SELF-COMPASSION IN ADULT SURVIVORS OF CHILD MALTREATMENT: A MODERATED-MEDIATION ANALYSIS

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SELF-COMPASSION IN ADULT SURVIVORS OF CHILD MALTREATMENT: A MODERATED-MEDIATION ANALYSIS

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ABSTRACT

SELF-COMPASSION IN ADULT SURVIVORS OF CHILD MALTREATMENT: A MODERATED-MEDIATION ANALYSIS

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Previous research indicates a positive association between childhood maltreatment (CM) and adverse life outcomes, including depression, trauma symptoms, and poor interpersonal functioning. Research also suggests that early maladaptive schemas (EMS), or interpersonal beliefs formed during early interactions with abusive caregivers, may be automatically reactivated in the context of adult relationships, potentially mediating the relationship between CM and negative outcomes. However, not all individuals who experienced CM show the same pattern or severity of EMS, and not all maltreated children go on to develop depression, trauma symptoms, and relational difficulties. In previous research, self-compassion has been identified as a moderator of the path from CM to negative automatic thoughts to adult depressive symptoms, but the interaction of self-compassion with specific cognitive schemata, such as the disconnection/rejection domain of EMS, is not known. Using a moderated-mediation model with data from 228 students, I hypothesized that the disconnection/rejection domain of EMS would mediate the path from CM to the criterion variables of depression, trauma symptoms, relationship dissatisfaction, relational conflict, and reduced relational commitment, and that self-compassion would moderate this relationship according to one of two pathways, either at

the path between CM and disconnection/rejection EMS, or at a later point, between disconnection/rejection EMS and the criterion variables. Results indicated significant mediation by disconnection/rejection EMS for all five outcomes, but moderation by self-compassion was not significant at the path from EMS to any of the criterion variables. However, when incorporated at an earlier point, between CM and EMS, analyses revealed a moderating effect of self-compassion on the path from CM to mistrust/abuse schemas in predicting reduced relational commitment, such that the model was weakened at high levels of self-compassion and strengthened at low levels of self-compassion. This finding was especially significant for survivors of emotional abuse. Study implications and limitations are discussed.

Keywords: childhood maltreatment, early maladaptive schemas, depression, trauma symptoms, relationship satisfaction, relational conflict, relational commitment, moderated-mediation

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"The life of the mind is a life of control. It is control which the author brings to her work, by way of the selection of scenes, the arrangement of words, the achievement of an ending."

--*Joyce Carol Oates,* The Lost Landscape *(2015)*

"That the self is synaptic can be a curse –it doesn't take much to break it apart. But it is also a blessing, as there are always new connections waiting to be made. You are your synapses; they are who you are."

--*Joseph E. LeDoux,* The Synaptic Self: How Our Brains Become Who We Are *(2002)*

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CHAPTER 1

INTRODUCTION

In the United States, child maltreatment (CM) is estimated to affect approximately 686,000-716,000 children every year (Children's Bureau of the U.S. Department of Health and Human Services, 2012), and a quarter of all adults report having been physically abused as children (World Health Organization, 2016). Broadly defined, child maltreatment is the abuse and neglect that occurs to children under 18 years of age. This definition includes all types of sexual and physical abuse, as well as emotional abuse, exploitation, and neglect (World Health Organization, 2016). Furthermore, it has been shown that the long-term impacts of CM are similar, regardless of the type of abuse suffered (Vachon et al., 2015).

Child maltreatment is a pervasive problem that can leave victims feeling betrayed, scared, unsafe, and unable to form and maintain fulfilling adult relationships. Numerous studies provide evidence that survivors of CM are more likely to experience negative psychological outcomes. Specifically, research suggests that the experience of CM is associated with depression (Gibb et al., 2001), posttraumatic stress (Widom, 1999; Knefel et al, 2018), and comorbidity of psychological disorders (Keyes et al., 2012). A history of child maltreatment is also associated with relationship difficulties and low marital satisfaction among adults (Maneta et al., 2015; Messman-Moore & Coates, 2007; Nguyen et al., 2017).

A number of psychological constructs have been proposed that may help to explain the relationship between the experience of CM and poor adult functioning. Of

particular interest to the current study, early maladaptive schemas (EMS) — rigid interpersonal beliefs about the self and one's relationship with others that are dysfunctional and repeat throughout life (Young et al., 2003) — have demonstrated strong correlations with trauma-related symptoms (Harding et al., 2012), depression (Renner et al., 2012), and interpersonal conflict (Crawford & Wright, 2007; Messman-Moore & Coates, 2007). Given the relative intransigence of EMS (Young et al., 2003), it is important to identify factors that might protect against the development of maladaptive interpersonal beliefs, or that could mitigate the impact of already established schemas. In the current study, I attempted to build on existing research to explore self-compassion as a potential moderator of the paths between CM and EMS or, alternately, between EMS and depression, trauma-related symptoms, relationship satisfaction, conflict, and commitment.

Psychological Consequences of Child Maltreatment

Depression. Previous research has shown that children with histories of maltreatment have higher scores on the Child Depression Inventory than non-maltreated children (Kim & Cicchetti, 2006). In a study by Hart and colleagues (1996), children with histories of maltreatment also displayed altered diurnal cortisol activity in response to stress, which was related to depression symptoms. Increased risk for depression has also been found among adults with a history of child maltreatment (Chapman et al., 2004), suggesting that the experience of childhood maltreatment increases the risk for depression up to decades after its occurrence. Indeed, adults who had experienced CM were approximately 3 times more likely to experience depression in adulthood than non-maltreated adults (Chapman et al., 2004).

Several longitudinal studies have been conducted to examine the relationship between the experience of CM and subsequent depression (Fergusson et al., 2011; Mersky & Topitzes, 2010; Schilling et al., 2007; Sperry & Widom, 2013). A meta-analysis that analyzed findings from 18 prospective, longitudinal studies, each with more than 300 participants, reported a small combined adjusted effect size for the association between CM and depression (OR= 1.50; Braithwaite et al., 2017), indicating that maltreated children are slightly more likely than non-maltreated children to develop depression.

Trauma-related Symptoms. Similar to elevated risk for depression, research suggests that having experienced CM increases the risk for related posttraumatic stress disorder in both adults and children (DeBellis, 2001). The Dunedin Multidisciplinary Health Study (Breslau et al., 2014), which followed 1037 New Zealand participants from birth to 38 years, is one of the few available prospective longitudinal studies on the relationship between childhood maltreatment and adult PTSD. This study measured PTSD in response to trauma experienced between ages 26 and 38, and thus does not directly correspond to childhood maltreatment-related PTSD. In this study, severe childhood maltreatment (experienced by 8.5% of the sample) was associated with an increased risk for adult trauma-related PTSD compared to no maltreatment, while the risk conferred by moderate maltreatment (experienced by 27.2% of the sample) was not statistically significant. Although the risk associated with moderate maltreatment did not reach significance when compared to no maltreatment, it was not significantly different from the increased risk associated with severe maltreatment. As such, the role of moderate maltreatment, experienced by the majority of adult trauma victims with a

history of maltreatment, remains unresolved. Breslau and colleagues' (2014) research provides limited evidence for a temporal relationship between severe CM and trauma-related symptoms in adulthood.

Relationship Satisfaction. Childhood maltreatment may also affect interpersonal relationships later in life. In one study, adults who had been maltreated as children reported lower marital satisfaction and higher divorce rates (Whisman, 2006), indicating that the impact of CM may extend beyond mental health outcomes to correlate with adult relational outcomes.

Within this line of inquiry, a 2009 longitudinal study by DeLillo and colleagues examined marital outcomes and mediating pathways among 202 newlywed couples in which one or both partners retrospectively reported a history of child maltreatment. Analyses of data collected at 3 time points during a two-year period showed that low levels of marital satisfaction at Time 1 were predicted by childhood physical and psychological abuse and neglect among husbands, while only neglect predicted low levels of satisfaction for wives (DeLillo et al., 2009). The levels of dissatisfaction reported at Time 1 remained relatively stable over the course of the study, although in several instances, particularly for husbands, a history of CM exerted an increasingly detrimental influence over time. Examination of possible mediators between maltreatment and reduced marital satisfaction revealed pathways via decreased sexual activity, increased aggression, and increased trauma symptoms reported by husbands.

In an attempt to further differentiate between relational outcomes associated with different types of CM, the Minnesota Longitudinal Study of Risk and Adaptation examined multiple dimensions of childhood maltreatment as predictors of poor adult

romantic functioning using longitudinal data from 179 participants followed from birth to middle adulthood (Labella et al., 2018). This study found that, regardless of the type, chronicity, co-occurrence of maltreatment, and the individual's relationship to their perpetrator, individuals with a history of CM experienced lower romantic competence and increased interpersonal violence in adult relationships. Follow-up analyses showed that lower romantic competence was specifically associated with childhood physical abuse, maternal perpetration, chronicity, and co-occurrence, whereas increased relational violence was exclusively related to non-parental abuse.

Early Maladaptive Schemas as a Potential Mechanism in the Relationship Between Child Maltreatment and Poor Adult Functioning

Early maladaptive schemas (EMSs) are rigid interpersonal beliefs about the self and one's relationship with others that are dysfunctional and repeat throughout life. Typically, these beliefs are formed during early relationships with abusive caregivers, and are automatically reactivated in the context of adult relationships (Young et al., 2003). Young (1999) has defined 18 specific EMSs, organized into five domains: disconnection/rejection; impaired autonomy and performance; impaired limits; other-directedness; over vigilance and inhibition. Based on previous research suggesting that the experience of CM specifically triggers EMS in the disconnection/rejection domain (Crawford & Wright, 2007; Messman-Moore & Coates, 2007; Young et al., 2003), the current study will focus on these schemas.

The disconnection/rejection domain is composed of abandonment, mistrust/abuse, emotional deprivation, defectiveness/shame, and social isolation schemas. The abandonment schema addresses the perception that significant others will not be a

reliable source of support to an individual in the long run. The mistrust/abuse schema entails the expectation that others will take advantage of an individual for their own selfish motives. The emotional deprivation schema involves the expectation that others will not emotionally connect with an individual in a fulfilling way. The defectiveness/shame schema addresses the perception of oneself as inherently flawed or worthless to others (Young et al., 2003). Finally, the social isolation schema reflects individuals' perceptions of not belonging, or of being an outsider. Investigations have shown that EMS remain stable over time (Renner et al., 2012; Riso et al., 2006), and disconnection/rejection schemas have been associated with recollections of negative parenting practices, childhood trauma, and insecure childhood attachment (Cecero et al., 2004; Simard et al., 2011; Thimm, 2010), as well as a variety of psychological problems.

Research on the link between EMS and both trauma-related and depressive symptoms raises the possibility that EMS may mediate the relationship between the experience of child maltreatment and these symptoms (Harding et al., 2012; Lumley & Harkness, 2007). In a cross-sectional study with seventy-six depressed adolescents, Lumley and Harkness (2007) found that schemas with themes of loss and worthlessness mediated the relationship between emotional and physical maltreatment and anhedonic symptoms, while schemas with danger themes mediated the relationship between emotional and physical maltreatment and anxious symptoms. Because child sexual abuse was not significantly associated with either depression or anxiety symptoms, Lumley and Harkness did not test a mediation model for childhood sexual abuse.

In a 2012 study examining the relationship between EMS and trauma-related symptoms in 127 female survivors of child sexual abuse, Harding and colleagues noted a

high degree of variability in the type of schema endorsement, raising the possibility that child sexual abuse survivors can be distinguished by elevation and severity of maladaptive schemas, rather than by unique schema profiles. In this study, elevation was highest for schemas in the disconnection/rejection, subjugation, and emotional inhibition domains, and was linearly related to severity of trauma-related symptoms (Harding et al., 2012). To my knowledge, only one published study has examined mediation by EMS in the relationship between childhood maltreatment and adult trauma-related symptoms (Vasilopolou et al., 2020). Using a clinical sample of 42 older adults, the researchers found that total EMS score mediated the relationship between childhood maltreatment and severity of complex trauma symptoms, with EMS subdomains of disconnection/rejection and impaired autonomy accounting for a majority of the effect. In addition to looking at other variables and interactions, the current study tested whether disconnection/rejection schemas mediate the relationship between CM and trauma-related symptoms in a non-clinical, student sample.

Cross-sectional survey research by Messman-Moore and Coates (2007) using a sample of 382 college women suggests that EMS may mediate the relationship between the experience of childhood maltreatment and interpersonal conflict in adult relationships. They speculated that individuals who experience abuse or neglect during childhood have a tendency to develop beliefs that others are not trustworthy, that others will not provide adequate emotional support, and that others may abandon or abuse them. These maladaptive and self-perpetuating beliefs may influence an individual's behavior in adult relationships, leading to heightened levels of interpersonal conflict and lower relationship satisfaction (Messman-Moore & Coates, 2007).

Although Messman-Moore and Coates' (2007) study did not include the social isolation schema, they found that three of the remaining four EMS from the disconnection/rejection domain mediated the relationship between child psychological abuse and adult interpersonal conflict. Relative to each schema, both mistrust/abuse and abandonment schemas were found to fully mediate the relationship between childhood psychological abuse and adult interpersonal conflict, while the defectiveness/shame schema partially mediated the relation between psychological abuse and interpersonal conflict. Emotional deprivation schemas were not a significant mediator. Furthermore, the mistrust/abuse schema appeared to have the strongest association with relational conflict. These findings suggest that the long-term impact of childhood psychological abuse may be perpetuated through a survivor's perception of the abusive experience, particularly in regard to expectations about love and trust in adult relationships.

While interpersonal conflict is an important aspect of relational functioning that has great relevance for CM survivors and their partners, it does not adequately encompass the positive aspects of adult relationships, such as satisfaction and commitment. The current study built on the findings from previous mediational studies by examining the relationship between CM, EMS, and negative life outcomes with the inclusion of two previously unexamined outcomes, relationship satisfaction, and commitment. The use of a multi-faceted construct to assess both the positive and negative aspects of relational functioning may enhance existing knowledge of the ways in which EMS related to childhood maltreatment might manifest across different domains within adult relationships.

Self-compassion as a Moderator

Self-compassion is broadly defined as a warm, caring, empathic and non-judgmental orientation towards the self during times of suffering and failure, along with gentle motivation to alleviate this suffering (Neff, 2003b). According to Neff (2003b), self-compassion is made up of three bipolar continuums that refer to an individual's ability to a) treat oneself with caring acceptance rather than derisive criticism, b) acknowledge personal flaws and failures as common human experiences rather than as unique problems that isolate oneself from others, and c) find balance between nonjudgmental appraisal and the suppression of emotions rather than overidentifying with negative or pessimistic experiences. As such, self-compassion enables an individual to handle emotions in a more adaptive manner, rather than engaging in self-blame and criticism. It has also been noted that self-compassion provides a safe emotional distance from adverse events, which may enable individuals to gain a less biased understanding of those events (Finlay-Jones et al., 2015). Indeed, when self-compassion was employed as an emotion regulation strategy, it enhanced the efficacy of cognitive reappraisal in individuals with major depressive disorder, perhaps through an increased ability to tolerate distressing emotions (Diedrich et al., 2016).

Although the experience of CM has been positively correlated with both EMS (Tezel et al., 2015) and poor psychiatric outcomes, such as depression and trauma-related symptoms (Vranceanu et al., 2007), not all children who have been abused or neglected develop these conditions. Cross-sectional research on mindfulness practice using a convenience sample of Turkish adults raises the possibility that self-compassion may interact with other variables, such as reduced emotion dysregulation, to jointly mitigate the relationship between early maladaptive schemas and depression, trauma-related

symptoms, and other psychopathologies (Yakin et al., 2019). Specifically, they found that disconnection/rejection schemas were significantly correlated with adult psychopathology, lower self-compassion, and higher emotion dysregulation. Although self-compassion, on its own, was not a significant moderator, when it was included as a joint moderator alongside emotion dysregulation, the compound interaction of both variables partially weakened the relationship between disconnection/rejection schemas and symptoms of psychopathology.

More recent research by Hou and colleagues (2020) provides limited evidence for moderated-mediation of adult depressive symptoms by self-compassion at the path from CM to negative automatic thoughts. In a sample of 578 university students, they found that CM was negatively associated with self-compassion and positively associated with negative automatic thoughts (a similar construct to EMS, albeit broader, and less focused on interpersonal beliefs). Negative automatic thoughts mediated the path between CM and adult depressive symptoms, an effect that was weaker at high levels of self-compassion and stronger at low levels of self-compassion. Although Hou et al.'s (2020) model does not explicitly examine the role of early maladaptive schemas in the relationship between CM and depression, it is among the first empirical studies to find evidence that higher levels of self-compassion may buffer against negative automatic thoughts and later-life depression. Inference based on the conceptualization of self-compassion as a buffer against negative outcomes via activation of the self-soothing system (Gilbert, 2013) to facilitate improved stress management, more secure attachments, and an internal sense of safety (Neff, 2003a/b, 2011), alongside preliminary results from an intervention study that successfully employed Compassion Focused

Therapy to support the use of self-compassionate responses to traumatic re-experiencing in adult survivors of sexual abuse (McLean et al., 2018) suggests that Hou et al.'s finding of moderated-mediation by self-compassion and cognitive schemata for CM-related outcomes of depression may extend to other negative outcomes associated with childhood maltreatment.

In contrast to previous reports of non-significant moderation by self-compassion for CM- (Thimm, 2010) and EMS-related (Yakin et al., 2019) outcomes of trauma-related symptoms, depression, and other psychopathologies, Hou et al.'s (2020) study provides limited evidence for a buffering effect of self-compassion on the path from CM to negative automatic thoughts to depression in adults with a history of childhood maltreatment. To my knowledge, there is no published research examining self-compassion as a moderator of the paths from CM to EMS, between EMS and adult relational outcomes, or examining a moderated-mediation model among these variables.

The Current Study

Based on a review of previous research (Harding et al, 2012; Harris & Curtin, 2002; Lumley & Harkness, 2007; Messman-Moore & Coates, 2007; Vasilopolou et al., 2020), I predicted that EMS would mediate the relationship between the experience of child maltreatment and depression, trauma-related symptoms, relationship dissatisfaction, conflict, and reduced relational commitment. I also examined self-compassion as a moderator within this mediational model, considering two possible pathways in which moderation might occur (see Figure 1).

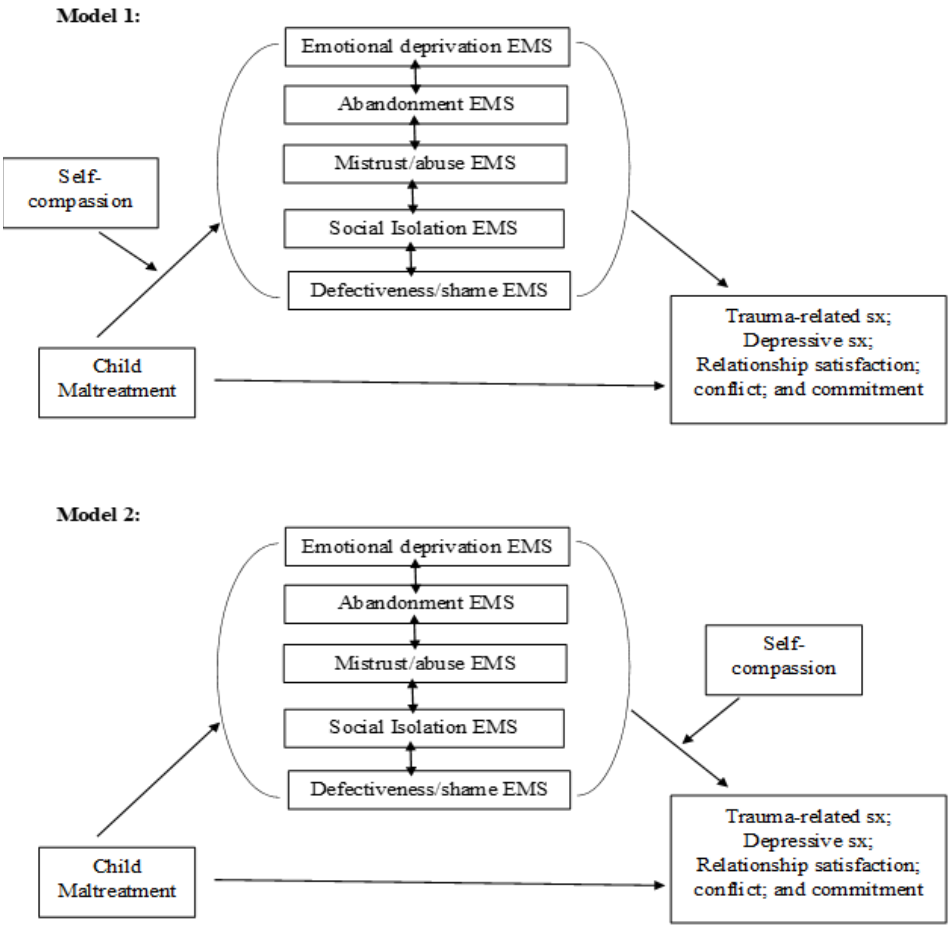

Figure 1 Two competing moderated-mediation models.

First, it is possible that having a relatively high level of self-compassion may render the development of EMS less likely. Specifically, in relation to the abandonment schema, I expect that being high in self-compassion might reduce an individual's tendency to perceive others as unsupportive, due to an increased ability to tolerate distress and respond to interpersonal disappointments in a caring and non-judgmental manner. Likewise, being high in self-compassion might result in a lessened tendency for individuals to expect that others will take advantage of them (mistrust/abuse schema), perhaps due to greater willingness to trust others, which may result in increased exposure to positive interpersonal experiences. An individual who is high in self-compassion

might also be less likely to develop an emotional deprivation schema due to increased ability to cultivate a sense of common humanity and connectedness. Being high in self-compassion might also protect against the development of maladaptive shame schemas due to the non-judgmental component of a self-compassionate attitude. Finally, by cultivating a sense of common humanity and interconnectedness, individuals high in self-compassion may be less likely to perceive of themselves as isolated from others, resulting in increased social interaction due to more favorable perceptions by self and others.

An alternate model, similar to the process examined in Yakin et al. (2019), is that self-compassion may attenuate the relationship between CM and negative outcomes at a later point, between disconnection/rejection schemas and the criterion variables of relationship dissatisfaction, conflict, reduced commitment, depression, and trauma-related symptoms. Expanding on Yakin et al.'s (2019) report of non-significant moderation by self-compassion at the path from EMS to depression, trauma-related symptoms, and other psychopathologies, the current study represents a novel examination of possible interactions between self-compassion and EMS in predicting the previously unexamined outcomes of relationship satisfaction, conflict, and commitment in adults with a history of childhood maltreatment. The current study marked the first time that many of these interactions, with the exception of depression (Hou et al., 2019), have been tested in a moderated-mediation model (Hou et al., 2020). Such an examination provides important information about factors that contribute to (and potentially protect against) the development of EMS and negative life outcomes for individuals with CM histories within an integrative model.

The current study tested two hypotheses and compared two moderated-mediation

models to examine relationships between self-compassion, individual EMS subdomains, and combined EMS scores on the relationship between CM and negative life outcomes.

Hypothesis 1: EMS scores for the combined subdomains of emotional deprivation, abandonment, mistrust/abuse, social isolation, and defectiveness/shame will mediate the relationship between child maltreatment and the criterion variables of trauma-related symptoms, depressive symptoms, relationship satisfaction, relational conflict, and relational commitment. Although insufficient research exists to support separate a-priori hypotheses, I also tested for parallel mediation of the path from childhood maltreatment to each of the five outcomes by the individual subdomains of emotional deprivation, abandonment, mistrust/abuse, social isolation, and defectiveness/shame schemas.

Hypothesis 2: Self-compassion will moderate the relationships between child maltreatment, EMS, and each criterion variable according to one of two pathways: a) via the path from CM to EMS, or b) at a later point, via paths from EMS to depression, trauma-related symptoms, relationship satisfaction, conflict, and commitment.

CHAPTER 2

METHOD

Participants

Using a sample size based on a medium effect for the models being tested in this study (Preacher et al., 2007), I recruited 265 undergraduate students from introductory psychology courses at a medium-sized, private university to participate in my study. Data from 37 participants were dropped due to incomplete responses, leaving a sample of 228 participants, all but three of whom provided complete demographic information. Of the 225 participants for whom demographic information was available, (male = 173, female = 52), age ranged from 17 to 33 years old (M=19.06, SD = 1.446). The racial distribution of the sample was 80.7% White/Caucasian, 9.2% African-American, 2.2% Hispanic, 4.8% Asian American, and 2.6% other racial or ethnic categories. Eighty-nine participants had not been in a romantic relationship, and therefore did not respond to the relationship rating form. For this reason, analyses pertaining to relationship satisfaction, conflict, and commitment relied on a sample of only 139 participants. Additional sample demographics pertaining to household income and parent education are reported in Table 1.

Table 1 Frequency distribution for participant gender, race, parent education, and family income.

	Number of respondents	% of sample
Gender		
Male	173	75.9%
Female	52	22.8%
Non-response	3	1.3%
Race/ethnicity		
White/Caucasian	184	80.7%
Black/African-American	21	9.2%
Asian American	5	2.2%
Latino/a	11	4.8%
Other	6	2.6%
Non-response	1	0.4%
Highest level of education completed by parents		
No high school diploma	0	0.0%
High school	28	11.5%
Some college	53	23.2%
Bachelor's degree	98	43.0%
Graduate study	48	21.1%
Non-response	1	0.4%
Annual family income		
Less than $9,999	1	0.4%
$10,000 - $24, 999	11	4.8%
$25,000 - $49,999	16	7.0%
$50,000 - $74,999	39	17.1%
$75,000 - $100,000	29	12.7%
$100,000 - $150,000	43	18.9%
Greater than $150,000	49	21.5%
Prefer not to answer	39	17.1%
Non-response	1	0.4%

On a measure of child maltreatment, 10.3% of the sample indicated that they had experienced some form of moderate to severe child maltreatment. Specifically, based on cut-off scores from 13-15 (moderate) and from 16+ (severe) for emotional abuse, 21.5% of participants (49 individuals) endorsed emotional abuse. Using cut off scores from 10-12 (moderate) and 13+ (severe) for physical abuse and physical neglect, 4.8% of participants (11 individuals) endorsed physical abuse and 5.3% (12 individuals) endorsed physical neglect. Similarly, applying cut of scores of 8-12 (moderate) and 13+ (severe) for sexual abuse, 10.5 % of participants (24 individuals) endorsed sexual abuse. Using

cut off scores of 15-17 (moderate) and 18+(severe) for emotional neglect, 7.9% of participants (18 individuals) endorsed emotional neglect.

Procedure

Prior to data collection, this study was reviewed and approved by the appropriate institutional review board. After being recruited through an online participant pool for students enrolled in introductory psychology courses, participants accessed and completed the study online using a unique identification code assigned by the secure survey platform Qualtrics. To protect participant's confidentiality, the link between the invitation codes and identifying information was destroyed after credit was assigned. Each participant received 1 research credit for participating in the survey, and credit was assigned regardless of survey completion.

At the link to the Qualtrics survey, participants read and agreed to an informed consent (see Appendix H) by checking a box, rather than signing their names. They then proceeded to the rest of the study, which included measures of childhood maltreatment, trauma-related and depressive symptoms, relationship satisfaction, early maladaptive schemas, and self-compassion. At the end of the survey, participants read and indicated their receipt of a debriefing form containing a description of the study and available resources (see Appendix I). Data from Qualtrics was downloaded and stored in an SPSS file on a password protected computer accessible only by the study investigator.

Measures

Childhood Trauma Questionnaire--Short Form. Participants' recall of childhood maltreatment was measured using the Childhood Trauma Questionnaire, with additional questions included to assess an individual's relationship to their perpetrator,

duration of each type of maltreatment, and age range at which each type of maltreatment began. The CTQ-SF is a 28-item copyrighted questionnaire intended to quantify self-reported childhood trauma history (Bernstein et al., 2003). The CTQ-SF measures childhood maltreatment using five subscales: emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. The CTQ-SF subscales have intra-class correlation coefficients ranging from .79 to .86, and Cronbach's alphas ranging from .66 to .92 across initial validation samples (Bernstein et al., 2003). Responses are measured on a 5-point Likert scale (1 = never true, 2 = rarely true, 3 = sometimes true, 4 = often true, 5 = very often true). Each subscale is represented by five questions with a score range from 5 to 25; scores fall into four categories: none to low trauma exposure; low to moderate trauma exposure; moderate to severe trauma exposure; and severe to extreme trauma exposure. The CTQ-SF also contains a minimization/denial scale (three questions), that screens for the likelihood of underreporting traumatic experiences. The current study used total scores from the CTQ-SF in primary analyses, while scores from the individual subscales were used in secondary analyses to determine whether my model applies equally well for different types of child maltreatment. (See Appendix A.) Cronbach's alphas for the CTQ-SF, and all measures used in the current study, are reported in Table 2.

Posttraumatic Stress Disorder Checklist for the DSM-5 (PCL-5). Total scores from The Posttraumatic Stress Disorder Checklist for the DSM-5 (PCL-5) (Weather, et al., 2013) were used to measure participants' trauma-related symptoms. The PCL-5 is a 20-item public domain scale anchored from 0 (not at all) to 4 (extremely). The measure is composed of the following: five items assessing intrusive or dissociative thoughts (e.g.,

"[In the past month, how much were you bothered by] repeated, disturbing dreams of the stressful experience?"); two items assessing avoidance (e.g., "[In the past month, how much were you bothered by] avoiding memories, thoughts, or feelings related to the stressful experience?"); seven items assessing negative changes in mood and cognitions (e.g., "[In the past month, how much were you bothered by] blaming yourself or someone else for the stressful experience or what happened after it?"); and six items assessing changes in arousal associated with the event (e.g., "[In the past month, how much were you bothered by] trouble falling or staying asleep?"). Scores on this measure range from 0 to 80 based on participant experience, with a score of 33 or above qualifying for a PTSD diagnosis (Weather, et al., 2013). Previous research has demonstrated good reliability (i.e., test-retest, parallel forms, and internal consistency) and validity of the PCL-5. Blevins and colleagues (2015) found that the PCL-5 had high internal consistency ($\alpha = .95$) and, when compared to the original PCL, had a higher intra-class correlation coefficient. The PCL-5 has shown to be highly correlated with similar measures assessing PTSD, including the Posttraumatic Diagnostic Scale and the Detailed Assessment of Posttraumatic Stress (Blevins et al., 2015). Researchers also found that the PCL-5 was moderately correlated with theoretically related constructs (e.g., depression; $r = .60$) and weakly correlated with unrelated constructs (e.g., mania; $r = .31$) on the Personality Assessment Inventory (Blevins et al., 2015). (See Appendix B.)

Center for Epidemiological Studies Depression Scale (CES-D). Total scores from the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) were used to measure participants' depressive symptoms. The CES-D is a 20-item self-report questionnaire that is publicly available. Participants were asked to report how

often they experienced each symptom in the past week on a 4-point scale from 0 to 3 (e.g., 0 = less than one day; 1 = 1-2 days; 2 = 3-4 days; and 3 = 5-7 days). Sample items include: "I felt lonely" and "I felt hopeful about the future" (reverse scored). Scores range from 0 to 60, with higher scores indicating greater levels of depression. A score of 16 or higher is used as the cutoff score for clinical depression. Previous research has demonstrated adequate reliability and validity for the CES-D. In a 1977 study by Radloff, the Cronbach's alpha for the general population was .85, and intra-class correlation coefficients ranged from .45 to .70 (Radloff, 1977). The CES-D has been shown to be significantly correlated with other scales designed to measure depressive symptoms (Radloff, 1977). (See Appendix C.)

Relationship Rating Form (RRF). To assess relationship satisfaction, I used the Relationship Rating Form (RRF; Davis & Todd, 1982). The RRF is a public domain scale that measures seven global characteristics and twenty facets of romantic relationships or friendships. Only the scales measuring global satisfaction, conflict, and commitment were used in the current study. The Global Satisfaction scale contains 11 items that measure various aspects of relationship satisfaction (e.g., "Are you happy in your relationship with this person?"). Because assessing conflict offers an additional way to measure relationship satisfaction, three items from the Conflict facet of the Conflict/Ambivalence scale were also included. Four items from the Commitment scale, which does not load onto any of the global scales, were also included (e.g., "Are you committed to staying in your relationship?"). Items were scored on a 9-point scale from 1 (Not at all) to 9 (Completely or extremely). In a previous study by Davis and Latty-Mann (1987), Cronbach's alpha was .90 for Global Satisfaction (with subscales ranging

from .81 to .90) and .73 for Conflict. Cronbach's alpha for the Commitment scale was not reported due to a scoring error (Davis & Latty-Mann, 1987). In addition to demonstrating strong internal consistency, the RRF has been shown to be predictive of longitudinal satisfaction and relationship stability (Davis et al., 1994). Since conflict, commitment, and relationship satisfaction are distinct concepts, analyses in the current study evaluated scores from each of these subscales separately. (See Appendix D.)

The Young Schema Questionnaire Short Form (YSQ-S). The Young Schema Questionnaire-Short Form (YSQ-S) (Young et al., 2003) was used to measure participants' early maladaptive schemas. The YSQ-S is a 75-item self-report questionnaire that assesses early maladaptive schemas (EMS) on a 6-point scale, ranging from 1 (completely untrue of me) to 6 (describes me perfectly). The short form is an abbreviated version of the full 205-item measure designed to measure 16 EMS. Because previous research has shown that child maltreatment specifically triggers EMS in the disconnection/rejection domain (Crawford & Wright, 2007; Messman-Moore & Coates, 2007), the current study administered a partial version of the YSQ-S, using only the 25 items that correspond to five EMS from this domain: abandonment (e.g., "I find myself clinging to people I'm close to, because I'm afraid they'll leave me"); emotional deprivation (e.g., "For much of my life, I haven't felt that I am special to someone"); mistrust/abuse (e.g., "I am quite suspicious of other people's motives"); defectiveness/shame (e.g., "I am too unacceptable in very basic ways to reveal myself to other people "); and social isolation (e.g., "I always feel on the outside of groups"). In a previous study of undergraduate students, the primary subscales were found to possess adequate internal consistency, with alphas ranging from .83 to .96 (Schmidt et al., 1995).

Evaluation of test-retest reliability for the YSQ-S in the same sample of undergraduate students yielded adequate intra-class correlation coefficients, ranging from .50 to .82 (Schmidt et al., 1995). Recent research suggests that the YSQ-S and the original, longer version demonstrate similar levels of internal consistency, discriminant validity, and clinical utility (Waller et al., 2001). In the current study, I entered scores for each of the five schemas separately, as parallel mediators, in order to test the relative contribution of specific schemas, as well as testing the significance of the entire model. (See Appendix E.)

Self-compassion Scale (SCS). Total scores from the Self-compassion Scale (SCS) (Neff, 2003a) were used to measure participants' level of self-compassion. The Self-Compassion Scale (Neff, 2003a) is a 26-item, public domain scale composed of six subscales assessing self-kindness (e.g., "I try to be loving towards myself when I'm feeling emotional pain"); self-judgment (e.g., "I'm disapproving and judgmental about my own flaws and inadequacies"); common humanity (e.g., "When things are going badly for me, I see the difficulties as part of life that everyone goes through"); isolation (e.g., "When I'm feeling down, I tend to feel like most other people are probably happier than I am"); mindfulness (e.g., "When something upsets me I try to keep my emotions in balance"); and over-identification (e.g., "When I'm feeling down I tend to obsess and fixate on everything that's wrong"). When assessing test-retest reliability, Neff (2003a) found that intra-class coefficients of the six subscales and the grand mean ranged from .80 to .93. Moreover, the SCS was positively correlated with theoretically similar measures (i.e., Rosenberg Self-Esteem Scale, Berger's Self-Acceptance Scale, Self-Determination Scale, and the Basic Psychological Needs Scale) and negatively correlated

with theoretically different measures (i.e., Rumination Responses Scale and White Bear Thought Suppression Inventory). (See Appendix F.)

Demographics. Demographic variables, including gender, age, race, family income, and parents' education level, were assessed using a questionnaire created by the researcher (see Appendix G).

CHAPTER 3

RESULTS

Preliminary Analyses

Descriptive statistics, skewness, kurtosis, and Cronbach's alpha for all study variables can be found on the next page, in Table 2. Correlation between specific schema subtypes (see Table 2) were moderate, enabling the planned use of parallel mediation. Preliminary analyses designed to identify possible demographic confounds indicated that age was not significantly correlated with trauma-related (r = .001, p = .988) and depressive symptoms (r = - .036, p = .592) or with total relationship rating scores (r = .077, p = .375). Gender was not significantly related to trauma symptoms (t = 1.70, p = .090), depressive symptoms (t = 1.76, p = .080), or total relationship rating scores (t = 0.61, p = .543). Likewise, there was no significant difference in total relationship rating scores, trauma-related symptoms, or depressive symptoms as a function of family income (all $F \leq 1.282$, $p \leq .272$), or parent education (all $F \leq 1.894$, $p \leq .132$). However, a one-way ANOVA of trauma-related symptoms, depressive symptoms, and relationship rating scores by race revealed significant effects of race on trauma [$F(4,222) = 2.51$, p = .043], depressive symptoms [$F(4,222) = 2.70$, p = .031], and relational conflict [$F(4,134) = 3.41$, p = .011]. Post hoc LSD comparison revealed that participants who identified as Latino/a (M = 29.45) endorsed significantly more trauma-related symptoms than participants who identified as White/Caucasian (M = 16.02), p = .007. Additionally, participants who identified as either Asian American (M = 45.80), or "other" (M = 45.17)

endorsed significantly more depressive symptoms than White participants (M = 35.35), p = .039 and p = .034, respectively. Although total relationship rating scores did not differ by race, African American participants (M =13.40) reported significantly more relational conflict than either Caucasian (M = 8.69) or Latino/a participants (M = 7.00.), p = .001 and p = .005, respectively. Based on these results, only race was controlled in primary and secondary analyses.

Table 2 Zero-order correlations between study variables, descriptive statistics, skewness, kurtosis, and alpha values.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Childhood maltreatment total	--	.841**	.554**	.566**	.855**	.572**	-.249**	.642**	.603**	.445**	.523**	.572**	.503**	.623**	.549**	-.271**	.152	-.136
2. Emotional Abuse	--	--	.462**	.290**	.636**	.258**	-.193*	.606**	.507**	.425**	.541**	.537**	.480**	.593**	.561**	-.211*	.112	-.120
3. Physical Abuse	--	--	--	.258**	.286**	.198**	-.041	.272**	.249**	.068	.308**	.318**	.198**	.283**	.229**	-.136	.093	-.086
4. Sexual Abuse	--	--	--	--	.327**	.254	-.092	.374**	.360**	.301**	.261**	.337**	.283**	.444**	.330**	-.223*	.128	-.164
5. Emotional Neglect	--	--	--	--	--	.475**	-.307**	.594**	.583**	.433**	.422**	.493**	.515**	.493**	.457**	-.265**	.146	-.127
6. Physical Neglect	--	--	--	--	--	--	-.122	.195**	.262**	.132*	.163*	.187**	.068	.229**	.168*	-.068	.042	.052
7. Self-compassion	--	--	--	--	--	--	--	-.365**	-.256**	-.403**	-.212**	-.315**	-.295**	-.238**	-.380**	.183*	-.152	.093
8. Maladaptive Schemas total	--	--	--	--	--	--	--	--	.776**	.812**	.851**	.773**	.867**	.670**	.727**	-.452**	.317**	-.387
9. Emotional Deprivation Schemas	--	--	--	--	--	--	--	--	--	.496**	.577**	.511**	.623**	.510**	.520**	-.369**	.227*	-.286*
10. Abandonment Schemas	--	--	--	--	--	--	--	--	--	--	.647**	.472**	.625**	.511**	.568**	-.267**	.277**	-.222*
11. Mistrust/ Abuse Schemas	--	--	--	--	--	--	--	--	--	--	--	.584**	.647**	.560**	.597**	-.363**	.300**	-.351**
12. Social Isolation Schemas	--	--	--	--	--	--	--	--	--	--	--	--	.646**	.567**	.596**	-.344**	.170*	-.265**
13. Defectiveness/ Shame Schemas	--	--	--	--	--	--	--	--	--	--	--	--	--	.586**	.686**	-.491**	.288**	-.436**
14. Trauma-related symptoms	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.718**	-.205*	.191*	-.120
15. Depressive symptoms	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-.313**	.264**	-.239**
16. General Relationship Satisfaction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-.486**	.926**
17. Relational Conflict	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-.458**
18. Relational Commitment	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M (SE)	34.68 (.712)	8.95 (.289)	5.81 (.112)	5.84 (.166)	8.21 (.272)	5.87 (.139)	83.23 (8.32)	59.30 (1.71)	10.54 (.384)	13.98 (.472)	13.16 (.434)	11.51 (.373)	10.11 (.423)	17.39 (1.07)	36.32 (.744)	72.03 (2.03)	9.15 (.432)	23.47 (.833)
SD	10.74	4.37	1.69	2.51	4.11	2.09	12.54	25.75	5.799	7.12	6.55	5.63	6.39	16.16	11.23	23.88	5.09	9.82
skewness	1.51	1.26	3.12	3.83	1.56	3.99	.536	.768	1.01	.654	.694	.929	1.43	1.04	.808	-.754	1.10	-.345
kurtosis	2.01	1.07	11.69	15.57	2.36	20.74	.390	-.216	.318	-.662	-.451	.328	1.415	1.16	.139	-.635	.901	-1.19
α	.908	.890	.581	.902	.924	.780	.846	.958	.889	.928	.908	.900	.942	.952	.923	.971	.752	.910

Note: *p < .05; **p < .01

Primary Analyses

Hypothesis One. Hypothesis 1 was tested using simple mediation (Model 4; Preacher & Hayes, 2004). I ran 5 analyses, each using childhood maltreatment as the predictor, and trauma-related symptoms, depressive symptoms, relationship satisfaction, relational conflict, and relational commitment as five separate outcome variables. The EMS subdomains of emotional deprivation, abandonment, mistrust/abuse, social isolation, and defectiveness/shame schemas were entered simultaneously as parallel mediators.

When the effects of all five EMS domains were considered independently, simple mediation for the paths from CM to trauma-related symptoms, depressive symptoms, relationship satisfaction, conflict, and commitment were significant for each model (See Table 3).

Table 3 Results of simple mediation analyses

Criterion	*F*	*p*	Standardized indirect effect	*SE*	95% *CI*
Trauma-related symptoms	$F(7, 219) = 33.90$	< .0001	.2573	.0522	[.1632, .3671]
Depressive symptoms	$F(7, 219) = 40.99$	< .0001	.3552	.0551	[.2490, .4630]
Relationship satisfaction	$F(7, 131) = 7.12$	< .0001	-.3348	.0904	[-.5233, -.1621]
Relational conflict	$F(7, 131) = 2.51$	.0185	.214	.0949	[.0300, .4058]
Relational commitment	$F(7, 131) = 5.816$	< .0001	-.3547	.0878	[-.5355, -.1873]

Controlling for mediating effects of the other four EMS in the paths from CM to both trauma-related and depressive symptoms, results indicated that only the indirect effects of social isolation schemas ($b_{trauma\ sx}$ = .3714, *SE* = .1936, *t* = 1.92, *p* = .0564, standardized indirect effect = .0730, *SE* = .0375, 95% CI [.0010, .1501]; $b_{depressive\ sx}$ = .2959, *SE* =

.1281, $t = 2.31$, $p = .0218$, standardized indirect effect = .0834, $SE = .0393$, 95% CI [.0114, .1657]) and defectiveness/shame schemas ($b_{trauma\ sx} = .4701$, $SE = .1904$, $t = 2.47$, $p = .0143$, standardized indirect effect = .0906, $SE = .0456$, 95% CI [.0056, .1856]; $b_{depressive\ sx} = .6228$, $SE = .1259$, $t = 4.945$, $p < .0001$, standardized indirect effect = .1724, $SE = .0510$, 95% CI [.0784, .2774]) achieved significance. Similarly, when entered simultaneously with the other four EMS, only defectiveness/shame schemas significantly mediated the path from CM to adult relationship satisfaction, $b = -.1.56$, $SE = .4398$, $t = -3.55$, $p = .0005$, standardized indirect effect = -.2043, $SE = .0635$, 95% CI [-.3346, -.0799]. Controlling for mediating effects of the other four EMS in the path from childhood maltreatment to reduced relational commitment, only the indirect effects of mistrust/abuse ($b = -.3327$, $SE = .1639$, $t = -2.03$, $p = .0444$, standardized indirect effect = -.1085, $SE = .0515$, 95% CI [-.2203, -.0171]) and defectiveness/shame schemas ($b = -.644$, $SE = .1855$, $t = -3.47$, $p = .0007$, standardized indirect effect = -.2051, $SE = .0683$, 95% CI [-.3473, -.0768]) were significant. When entered simultaneously as parallel mediators, none of the individual schema domains significantly mediated the path from CM to relational conflict. The full model accounted for 54.28% of the variance in depressive symptoms ($F(3, 223) = 88.24$, $R^2 = .5428$, $p < .0001$), 51.18% of the variance in trauma-related symptoms ($F(3, 223) = 77.92$, $R^2 = .5118$, $p < .0001$), 22.33% of the variance in relationship satisfaction ($F(3, 135) = 12.94$, $R^2 = .2233$, $p = .0001$), 10.57% of the variance in relational conflict ($F(3, 135) = 5.32$, $R^2 = .1057$, $p = .0017$), and 17.27% of the variance in relational commitment ($F(3, 135) = 9.39$, $R^2 = .1727$, $p < .0001$).

Hypothesis Two. Hypothesis 2 was tested by comparing two bootstrapping moderated-mediation models (Models 7 and 14; Preacher & Hayes, 2004), each with five

separate analyses that varied as a function of the criterion variable. All confidence intervals were set at 95%, and child maltreatment (the predictor) and self-compassion (the moderator) were mean-centered (Cohen et al., 2003). In the first analysis for each of the competing models (i.e., Model 7), trauma-related symptoms was the criterion variable. In the second, third, fourth, and fifth analyses for each model the criterion variables were depression, relationship satisfaction, conflict, and commitment, respectively. All five analyses for the first model used scores from the self-compassion scale as the moderator between the predictor variable of child maltreatment and the five parallel mediators of shame, mistrust, emotional deprivation, abandonment, and social isolation schemas. The placement of the moderator was the only difference in the five analyses corresponding to the second model (i.e., Model 14), which examined self-compassion as a moderator of the path from early maladaptive schemas to each of the criterion variables.

When the five schema domains were entered simultaneously as parallel mediators, analyses pertaining to Model 7 indicated that the conditional indirect effects of CM on trauma-related symptoms, depressive symptoms, relationship satisfaction, and relational conflict through emotional deprivation, abandonment, mistrust/abuse, social isolation, and defectiveness/shame schemas were not significantly different at low, average, and high levels of self-compassion. When controlling for the mediating effects of the other four early maladaptive schemas, only the path from CM to mistrust/abuse schemas to relational commitment showed significant moderation by self-compassion, with a difference between conditional indirect effects of -.0042, 95% CI [-.0093, -.0003]. Specifically, individuals scoring more than 1 standard deviation below the sample mean

for self-compassion had an indirect effect equal to .0552, 95% CI [-.1342, -.0041], while individuals who scored more than one standard deviation above the sample mean for self-compassion had an indirect effect of -.1603, 95% CI [-.3319, -.0182]. Individuals who scored within plus or minus one standard deviation of the sample mean for self-compassion had an indirect effect of -.1078, 95% CI [-.2239, -.0120]. The full moderated-mediation model accounted for 54.18% of the variance in depressive symptoms ($F(3, 222) = 87.51$, $R^2 = .5418$, $p < .0001$), 50.92% of the variance in trauma-related symptoms ($F(3, 222) = 76.29$, $R^2 = .5092$, $p < .0001$), 22.81% of the variance in relationship satisfaction ($F(3, 134) = 13.20$, $R^2 = .2281$, $p < .0001$), 11.81% of the variance in relational conflict ($F(3, 134) = 5.98$, $R^2 = .1181$, $p = .0007$), and 18.23% of the variance in relational commitment ($F(3, 134) = 9.96$, $R^2 = .1823$, $p < .0001$). Consistent with the direction specified in my second hypothesis, these results indicate that higher levels of self-compassion may attenuate the path from childhood maltreatment to mistrust/abuse schemas in predicting reduced relational commitment. None of the analyses pertaining to Model 14, which examined moderation by self-compassion at the paths from EMS to outcomes of trauma-related symptoms, depressive symptoms, relationship satisfaction, conflict, and commitment, were significant.

Secondary Analyses

Different Types of Maltreatment as Predictor Variable. In order to determine whether the statistical significance of my model differs as a function of different types of child maltreatment, I conducted ten separate bootstrapping moderated-mediation analyses (Model 7 and 14; Preachers & Hayes, 2004) using emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect as the predictor variables, and

shame, mistrust, abandonment, emotional deprivation, and social isolation schemas as parallel mediators. As in the primary analysis, self-compassion was the moderator variable, and the outcome variables and statistical parameters were identical to the ones used in primary analyses.

When the five EMS subdomains were entered simultaneously as parallel mediators, only the analysis pertaining to Model 7, with self-compassion moderating the path from emotional abuse to mistrust/abuse schemas in predicting relational commitment, was significant, with a difference between conditional indirect effects of -.0107, 95% CI [-.0252, -.0007]. Specifically, individuals scoring more than 1 standard deviation below the sample mean for self-compassion had an indirect effect equal to .2202, 95% CI [-.4926, -.0382], while individuals who scored more than one standard deviation above the sample mean for self-compassion had an indirect effect of -.4865, 95% CI [-.9717, -.0952]. Individuals who scored within plus or minus one standard deviation of the sample mean for self-compassion had an indirect effect of -.3533, 95% CI [-.7026, -.0718]. These results indicate that higher levels of self-compassion may attenuate the path from childhood emotional abuse to mistrust/abuse schemas in predicting reduced relational commitment.

All other moderated-mediation analyses using emotional abuse as a predictor of trauma-related symptoms, depressive symptoms, relationship satisfaction, and relational conflict were not significant. Likewise, all moderated-mediation analyses using physical abuse, sexual abuse, emotional neglect, and physical neglect as predictors of trauma-related symptoms, depressive symptoms, relationship satisfaction, conflict, and commitment were non-significant. None of the secondary analyses using model 14

returned significant results.

Serial Moderated-Mediation. To test for interactions among the criterion variables, I also conducted two serial moderated-mediation models (see Figure 2).

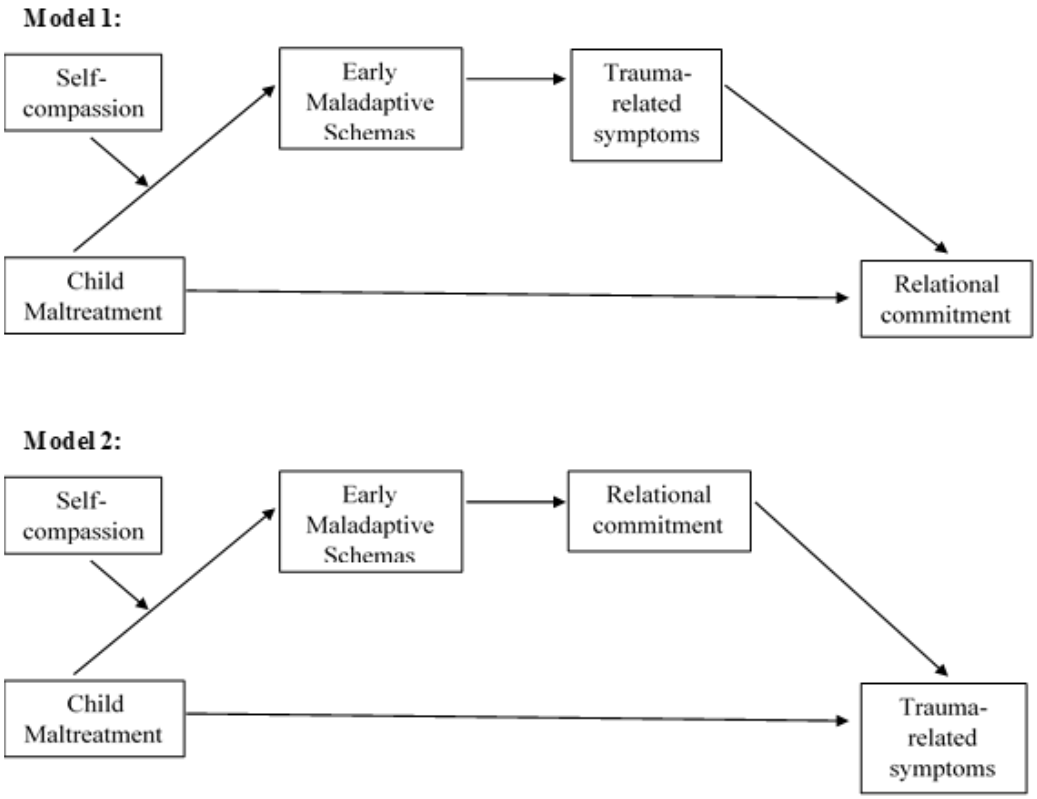

Figure 2 Two competing serial moderated-mediation models.

Because relational commitment was the only outcome variable that showed significant moderated-mediation in primary analyses, I deviated from my initial plan to run these models using relationship satisfaction, and instead looked at sequences involving relational commitment. Specifically, I wanted to determine whether the relationship between CM and relational commitment was mediated by maladaptive schemas to trauma-related symptoms, or whether the relationship between CM and trauma-related symptoms was mediated by early maladaptive schemas to relational commitment. In both models, I tested whether the path from CM to maladaptive schemas was moderated

by self-compassion. To test these models, I used the procedures described by Preacher and Hayes (2004), and implemented by PROCESS for IBM SPSS. Figure 2 shows the two competing serial moderated mediation models (Model 83; Preacher & Hayes, 2004). In the first model, the predictor was a continuous variable measuring childhood maltreatment, while relational commitment was the criterion variable. The second model used the same predictor, but the criterion variable was trauma-related symptoms. Although childhood maltreatment, EMS, and trauma-related symptoms were significantly correlated with each other and with reduced relational commitment, results for both sequential moderated-mediation models were non-significant.

CHAPTER 4

DISCUSSION

Although the long-term negative effects of childhood maltreatment have been well-documented, including increased risk for trauma-related symptoms (Breslau et al., 2014; DeBellis, 2001; Widom, 1999), depression (Braithwaite et al., 2017; Gibb et al., 2001; Fergusson et al., 2011; Mersky & Topitzes, 2010; Schilling et al., 2007; Sperry & Widom, 2013), and interpersonal difficulties in adulthood (DeLillo, 2009; Maneta et al., 2015; Messman-Moore & Coates, 2007; Nguyen et al., 2017), relatively little is known about the individual risk or protective factors that may enhance or mitigate these outcomes. Results from previous mediational analyses raise the possibility that EMS may mediate the relationship between CM and outcomes of depression, trauma-related symptoms, and interpersonal conflict, but the role of EMS in relationship satisfaction and commitment has not been examined. In addition to providing support for previous findings with regard to the outcomes of depression, trauma-related symptoms, and relational conflict, the current study adds to the existing body of knowledge by examining EMS-mediated relationships between CM and the previously unexamined outcomes of relationship satisfaction and commitment.

The current study also examined two competing models of moderated-mediation to determine whether self-compassion serves as a moderator of the relationship between CM to EMS, or at a later point, in the relationship between EMS and outcomes of depression, trauma-related symptoms, relationship satisfaction, conflict, and

commitment. To my knowledge, the current study marks the first time that the relationship between CM, EMS, and adult outcomes of relational conflict, satisfaction, and commitment have been examined in light of an individual's level of self-compassion, results of which raise important considerations for future research.

Based on previous findings that early maladaptive schemas mediated the relationship between CM and later-life depression, trauma-related symptoms, and interpersonal conflict (Harding et al., 2012; Lumley & Harkness, 2007; Messman-Moore & Coates, 2007), I hypothesized that EMS would mediate the relationship between the experience of child maltreatment and college students' endorsement of trauma-related symptoms, depression, current relationship satisfaction, conflict and commitment. To my knowledge, the current study marks the first time that relationship satisfaction and commitment have been considered as specific outcomes in a model examining EMS as a mediator of the relationship between childhood maltreatment and negative sequelae in intimate adult relationships. Inclusion of these variables alongside depression and relational conflict provides a more comprehensive assessment of relational function that considers not only the negative aspects of interpersonal relations, but also some of the more positively-valenced aspects. Unlike conflict and relationship satisfaction, which tend to depend partly on the actions and characteristics of an individual's romantic partner, relational commitment may offer a unique opportunity to assess interpersonal functioning from an intrapersonal perspective that circumvents possible confounds due to a partner's traits and behaviors.

Based on limited evidence that self-compassion may attenuate the relationship between childhood maltreatment, negative automatic thoughts, and depressive symptoms

(Hou et al., 2020), I also tested two competing moderated-mediation models, in which self-compassion either: a) moderated the path from CM to EMS, or b) from EMS to negative life outcomes, resulting in reduced negative outcomes for those with higher levels of self-compassion. Although no a-priori hypotheses were made, I also examined the effects of each type of CM separately, and ran two serial moderated-mediation analyses to test for possible interactions among the outcomes of trauma-related symptoms and relational commitment. The results of the current study supported my first hypothesis, and provided limited support for the first model of my second hypothesis, while highlighting methodological issues and considerations for future research.

Considered jointly, mediational analyses in the current study indicated that the five categories of disconnection/rejection schemas significantly mediated the path from childhood maltreatment to all five outcome variables. This effect was especially pronounced in the path from childhood maltreatment to trauma-related and depressive symptoms for social isolation and defectiveness/shame schemas, the indirect effects of which remained significant after controlling for the mediating effects of the other schema subdomains. Similarly, when controlling for the effects of the other four schemas, the indirect effect of defectiveness/shame schemas remained significant in the paths from CM to lower adult relationship satisfaction and reduced relational commitment. Per the outcome of reduced relational commitment, the indirect effect of mistrust/abuse schemas also remained significant when controlling for simultaneous mediation by the other four schemas. Although overall disconnection/rejection schemas significantly mediated the relationship between CM and relational conflict, none of the individual schema domains achieved significance when entered simultaneously.

These results are consistent with a schema theory perspective of child maltreatment, which conceptualizes adult intra- and interpersonal outcomes as learned beliefs and patterns of perceiving the self in relation to others that originate during early childhood interactions with abusive caregivers (Bowlby, 1969; Young et al., 2003). By controlling for the compound effects of all five disconnection/rejection schemas simultaneously, the current study offers some insight into specific schemas that may play a particularly central role in the relationships between childhood maltreatment and the outcomes of depression, trauma symptoms, relationship satisfaction, conflict, and commitment. Specifically, social isolation and defectiveness/shame schemas both exerted a heavy influence on depression and trauma-related symptoms, suggesting that these two schema types may play a prominent role in childhood maltreatment-related psychological distress. Defectiveness/shame schemas also appeared to drive much of the indirect effect of EMS on the relationships between childhood maltreatment and the outcomes of lower relationship satisfaction and reduced relational commitment. Likewise, even when controlling for the other four EMS, the indirect effect of mistrust/abuse schemas remained significant in the relationship between CM and reduced relational commitment, suggesting a prominent role for this schema in shaping adult romantic commitments.

The above noted differences in individual schema-mediated outcomes are consistent with cognitive theories of depression, trauma-related symptoms, and poor relational functioning (Baldwin, 1992; Beck, 1976; Davoodi et al., 2018; Ellis, 1957; Dudek & Szymczak, 2011; Lim et al., 2018; Lim & Barlas, 2019; Mouchan et al., 2017; Rodriguez et al., 2020; Taylor, 2015). Specific to the mediating effects of social isolation

and defectiveness/shame schemas on depression and trauma symptoms, individuals who were maltreated as children may fear that they don't fit in, that they are unworthy of others' love, attention, and respect, or that others will reject them if they reveal their true selves (Young, 1999). These beliefs and expectations may reinforce, strengthen, and even precipitate feelings, perceptions, and anticipations of personal inadequacy, wickedness, and rejection, which may trigger, exacerbate, or maintain depressive or trauma-related symptoms. Often such processes occur automatically, the physical correlates of which have been measured in response to EMS activation in depressed and traumatized individuals during interpersonal scenarios that elicited heightened sensitivity to both neutral and negative facial expressions (Moosavian & Nejati, 2018).

In the current study, defectiveness/shame schemas also drove much of the indirect effect of EMS on the relationships between CM and outcomes of low relationship satisfaction and reduced relational commitment. From the perspective of attachment theory, this may be partly accounted for by a higher prevalence among CM survivors of comorbid EMS alongside disorganized and insecure attachment styles (Simard et al, 2011; Stanojević & Nedjeljković, 2012), which may exacerbate schema severity and compound adult relational difficulties. In instances such as these, negative self-perceptions stemming from defectiveness/shame schemas and low self-worth among individuals with a history of child maltreatment may be projected onto relationship partners, engendering feelings of animosity, rejection, fear, horror, disgust, anger, guilt, shame, and dissatisfaction (Taylor, 2015), and precluding the ability to form strong bonds and commitments.

Also with regard to reduced commitment in the current sample, mistrust/abuse

schemas exerted a strong mediating effect among survivors of child maltreatment, which might be attributed to several factors, including: discomfort with, or fear of, intimacy (Davis et al., 2001); mistrust of other's motives regarding displays of compassion, love, or affection (Liotti & Prunetti, 2010); low tolerance for distress or uncertainty (Vujanevic & Zegel, 2020; Westermann et al., 2020); unwillingness to feel dependent on, or indebted to, others (Ford & Courtois, 2020); and difficulty recognizing, responding to, communicating, or meeting one's own (and/or others') psychological and social needs (Ford & Courtois, 2020; Westermann et al., 2020). Severity of depression, trauma symptoms, emotional dysregulation, or comorbid psychopathology could also result in reduced cognitive flexibility (Boorjali et al., 2018), rendering it more difficult to counteract the impact of EMS, and harder to recognize and appreciate positive interactions with adult relationship partners. Each of these factors represents a different possible manifestation of mistrust/abuse schemas, several of which may co-occur to produce compound effects on the strength, quality, and commitment of attachments.

In the current sample, when controlling for the other four EMS, the moderating effect of self-compassion was limited to the path from child maltreatment to mistrust/abuse schemas in predicting reduced relational commitment, an effect which was particularly pronounced among survivors of childhood emotional abuse. These results are in line with Messman-Moore and Coates' (2007) interpretation of their finding that mistrust/abuse schemas completely mediated the relationship between childhood emotional abuse and adult interpersonal conflict. They noted that, compared to three other disconnection/rejection schemas, mistrust/abuse schemas had the largest impact on adult relationships, a factor they attributed to the ways in which a survivor's perceptions

of childhood psychological abuse continue to inform and distort expectations about love and trust in adult relationships (Messman-Moore & Coates, 2007).

If, as suggested, the prominent indirect effect of mistrust/abuse schemas on reduced relational commitment operates primarily at the intra-personal level of perception and expectations, the outcome of reduced relational commitment may be less heavily affected (compared to other relationship outcomes) by external factors, such as a partner's actions. This reliance on internal processes may render the path from childhood maltreatment to mistrust/abuse symptoms to reduced relational commitment especially amenable to the moderating effects of self-compassion, which is effective as an emotion regulation strategy to encourage healthier, more adaptive perceptions, but is largely ineffective at altering external situations (Trompetter, et al., 2017). Furthermore, because the long-term effects of emotional abuse often involve reduced self-worth, emotion dysregulation, and other psychological sequelae, but rarely invoke fears of physical harm or threat (O'Dougherty Wright, 2008), childhood psychological abuse may be more amenable to self-compassionate intervention than other forms of abuse that involve an element of physical danger, such as physical and sexual abuse, and physical neglect. With regard to its moderating effect on mistrust/abuse schemas, being high in self-compassion might result in a lessened tendency for emotionally abused individuals to expect that others will take advantage of them, perhaps leading to greater willingness to trust and remain in relationships, which may result in increased exposure to positive interpersonal experiences, stronger emotional bonds, and higher relational commitment.

Contrary to my second hypothesis, the current study did not find significant effects for self-compassion moderating the paths from CM to EMS in predicting non-

relational variables of depression and trauma-related symptoms. In line with theories of complex PTSD (Vasilopolou, 2020), it is possible that if I had accounted for other factors, such as age at onset of maltreatment and relationship to the perpetrator, I may have found a significant moderating effect of low self-compassion among those who were abused by close family members or who experienced maltreatment at a younger age.

Despite being significantly correlated with childhood maltreatment, EMS, and each other, results were non-significant for both analyses that I conducted to examine sequential interactions between trauma-related symptoms and reduced relational commitment. This may be due to the involvement of other variables, such as choice of relationship partner [maltreated individuals may be more likely than their non-maltreated counterparts to attract or choose abusive partners (Parks et al., 2010)], conflict handling/relational skills of survivors [maltreated individuals may utilize more avoidant (Unger & DeLuca, 2014) or anxious/hostile interpersonal styles (Finzi et al., 2001)], or trauma-related perceptual issues, such as projecting past experience and relationships onto current interactions (San-Cristobal et al., 2017). Future research may wish to further explore the relationship between childhood maltreatment, EMS, and reduced relational commitment in the context of these, and other interactions.

Limitations and Directions for Future Research

Although the results of the current cross-sectional survey support the idea that early maladaptive schemas following childhood abuse or neglect are an important mechanism in the development of negative life outcomes, such as depression, trauma-related symptoms, and poorer functioning in adult relationships, temporal precedence can

only be established using longitudinal research methods. Additional limitations arise from the relatively small size of the current sample, and from sampling bias due to my reliance on a participant pool consisting exclusively of undergraduate students enrolled in psychology courses at a private institution.

The current sample involved undergraduate students at a private, midwestern university, of whom 80.7% identified as white and 70.2% reported household incomes above $50,000. Previous research on child maltreatment outcomes suggests that both low socioeconomic status and ethnic minority membership are potent risk factors for negative relational and psychological outcomes (Lefebvre et al., 2017; Hussey et al., 2006). Although race was controlled in all analyses, and preliminary analyses showed no effect of household income, results from the current study may not generalize to maltreatment survivors from either ethnic minority or low-income households. Furthermore, college students who were maltreated as children may be higher functioning and less likely to exhibit symptoms of psychopathology than their non-college educated counterparts in the general population. Indeed, previous research on educational and professional outcomes suggests that the experience of CM is strongly correlated with lower levels of educational attainment (Currie & Widom, 2010; Tanaka et al., 2015), higher levels of disability, lower earnings, and lower levels of employment (Currie & Widom, 2010). The current sample of college students may reflect a high-functioning, or otherwise more resilient, subset of childhood maltreatment survivors, results of which may not be representative of the entire population.

Based on a review of previous findings, the indirect effect of self-compassion is likely small (Hou et al., 2020), and may be dependent upon co-occurrence with other

significant moderators (Yakin et al, 2019). If a small but significant moderating effect of self-compassion did exist in my dataset, the current study was not sufficiently powered to detect it. Although this study used bootstrapping (Deng et al., 2013), which increases the likelihood of finding significant results despite limitations of sample size, an additional limitation of the current study was the small number of participants who endorsed each type of child maltreatment. In the current sample, only 12 participants reported experiencing physical neglect, 18 reported a history of emotional neglect, 11 reported being victims of childhood physical abuse, 49 reported a history of emotional abuse, and 24 reported experiencing child sexual abuse. Findings from the current study should be regarded with skepticism pending future investigation with larger samples of maltreatment survivors.

In addition to conducting longitudinal research on the outcomes of childhood maltreatment, future research should continue to examine the complex relationships between CM and negative life outcomes, including depression, trauma-related symptoms, and relational difficulties. As demonstrated by the current study's findings, in addition to studying the mediating effect of early maladaptive schemas in general, it may be informative to examine the effects of each schema individually, controlling for the other schemas. This process would allow for a clearer picture of individual schema contributions to negative outcomes, potentially helping to focus and inform interventions and treatment. As in the current study, exploring the mediating effects of EMS in parallel also has the potential to refine moderated-mediation analyses, allowing for precise identification of the schemas most amenable to moderation.

In the current study, self-compassion weakened the relationship between

childhood maltreatment and EMS in predicting reduced relational commitment, such that the relationship was weaker in those with higher self-compassion compared to those with lower self-compassion. Future research may wish to perform similar analyses using experimental manipulation of self-compassion, perhaps via targeted training programs (i.e., Brief Self-compassion Training (BSCT), Heid et al., 2018; *The Mindful Self-Compassion Workbook;* Germer and Neff, 2018; Compassion Focused Therapy (CFT), Gilbert, 2010; 2014; 2016). When designing future studies to examine the effects of self-compassion, researchers should plan in advance to use a sample size sufficient to detect small effects. Consideration should also be given to any (population-specific) potential adverse effects (Eicher et al., 2013; Quaglia et al., 2020) and/or prerequisites (Gilbert et al, 2011; Miron et al., 2016; Rowe et al., 2016; O'Connor, 2021) for successful implementation of a self-compassion intervention, as well as to the involvement of specific aspects and/or mechanisms that may render self-compassion more or less beneficial [i.e., combination with cognitive reappraisal (Diedrich et al., 2016) and/or mindfulness training (Klick, 2016); delivery in group versus individual settings (Ferrari et al., 2019); presence or absence of safe, stable, nurturing environments (O'Connor, 2021)].

In addition to affirming previous findings of EMS-mediated relationships between CM and adult outcomes of depression, trauma-related symptoms, and interpersonal conflict, the current study identified a mediating role of EMS in the relationship between CM and previously unexamined outcomes of relationship satisfaction and commitment. Through the use of parallel mediation, the current study also yielded preliminary insights into the unequal influences of specific schemas in the relationships between childhood

maltreatment and outcomes specific to depression, trauma symptoms, relationship satisfaction, and commitment. Although necessarily preliminary, the current study's identification of a significant attenuating effect of self-compassion on the path from emotional abuse to mistrust/abuse schemas to reduced relational commitment provides evidence for a buffering effect of self-compassion, which may be more pronounced with respect to certain outcomes and subgroups of maltreatment survivors. Follow-up research is needed to better understand these results, and to identify additional mechanisms and interactions in the relationship between child maltreatment and negative life outcomes.

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APPENDIX A

Childhood Trauma Questionnaire--Short Form

The Childhood Trauma Questionnaire-Short Form is a copyrighted scale that is not in the public domain. Per copyright, the CTQ-SF is not appended here.

APPENDIX B

Posttraumatic Checklist for DSM-5

INSTRUCTIONS: Read each of the problems on the next page and then circle one of the numbers to the right to indicate how much you have been bothered by memories of negative childhood events in the past month.

In the past month, how much were you bothered by:	**Not at all**	**A little bit**	**Moderately**	**Quite a bit**	**Extremely**
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving) it?	0	1	2	3	4
4. Feeling very upset when something reminded you of the	0	1	2	3	4

stressful experience?					
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4
9. Having strong negative beliefs about yourself, other people or the world (for example, having thoughts such as: I am bad, there is something	0	1	2	3	4

seriously wrong with me, no one can be trusted, the world is completely dangerous)?					
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0	1	2	3	4
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4
12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13. Feeling distant or cut off from other people?	0	1	2	3	4
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0	1	2	3	4
15. Irritable behavior, angry outburst, or acting aggressively?	0	1	2	3	4
16. Taking too many risks or doing things that could cause	0	1	2	3	4

you harm?					
17. Being “super-alert” or watchful or on guard?	0	1	2	3	4
18. Feeling jumpy or easily startled?	0	1	2	3	4
19. Having difficulty concentrating?	0	1	2	3	4
20. Trouble falling or staying asleep?	0	1	2	3	4

Scoring Instructions:

Cluster B Diagnostic criteria: Items 1-5

Cluster C Diagnostic criteria: Items 6 and 7

Cluster D Diagnostic criteria: Items 8-14

Cluster E Diagnostic criteria: Items 15-20

APPENDIX C

Center for Epidemiological Studies Depression Scale

INSTRUCTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate value to the right of the statement to indicate how you have felt over the past week.

	During the Past Week			
	Rarely or none of the time (less than 1 day)	**Some or a little of the time (1-2 days)**	**Occasionally or a moderate amount of time (3-4 days)**	**Most or all of the time (5-7 days)**
1. I was bothered by things that usually don't bother me.	1	2	3	4
2. I did not feel like eating; my	1	2	3	4

appetite was poor.				
3. I felt that I could not shake off the blues even with help from my family.	1	2	3	4
4. I felt that I was just as good as other people.	1	2	3	4
5. I had trouble keeping my mind on what I was doing.	1	2	3	4
6. I felt depressed.	1	2	3	4
7. I felt that everything I did was an effort	1	2	3	4
8. I felt hopeful	1	2	3	4

about the future.				
9. I thought my life had been a failure.	1	2	3	4
10. I felt fearful.	1	2	3	4
11. My sleep was restless.	1	2	3	4
12. I was happy.	1	2	3	4
13. I talked less than usual.	1	2	3	4
14. I felt lonely.	1	2	3	4
15. People were unfriendly.	1	2	3	4
16. I enjoyed life.	1	2	3	4
17. I had crying spells.	1	2	3	4
18. I felt sad.	1	2	3	4

19. I felt that people disliked me.	1	2	3	4
20. I could not get going.	1	2	3	4

Scoring Instructions:

Items 4, 8, 12, and 16 are reverse scored.

APPENDIX D

Relationship Rating Form

INSTRUCTIONS: Below you will find questions about your relationship with your partner, lover or spouse. **If you are currently in a romantic relationship that has lasted three or more months**, base your responses on your current relationship experiences. **If you are not currently in a relationship**, or if your current relationship has not lasted at least three months, base your responses on your most significant past relationship. **If you have never been in a romantic relationship**, skip this section and move on to the next section.

To answer the questions, write the number between 1 and 9 that best reflects your feelings about your relationship with this person. Use the following rating scale:

1 = Not at all	6 = very much
2 = very little	7 = a great deal
3 = Slightly (or rarely)	8 = strongly (almost always)
4 = somewhat (not often)	9 = Completely or extremely
5 = a fair amount	

1. ____Are you happy in your relationship with this person?
2. ____Do you enjoy doing things with this person more than with others?

3. ____Does your partner share the same feeling for you that you have for him/her?

4. ____Does your partner make you feel worthwhile and special?

5. ____Do you fight and argue with this person?

6. ____Are you committed to staying in your relationship?

7. ____Has your relationship with this person satisfied your needs?

8. ____Do you enjoy doing things with this person that you otherwise would not enjoy?

9. ____Does this person really care about you as a person?

10. ___Does your partner make you feel proud of yourself?

11. ___Does this person treat you in unfair ways?

12. ___Does this person measure up to your ideals for a life partner?

13. ___Has your relationship with this person been a success?

14. ___Do you enjoy this person's company?

15. ___Do you feel that your partner cares for you as much as you care for him/her?

16. ___Is there tension in your relationship with this person?

17. ___How likely is it that your relationship will be permanent?

18. ___How committed is your partner to this relationship?

Scoring Instructions:

General Satisfaction subscale: Items 1-4, 7-10, 13-15,

Conflict subscale: Items 5, 11, and 16

Commitment subscale: Items 6, 12, 17, and 18

APPENDIX E

Young Schema Questionnaire- Short Form

INTRUCTIONS: Listed below are several statements that a person might use to describe him or herself. Please read each statement and decide how well it describes you. When you are not sure, base your answer on what you emotionally feel, not on what you think to be true. Choose the highest rating from 1 to 6 that describes you and write the number in the space before the statement.

RATING SCALE:

1- Completely untrue of me

2- Mostly untrue of me

3- Slightly more true than untrue

4- Moderately true of me

5- Mostly true of me

6- Describes me perfectly

1. _____ Most of the time, I haven't had someone to nurture me, share him/herself with me, or care deeply about everything that happens to me.

2. _____ In general, people have not been there to give me warmth, holding and affection.

3. _____ For much of my life, I haven't felt that I am special to someone.

4. _____ For the most part, I have not had someone who really listens to me, understand me, or is tuned into my true needs and feelings.

5. _____ I have rarely had a strong person to give me sound advice or direction when I'm not sure what to do.

6. _____ I find myself clinging to people I'm close to, because I'm afraid they'll leave me.

7. _____ I need other people so much that I worry about losing them.

8. _____ I worry that the people I feel close to will leave me or abandon me.

9. _____ When I feel someone I care for pulling away from me, I get desperate.

10. _____ Sometimes I am so worried about people leaving me that I drive them away.

11. _____ I feel that people will take advantage of me.

12. _____ I feel that I cannot let my guard down in the presence of other people, or else they will intentionally hurt me.

13. _____ It is only a matter of time before someone betrays me.

14. _____ I am quite suspicious of other people's motives.

15. _____ I'm usually on the lookout for people's ulterior motives.

16. _____ I don't fit in.

17. _____ I'm fundamentally different from other people.

18. _____ I don't belong; I'm a loner.

19. _____ I feel alienated from other people.

20. _____ I always feel on the outside of groups.

21. _____ No man/woman I desire could love me once he/she saw my defects.

22. _____ No one I desire would want to stay close to me if he/she know the real me.

23. _____ I'm unworthy of the love, attention, and respect of others.

24. _____ I feel that I'm not loveable.

25. _____ I am too unacceptable in the very basic ways to reveal myself to other people.

Scoring Instructions:

Emotional Deprivation subscale: Items 1-5

Abandonment subscale: Items 6-10

Mistrust/abuse subscale: Items 7-15

Social Isolation subscale: Items 16-20

Defectiveness/shame subscale: Items 21-25

APPENDIX F

Self-Compassion Scale

INSTRUCTIONS: Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost never Almost always

1 2 3 4 5

_____ 1. I'm disapproving and judgmental about my own flaws and inadequacies.

_____ 2. When I'm feeling down, I tend to obsess and fixate on everything that's wrong.

_____ 3. When things are going badly for me, I see the difficulties as part of life that everyone goes through.

_____ 4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.

_____ 5. I try to be loving towards myself when I'm feeling emotional pain.

_____ 6. When I fail at something important to me, I become consumed by feelings of inadequacy.

_____ 7. When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am.

_____ 8. When times are really difficult, I tend to be tough on myself.

_____ 9. When something upsets me, I try to keep my emotions in balance.

_____ 10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.

_____ 11. I’m intolerant and impatient towards those aspects of my personality I don't like.

_____ 12. When I’m going through a very hard time, I give myself the caring and tenderness I need.

_____ 13. When I’m feeling down, I tend to feel like most other people are probably happier than I am.

_____ 14. When something painful happens, I try to take a balanced view of the situation.

_____ 15. I try to see my failings as part of the human condition.

_____ 16. When I see aspects of myself that I don’t like, I get down on myself.

_____ 17. When I fail at something important to me, I try to keep things in perspective.

_____ 18. When I’m really struggling, I tend to feel like other people must be having an easier time of it.

_____ 19. I’m kind to myself when I’m experiencing suffering.

_____ 20. When something upsets me, I get carried away with my feelings.

_____ 21. I can be a bit cold-hearted towards myself when I'm experiencing suffering.

_____ 22. When I'm feeling down, I try to approach my feelings with curiosity and openness.

_____ 23. I’m tolerant of my own flaws and inadequacies.

_____ 24. When something painful happens, I tend to blow the incident out of proportion.

_____ 25. When I fail at something that's important to me, I tend to feel alone in my

failure.

_____ 26. I try to be understanding and patient towards those aspects of my personality I don't like.

Scoring Instructions:

Self-judgment subscale: Items 1, 8, 11, 16, 21 (all are reverse scored)

Over-indulgence subscale: Items 2, 6, 20, 24 (all are reverse scored)

Isolation subscale: Items 4, 13, 18, 25 (all are reverse scored)

Self-kindness subscale: Items 5, 12, 19, 23, 26

Common Humanity subscale: Items 3, 7, 10, 15

Mindfulness subscale: Items 9, 14, 17, 22

APPENDIX G

Demographic Survey

Please complete the following demographic information. If you wish, you may choose to refrain from completing the demographic information.

1. Age: _____

2. Gender (circle): Female Male Other Prefer not to answer

3. Race (check one):

__Caucasian/White

__African American/Black

__Asian-American

__Latino/a

__Other

4. Highest education level completed by parents/caregivers (circle one):

____ No high school degree

____ High school/GED

____ Some college

____ Bachelor's degree

____ Graduate study

5. Average yearly income in your household growing up (check one):

____ Less than $9,999

____ $10,000 - $24,999

____ $25,000 - 49,999

____ $50,000 - 74 999

____ $75 000 - 99,999

____ $100,000 - 149,999

____ Greater than $150,000

____ Prefer not to answer

APPENDIX H

Informed Consent

Project Title: Negative Childhood Experiences and Psychological Outcomes

Study Investigator(s): Sarah L. Engel and Dr. Catherine Zois, PhD (faculty sponsor)

Description of Study: This study examines factors that may impact the relationship between psychological symptoms and contentment with current relationships. You will be asked to complete seven questionnaires. One questionnaire will ask about demographic information while the remaining five questionnaires will ask about such topics as negative childhood experiences, symptoms of depression and trauma-related symptoms, relationship satisfaction, what you tend to say to yourself during difficult times, and interpersonal beliefs that you have.

Adverse Effects and Risks: This study will ask you to recall negative childhood experiences such as of physical, psychological, or sexual abuse (e.g., "I believe I was sexually abused"). Should psychological distress occur (e.g., anxiety, sadness, or anger), you may inform the graduate student in charge of the session. The graduate student will assist you in getting in touch with Dr. Zois for further assistance. The graduate student may also assist you in contacting the University of Dayton Counseling Center at 937-

229-3141. This resource may be helpful to participants who feel the need to process their distress in a safe and confidential environment. The University of Dayton Counseling Center is free to University of Dayton undergraduates.

Duration of Study: The study will take approximately 60 minutes to complete.

Confidentiality of Data: Your name will be kept separate from the data. You will not be asked to place your name on any of the questionnaires and your responses will be identified with a random research code. The sign in sheet with your name and the data will be kept in a locked filing cabinet. Only the investigators named above will have access to the locked filing cabinet. Your name will not be revealed in any document resulting from this study. Please know that if you should choose to contact Dr. Zois or the chair of the Research Review and Ethics Committee (RREC), whose contact information is listed below, they are required as employees of the University of Dayton to report any and all harassment and/or dating/domestic violence, etc. the university's Title IX coordinator. We do not mention this fact to discourage you from contacting either of us, but simply to help you make an informed decision. Having said this, all UD employees who work at the UD Counseling Center or the UD Health Center are confidential resources and are not required to report such information.

Contact Person: Participants may contact Dr. Catherine Zois by phone at 937-229-2164 or by email at czios1@udayton.edu. If you have questions about your rights as a research participant you may also contact the chair of the Research Review and Ethics

Committee, at rrec@udayton.edu or (937) 229-2713 or in SJ 329.

Consent to Participate: I have voluntarily decided to participate in this study. If I had questions about this study, I have contacted the investigator named above and he or she has adequately answered any and all questions I have about this study, the procedures involved, and my participation. I understand that I may voluntarily terminate my participation in this study at any time and still receive full credit. In addition, I certify that I am 18 (eighteen) years of age or older. By checking the box below, I certify that I have read the informed consent and consent to participate in this study. If I do not want to participate, I can return the questionnaire packet to the researcher.

☐ I have read the informed consent and I consent to participate in this study.

The University of Dayton supports researchers' academic freedom to study topics of their choice. The topic and/or content of each study are those of the principal investigator(s) and do not necessarily represent the mission or positions of the University of Dayton.

APPENDIX I

Debriefing Form

Information about the Life Experience and Outcomes Study

Objective:

The goal of this study was to examine potential factors that may lead a person who has experienced child maltreatment (e.g., physical, psychological, or sexual abuse in childhood) to develop trauma-related symptoms, depression, or low relationship satisfaction. Should the data from this study be significant, it could be useful in identifying why some people who have experienced childhood maltreatment develop PTSD, depression, or low relationship satisfaction and others do not.

Hypothesis:

We hypothesize that the experience of child maltreatment will be associated with trauma-related symptoms, depression, and relationship satisfaction, and that the associations between these variables can, in part, be explained by the beliefs people have about themselves and their relationships with others. Examples of negative beliefs someone might have include: "I am unloveable", "Other people cannot be trusted", and "I cannot rely on others to meet my needs". We further hypothesize that the relationship between the experience of child maltreatment, negative beliefs about self and others, trauma-related and depression symptoms, and low relationship satisfaction will be weaker for individuals

high in self-compassion. Self-compassion is a construct understood as having kindness, patience, and understanding for oneself (Neff, 2003).

Your Contribution:

Your participation in this study and the answers you have provided in these questionnaires may help researchers learn more about the relationship between the experience of child maltreatment and trauma-related symptoms, depression, and low relationship satisfaction. Your input may also help researchers find out more about the beliefs people have about themselves and their relationships with others and their possible connection to child maltreatment. Additionally, your responses may help researchers better understand how individuals' levels of self-compassion can influence their life outcomes and their beliefs about themselves and their relationships with others in situations of child maltreatment.

Benefits:

This study may provide information about factors that may lead to trauma-related symptoms, depression, and low relationship satisfaction among victims of child maltreatment, as well as factors that may serve as a buffer against the possible negative interpersonal and psychological effects of child maltreatment. Ultimately, such information might be useful in helping clinicians to more effectively treat victims of child maltreatment.

Assurance of Privacy:

We are studying the impact of childhood maltreatment on mental health and interpersonal outcomes and are not evaluating you personally. Your responses will be kept completely confidential. Researchers will identify your responses by a participant number in the data set with other participant numbers. Your name will not be revealed in any document resulting from this study. As your name is not associated with your responses, there is no way for the researchers to contact you if any of your responses on the questionnaires indicate any potential psychological problems for which you could benefit from counseling; however, the researchers strongly encourage you to follow up with the Counseling Center upon feeling any distress associated with your participation in this study (see Counseling Center information below).

Please note:

- We ask you to kindly refrain from discussing this study with others in order to help us avoid biasing future participants.
- If you have any questions please do not hesitate to contact any of the individuals listed on this page.
- For further information about self-compassion research, you may consult the references cited on this page.

Contact Information:

Students may contact Dr. Catherine Zois at 937-229-2164 or czois1@udayton.edu if you have questions or problems after the study. If you have questions about your rights as a research participant you may also contact the chair of the Research Review and

Ethics Committee at rrec@udayton.edu, or (937) 229-2713, or in SJ 329. Please know that if you should choose to contact Dr. Zois and/or the chair of the Research Review and Ethics Committee (RREC), as employees of the University of Dayton they are required to report any and all harassment and/or dating violence, etc. to the university's Title IX coordinator. We do not mention this fact to discourage you from contacting either of us, but simply to help you make an informed decision. Having said this, all UD employees who work at the UD Counseling Center or the UD Health Center are confidential resources and are not required to report such information. Individuals who feel distressed by past experiences of child maltreatment may benefit from receiving counseling. The University of Dayton Counseling Center can be contacted at 937-229-3141. Please note, the Counseling Center is free for all University of Dayton undergraduates.

Thank you for your participation. I will update your research credit on the online system or inform your faculty member of your participation.

Disclaimer:

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Reference:

Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity, 2,* 223-250. doi: 10.1080/15298860390209035

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Presentations

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