .016], $p < .001$), suggesting partial mediation.

Together, CM and both mediators predicted 23.5% of the variance in psychopathology ($F(3,264) = 26.96$, $p < .001$).

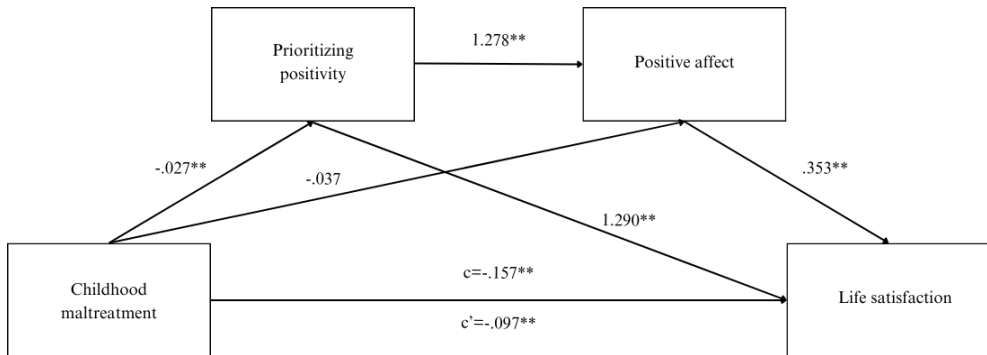


Note. Unstandardized regression coefficients are shown
 ** $p < .01$; c = Total effect; c' = Direct effect

Figure 1. Serial Mediation Model between CM and Psychopathology

Figure 2 presents the mediation model for the association between CM and life satisfaction along with the specific unstandardized regression coefficients. As

shown, CM significantly predicted life satisfaction ($b = -.157$, $SE = .024$, 95% CI $[-.204; -.111]$, $p < .001$) and PP ($b = -.027$, $SE = .006$, 95% CI $[-.040; -.015]$, $p < .001$), but did not significantly predict PA ($b = -.037$, $SE = .023$, 95% CI $[-.083; .009]$, $p = .112$). When PP and PA were included as mediators, the direct effects of CM on life satisfaction remained significant but reduced ($b = -.097$, $SE = .020$, 95% CI $[-.137; -.057]$, $p < .001$), suggesting partial mediation. Together, CM and both mediators accounted for 42.5% of the variance in life satisfaction ($F(3,264) = 65.04$, $p < .001$).



Note. Unstandardized regression coefficients are shown
 ** $p < .01$; c = Total effect; c' = Direct effect

Figure 2. Serial Mediation Model between CM and Life Satisfaction

In terms of indirect effects (see Table 2), the results revealed that PP and PA sequentially mediated the relationships between CM and both psychopathology symptoms and life satisfaction. The total indirect effect was stronger for life satisfaction than for psychopathology, suggesting that these mediators explain a greater portion of the variance in life satisfaction compared to psychopathology symptoms. Amongst the specific pathways, the indirect effect through PP alone was significant for both outcomes, but larger for life satisfaction than for psychopathology. In contrast, PA alone did not significantly mediate either relationship, indicating the role of PP as the preceding mediator in this sequence. Most notably, the serial mediation pathway (CM→PP→PA→mental health outcomes) was significant in both models, yet again stronger for life satisfaction than for psychopathology. In other words, the impact of CM on both outcomes is at least partially explained by its effect on PP, which subsequently influences PA.

Table 2. Summary of indirect effects (IE) in serial mediation models

Pathway	IE	SE	95% BCI ^a	
			<i>Lower</i>	<i>Upper</i>
Total IE^b	.004	.001	.002	.007
CM→PP→Psychopathology	.001	.001	.0001	.003
CM→PA→Psychopathology	.002	.001	-.001	.004
CM→PP→PA→Psychopathology	.001	.001	.001	.003
Total IE	-.060	.017	-.097	-.030
CM→PP→Life satisfaction	-.035	.011	-.061	-.016
CM→PA→Life satisfaction	-.013	.009	-.032	.005
CM→PP→PA→Life satisfaction	-.012	.005	-.024	-.005

Note. ^aBCI = 95% Confidence Interval of the indirect effect derived from 5000 bootstrapped samples; ^bTotal IE = Total indirect effect of the two mediator variables included in each model (PP and PA)

Discussion

The current study investigated the mediating role of PP and PA between CM and two mental health indicators (i.e., psychopathology symptoms and life satisfaction). In line with previous research, we found an association between CM and psychopathology symptoms (i.e., concurrent depressive and anxiety symptoms) (Chen, 2024). Adding to the growing body of evidence, we also found a negative relationship between CM and life satisfaction (Mosley-Johnson et al., 2019). As anticipated, our results showed a significant association between CM and PP. This finding suggests that alterations in the reward system associated with CM may negatively influence the selection of pleasant activities to integrate into daily life and the anticipation of the benefits (i.e., positive emotions) fostered by said activities, thereby potentially hindering the implementation of PP (Novick et al., 2018). Moreover, individuals with a history of CM are more likely to face difficulties in planning and problem solving, thus creating potential challenges for practicing PP (Letkiewicz et al., 2021). The negative correlation between CM and PA aligns with findings suggesting that CM is associated with blunted PA in adulthood (Turiano et al., 2017). Prior research has only linked PP to depressive symptoms (Machlah & Zięba, 2021). Our results indicated a negative relationship between PP and psychological distress due to both depressive and anxiety symptoms, thus adding to the literature. The associations observed between PP, PA, and life satisfaction are consistent with the existing data (Busseri, 2018; Catalino & Boulton, 2021; Littman-Ovadia & Russo-Netzer, 2019). Associations between psychopathology symptoms and life satisfaction are aligned with previous research (Mahmoud et al., 2012).

PP partially mediated the relationship between CM and psychopathology symptoms, as anticipated. The alterations that PP may have undergone as a consequence of CM could potentially contribute to increased susceptibility to

psychopathology. This finding is promising and provides preliminary evidence supporting the mechanistic involvement of PP in the relationship between CM and psychopathology, emphasizing the significance of incorporating positive experiences in daily life as a potential protective factor against psychopathology symptoms. Contrary to our expectations, PA did not mediate the relationship between CM and psychopathology symptoms. One possible explanation is that the attempts to regulate one's positive emotional experiences may have greater explanatory power in understanding the effects of CM on psychopathology, than hyporeactivity to PA. Recent efforts have shown that positive emotion dysregulation mediates the relationship between CM and psychopathology (Goncharenko et al., 2021), mirroring the more extensive research on the emotional regulation of negative emotions (Miu et al., 2022).

Consistent with our expectations, the serial mediation model was supported by the data. More specifically, the effect of PP on psychopathology symptoms as predicted by CM is partially explained by the lower levels of PA. This finding implies that CM may hinder the capacity of PP to upregulate PA, thus increasing vulnerability to mental health issues. There is robust evidence that CM undermines the development of adaptive emotion regulation (Kim & Cicchetti, 2010). Regulatory capacities may be overloaded due to early maltreatment, making it difficult to go through the PP process and consequently attenuating PA (Cloitre et al., 2005).

Blunted PA has long been documented as a risk factor for developing mental health issues, especially depression and anxiety (Stanton et al., 2016). Alternatively, this pattern of results may suggest that individuals with a history of CM might not consider PP a beneficial or feasible way of fostering PA due to reward processing and executive function disruptions. As a result, they would consistently limit their opportunities to experience positive emotions in ecological settings. On one hand, they would not benefit from the *undoing* effect of PA on NA, which could lead to affective symptoms over time (Garland et al., 2010). On the other hand, they would narrow their cognitive and behavioral repertoires which would inhibit building resilience and personal resources (e.g., healthy coping strategies) that could protect against psychopathology (Tugade & Fredrickson, 2004).

Mirroring the results concerning psychopathology symptoms, we found that PP mediated the link between CM and life satisfaction. This result suggests that the alterations in PP also relate to poorer life satisfaction. Reduced access to positive environments throughout the day may leave individuals less satisfied with the current state of their lives, as the basis for their evaluations may be tied mainly to daily struggles or a lack of meaningful experiences. Similar to the previous model, PA was not a significant mediator for this relationship. It is possible that the implementation of positive emotion regulation strategies would better predict life satisfaction in the context of early life exposure to maltreatment than blunted PA. Recent studies have shown that mindfulness and self-compassion, which some scholars consider emotion

regulation strategies, mediate the relationship between CM and well-being (Julian et al., 2025).

According to our expectations, the data offers support for the proposed serial mediation model involving PP and PA as mediators between CM and life satisfaction. Thus, the pathway between low PP and low PA may partially explain the relationship between CM and life satisfaction. This finding adds an important contribution, suggesting that the potential disruption of the regulatory capacity of PP to enhance PA could have a detrimental effect on life satisfaction beyond psychopathology symptoms. Drawing upon the broaden-and-build theory, diminished PA resulting from insufficient prioritization of positive experiences on a daily basis may hamper the positive resource-building processes known to generate and maintain life satisfaction (Fredrickson & Joiner, 2002). This suggests that individuals exposed to CM are particularly disadvantaged when it comes to benefiting from these positive cascading effects. In addition, positive affective experience is a relevant indicator of people's satisfaction with life, as posited by affect-as-information theory (Clore et al., 2001). Thus, if positive experiences are not prioritized, resulting in less or infrequent PA, individuals would lack positive input in regard to their life satisfaction. Indirectly, less prioritization of positive experiences could imply more negative or unfulfilling experiences that may not necessarily lead to psychopathology symptoms, but that may diminish PA and, in turn, life satisfaction. This coincides with one of the fundamental principles of positive psychology, which posits that the mere absence of psychopathology does not inherently equate to the presence of well-being (Seligman, 2008). Finally, it is noteworthy that the mediation effects were stronger for life satisfaction compared to psychopathology symptoms, making PP a greater predictor for the former. This aligns with previous studies that revealed weaker associations between PP and psychopathology symptoms than between PP and life satisfaction (Catalino et al., 2014).

Limitations and future directions

Despite the novel findings and explorative endeavor of this study, several limitations should be taken into consideration. First, this study utilized a cross-sectional design which precludes the establishment of causal relationships and temporal precedence. For example, prior research has suggested the existence of a reciprocal relationship between PP and PA (Datu & King, 2016). Future studies could test these reciprocal links in relation to early life predictors, such as childhood adversities or benevolent childhood experiences (Narayan et al., 2018).

Moreover, by employing more sophisticated and complex designs, future research may facilitate a more comprehensive understanding of the relationships among CM, PP, PA, and mental health. Second, we relied on a convenience sampling

procedure, which restricted the sociodemographic diversity of our sample. Specifically, our sample predominantly comprised young, highly educated women. Previous research has indicated that individual factors such as age, gender, culture, and educational status can influence both psychopathology symptoms and life satisfaction (Diener et al., 2018; Levin-Aspenson & Watson, 2018). Therefore, future studies should aim to replicate our findings in more diverse populations to enhance generalizability.

Third, the current study did not include an a priori power analysis and sample size estimation for the serial mediation models tested. Given that the observed indirect effects were small, the statistical power to detect these effects may have been limited. Prior research suggests that detecting small indirect effects, particularly in complex models involving multiple mediators, often requires larger sample sizes than are commonly reported in psychological mediation studies (Fritz & MacKinnon, 2007; Sim et al., 2022). Additionally, simulation-based approaches for sample size and power estimation emphasize the importance of aligning power analysis with the structure of the statistical model and the expected effect sizes. These methods enable researchers to estimate the sample size needed to achieve sufficient power by accounting for factors such as multiple model parameters, missing data, and the complexity of mediation designs (Schoemann et al., 2017). Although the use of bootstrapping enhances the accuracy of indirect effect estimates in smaller samples (Fritz & MacKinnon, 2007), the absence of a priori sample size and power planning warrants cautious interpretation of the current findings. Future research should adopt simulation-based methods (e.g., Monte Carlo simulations) to determine appropriate sample sizes that can provide adequate statistical power for detecting indirect effects in sequential mediation models (X. Liu & Wang, 2019; Muthén & Muthén, 2002; Thoemmes et al., 2010). Finally, we used self-report measures exclusively, which are subject to biases, such as recall inaccuracies or social desirability (e.g., Thabrew et al., 2011).

Conclusion

In spite of these limitations, this study presents several meaningful contributions. To our knowledge, this is the first study to investigate the association between CM and PP. Furthermore, this study provides preliminary evidence that PP may have a mechanistic role in explaining the relationship between CM and both psychopathology and life satisfaction. Additionally, our findings offer preliminary support for the relationship between PP and PA as an underlying mechanism between CM and both mental health indicators. Thus, our study supports the protective role of PP in adults with a history of CM, while also highlighting its function as a positive emotion regulation strategy. Moreover, our findings add to the

limited research exploring the potential mental health benefits of situation selection-focused emotion regulation strategies (Webb et al., 2018). The current study may also have practical implications, paving the way for future endeavors to test PP as an upregulating strategy for PA, and thus potentially add to the existing interventions that target PA (Craske et al., 2019).

Authors' Notes

Maria Stoia: <https://orcid.org/0000-0001-5774-0876>

Lia-Ecaterina Oltean: <https://orcid.org/0000-0003-0815-5528>

Aurora Szentágotai-Tătar: <https://orcid.org/0000-0002-2934-4267>

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