

**Self-compassion Moderates the Mediating Effect of Self-criticism in the Link
Between Childhood Maltreatment and Psychopathology**

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Abstract

Childhood maltreatment (CM) has been associated with psychological symptoms (i.e., psychopathology) among clinical and nonclinical samples. The mechanisms underlying this link have been under studied, especially among well-functioning adults. Arguably, exposure to CM may be translated into negative and critical self-appraisals and self-blame, reflected in high self-criticism. CM may also result in difficulty in extending kindness towards oneself, i.e., low self-compassion. These characteristics are linked with elevated psychopathology. Nevertheless, no study has yet tested the extent to which self-criticism and self-compassion may serve as independent mechanisms linking CM and psychopathology and whether in this context self-compassion buffers the link between self-criticism and psychopathology. Here we tested an integrative model in which the relation between CM and psychopathology was mediated by self-compassion and self-criticism, and the path between self-criticism and psychopathology was moderated by self-compassion. A convenience sample of 914 individuals completed online self-report questionnaires. Results indicated that CM was related to psychopathology through the mediation of self-compassion and self-criticism, with a significant interaction between self-criticism and self-compassion. Showing a moderated-mediational effect, the link between self-criticism and psychopathology was weaker under high than under low levels of self-compassion. Our findings highlight the importance of self-compassion, a robust resilience factor related to reduced psychopathology and moderating the link between self-criticism, a potent transdiagnostic risk factor, and psychopathology in the context of CM. These results thus provide empirical evidence for the relevance of compassion and mindfulness in counseling settings, particularly with CM survivors, who are at greater risk for psychopathology.

Keywords: childhood maltreatment, psychopathology, self-criticism, self-compassion, resilience.

Self-compassion Moderates the Mediating Effect of Self-criticism in the Link Between Childhood Maltreatment and Psychopathology

Promising efforts to decipher the mechanism underlying psychological symptoms (i.e., psychopathology) have emphasized the key role of transdiagnostic risk factors associated with the emergence of mental health disorders (e.g., Nolen-Hoeksema & Watkins, 2011). Given their focus on fundamental processes underlying multiple disorders, transdiagnostic models may contribute not only to the understanding of disorders and the comorbidity among them, but they may also facilitate more effective assessments and treatments for psychopathology. Accordingly, there is a need to distinguish between distal and proximal transdiagnostical risk factors and thereby to specify the mechanisms linking distal transdiagnostic factors to the disorders they predict via proximal factors (i.e., mediators). Potential mechanisms buffering (i.e., moderating) the effects of proximal risk factors must also be identified (Nolen-Hoeksema & Watkins, 2011).

Childhood maltreatment (CM) is one of the most recognized risk factors for psychopathology (Jaffee, 2017). However, for CM to be of theoretically and practically relevant as a transdiagnostic (distal) factor, it is important to understand how a history of CM could be linked to a variety of disorders and to identify potential mediators (Nolen-Hoeksema & Watkins, 2011). Little is known about how the specific characteristics of CM influence subsequent outcomes, leaving ample room for research to identify the potential risk factors for psychopathology, especially among well-functioning adults (Dunn et al., 2018). There is also an urgent need to identify potential protective factors (Dunn et al., 2018).

The current study therefore aims to shed light on the psychological mechanisms underlying the impact of CM on psychopathology, focusing on risk and resilience factors. We examine the potential role of self-criticism in the relationship between CM and psychopathology. Self-criticism is a transdiagnostic personality vulnerability risk factor for

diverse poor mental health outcomes (for review see: Werner et al., 2019). We also focus on the mediating role of self-compassion, a robust resilience factor for psychopathology (for review see: MacBeth & Gumley, 2012), as well as on the potentially protective role of self-compassion as a moderator of the association between self-criticism and psychopathology.

Childhood maltreatment and psychopathology

CM includes child sexual, physical, and emotional abuse, as well as child physical and emotional neglect. It is highly prevalent in both clinical and nonclinical samples, including well-functioning individuals (Finkelhor et al., 2005; Gilbert et al., 2009; Lev-Wiesel et al., 2018) and is among the common problems encountered by clinicians. The global plethora of mass-media reports, studies, and surveys has led to the recognition that CM constitutes a major public health and social welfare problem (Gilbert et al., 2009).

Extensive theoretical and empirical studies have consistently revealed the negative consequences of CM – a toxic relational environment that poses significant risks for maladaptation in biological and psychological development (Cicchetti, 2016). Adults who had been exposed to CM are at risk for a range of poor mental health outcomes, including posttraumatic stress disorder, internalizing and externalizing psychopathology, psychotic symptoms, personality disorders, and physical and sexual problems (e.g., Jaffee, 2017; MacMillan et al., 2001).

The mediating role of self-criticism

To further elucidate the well established association between CM and psychopathology, we focused on *self-criticism* as a key transdiagnostic risk factor. Self-criticism is a personality dimension implicated in vulnerability for a wide variety of disorders and psychological difficulties and has been identified as one of the most central transdiagnostic risk factors for psychopathology (Luyten & Blatt, 2011; Shahar, 2015; Werner et al., 2019). Self-criticism is characterized by high personal standards and a

tendency to adopt a punitive stance toward the self when these standards are not met, followed by negative self-evaluation, low self-worth, guilt, and self-blame (Blatt et al., 1976; Shahar, 2015). Self-criticizers are also vulnerable to criticism from others and worry about disappointing and losing their acceptance (Shahar, 2015). Attempting to cope with negative affect, they tend to overemphasize achievement and autonomy at the expense of interpersonal relatedness and are inclined to let their social support network “degenerate” (Luyten & Blatt, 2011, 2013).

Self-criticism has been identified as a key vulnerability factor in numerous psychopathologies, including depression, anxiety, eating, personality, and somatoform disorders, and suicidality, mainly through its influences on relationships (Shahar, 2015). Mounting evidence show that self-criticism not only increases the risk for psychopathology, but is also associated with adverse psychosocial outcomes (Shahar, 2015; Werner et al., 2019) and disrupts individuals’ reactions to evidence-based psychotherapy for a range of disorders (Löw et al., 2020).

Self-criticism plays a mediating role in the link between CM and psychopathology. Whether due to the internalization of negative views of the self and others or due to the child’s attempt to understand the abusive behavior (Sachs-Ericsson et al., 2006; Soffer et al., 2008) or to the stigmatization dynamic (Finkelhor & Browne, 1985), CM is associated with a tendency to direct massive criticism toward the self. In adulthood, CM may lead to a compensatory strategy aimed at promoting self-worth, thus contributing to elevated self-criticism (Lassri & Shahar, 2012; Sachs-Ericsson et al., 2006). High self-criticism, in turn, is linked to emotional and interpersonal difficulties and adult psychopathology throughout life (Dunkley et al., 2010; Glassman et al., 2007; Lassri et al., 2018; Sachs-Ericsson et al., 2006; Soffer et al., 2008). It has been argued that the subjective sense of control that self-criticism brings is emotionally preferable to the unbearable feelings related to CM (Lassri et al., 2018;

Lassri & Shahar, 2012). The little research in this field mostly focuses on the mediating role of self-criticism in the association between childhood emotional maltreatment and psychopathology.

The mediating role of self-compassion

Self-compassion involves treating oneself with kindness, care, and concern while facing personal failures, inadequacies, and painful life events, thereby experiencing a healthy attitude and relationship with oneself (Neff, 2003b). It includes three interacting components, each with a positive and negative pole: self-kindness versus self-judgment, a sense of common humanity versus isolation, and mindfulness versus over-identification. Self-kindness addresses one's tendency to be caring and accepting towards the self, as opposed to being harsh and judgmental. Humanity includes recognizing the imperfection embodied within being a human being and accepting that all individuals make mistakes and need to deal with challenging life circumstances, in a way that is contributing to feelings of connectedness, as opposed to isolation. Mindfulness pertains to being aware of one's painful experiences in a balanced way, namely, without ignoring or avoiding painful thoughts and emotions, but not identifying with and exaggerating them (Warren et al., 2016).

Self-compassion has been identified as a resilience factor, a meta-analysis finding a strong inverse relationship between self-compassion and psychopathology (MacBeth & Gumley, 2012; Zessin et al., 2015). It is thus a valuable therapeutic target. The association between self-compassion and reduced psychopathology provides empirical evidence for the importance of self-compassion for developing wellbeing, reducing psychological symptoms, and bettering treatment outcomes.

Self-compassion has been negatively associated with a history of CM (Tanaka et al., 2011). Also, self-compassion mediates the link between childhood emotional abuse and alcohol problems (Miron et al., 2014) and depressive symptoms (Wu et al., 2018). These

findings suggest that CM is associated with a reduced likelihood of acquiring and using self-compassion as an adaptive resource for coping with distress. However, very few studies have addressed the potential mediating role of self-compassion in the association between CM and psychopathology.

The interplay between self-criticism and self-compassion

Self-compassion shows a significant protective role against psychopathology, even while controlling for self-criticism and negative affect (Ehret et al., 2015; Neff et al., 2007). Lower self-compassion and higher self-criticism were found among currently and remitted depressed individuals than in controls who never experienced depression, with both aspects being independently related to depression above and beyond additional potential risk factors (Ehret et al., 2015). Self-compassion is therefore not merely the absence of self-criticism, nor the lack of psychological symptoms (Joeng & Turner, 2015; Werner et al., 2019). It includes the ability to generate positive mind states, feeling connected to others, and to be mindful regarding negative thoughts and emotions, with a lowered tendency to either ruminate or suppress them, and it is highly associated with optimism and happiness (Neff, 2003b; Neff et al., 2007; Warren et al., 2016). Consistently, among firefighters the relation between self-criticism and depression was moderated by enhanced levels of self-compassion but only among those who have experienced multiple traumatic events (Kaurin et al., 2018).

The current study

The current study aimed to expand our understanding of the psychological mechanisms underlying the association between CM and psychopathology, focusing on risk and resilience factors. Gilbert and Procter (2006) argued that exposure to dysfunctional environments, especially CM, may be translated into negative and critical self-appraisals coupled with increased difficulty in extending kindness and understanding towards oneself. These, in turn, are associated with greater psychopathology. Yet, no study thus far has tested

both self-criticism and self-compassion as independent mediators in the association between CM and psychopathology, especially among a nonclinical sample. Also, while self-compassion may have a moderating effect on the negative association between self-criticism and psychopathology, especially in the context of traumatic events (Kaurin et al., 2018), the protective role of self-compassion in the unique association between CM and psychopathology has yet to be tested using an integrative moderated-mediation model.

The goals of the current study are: (a) to examine the mediating role of both high self-criticism and low self-compassion in the association between CM and psychopathology, among a nonclinical sample and (b) to test whether the indirect association between CM and psychopathology via self-criticism is moderated by self-compassion, given that self-compassion may buffer the psychological processes that risk developing into psychopathology. We constructed a conceptual moderated-mediation model to address both mediation and moderation effects simultaneously (Figure 1). The following hypotheses were proposed:

Hypothesis 1: self-criticism and self-compassion mediate the association between CM and psychopathology.

Hypothesis 2: the mediational effect of self-criticism is moderated by self-compassion, i.e., self-compassion moderates the indirect association between CM and psychopathology via self-criticism, such that among individuals with high self-compassion the self-criticism → psychopathology pathway is weaker than the pathway among individuals with low self-compassion.

Materials and Methods

Participants and Procedure

A convenience sample of 914 individuals participated in this study. The sample was drawn from a larger project focusing on the impact of COVID-19 on individuals' well-being.

Participants were sought by an online survey conducted in Israel between May 2020 to August 2020 via social media (i.e., Facebook, WhatsApp) and a snowball technique. General inclusion criterion for the study was being above 18 years old. The survey was accessible through Qualtrics, a secured web-based survey data collection system. Clicking on the link to the anonymous survey guided potential respondents to a page that provided information about the study and a consent form. At the end of the survey, a list of online resources and telephone hotlines for mental health issue, and the researcher's contact information was provided. Each participant was given the opportunity to take part in a raffle that included 20 \$30 gift vouchers. The [masked for review] Ethical Review Board approved all procedures and instruments. Of the total 914 participants ($M_{(age)} = 31.24$, $SD_{(age)} = 10.17$), 88.4% identified as women, 9.85% as men, 0.8% as other, and 1% skipped this question. More than half the sample earned above average: 24.6% a lot above average, 26.5 slightly above average, 23.5% average, 19.6% slightly below average, 4.3% well below average, and 1.5% no answer. The majority of the sample had an academic degree (70.7%), 22.2% had a high school diploma, 5.4% with vocational studies, 0.7% did not complete high school, and 1.1% did not answer. The large majority of the sample reported having a very good (55.3%), excellent (30.4%), and good (10.5%) health, with 2.3% having fair and 0.5% having poor health, and 1% no answer. More than half (69.5%) reported being in a romantic relationship, 25.6% as single, 1.4% divorced, 1.3% separated, 0.7% widowed, 0.5% other, and 1% did not answer. Most participants (68.6%) did not have children, 29.9% had children, and 1.5% no answer. The majority of the sample defined themselves as Jewish (94.1%), 3.8% with no religion, 1% as other (Christian, Muslim, Druze), and 1.1% did not answer. Most participants reported they were non-religious/secular (67.9%), 15.8% religious, 9.1% traditional, 5.8% other, 0.4% Ultra-Orthodox, and 1.1% did not answer.

Measures

Childhood maltreatment was assessed by the Childhood Trauma Questionnaire (CTQ; Bernstein et al., 1994). This is a 28-item retrospective self-report questionnaire. Individuals are asked to indicate on a 5-point Likert scale how often (1=never, 5=frequently) they experienced certain events as children/adolescents. These items yield five different subscales of childhood trauma: emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. The CTQ is valid for use in clinical and nonclinical populations and has a high internal consistency and test-retest reliability, as well as a strong convergence with the Childhood Trauma Interview, demonstrating that reports of CM based on the CTQ were highly stable over time and across types of measurements (Bernstein et al., 1994). Here we used a mean score of all subscales to create a CM scale. To test whether the CTQ CM mean score was suitable zero-ordered correlations between all CTQ subscales were calculated and a Second-order Confirmatory Factor Analysis (CFA) used to validate the factor structure of CM, yielding from all CTQ-five subscales, using the JASP (Version 0.14.1). As previously reported (Kline, 2015), Bentler-Bonett Normed Fit Index (NFI) and Comparative Fit Index (CFI) $\geq .90$ and standardized root mean square residual (SRMR) $\leq .08$ were considered an indication of acceptable fit. All the correlations between the CTQ subscales were statistically significant ($p < .000$) and ranged between $r = .31$ to $r = .69$. A Second-order CFA showed that using the total CM score yielded an acceptable fit between the model and the data: $\chi^2 = 1458.299$, $df = 270$, $p < .001$; CFI = 0.9; NFI = 0.9 and SRMR = 0.07, supporting our choice of using the CM mean score, by averaging all subscales. In this sample $\alpha = .92$.

Psychopathology was assessed using the short version of the Brief Symptom Inventory (Derogatis & Fitzpatrick, 2004), an 18-item scale used to assess the experience of psychological symptoms. Individuals are asked to indicate on a 5-point Likert scale how often (0 = *not at all* to 4 = *frequently*) they have experienced a symptom within the past month. These items yield three subscales of psychological distress - depression, anxiety, and

somatization - as well as a global BSI scale computed by averaging all 18 items. Higher global BSI scores indicate elevated levels of psychopathology. The BSI-18 exhibited very good reliability and validity for the assessment of psychological distress (Franke et al., 2017). Here we used the BSI psychopathology scale, with $\alpha = .92$.

Self-criticism was assessed using the DEQ-SC6, a validated six-item measure of self-criticism (for details: Rudich et al., 2008). This is based on the self-criticism subscale drawn from the original 66-item scale of the Depressive Experiences Questionnaire (DEQ; Blatt et al., 1976), a self-report measurement designed to assess self-criticism, dependency, and self-efficacy. Individuals are asked to indicate, on a 7-point Likert scale, the extent to which they agree (0 = *completely disagree*, 7 = *completely agree*) with each of the 66 items. Higher DEQ-SC6 scores indicate higher levels of self-criticism. In this sample, Cronbach's $\alpha = .87$.

Self-compassion was assessed using the Self-Compassion Scale–Short Form (SCS–SF), a 12-item self-report questionnaire which assesses trait levels of self-compassion (Neff, 2003a) and includes questions on all components of self-compassion as identified by Neff (Neff, 2003b): self-kindness, self-judgement, common humanity, isolation, mindfulness, and over-identification. The SCS-SF is based on the original 24-item Self-Compassion and has good psychometric properties (Neff, 2003a). The SCS-SF items are each rated on a five-point Likert scale (1 = *almost never*, 5 = *almost always*). Negatively worded items are mirrored to allow computing a total self-compassion score. Higher SCS-SF scores indicate higher levels of self-compassion. In this sample, Cronbach's $\alpha = .87$.

Analytical strategy

Missing data analysis indicated that, across variables, 1% to 30% of values were missing. Little's Missing Completely at Random (MCAR) test (Collins et al., 2001) revealed that data were missing completely at random, $\chi^2(103) = 123.820$, $p = 0.079$. Hence, missing data were replaced with maximum likelihood (ML) estimations based on all variables in the

model via Statistical Package for Social Science (SPSS) 27. Next, a series of zero-order correlations between the study variables were calculated. Then, the mediation and moderation effects were tested simultaneously in the moderated-mediation model presented in Figure 1. We used the PROCESS macro in IBM SPSS (Hayes, 2012), which calculates regression analyses, to test mediation by self-compassion and moderation-mediation by self-criticism buffered by self-compassion in the association between CM and psychopathology (hypotheses 1 and 2). For the mediational hypothesis, this macro assessed the magnitude of the indirect effect of the predictor on the outcome through the mediator. For the moderation hypothesis we also included an interaction term (self-criticism x self-compassion) in the regression analyses. To test for the significance of the indirect effects and the significance of the moderated-mediation effect we followed Hayes' (2015; 2017) recommendation and calculated 5,000 bootstrapped samples to estimate the 95 percent bias-corrected and accelerated confidence intervals (CI) of the indirect effects. Bootstrapping generates an estimate of all possible direct and indirect effects through the mediating variables, including a 95 % CI. When zero is not in the 95% CI, one can conclude that the indirect effect is significantly different from zero at $p < .05$ (two-tailed). Similarly, evidence of moderated-mediation is confirmed when the 95% bias-corrected bootstrap CI for the index of moderated-mediation does not contain zero (Hayes, 2015). As suggested by Hayes (2015) 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 into conditional effects at three values of self-compassion, a standard deviation above the mean, the mean, and a standard deviation below the mean. This allowed assessing whether the association between self-criticism and psychopathology was altered at different levels of self-compassion. Last, the variance inflation factor (VIF) index and tolerance scores were used as indicators for bias by multicollinearity (tolerance < 0.2 and VIF > 10 were considered an

indication for multicollinearity).

PROCESS provides ordinary least squares regression-based path analysis similar to structural equation modeling (SEM) but allows additional useful statistics and safeguards against irregular sampling distributions (Hayes et al., 2017). This regression-based approach is considered the most powerful test across other mediation conditions (Hayes et al., 2017), requiring a minimum of 78 participants (Fritz & Mackinnon, 2007). Because moderation effects tend to be small (Aguinis et al., 2005), a minimum of 158 participants is required to achieve sufficient power (80 percent) to detect a small effect at $\alpha = 0.05$, as determined based on the use of G*Power software (Faul et al., 2007). With the study sample size $N = 914$ the research design had more than sufficient power.

Results

Preliminary analysis

Table 1 provides means, standard deviations and Pearson correlations of the study variables. All variables were significantly associated with each other. The correlations provided initial support for the mediation hypotheses; CM was positively associated with psychopathology and self-criticism and negatively associated with self-compassion. Psychopathology was positively associated with self-criticism and negatively associated with self-compassion. VIF and tolerance indices showed that the regression analyses did not meet criteria for multicollinearity and were thus not biased by multicollinearity (VIF scores were: 1.081 and .93 tolerance, 2.211 and .45 tolerance, 2.220 and .45 tolerance for CM, self-criticism, and self-compassion, respectively).

Mediation and moderated-mediation analyses

Figure 2 and Table 2 present the results of the research model, testing mediation by self-criticism and self-compassion in the association between CM and psychopathology. It also shows the moderated-mediation effect of self-criticism in predicting psychopathology at

different levels of self-compassion. All were tested simultaneously using PROCESS. As hypothesized, the total effects model (X-Y, c path) showed that CM was significantly positively associated with psychopathology, with a significant unstandardized regression coefficient ($B = .104$, $SE = .009$, $t = 11.46$, $p < .000$, $CI: .087, .124$); that is, participants reporting higher levels of CM also reported elevated levels of general psychopathology.

Fitting with the research hypotheses, we observed two significant indirect effects. First, the association between CM and psychopathology was mediated by self-criticism (mediation effect = .026; $CI: .017, .035$). Thus, as seen in Figure 2 and Table 2, CM was significantly associated with elevated self-criticism, which in turn, was positively associated with psychopathology. Second, an indirect association between CM was found via self-compassion (mediation effect = .016, 95% $CI: .009, .023$): CM was negatively associated with self-compassion, which in turn, was negatively associated with psychopathology.

Table 2 also shows that the two-way interaction between self-criticism and self-compassion predicting psychopathology was statistically significant. This interaction is shown in Figure 3, which was generated using the Plot option in the PROCESS program. Table 3 also gives the results of probing process this interaction, showing that the association between self-criticism and psychopathology was mitigated by self-compassion (i.e., significantly weaker at high versus low self-compassion). As shown in Table 2, the mediation effect of CM → self-criticism → psychopathology was significantly weaker under high levels of self-compassion. The indirect effect of self-criticism on psychopathology (path b1, the second stage of the mediation: self-criticism → psychopathology path) was significantly weaker when the level of self-compassion was 1 SD above the mean than when the level of self-compassion was 1 SD below the mean. The index of moderated-mediation was significant (Index = -.009, BootSE = .003, BootCI: -.015, -.004).

Sensitivity tests: this model was confirmed while also controlling for age, gender,

relationship status, education (years), and levels of COVID-19 related distress (the data were collected during COVID-19 pandemic) as covariates. Although age was significantly negatively associated with psychopathology ($B = -.010$, $SE = .002$, $t = -5.42$, $p < .000$; CI: $-.014$, $-.007$) and COVID-19 related distress was positively associated with psychopathology ($B = .33$, $SE = .024$, $t = 13.56$, $p < .000$; CI: $.281$, $.376$), the pattern of the research findings remained the same. This moderated-mediation model was also tested for each of the specific types of maltreatment (namely, the independent variable in each analysis was one of the five types of maltreatment: emotional abuse, physical abuse, sexual abuse, physical neglect, and emotion neglect), and the pattern of the research findings remained the same.

Lastly, in order to confirm our second hypothesis, suggesting that self-compassion moderates only the specific path between self-criticism and psychopathology, we have also tested a moderated-mediation model testing whether self-compassion moderates all three pathways in the mediation model, namely, path a1 (childhood maltreatment \rightarrow self-criticism), path b1 (self-criticism \rightarrow psychopathology)—our initial hypothesis, and path c (maltreatment \rightarrow psychopathology), simultaneously, using PROCESS-v3-Model 59 (Hayes, 2017). Findings showed that the two-way interaction between childhood maltreatment and self-compassion in predicting self-criticism (path a1) was non-significant ($B = .0097$, $SE = .0167$, $t = .582$, $p = .561$, CI: $-.023$, $.042$). Also, the two-way interaction between childhood maltreatment and self-compassion in predicting psychopathology (path c) was non-significant ($B = -.0027$, $SE = .0115$, $t = -.231$, $p = .817$, CI: $-.025$, $.020$). Only the two-way interaction between self-criticism and self-compassion in predicting psychopathology (path b1) was significant ($B = -.065$, $SE = .0196$, $t = -3.31$, $p = .001$, CI: $-.1035$, $-.026$). Accordingly, we could not find empirical support in our data for the moderating effect of self-compassion in the association between child maltreatment and self-criticism, nor for the moderating effect of self-compassion in the link between child maltreatment and self-psychopathology. Thus,

once again, the pattern of the research findings remained the same.

Discussion

There is an urgent need to explore how the specific characteristics of CM are associated with subsequent outcomes such as psychopathology (Dunkley et al., 2010). Recent work in personality and psychopathology has emphasized the role of transdiagnostic risk factors in the development of psychopathology (Nolen-Hoeksema & Watkins, 2011). We therefore tested a mediation model focusing on personality risk and resilience aspects as manifested by self-criticism and self-compassion. We found that CM was indirectly associated with psychopathology (depression, anxiety, and somatization) via self-criticism and self-compassion and the association between self-criticism and psychopathology was moderated by levels of self-compassion. To the best of our knowledge, this is the first study using an integrative model to demonstrate the mediating role of both self-criticism and self-compassion in the link between CM and psychopathology. It is also the first to show that the indirect path leading from self-criticism to psychopathology is moderated by levels of self-compassion. These findings are consistent with previous studies attesting to magnitude of CM as a key transdiagnostic risk factor for psychopathology in adulthood, associated with diverse self-reported psychopathological symptoms (e.g., Jaffee, 2017; MacMillan et al., 2001; Nolen-Hoeksema & Watkins, 2011). The current study has specifically demonstrated this relation in the unique context of a nonclinical sample that included mostly healthy, highly educated, and well-functioning individuals, a relatively understudied group in the literature of CM.

Findings support our first hypothesis on the mediating role of both self-criticism and self-compassion in the association between CM and psychopathology. CM was associated with higher levels of self-criticism that were, in turn, associated with elevated levels of psychopathology. At the same time, CM was associated with lower self-compassion that was,

in turn, negatively associated with psychopathology. Both self-criticism and self-compassion served as independent mediators contributing to the link between CM and psychopathology. This finding agrees with studies pointing to the importance of self-criticism as a robust risk factor for psychopathology (e.g., Luyten & Blatt, 2011; Shahar, 2015; Werner et al., 2019), as well as a potentially significant mediator in the association between CM and adult psychopathology (Dunkley et al., 2010; Glassman et al., 2007; Sachs-Ericsson et al., 2006; Soffer et al., 2008). A history of CM is associated with a tendency to direct intense feelings of shame and criticism toward the self in the attempt to deal with negative affect related to personal and interpersonal distress, a process that conceivably promotes psychopathology.

This finding is also consistent with previous studies demonstrating the negative association between self-compassion and psychopathology (e.g., MacBeth & Gumley, 2012; Zessin et al., 2015) and the importance of self-compassion in the relation between CM and psychopathology (Miron et al., 2014; Wu et al., 2018). That is, CM appears to be associated with a reduced likelihood of achieving and using self-compassion as an adaptive resource for coping with distress, and this, in turn, may be associated with psychopathology.

While high self-criticism and low self-compassion were previously demonstrated as independent aspects explaining risk for depression (Ehret et al., 2015), the current study examined their role in the unique context of history of CM, showing that despite a strong correlation between both variables, each has a unique contribution to the relationship between CM and psychopathology in adulthood. This finding fits the notion that exposure to toxic relational environments, particularly CM, may be translated into negative and critical self-appraisals, as well as to less reliance and perhaps an inability to extend kindness and understanding towards oneself. These are associated with higher psychopathology (Gilbert & Procter, 2006; Warren et al., 2016).

Self-criticism involves a punitive self-stance when personal standards are not met,

followed by self-scrutiny and blame (Blatt et al., 1976). In contrast, self-compassion involves treating oneself with kindness, thus experiencing a healthy attitude and relationship with oneself (Neff, 2003b), allowing warmth and unconditional acceptance rather than attacking and judging oneself for personal inadequacies. A central aspect of self-compassion may be lack of self-criticism. However, as discussed by (Neff et al., 2007; Werner et al., 2019) and demonstrated here, the mediating role of self-compassion in the CM-psychopathology link was significant even while controlling for self-criticism. Thus, rather than being the absence of self-criticism, self-compassion includes aspects of resiliency translated into the ability to generate positive mind states, optimism, and happiness (Neff, 2003b; Neff et al., 2007; Warren et al., 2016).

Our findings also supported the second hypothesis that self-compassion moderates the deleterious relationship between self-criticism and psychopathology. A significant interaction between self-criticism and self-compassion in predicting psychopathology showed that self-compassion mitigates (i.e., lessens) this link. We thus demonstrated the moderating effect of self-compassion on self-criticism in predicting psychopathology. Self-critical individuals are vulnerable to direct shame and criticism toward the self while facing negative emotions related to challenging life events or confronting personal failures and flaws. They also tend to believe that others cannot be trusted (Fonagy et al., 2015) and thus overemphasize achievement and autonomy at the expense of interpersonal relatedness (Luyten & Blatt, 2013). In contrast, individuals with high levels of self-compassion react with kindness and rely on a non-judgmental attitude towards themselves. They accept that imperfection is basic to shared human experience (Warren et al., 2016). When in stress or pain, being aware that imperfection is part of life contributes to feelings of connectedness, as opposed to the feelings of isolation and low social support found among highly critical individuals (Warren et al., 2016). In order to achieve self-compassion, individuals must be mindful and able to turn

inward, acknowledge, and accept their pain. Self-compassion may promote psychological and behavioral flexibility that is meaningful for a successful adaptation to stress, as it allows a mindful, nonjudgmental acknowledgment of one's distress (Neff et al., 2007).

We argue that individuals, who encounter their affective responses to personal and interpersonal distress with greater self-compassion, show lower levels of psychopathology as self-compassion moderates psychological processes that form a risk of developing psychopathology. This includes the personality vulnerability implicated in the process embodied within self-criticism. Thus, in the context of CM, while self-critical individuals become their own “abuser”, so to speak, and negatively impact their emotional wellbeing (Lassri et al., 2016), the existence of self-compassion allows a kinder and more nurturing stance (Warren et al., 2016). It has been suggested that by embracing one's suffering with compassion, negative states are bettered and positive emotions of kindness, connectedness, and mindful presence are generated (Warren et al., 2016), thereby weakening the self-critical stance and acting as an “antidote” to self-criticism (Gilbert & Procter, 2006). This is consistent with studies showing that self-compassion may help reduce maladaptive behaviors including excessive rumination, emotional suppression, self-criticism, and thereby decreasing psychopathology (Ehret et al., 2015; Kaurin et al., 2018; Neff et al., 2007).

Limitations

The results here should be considered in light of several methodological limitations. First, although all study variables were assessed via well validated and widely used questionnaires, it is possible that they represent self-perceptions and conscious subjective processes. Second, while previous research has attested to the accuracy and reliability of recall among victims of CM (Barnes et al., 2009), reporting biases may still be present in our study. Third, the use of convenience sampling limits the ability to generalize these findings to other populations with a history of CM. We chose to focus on this population as it has been

understudied in terms of CM, but we also recognize the resulting limitations. Thereby, given the nature of a convenience sample, our sample consist of mostly healthy, educated, Jewish women and therefore is not representative to the Israeli population, especially in terms of the proportion of Israeli Arabs. Finally, the cross-sectional study design requires caution in assuming causal relationships. Tracking changes in psychopathology via additional waves of assessments would enhance the study design.

Clinical Implications

This study demonstrates how CM transmits its harmful consequences of elevated psychopathology among a nonclinical sample and identified risk and resilience. Thus, the study has important implications for assessing individuals with a history of CM and for designing prevention and intervention programs. We were able to identify a potential protective factor – self-compassion – that was not only related to reduced psychopathology, but also lessened the link between self-criticism, a transdiagnostic risk factor, and psychopathology. Considering the consistent, high rates of CM among clinical and nonclinical samples, it is recommended that in clinical or counseling settings, individuals seeking counseling and presenting psychopathological symptoms should be screened for past CM and present self-criticism and self-compassion.

Our findings also provide empirical evidence for the applicability of theoretical and clinical models of compassion that emphasize the relevance and significance of self-compassion and mindfulness for developing wellbeing and resilience to stress, reducing psychopathology and promoting better treatment outcomes in diverse settings (Gilbert, 2009; MacBeth & Gumley, 2012; Neff & Germer, 2013; Westerman et al., 2020). This is especially important among highly self-critical individuals, given that self-criticism is associated with difficulties in establishing a therapeutic alliance and with poorer treatment outcomes (for review, see: Löw et al., 2020; Shahar, 2015). Thus, self-compassion should be considered an

essential target for counselling interventions to prevent and treat psychopathology, especially among individuals with a history of CM, who are at greater risk for psychopathology, presumably at least partially, via higher self-criticism and lower self-compassion.

Aiding self-critical individuals to accept that they are worthy of self-compassion could be helpful in reducing psychopathology; however, given their fear of compassion this may not be an easy task (Joeng & Turner, 2015). Yet, this may also serve as an opportunity for *in vivo* access to the recurring maladaptive cycle affecting patients' strategies of dealing with personal inadequacies and related stress. In light of the potential difficulties in establishing therapeutic alliances, special attention should be given to issues of trust (Fonagy et al., 2015) and validation of clients' perspective and need for control (Shahar, 2015). At the same time, compassion towards clients may help them develop self-compassion by allowing them to experience receiving compassion in a less threatening setting (Joeng & Turner, 2015). Therapist modeling of compassionate responses towards failures and imperfections may assist clients in accepting these as part of being human, and help them learn how to address their subjective inadequacies in a more mindful, flexible, and reflective way. Reducing self-criticism and enhancing self-compassion may decrease psychopathology and improve counseling outcomes, especially for individuals with a history of trauma (for review: Winders et al., 2020), and CM in specific (Westerman et al., 2020).

Conclusion

A history of CM is a major concern reported by many clients in clinical settings and is often associated with psychopathology. Identifying risk and resilience mechanisms may help develop new counseling strategies to prevent the onset of psychopathology among individuals with a history of CM. We suggest that self-compassion may be a protective factor associated with reduced psychopathology, as it mediated the link between CM and psychopathology and also moderated the relation between self-criticism and

psychopathology. Self-compassion moderates the processes maintaining the negative affectivity implicated in self-criticism. This study extends our understanding of the interplay between self-criticism and self-compassion by showing that these risk and resilience aspects may serve as potential independent mediators but may also interact in predicting psychopathology in the context of CM. Future studies would benefit from including different assessment methods, physiological measures, and experimental and longitudinal designs allowing a better understanding of the effects of change in the study variables over time, as well as within clinical settings. Longitudinal studies, particularly among children and young people who have experienced CM, are needed in order to shed some light on the emergence of self-compassion and self-criticism and the interplay between them. It is also important to examine these issues in a more representative sample, thus allowing to consider aspects of diversity in this respect.

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Table 1. *Descriptive statistics and correlational matrix*

| Variables | Correlations | | | | | | |
|---------------------------|--------------|----------|----------|---------|---------|---------|-----|
| | M; SD | Skewness | Kurtosis | 1 | 2 | 3 | 4 |
| 1. Childhood maltreatment | 7.30; 2.44 | 1.95 | 5.19 | --- | | | |
| 2. Self-criticism | 4.25; 1.26 | -.05 | -.19 | .25*** | --- | | |
| 3. Self-compassion | 3.07; .66 | -0.10 | -.07 | -.26*** | -.74*** | --- | |
| 4. Psychopathology | 1.28; .723 | .80 | .38 | .36*** | .55*** | -.52*** | --- |

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

Table 2. Mediation and moderated mediation analyses

| Predictor | B | SE | t | p < | LLCI | ULCI |
|--|-------|------|-------|-------|-------|-------|
| Prediction of Mediator 1: Self-criticism | | | | | | |
| Constant | -.942 | .127 | -7.41 | .000 | -1.19 | -.692 |
| Childhood maltreatment | .129 | .017 | 7.81 | .000 | .097 | .161 |
| Prediction of Mediator 2: Self-compassion | | | | | | |
| Constant | 3.58 | .067 | 53.75 | .000 | 3.45 | 3.71 |
| Childhood maltreatment | -.070 | .009 | -8.09 | .000 | -.087 | -.053 |
| Dependent variable (Y): Psychopathology | | | | | | |
| Constant | .783 | .062 | 12.56 | .000 | .661 | .906 |
| Childhood maltreatment | .062 | .008 | 7.72 | .000 | .046 | .078 |
| Self-criticism | .198 | .022 | 8.86 | .000 | .154 | .242 |
| Self-compassion | -.227 | .043 | -5.29 | .000 | -.311 | -.143 |
| Self-criticism × Self-compassion | -.066 | .019 | -3.45 | .0006 | -.104 | -.028 |

[Model $R = .62$; $R^2 = .38$; MSE = .326, $F_{[4,909]} = 140.96$; $p < .000$]

**Conditional indirect effect of Self-criticism (Mediator 1) on Psychopathology (Y) at different levels
of the moderator Self-compassion**

[R^2 change = .008; $F_{[1,909]} = 11.89$; $p < .001$]

| Self-compassion | BootSE | t | P < | BootLLCI | BootULCI | |
|-----------------|--------|------|--------|----------|----------|------|
| M-1 SD | .242 | .026 | 9.1716 | .000 | .190 | .294 |
| M | .198 | .022 | 8.8556 | .000 | .154 | .242 |
| M+1 SD | .155 | .025 | 6.1853 | .000 | .106 | .204 |

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

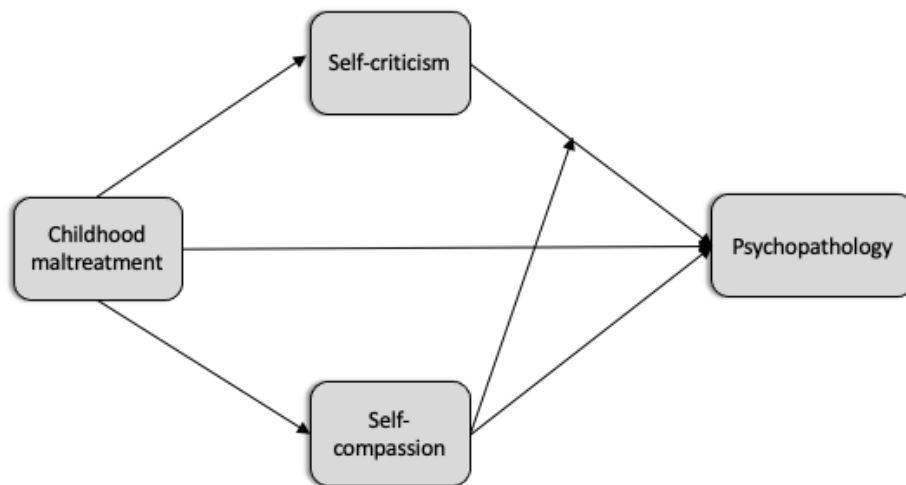


Figure 1. Hypothesized model relating childhood maltreatment, self-criticism, self-compassion, and psychopathology

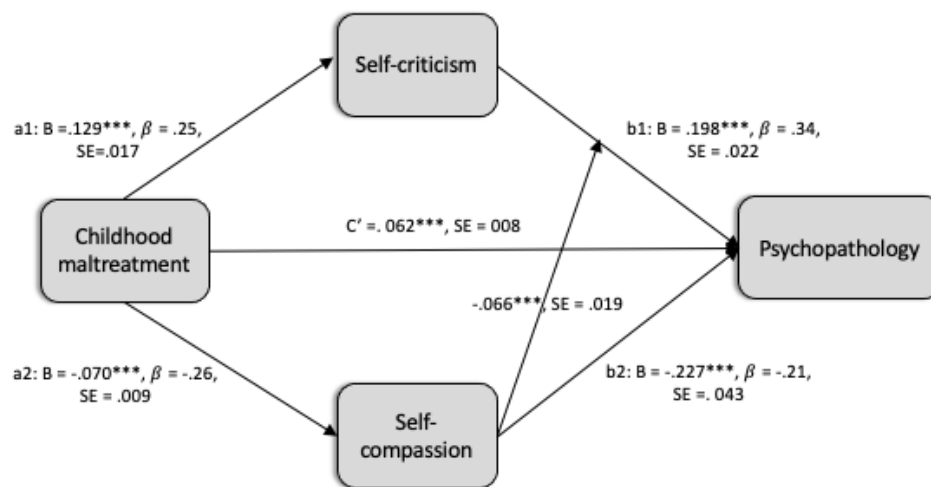


Figure 2. An integrative moderated-mediation model testing indirect effects leading from Childhood maltreatment to psychopathology via self-criticism and self-compassion

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

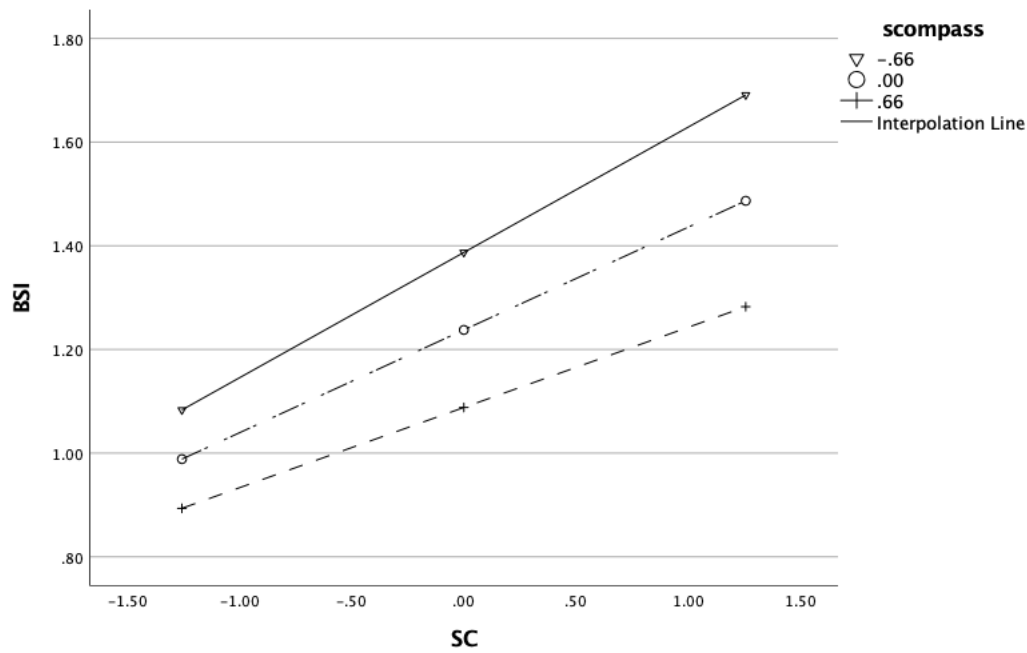


Figure 3. Self-criticism and psychopathology at different levels (-1 SD, mean, +1 SD) of self-compassion.

Note. SC– self-criticism, BSI– psychopathology, scompass– self-compassion