

The Role of Psychological Flexibility in the Relationship Between Childhood Abuse and the Quality of Adult Dating Relationships in Female University Students

Johanna Lyn Terry

Submitted in partial fulfillment
of the requirements for the degree
of Doctor of Psychology

in the Nathan Weiss Graduate College
Kean University
2018

ProQuest Number: 13808024

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 13808024

Published by ProQuest LLC (2019). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

© 2018

Johanna Lyn Terry

All Rights Reserved

Johanna Lyn Terry

Has successfully defended her dissertation:

The Role of Psychological Flexibility in the Relationship Between Childhood Abuse and the Quality of Adult Dating Relationships in Female University Students

Submitted in partial fulfillment
of the requirements for the degree
of Doctor of Psychology

in the Nathan Weiss Graduate College
Kean University

On 28 June, 2018

Adrienne Garro, Ph.D.
Doctoral Dissertation Committee Chair

Donald Marks, Psy.D.
Doctoral Dissertation Committee Member

Aaron Gubi, Ph.D.
Doctoral Dissertation Reader

Table of Contents

Title Page	1
Abstract	2
Introduction	3
Childhood Abuse	3
Relationship Quality	4
Psychological Flexibility	9
Current Study	13
Method	14
Results	18
Discussion	21
References	25
Table 1: Correlations	32
Figure 1: Mediation Analysis	33
Appendix: Dissertation Proposal	34

The Role of Psychological Flexibility in the Relationship Between Childhood
Abuse and the Quality of Adult Dating Relationships in Female University Students

Johanna Lyn Terry

Kean University

Abstract

Past research has suggested childhood abuse can have lasting effects, which impact later romantic relationships (Cherlin, Burton, Hurt, & Purvin, 2004; Colman & Widom, 2004). This study aimed to shed light on how psychological flexibility potentially impacts this relationship between childhood abuse and quality of adult dating relationships in a female university population. Psychological flexibility can be defined as the ability to consciously contact the present moment and take part in valued-driven behavior (Biglan, Hayes, & Pistorello, 2008). The sample was comprised of female undergraduate students at a university in the Northeastern United States who are currently involved in a dating relationship. These participants were administered measures assessing the prevalence and intensity of childhood traumatic events, psychological flexibility and romantic relationship quality. Researchers hypothesized that the component of psychological flexibility would mediate the relationship between childhood abuse and quality of adult dating relationships, such that participants who have higher levels of psychological flexibility would endorse greater relationship quality. Although a predictive relationship was not found between overall childhood abuse/neglect and adult relationship quality, psychological flexibility was still found to significantly mediate the relationship. Results from this research support the utility of interventions that aim to increase psychological flexibility in individuals who have experienced childhood abuse.

Keywords: childhood abuse, psychological flexibility, relationship quality

The Role of Psychological Flexibility in the Relationship Between Childhood Abuse and the Quality of Adult Dating Relationships in Female University Students

Abuse at a young age can have many immediate effects on the survivor. The experience might be traumatic for the child and induce a wide range of distressing symptoms. There are also long-term effects of childhood abuse, which have been well documented in research literature (e.g., Fairweather & Kinder, 2013; Hall & Hall, 2011; Maniglio, 2009). There are a number of reasons for this attention, one being the high prevalence of child abuse. According to the U.S. Department of Health and Human Services (2017), child protective services from across the nation reported that, in 2015, they received over 683,487 substantiated cases of abuse and/or neglect. This figure did not include children who were abused or neglected and were not referred to child protective services.

Childhood Abuse

Childhood abuse and, especially sexual abuse, can have several long-term effects such as depression; dissociative patterns; somatic concerns; denial; repression; anxiety; sexual problems; relationship problems; higher risk of developing eating disorders; and high levels of guilt, shame, and self-blame (Fairweather & Kinder, 2013; Hall & Hall, 2011; Maniglio, 2009). Commonly, those who have been sexually abused as a child internalize the abuse, resulting in negative thoughts about themselves (Hartman, Finn, & Leon, 1987). Childhood sexual abuse is also associated with relationship difficulties later in life (DiLillo et al., 2009; Feinauer, Callahan, & Hilton, 1996; Hall & Hall, 2011). Often, individuals will have difficulty with trust and intimacy (Godbout, Runtz, Manintosh, & Briere, 2013), which might stem from once trusting their abusers as children and then being hurt by them. Physical intimacy can also be a difficult area for individuals sexually abused as children, especially for those who have dissociated from the

abuse. Affected individuals might avoid sex, have difficulty being aroused, have negative feelings associated with sex, and feel emotionally distant during sex (Maltz, 2002).

Some of the reactions described above can also be true for survivors of childhood physical abuse. Long-term effects found in survivors of childhood physical abuse include difficulty trusting others, low self-esteem, interpersonal difficulties, anxiety, depression, and aggressiveness (Han, Choi, & Jung 2016; Unger & De Luca, 2014). These factors can make it difficult for individuals to develop healthy and quality relationships.

Relationship Quality

The quality of a romantic relationship has many different components. Much of the research in regard to individuals who have experienced childhood abuse refers to components of relationship satisfaction and stability (Cherlin et al., 2004; Nguyen, Karney, & Bradbury, 2016). Specifically, past research has found that sexual abuse can result in feelings of betrayal, lack of trust, and powerlessness, along with inappropriate sexual behavior (Cherlin et al., 2004). These difficulties can carry over into romantic relationships and contribute to relationship distress (Lawson & Quinn, 2013).

To further examine this connection, Cherlin and colleagues (2004) hypothesized that individuals who have experienced sexual abuse in childhood would be more likely to be cohabiting rather than married or single. Researchers collected data from two different participant groups, using different research designs for each sample. Data were collected through a survey from 2,658 woman residing in low-income neighborhoods. In this sample, participants sat alone in a room and answered questions on a computer-assisted self-interview. Participants were asked about past sexual and physical abuse as well as their current union status (either married, cohabiting, or single). Separate from this sample, 256 women and children were

chosen non-randomly to participate in an ethnographic sample based on their income and location. The families were also observed doing an activity together, such as going to the store or to work. Researchers visited these families at least 18 times within a 4-year span. Results from both samples indicated that the women who disclosed experiencing abuse were significantly less likely to be married or living with a partner in comparison to women who did not experience abuse. Results also indicated that childhood abuse and, especially, childhood sexual abuse was associated with numerous shorter relationships rather than stable marriages or stable cohabiting relationships. Researchers suggested that, based on their observations throughout this study in addition to past research on this topic, there were some possible reasons for this pattern. Women who have been abused are hesitant to let a partner get too close to them. This pattern of shorter and less committed relationships is related to women wanting to have more control over the situation and making it easier for them to leave the relationship (Cherlin et al., 2004). A notable limitation of this particular study was that all of the participants had children under the age of 14, which may have played a significant role on their relationships with their partners.

Tardif-Williams, Tanaka, Boyle, and MacMillan (2015) derived meaningful conclusions in a related study, examining the relationship between childhood sexual and physical abuse and adult romantic relationship functioning. Romantic relationship functioning was broken down into relationship quality and attachment security. This particular cross-sectional study also took mental health functioning and sex differences into consideration when analyzing results. Results revealed that physical abuse and sexual abuse in childhood were associated with adult insecure attachment and poorer adult relationship quality. These relationships were significantly mediated by adult mental health functioning. Among these compelling findings, researchers

found that childhood physical abuse was more significantly related to poor relationship quality, while childhood sexual abuse was more significantly related to insecure attachment. These results suggest that different types of childhood abuse are unique in how they impact adult romantic relationships.

Similarly, Colman and Widom (2004) conducted research which aimed to identify potential differences in adult intimate relationships among individuals who had a documented past of abuse or neglect versus those who did not. A notable advantage of this study is that these researchers used a prospective cohort design unlike many other research designs in this area, which rely on retrospective data. There were 1,179 participants included in this study: 664 individuals with a documented past of abuse and/or neglect, and 515 in the control group. Participants were given measures, which assessed child abuse and neglect, family background, involvement in intimate adult relationships, and relationship functioning. Within the area of relationship functioning, participants were asked about their partner's supportiveness, caring, and openness to communication. Results supported the researchers' hypothesis that women who were abused and/or neglected were less likely than the control group to perceive their romantic partners as supportive, caring, and open to communication. Results also indicated that both male and female participants who were abused and/or neglected in childhood reported significantly higher rates of relationship disruption, such as walking out of the relationship, and divorce. This study provides further support for negative long-term relational effects among individuals with a history of childhood abuse. Clinically, these results are beneficial in the treatment of childhood trauma as well as in enhancing understanding of relationship distress and its possible causes, and in potentially developing effective treatments for children who have experienced trauma.

Lassri, Luyten, Fonagy, and Shahar (2018) brought attention to a potential oversight in

the body of research related to the relationships described above. They aimed to identify the link between childhood sexual abuse and relationship satisfaction, while excluding the possible effects of continuing abuse and relationship violence. Some researchers have highlighted the probability of sexual re-victimization among sexual abuse survivors and considered how this impacts romantic relationships (Messman-Moore & Long, 2003). Lassri et al. (2018) included a sample of 59 “well-functioning” women between the ages of 18 and 39. Participants were excluded based on high scores on the Global Assessment of Functioning (GAF) Scale, if they disclosed inpatient psychiatric treatment or were involved in an abusive romantic relationship at the time of the study. Participants also had to be involved in a romantic relationship for at least one month. Participants completed surveys looking at childhood sexual abuse, self-criticism, adult attachment, psychopathology, and romantic relationship satisfaction. Results revealed that childhood sexual abuse had a direct negative effect on romantic relationship satisfaction, strengthening the already vast body of research in this area. However, if many survivors of abuse continue to endure abuse into adulthood, the utility of the otherwise “normative” sample included in this study is questionable in terms of generalizability.

Although research suggests that there can be significant long-term effects of childhood abuse, there are individuals who are relatively unaffected or still display healthy levels of functioning following childhood abuse (Fairweather & Kinder, 2013; Godbout, Briere, Lussier, & Sabourin, 2014). Looking specifically at individuals with a history of sexual abuse, Godbout and colleagues (2014) hypothesized that parental support at the time of the abuse played a critical role in long-term outcomes. Results indicated that participants with higher levels of perceived parental support reported levels of adjustment similar to those in the non-abused group of participants. Individuals who were abused and reported having unsupportive parents endorsed

more abandonment anxiety and psychological distress than all other groups. The researchers also found that participants with past sexual abuse who reported having parents who intervened after learning about the crime had more comfort with intimacy and expressed lower avoidant attachment compared to all of the other groups. These results highlight the role of parental support after sexual abuse and suggests that, with this support, individuals who experienced abuse can still be comfortable with intimacy and demonstrate positive adjustment.

In other research, Fairweather and Kinder (2013) looked at sexual abuse survivors and the defense mechanisms that are associated with better relationship adjustment later in life. They hypothesized that mature defense mechanisms, such as humor, suppression, anticipation, and sublimation would moderate the relationship between childhood sexual abuse and adult relationship adjustment. Participants included 287 female undergraduate students who were currently involved in a monogamous dating relationship. Participants were given measures of demographics, the Dyadic Adjustment Scale (DAS), Early Sexual Experiences Survey (ESE), Stress Related Growth Scale (SRGS), and Defense Style Questionnaire (DSQ-40). Defense style was classified as mature, immature, or neurotic. Mature defenses included using humor; anticipation and finding possible solutions to a future event; and sublimation, the channeling of unwanted feelings into more socially acceptable outlets. In regard to defense mechanisms, results suggested that mature defenses were a predictor of dyadic consensus and affectional expression in the sample reporting past abuse. Results also indicated a significant relationship between participants with a history of childhood sexual abuse and dyadic consensus, such that those who reported a history of abuse endorsed less agreement with their partners than those who did not report past abuse. Thirdly, results indicated that mature defenses significantly influenced the relationship between reported severity of abuse and the time couples reported spending

together such that participants who reported past sexual abuse and endorsed using mature defenses to cope with their past abuse, endorsed more time spent with their partner. One significant implication from this research is that the use of mature defenses might serve as a protective factor for abuse survivors against poor adjustment within romantic relationships.

Compared to physical and sexual abuse, emotional abuse has been less examined in regard to its long-term effects (Riggs & Kaminski, 2010). However, there is research that has found a connection between childhood emotional maltreatment and later relationship difficulties. Riggs and Kaminski (2010) aimed to explore this pattern, hypothesizing that childhood emotional abuse would predict adult attachment style and romantic relationship quality in college students. Their results did support the relationship between emotional abuse/neglect and adult attachment anxiety/attachment avoidance. An interesting finding from this research was that out of the five subscales of abuse/neglect measured using the Childhood Trauma Questionnaire, emotional abuse was the only significant predictor of adult attachment anxiety, and emotional abuse and neglect were the only significant predictors of adult attachment avoidance. More research on emotional abuse and its impact on intimate relationships is necessary in order to further understand this link.

Psychological Flexibility

The current study proposes that psychological flexibility will mediate the relationship between childhood abuse/neglect and adult romantic relationship quality. Psychological flexibility can be defined as “the ability to contact the present moment more fully as a conscious human being and to change, or persist in, behavior when doing so serves valued ends” (Biglan et al., 2008, p. 142). It is one of the main components of acceptance and commitment therapy (ACT), which focuses on mindfulness and acceptance. Psychological flexibility can be broken

down into six core processes, including contact with the present moment, acceptance, defusion, self as context, values, and committed action. Previous research has not examined the role of psychological flexibility in the relationship between childhood abuse/neglect and later romantic relationships. Therefore, this review will touch upon the relationship between psychological flexibility and trauma symptomatology and then, separately, psychological flexibility and romantic relationships.

Psychological flexibility has been researched specifically in individuals with a history of childhood abuse in terms of experiential avoidance. Experiential avoidance is a common reaction to distressing experiences, where individuals attempt to avoid painful emotions (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Experiential avoidance can contribute to an inability to be present in the moment (Dick, Niles, Street, DiMartino, & Mitchell, 2014). The ACT model proposes that this way of coping with uncomfortable emotions leads to even greater distress, and that adapting a more psychologically flexible approach leads to better functioning overall (Batten, Follette, & Aban, 2001). For survivors of child abuse and neglect, avoidance of their experiences can lead to the development of symptoms associated with posttraumatic stress disorder (PTSD) (Shenk, Putnam, & Noll, 2012). Palm and Follette (2011) found that experiential avoidance was a common factor among individuals diagnosed with PTSD who experienced severe distress. Given that there is a relationship between avoidance and severity of PTSD symptoms, the development of components of psychological flexibility might be appropriate in the treatment of PTSD and trauma (Twohig, 2009).

Looking further into the development of symptoms associated with a diagnosis of PTSD, Shenk and colleagues (2012) interviewed adolescent females and examined variables that might mediate the relationship between childhood abuse and symptoms of PTSD. These variables

included experiential avoidance, respiratory sinus arrhythmia and cortisol reactivity. Of the three variables, experiential avoidance was the only one to individually mediate the relationship between child maltreatment and symptoms of PTSD, indicating that the more participants avoided aversive/triggering stimuli associated with their abuse, the more PTSD symptoms they endorsed. These findings provide support for the use of exposure and acceptance, rather than avoidance, following childhood abuse.

The components of psychological flexibility have been examined within romantic relationships, and specifically in the treatment of couples. Peterson, Eifert, Feingold, and Davidson (2009) sought to promote psychological flexibility in the treatment of couple distress through ACT. This study utilized a single case research design incorporating two couples seeking treatment for couple distress. The therapist provided manualized interventions aiming to promote psychological flexibility and, specifically, to enhance each individual's recognition and acceptance of thoughts, feelings, and emotions that had previously maintained unhelpful relationship behaviors, which, in turn, contributed to their relationship distress. Couples were given the Dyadic Adjustment Scale (DAS) in order to measure their relationship satisfaction and adjustment. Couples were also administered the Beck Depression Inventory-II (BDI-II), The Outcome Questionnaire 45.2 (OQ-45.2), the Mindfulness Attention Awareness Scale (MAAS), the White Bear Suppression Inventory (WBSI), and the Acceptance and Action Questionnaire (AAQ). Measures were completed pre-treatment, midway through treatment, immediately post-treatment, and then six months after treatment ended. Results indicated that couples developed increased marital satisfaction and marital adjustment throughout therapy and at the six-month follow-up. Peterson et al. (2009) also found that, at post-treatment, couples reported clinically significant reductions in interpersonal distress as well as psychological distress. The small

sample size of this study limits generalizability, but the results suggest promise for the incorporation of psychological flexibility in treatment of couples with relationship problems.

In further analyzing the construct of psychological flexibility to examine its individual components, acceptance is a component that has been utilized in different types of treatments, including integrated behavioral couple therapy (IBCT). IBCT promotes acceptance in couples and uses acceptance as a central mechanism of change in improving couple relationships (Cordova, Jacobson, & Christensen, 1998). A key tenet of this approach is that many couple relationships have problems that cannot be solved, and, therefore, are useful to discuss with an acceptance that they exist (Jacobson & Christensen, 1996). Another component of psychological flexibility that has been utilized in a number of treatments is contact with the present moment, or mindfulness. Carson, Carson, Gil and Baucom (2004) discussed mindfulness in terms of how it can potentially improve intimate relationships using mindfulness-based relationship enhancement. This type of treatment is described as an adapted version of mindfulness-based stress reduction for couples. In a randomized control trial Carson et al. looked at 44 heterosexual couples who were either married or cohabiting for at least 12 months. Because the researchers aimed to enhance the couples' relationships as a preventative treatment, only couples who reported a predetermined level of non-distress were included in the study. Participants were randomly assigned to either the mindfulness-based relationship enhancement group treatment or a waiting list control group. The treatment group consisted of eight sessions that incorporated an introduction to mindfulness, mindfulness meditation, and yoga. Results from this study found that at the end of the eight sessions, couples who received mindfulness-based relationship enhancement reported increased relationship satisfaction, relatedness, closeness, acceptance of one another, and decreased relationship distress. These results were also maintained 3-months

following the intervention's completion. A potential limitation of this study is that such treatment gains might not generalize to couples who endorse or experience greater levels of distress. Therefore, research with couples experiencing higher levels of distress is recommended to provide additional support for the results from this study. In addition, more research with couples and/or individuals in intimate relationships that examines psychological flexibility is warranted.

Current Study

The present study aimed to examine the role of psychological flexibility in the relationship between childhood abuse and adult dating relationships in a female university population. Potential implications from this research include better understanding of the links between childhood abuse and couple distress and, in turn, improvement in how we treat couples where one or more members has a history of abuse. Based on previous findings from research related to child abuse literature as well as the theory behind psychological flexibility, there are four hypotheses for the current study. It is hypothesized that there will be a significant linear relationship between childhood abuse and relationship quality, such that participants who disclose a higher level of childhood abuse will report lower levels of relationship quality. It is hypothesized that there will be a significant linear relationship between psychological flexibility and relationship quality, such that participants who disclose a higher level of psychological flexibility will endorse higher levels of relationship quality. It is also hypothesized that the relationship between reported abuse and perceived relationship quality will be mediated by the degree of psychological flexibility, such that for those participants who report higher levels of abuse, higher levels of psychological flexibility will lead to increased relationship quality. Thus, psychological flexibility will serve as a potential mechanism through which abuse impacts

relationship quality. The final hypothesis states that the different types of childhood abuse (i.e., physical, sexual, and emotional) will have different impacts on perceived relationship quality.

Method

Participants

Participants were a sample of 120 students attending a mid-sized university in the Northeastern United States. This sample included females 18 years and older, in a committed dating relationship at the time of the study. Participants who were in a cohabiting relationship, engaged, or married were not included in the sample. Males were also not included in the sample due to the notable gender differences in the presentation of symptoms following childhood abuse (Sigurdardottir, Halldorsdottir, & Bender, 2014; Thompson, Kingree, & Desai, 2004), which suggest that females tend to experience more internalizing symptomatology, while males tend to experience more externalizing symptomatology. Participants were 18 to 36 years old, with 73% being 18 or 19 years old. After reviewing inclusion criteria and missing data, 15 participants were excluded from final analyses, leaving a sample of 105. Although participants did not receive any monetary compensation, many of the participants received credit in their course work for taking part in this study. This sample included individuals from diverse ethnic backgrounds; 37.7% of participants endorsed Latino as their ethnicity; 23.6% endorsed Black, 21.7% endorsed White, 10.4% described themselves as multiracial, 4.7% described themselves as Asian, and 1.9% endorsed “Other” for their ethnicity.

Measures

The questionnaires chosen for this study have been widely used in past research and are all measures with good psychometric properties. Participants completed the Childhood Trauma Questionnaire (CTQ), the Acceptance and Action Questionnaire 2 (AAQ-II), and the Perceived

Relationship Quality Components Inventory (PRQC). They also completed a short demographic survey. Measures were distributed in a packet separate from consent forms in order to ensure confidentiality.

Demographics

Demographics were assessed using a survey asking participants to indicate their age, ethnicity, college major, sexual orientation, relationship/marital status, and length of current relationship.

Childhood Abuse/Neglect

The Childhood Trauma Questionnaire - Short Form (CTQ) was used in order to determine each participant's level of abuse and/or neglect experienced in childhood (Bernstein & Fink, 1998). This self-report questionnaire is comprised of 28 items designed to assess an individual's past experiences of abuse and neglect in childhood and adolescence. Previous research has demonstrated that the CTQ is a valid and reliable measure when used with clinical and non-clinical populations (Bernstein et al., 2003; Scher, Stein, Asmundson, McCreary, & Forde, 2001). On the CTQ, childhood trauma is divided into the subscales of Emotional Abuse, Sexual Abuse, Physical Abuse, Emotional Neglect, and Physical Neglect. Items are rated on a 5-point Likert scale ranging from "Never True" to "Very Often True." Based on the examinee's responses to these items, scores may range from no history of abuse or neglect to very extreme history of abuse or neglect. For the purposes of this study and to address the hypotheses, a total score of childhood abuse and neglect was utilized, including all of the above-mentioned subscales. Subscales including Physical Abuse, Sexual Abuse, and Emotional Abuse were also utilized for further analyses.

Psychological Flexibility

In order to measure each participant's level of psychological flexibility, the Acceptance and Action Questionnaire 2 (AAQ-II) was administered (Bond et al., 2011). The AAQ-II is a 7-item questionnaire that assesses an individual's degree of acceptance and experiential avoidance. This questionnaire asks individuals to assess each given statement on a 7-point Likert scale ranging from "Never True" to "Always True." Higher scores on this scale suggest greater levels of psychological inflexibility. Normative data from a clinical sample found mean scores of 28.3 ($SD= 9.9$). The AAQ-II demonstrates good concurrent, predictive, discriminant, and convergent validity (Bond et al., 2011). The total score from the AAQ-II was used as the indicator of psychological flexibility. Based on the examinee's responses to these items, lower scores correspond with greater levels of psychological flexibility.

Relationship Quality

Participants completed the brief version of the Perceived Relationship Quality Components Inventory (PRQC) in order to provide a measure of relationship quality (Fletcher, Simpson, & Thomas, 2000). The brief version of the PRQC is a 6-item questionnaire aiming to measure global relationship quality on a 7-point Likert scale ranging from "Not at all" to "Extremely." The full version assesses perceived relationship quality via six subscales, including Satisfaction, Commitment, Intimacy, Trust, Passion, and Love. The brief version includes one item from each subscale of relationship quality offering a global relationship quality score, with higher scores suggesting greater perceived relationship quality. The total score from the brief version was used as an indicator of relationship quality for this study. The brief version of the PRQC has good internal reliability, Cronbach's alpha = .88 (Fletcher, et al., 2000). This version of the PRQC has also been used in past research seeking a global relationship quality

measure rather than using the full measure's individual subscales (Boucher, 2015; Fletcher, et al., 2000; Jayamaha, Girme, & Overall, 2017). Boucher (2015) recruited 79 couples to investigate the relationship between causal uncertainty (uncertainty about one's interpretation of social interactions), relational uncertainty, and relationship quality. Both partners were given measures for each variable, including the brief version of the PRQC in order to measure relationship quality. Here, the brief version of the PRQC was utilized in order to obtain a perceived global relationship quality score. Results supported the researcher's hypothesis that higher levels of causal uncertainty were associated with higher relationship uncertainty as well as lower relationship quality.

Procedure

Students were recruited through the university's SONA research pool, which gives students the opportunity to participate in research as part of their course requirement. Students were also recruited via in-class outreach in order to reach a wider variety of majors/areas of focus. Those students who met the inclusion criteria and agreed to participate in this study completed informed consent forms followed by a self-report measure of demographics, the Childhood Trauma Questionnaire (CTQ), the Acceptance and Action Questionnaire 2 (AAQ-II), and the brief version of the Perceived Relationship Quality Components Inventory (PRQC). The demographics survey was always the first measure given. The order of the remaining measures was randomized. Participants were all given the option to take these measures in a different location other than their classroom due to the sensitive nature of some questions. After completion of these measures, participants were thanked and given a debriefing form as well as the e-mail address of the researcher in case they subsequently had any questions or concerns. These procedures were approved by the university's institutional review board

Results

Data Analytic Plan

Scores on all measures were analyzed using IBM SPSS statistics software version 23.0. An alpha level of 0.05 was used to determine if statistically significant differences occurred. Study hypotheses were tested using a series of correlational, regression, and mediation analyses. All regression and mediation analyses were performed using bootstrapping (10,000 samples). Mediation analyses were performed using the PROCESS model (Hayes, 2013).

Preliminary Analyses

Descriptive data were analyzed including age, ethnicity, sexual orientation and length of current relationship. Participants ranged in age from 18 to 36 years old ($M = 19.1$, $SD = 1.6$). Length of relationship ranged from 1 month to 84 months ($M = 21.7$, $SD = 19.9$). The sample consisted of participants from diverse ethnic backgrounds; 37.7% of participants endorsed being Latino, 23.6% endorsed Black, 21.7% endorsed White, 10.4% endorsed Multiracial, 4.7% endorsed Asian, and 1.9% endorsed “Other”. In regard to sexual orientation, 85.8% of participants identified as heterosexual; 11.3% identified as bisexual; and 1.9% identified as gay.

Assumption testing revealed that the data collected were not normally distributed. The data collected from the CTQ indicated that a disproportionate number of participants denied childhood abuse, and data collected from the PRQC indicated that a disproportionate number reported higher levels of relationship quality. In order to address the abnormal sample distribution, subsequent analyses were performed using bootstrapping (10,000 samples). Demographic factors were analyzed using a one-way ANOVA, and it was determined that ethnicity was a confounding variable on the AAQ ($p = .037$). Further examination of this variable indicated that those participants who reported their ethnicity as “Other” endorsed

significantly higher levels of psychological flexibility. However, due to the limited sample size of this ethnicity group ($n = 3$), additional analyses did not control for ethnicity. The remaining demographic variables including age, sexual orientation and length of current relationship were not significant confounding variables.

Correlations

Correlational analyses were performed with the CTQ, AAQ, and PRQC. Bootstrapping was performed due to the data violating the assumptions of a normal distribution. In addition to looking at the total score of abuse and neglect, physical abuse, sexual abuse, and emotional abuse were also explored separately. Correlation analyses revealed that psychological flexibility was significantly correlated with perceived relationship quality, $r = -.339, p < .001$, BCa CI [-.528, -.111]. Psychological flexibility was also significantly correlated with overall level of childhood abuse, $r = .549, p < .001$, BCa CI [.371, .698], childhood physical abuse, $r = .308, p = .001$, BCa CI [.102, .489], and childhood emotional abuse $r = .543, p < .001$, BCa CI [.368, .686].

Perceived relationship quality was significantly correlated with childhood sexual abuse, $r = .120, p = .224$, BCa CI [.003, .223]. See Table 1 for Pearson Correlation values performed using bootstrapping.

Hypothesis 1 Results: Childhood Abuse and Relationship Quality

For the first hypothesis, which stated that there will be a significant linear relationship between childhood abuse and relationship quality, a simple regression analysis was conducted using bootstrapping (10,000 samples), based on scores on the CTQ and the PRQC. Total level of childhood abuse, as represented by the total score on the CTQ, was not found to be a significant predictor of relationship quality, ($R^2 = .031, F(1, 103) = 3.334, p = .071, B = -.088, 95\% \text{ BCa CI } [-.216, .018]$). In order to test the fourth hypothesis, that different types of abuse as measured by

the CTQ would reveal differences in their predictive quality of perceived relationship quality, simple regression analyses were conducted on subscale scores of Physical Abuse, Sexual Abuse, and Emotional Abuse. The variable of sexual abuse, as measured by the CTQ, was explored using a simple regression analysis and bootstrapping. It was found that sexual abuse was a significant predictor of perceived relationship quality ($R^2 = .014$, $F(1,103) = 1.497$, $p = .224$, $B = .243$, 95% BCa CI [.014, .595]). The variable of physical abuse, as measured by the CTQ, was explored using a simple regression analysis and bootstrapping. It was found that physical abuse was not a significant predictor of perceived relationship quality ($R^2 = .016$, $F(1,103) = 1.718$, $p = .193$, $B = -.251$, 95% BCa CI [-.763, .127]). The variable of emotional abuse, as measured by the CTQ, was explored using a simple regression analysis and bootstrapping. It was found that emotional abuse was not a significant predictor of perceived relationship quality ($R^2 = .040$, $F(1,103) = 4.316$, $p = .040$, $B = -.281$, 95% BCa CI [-.613, .049]). See Table 2 for all regression results for variables predicting relationship quality.

Hypothesis 2 Results: Psychological Flexibility and Relationship Quality

For the second hypothesis, which stated that there would be a significant predictive relationship between degree of psychological flexibility and perceived relationship quality, a correlation analysis was conducted using bootstrapping, based on scores on the AAQ-II and the PRQC. Psychological flexibility was found to be a significant predictor of relationship quality, ($R^2 = .116$, $F(1,104) = 13.613$, $p < .001$, $B = -.213$, 95% BCa CI [-.355, -.067]).

Hypotheses 3 and 4 Results: Mediation Models

For the third hypothesis, which stated that psychological flexibility would influence the relationship between childhood abuse and quality of adult romantic relationships, a mediation analysis was performed using the PROCESS model (Hayes, 2013). Mediation analyses revealed

that psychological flexibility significantly mediated the relationship between childhood abuse and perceived relationship quality, $B = -.094$, 95% BCa CI $[-.175, -.024]$. Results from this mediation analysis can be found in Figure 1. For the fourth hypothesis, follow up analyses focusing separately on physical abuse, sexual abuse, and emotional abuse were conducted, due to the finding that the different subtypes of abuse yielded significantly different levels of perceived relationship quality. Using a mediation analysis, it was discovered that psychological flexibility was a significant mediator between childhood physical abuse and perceived relationship quality $B = -.200$, 95% BCa CI $[-.434, -.037]$ and childhood emotional abuse and perceived relationship quality, $B = -.248$, 95% BCa CI $[-.466, -.041]$. Psychological flexibility was not a significant mediator between childhood sexual abuse and perceived relationship quality $B = -.152$, 95% BCa CI $[-.338, .006]$. See Table 3 for all mediation analysis results.

Discussion

Research related to the effects of childhood abuse is an area of great importance, as there is currently such a high prevalence of childhood abuse in the U.S. (U.S. Department of Health and Human Services, 2017). While past research has found links between childhood abuse and romantic relationship quality (e.g., Cherlin et al., 2004; Fairweather & Kinder, 2013), one of the missing pieces is the mechanisms through which this relationship occurs. Understanding of such mechanisms can promote interventions to improve relationship quality in those who have been abused or neglected. The current study sought to make significant contributions to understanding of potential long-term effects of childhood abuse/neglect and to guide intervention development for those who are abuse/neglect survivors.

This study hypothesized that participants with a greater level of childhood abuse and neglect would endorse lower relationship quality in their current dating relationships. Contrary

to previous findings, results from this study did not support this relationship for level of childhood abuse and neglect represented by the related literature. However, in correlational analyses, which examined specific types of abuse separately, the results indicated that a greater level of sexual abuse was associated with lower relationship quality. Furthermore, sexual abuse was the only type of abuse that predicted relationship quality. This finding sheds light on the possible unique effects of sexual abuse in how it influences relationships later in life. Previous research on sexual abuse has also revealed its long-term effects and how sexual abuse can impact adult relationships (e.g., Cherlin, et al., 2004; Fairweather & Kinder, 2013; Miskiewicz, Ramisch, Shi, Surjadi, & Teeruthroy, 2016). More research on the unique effects of sexual abuse on dating relationships is warranted in order to yield more specific conclusions.

The second hypothesis stated that degree of psychological flexibility would be a significant predictor of perceived relationship quality, such that those with higher levels of psychological flexibility would endorse higher perceived relationship quality. This hypothesis was supported, as regression analyses revealed a significant relationship between participants' AAQ-II scores and their PRQC scores. This finding supports the importance of promoting psychological flexibility to increase relationship quality in populations who may have experienced childhood abuse.

The third hypothesis stated that the relationship between level of childhood abuse and perceived relationship quality would be mediated by psychological flexibility, such that participants who reported childhood abuse and/or neglect and showed higher levels of psychological flexibility would report higher perceived relationship quality than individuals who endorsed lower levels of psychological flexibility. While total level of childhood abuse did not predict perceived relationship quality, psychological flexibility was still found to be a significant

mediator, thereby confirming this hypothesis. This result indicates that, although there was not a significant direct effect, any effect that childhood abuse did have on relationship quality was due to psychological flexibility. When exploring the different subtypes of abuse, follow-up analyses revealed that psychological flexibility was also a significant mediator between both physical abuse and perceived relationship quality and emotional abuse and perceived relationship quality.

Implications

There is a vast body of research that supports the relationship between childhood abuse and adult romantic relationships (Cherlin, et al., 2004; Colman & Widom, 2004). Findings from this study aim to advance this research literature to include the possibility of an intervening variable, psychological flexibility. While the research on promoting psychological flexibility in couples who have experienced abuse is not well developed, there are studies which support the fostering of psychological flexibility for reducing symptoms of PTSD (e.g., Boals & Murrell, 2016; Dick et al., 2014; Jansen & Morris, 2016). The identification of psychological flexibility as a mediator in the relationship between childhood abuse/neglect and romantic relationship quality can positively contribute to interventions promoting psychological flexibility among therapy clients who are survivors of abuse and/or neglect. Therefore, clinicians who treat couples should screen for childhood abuse so that interventions can include skills to address the possible effects of that abuse.

Limitations

One limitation of the current study is that many participants endorsed remarkably high levels of perceived relationship quality, and, due to this factor, bootstrapping was utilized. This relatively high level of relationship quality among participants might imply that the current study sample is not representative of a more diverse population of females in dating relationships.

These results also suggest that participants may not have fully divulged their low levels of relationship quality. While steps were taken to allow participants privacy in completing study questionnaires, future research should include mechanisms to help control for impression management. This research focused on relationship quality, which means that participants were already in relationships at the time of their participation, and, thus, it excluded individuals who are not currently in a relationship. This exclusion resulted in lack of potentially valuable data from individuals who have been in dating relationships in the past but are not currently in such relationships. The current study sample and data set also did not capture individuals who are not in dating relationships, either due to lack of desire for such relationships or difficulties entering or engaging in these relationships. Another limitation is that participants were all female and currently attending an undergraduate university in the Northeastern U.S. Future research should include a wider variety of participants from different areas as well as different levels of education in order to increase generalizability. In addition, since the results from the present study found that a specific type of abuse, namely sexual abuse, predicted relationship quality, more research in this area is warranted. While sexual abuse was not the focus of the present study, it represents a significant experience for many individuals that might impact relationships and other aspects of psychosocial functioning.

References

- Batten, S. V., Follette, V. M., & Aban, I. B. (2001). Experiential avoidance and high-risk sexual behavior in survivors of child sexual abuse. *Journal of Child Sexual Abuse, 10*(2), 101-120.
- Bernstein, D. P., & Fink, L. (1998). *Childhood Trauma Questionnaire: A retrospective self-report*. San Antonio, TX: Harcourt, Brace, and Company.
- Bernstein, D. P., Stein, J. A., Newcomb, M. D., Walker, E., Pogge, D., Ahluvalia, T., . . . Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse and Neglect, 27*(2), 169-190. doi: 10.1016/S0145-2134(02)00541-0
- Biglan, A., Hayes, S. C., & Pistorello, J. (2008). Acceptance and commitment: Implications for prevention science. *Prevention Science: The Official Journal of the Society for Prevention Research, 9*(3), 139–152. doi: 10.1007/s11121-008-0099-4
- Boals, A. & Murrell, A. R. (2016). I am > trauma: Experientially reducing event centrality and PTSD symptoms in a clinical trial. *Journal of Loss and Trauma, 21*(6), 471-483. doi: 10.1080/15325024.2015.1117930
- Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., & Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire–II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy, 42*(4), 676-688. doi: 10.1016/j.beth.2011.03.007
- Boucher, E. M. (2015). Doubt begets doubt: Casual uncertainty as a predictor of relational uncertainty in romantic relationships. *Communication Reports, 28*(1), 12-23. doi: 10.1080/08934215.2014.902487

- Carson, J. W., Carson, K. M., Gil, K. M., & Baucom, D. H. (2004). Mindfulness-based relationship enhancement. *Behavior Therapy, 35*, 471-494. doi: 10.1016/S0005-7894(04)80028-5
- Cherlin, A. J., Burton, L. M., Hurt, T. R., & Purvin, D. M. (2004). The influence of physical and sexual abuse on marriage and cohabitation. *American Sociological Review, 69*, 768-789. doi: 10.1177/000312240406900602
- Colman, R. A., & Widom, C. S. (2004). Childhood abuse and neglect and adult intimate relationships: A prospective study. *Child Abuse and Neglect, 28*; 1133-1151. doi: 10.1016/j.chiabu.2004.02.005
- Cordova, J. V., Jacobson, S. N., & Christensen, A. (1998). Acceptance versus change intervention in behavioral couple therapy: Impact on couples' in-session communication. *Journal of Marital and Family Therapy, 24*(4), 437-455. doi: 10.1111/j.1752-0606.1998.tb01099.x
- Dick, A., Niles, B., Street, A., DiMartino, D., & Mitchell, K. (2014). Examining mechanisms of change in a yoga intervention for women: The influence of mindfulness, psychological flexibility, and emotion regulation on PTSD symptoms. *Journal of Clinical Psychology, 70*(12), 1170-1182. doi: 10.1002/jclp.22104
- DiLillo, D., Peugh, J., Walsh, K., Panuzio, J., Trask, E., & Evans, S. (2009). Child maltreatment history among newlywed couples: A longitudinal study of marital outcomes and mediating pathways. *Journal of Consulting and Clinical Psychology, 77*, 680-692. doi: 10.1037/a0015708

- Fairweather, A. & Kinder, B. (2013) Predictors of relationship adjustment in female survivors of childhood sexual abuse. *Journal of Interpersonal Violence*, 28(3), 538-557. doi: 10.1177/0886260512455510
- Feinauer, L., Callahan, E. & Hilton, H. G. (1996). Positive intimate relationships decrease depression in sexually abused women. *American Journal of Family Therapy*, 24(2), 99-106. doi: 10.1080/01926189608251023
- Fletcher, G. J. O., Simpson, J. A., & Thomas, G. (2000). The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psychology Bulletin*, 26, 340-354. doi: 10.1177/0146167200265007
- Godbout, N., Briere, J., Lussier, Y., & Sabourin, S. (2014). Childhood sexual abuse and subsequent psychological and interpersonal distress: The role of parental support. *Child Abuse and Neglect*, 38, 317-325. doi: 10.1016/j.chiabu.2013.10.001
- Godbout, N., Runtz, M., Manintosh, H., & Briere, J. (2013). Childhood trauma and couple relationships. *Integrating Science and Practice*, 3(2), 14-17.
- Hall, M., & Hall, J. (2011). *The long-term effects of childhood sexual abuse: Counseling implications*. Retrieved from http://counselingoutfitters.com/vistas/vistas11/Article_19.pdf
- Han, M., Choi, Y., & Jung, S. (2016). Exploring the relationship between exposure to interparental violence and child physical abuse in childhood and the impacts on mental health problems in later young adulthood among South Korean college students. *International Social Work*, 59(6): 821-835. doi: 10.1177/0020872814562481
- Hartman, M., Finn, S., & Leon, G. (1987). Sexual-abuse experiences in a clinical population: Comparisons of familial and nonfamilial abuse. *Psychotherapy*:

- Theory, Research, Practice, Training*, 24(2), 154-159. doi: 10.1037/h0085699
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: The Guilford Press.
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology*, 64, 1152–1168. doi: 10.1037/0022-006X.64.6.1152
- Jacobson, S., & Christensen, A. (1996). *Integrative couple therapy: Promoting acceptance and change*. New York, NY: Norton.
- Jansen, J. E., & Morris, E. M. J. (2016). Acceptance and commitment therapy for posttraumatic stress disorder in early psychosis: A case series. *Cognitive and Behavioral Practice*, 24(2), 1–13. doi: 10.1016/j.cbpra.2016.04.003
- Jayamaha, S. D., Girme, Y. U., & Overall, N. C. (2017). When attachment anxiety impedes support provision: The role of feeling unvalued and unappreciated. *Journal of Family Psychology*, 31(2), 181-191. doi: 10.1037/fam0000222
- Lassri, D., Luyten, P., Fonagy, P., & Shahar, G. (2018). Undetected scars? Self-criticism, attachment, and romantic relationships among otherwise well-functioning childhood sexual abuse survivors. *Psychological Trauma: Theory, Research, Practice, and Policy*, 10(1), 121-129. doi: 10.1037/tra0000271
- Lawson, D. M., & Quinn, J. (2013). Complex trauma in children and adolescents: Evidence-based practice in clinical settings. *Journal of Clinical Psychology*, 69, 497–509. doi: 10.1002/jclp.21990
- Maltz, W. (2002). Treating the sexual intimacy concerns of sexual abuse survivors.

- Sexual and Relationship Therapy*, 17(4), 321-327. doi: 10.1080/1468199021000017173
- Maniglio, R. (2009). The impact of child sexual abuse on health: A systematic review of reviews. *Clinical Psychology Review*, 29, 647-657. doi: 10.1016/j.cpr.2009.08.003
- Messman-Moore, T. L., & Long, P. J. (2003). The role of childhood sexual abuse sequelae in the sexual revictimization of women: An empirical review and theoretical reformulation. *Clinical Psychology Review*, 23, 537-571. doi: 10.1016/S0272-7358(02)00203-9
- Miskiewicz, J., Ramisch, J., Shi, L., Surjadi, F., & Teeruthroy, V. (2016). Influence of childhood abuse and gender on relationship adjustment. *Journal of Child & Adolescent Trauma*, 9, 243-253. doi: 10.1007/s40653-016-0080-5
- Nguyen, T. P., Karney, B. R., & Bradbury, T. N. (2016, April 11). Childhood abuse and later marital outcomes: Do partner characteristics moderate the association? *Journal of Family Psychology*. Advance online publication. doi: 10.1037/fam0000208
- Palm, K. M., & Follette, V. M. (2011). The roles of cognitive flexibility and experiential avoidance in explaining psychological distress in survivors of interpersonal victimization. *Journal of Psychopathology and Behavioral Assessment*, 33, 79-86. doi: 10.1007/s10862-010-9201-x
- Peterson, B. D., Eifert, G. H., Feingold, T., & Davidson, S. (2009). Using acceptance and commitment therapy to treat distressed couples: A case study with two couples. *Cognitive and Behavioral Practice*, 16, 430-442. doi: 10.1016/j.cbpra.2008.12.009
- Riggs, S. A., & Kaminski, P. (2010). Childhood emotional abuse, adult attachment, and depression as predictors of relational adjustment and psychological aggression. *Journal of Aggression, Maltreatment, and Trauma*, 19, 75-104. doi: 10.1080/10926770903475976

- Scher, C. D., Stein, M. B., Asmundson, G. J. G., McCreary, D. R., & Forde, D. R. (2001). The Childhood Trauma Questionnaire in a community sample: Psychometric properties and normative data. *Journal of Traumatic Stress, 14*, 843-857. doi: 10.1023/A:1013058625719
- Shenk, C. E., Putnam, F. W., & Noll, J. G. (2012). Experiential avoidance and the relationship between child maltreatment and PTSD symptoms: Preliminary evidence. *Child Abuse and Neglect, 36*, 118-126. doi: 10.1016/j.chiabu.2011.09.012
- Sigurdardottir, S., Halldorsdottir, S., & Bender, S. (2014). Consequences of childhood sexual abuse for health and well-being: Gender similarities and differences. *Scandinavian Journal of Public Health, 42*, 278-286. doi: 10.1177/1403494813514645
- Tardif-Williams, C. Y., Tanaka, M., Boyle, M. H., & MacMillan, H. L. (2015). The impact of childhood abuse and current mental health on young adult intimate relationship functioning. *Journal of Interpersonal Violence, 32*(22), 3420-3447. doi: 10.1177/0886260515599655
- Thompson, M., Kingree, J., & Desai, S. (2004). Gender differences in long-term health consequences of physical abuse of children: Data from a nationally representative survey. *American Journal of Public Health, 94*, 599-604. doi: 10.2105/AJPH.94.4.599
- Twohig, M. (2009). Acceptance and commitment therapy for treatment-resistant posttraumatic stress disorder: A case study. *Cognitive and Behavioral Practice, 16*(3), 243-252. doi: 10.1016/j.cbpra.2008.10.002
- Unger, J. & De Luca, R. (2014). The relationship between childhood physical abuse and adult attachment styles. *Journal of Family Violence, 29*, 223-234. doi: 10.1007/s10896-014-9588-3

United States Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2017). *Child Maltreatment 2015*. Retrieved from <https://www.acf.hhs.gov/cb/research-data-technology/statistics-research/child-maltreatment>

Table 1

Correlations

Variable	1	2	3	4	5	6
1. Total Abuse/Neglect ^a	–	–	–	–	–	–
2. Physical Abuse ^a	.77**	–	–	–	–	–
3. Sexual Abuse ^a	.49**	.31	–	–	–	–
4. Emotional Abuse ^a	.85**	.53**	.21**	–	–	–
5. Psychological Flexibility ^b	.55**	.31**	.20	.54**	–	–
6. Relationship Quality ^c	-.18	-.13	-.12**	-.20	-.34**	–

Note. ** Correlation is significant when the BCa CI does not include zero.

^a Measured by the Childhood Trauma Questionnaire-Short Form (CTQ). ^b Measured by the Acceptance and Action Questionnaire (AAQ-II). ^c Measured by the Perceived Relationship Quality Components Inventory (PRQC)

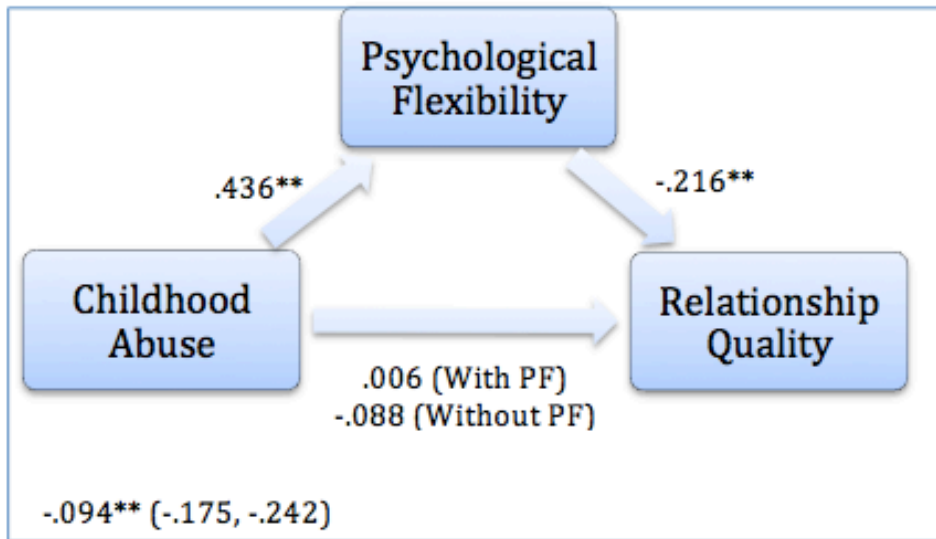


Figure 1: *Mediation Analysis*

Appendix

Dissertation Proposal

The Role of Psychological Flexibility in the Relationship Between Childhood
Abuse and the Quality of Adult Romantic Relationships

Johanna L. Terry

Kean University

June 6, 2017

A Dissertation Proposal

Submitted to

Adrienne Garro, Ph.D.

Doctoral Dissertation Committee Chair

Donald Marks, Psy.D.

Doctoral Dissertation Committee Member

Table of Contents

Title Page	36
Abstract	37
Introduction	38
Childhood Abuse	38
Relationship Quality	39
Psychological Flexibility	42
Current Study	46
Method	46
Results	49
Discussion	50
References	52
Figure 1: Mediation Analysis	57

The Role of Psychological Flexibility in the Relationship Between Childhood Abuse and the
Quality of Adult Romantic Relationships

Johanna Lyn Terry

Kean University

Abstract

Past research has suggested childhood abuse can have lasting effects, which impact later romantic relationships (Cherlin, Burton, Hurt, & Purvin, 2004; Colman & Widom, 2004). This study aims to shed light on how psychological flexibility potentially impacts this relationship between childhood abuse and quality of adult romantic relationships. Psychological flexibility can be defined as the ability to consciously contact the present moment and take part in value-driven behavior (Biglan, Hayes, & Pistorello, 2008). Participants will be a sample of female students who are currently involved in a romantic relationship. These participants will be administered measures that assess impact of childhood traumatic events, psychological flexibility and romantic relationship quality. The study hypothesizes that the component of psychological flexibility will mediate the relationship between childhood abuse and quality of adult romantic relationships, such that participants who have higher levels of psychological flexibility will endorse greater relationship quality. Results from this research may support the utility of interventions that aim to increase psychological flexibility in individuals who have experienced childhood abuse.

Keywords: childhood abuse, psychological flexibility, relationship quality

The Role of Psychological Flexibility in the Relationship Between Childhood Abuse and the Quality of Adult Romantic Relationships

Abuse at a young age can have many immediate effects on the victim. The experience might be traumatic for the child and induce a wide range of distressing symptoms. There are also long-term effects of childhood abuse, which have been well documented in research literature (e.g., Fairweather, & Kinder, 2013; Hall & Hall 2011; Maniglio, 2009). There are a number of reasons for this attention, one being the high prevalence of child abuse. According to the United States Department of Health and Human Services (2017), child protective services from across the nation reported that, in 2015, they received over 683,487 substantiated cases of abuse and/or neglect. This figure did not include children who were abused/neglected and were not referred to child protective services.

Childhood Abuse

Childhood abuse and, especially sexual abuse, can have several long-term effects such as depression, dissociative patterns; somatic concerns; denial; repression; anxiety; sexual problems; relationship problems; higher risk of developing eating disorders; and high levels of guilt, shame, and self-blame (Fairweather, & Kinder, 2013; Hall & Hall, 2011; Maniglio, 2009). Commonly, those who have been sexually abused as a child internalize the abuse, resulting in negative thoughts about themselves (Hartman et al., 1987). Childhood sexual abuse is also associated with relationship difficulties later in life (DiLillo et al., 2009; Feinauer, Callahan, & Hilton, 1996; Hall & Hall, 2011). Often, individuals will have difficulty with trust and intimacy (Godbout, Runtz, Manintosh, & Briere, 2013), which might stem from once trusting their abusers as children and then being hurt by them. Physical intimacy can also be a difficult area for an individual sexually abused as a child, especially for those who have dissociated from the abuse.

Affected individuals might avoid sex, have difficulty being aroused, have negative feelings associated with sex, and feel emotionally distant during sex (Maltz, 2002).

Some of these reactions can also be true for victims of childhood physical abuse. Long-term effects found in victims of childhood physical abuse include difficulty trusting others, low self-esteem, interpersonal difficulties, anxiety, depression, and aggressiveness (Han, Choi, & Jung 2016; Unger & De Luca, 2014). These factors can make it difficult for individuals to develop healthy and quality relationships.

Relationship Quality

The quality of a romantic relationship has many different components. Much of the research in regard to individuals who have experienced childhood abuse refers to components of relationship satisfaction and stability (Cherlin et al., 2004; Nguyen, Karney, & Bradbury, 2016). Specifically, past research has found that sexual abuse can result in feelings of betrayal, lack of trust, and powerlessness, along with inappropriate sexual behavior (Cherlin et al. 2004). These difficulties can carry over into romantic relationships and contribute to relationship distress (Lawson & Quinn, 2013).

To further examine this connection, Cherlin and colleagues (2004) hypothesized that individuals who have experienced sexual abuse in childhood would be more likely to be cohabiting rather than married or single. Researchers collected data from two different participant groups, using different research designs for each sample. Part of the inclusion criteria required the participants to have children under the age of 14. Data was collected through a survey from 2,658 mothers and their children residing in low-income neighborhoods. In this sample, participants sat alone in a room and answered questions on a computer-assisted self-interview. Women were asked about past sexual and physical abuse as well as their current

union status (either married, cohabiting, or single). Separate from this sample, 256 women and children were chosen non-randomly to participate in an ethnographic sample based on their income and location. The families were also observed doing an activity together, such as going to the store or to work. Researchers visited these families at least 18 times within a 4-year span. Results from both samples indicated that the women who disclosed experiencing abuse were significantly less likely to be married or living with a partner. Results also indicated that childhood abuse and especially childhood sexual abuse was associated with numerous shorter relationships rather than stable marriages or stable cohabiting relationships. Researchers suggest that based on their observations throughout this study in addition to past research on this topic, there are some possible reasons for this pattern. Women who have been abused are hesitant to let a partner get too close to them. This pattern of shorter and less committed relationships is related to women wanting to have more control over the situation and make it easier for them to leave the relationship (Cherlin et al. 2004).

Similarly, Colman & Widom (2004) conducted research which aimed to identify potential differences in adult intimate relationships among individuals who had a documented past of abuse or neglect versus those who did not. A notable advantage of this study is that these researchers used a prospective cohort design unlike many other research designs in this area who rely on retrospective data. There were 1,179 participants included in this study; 664 individuals with a documented past of abuse and/or neglect, and 515 in the control group. Participants were given measures, which assessed child abuse and neglect, family background, involvement in intimate adult relationships, and relationship functioning. Within the area of relationship functioning, participants were asked about their partner's supportiveness, caring, and openness to communication. Results supported the researchers' hypothesis that women who were abused

and/or neglected were less likely than the control group to perceive their romantic partners as supportive, caring, and open to communication. Results also indicated that both male and female participants who were abused/neglected in childhood reported significantly higher rates of relationship disruption, such as walking out of the relationship and divorce. This study provides further support for long-term relational effects among individuals with a history of childhood abuse. Clinically, these results could be beneficial in the treatment of childhood trauma as well as understanding more about relationship distress and its possible causes.

Although research suggests that there can be significant long-term effects of childhood abuse, there are individuals who are relatively unaffected or still display healthy levels of functioning following childhood abuse (Fairweather & Kinder, 2013; Godbout, Briere, Lussier, & Sabourin 2013). Looking specifically at individuals with a history of sexual abuse, Godbout and colleagues (2013) hypothesized that parental support at the time of the abuse played a critical role in long-term outcomes. Results indicated that participants with higher levels of perceived parental support reported levels of adjustment similar to those in the non-abused group of participants. Individuals who were abused and reported having unsupportive parents endorsed more abandonment anxiety and psychological distress than all other groups. The researchers also found that participants with past sexual abuse who reported having parents who intervened after learning about the crime had more comfort with intimacy and expressed lower avoidant attachment compared to all of the other groups. These results highlight the role of parental support after sexual abuse and suggests that, with this support, individuals who experienced abuse can still have comfortable intimate relationships later in life.

In other research, Fairweather and Kinder (2013) aimed to look at sexual abuse victims and the defense mechanisms that are associated with better relationship adjustment later in life.

They hypothesized that mature defense mechanisms, such as humor, suppression, anticipation, and sublimation would moderate the relationship between childhood sexual abuse and adult relationship adjustment. Participants included 287 female undergraduate students who were currently involved in a monogamous dating relationship. Participants were given measures of demographics, the Dyadic Adjustment Scale (DAS), Early Sexual Experiences Survey (ESE), Stress Related Growth Scale (SRGS), and Defense Style Questionnaire (DSQ-40). Defense style was classified as mature, immature, or neurotic. Mature defenses included using humor; anticipation and finding possible solutions to a future event; and sublimation, the channeling of unwanted feelings into more socially acceptable outlets. In regard to defense mechanisms, results suggested that mature defenses were a predictor of dyadic consensus and affectional expression in the sample reporting past abuse. Results also indicated a significant relationship between participants with a history of childhood sexual abuse and dyadic consensus, such that those who reported a history of abuse reported less agreement with their partners than those who did not report past abuse. Thirdly, results indicated that mature defenses moderated the relationship between reported severity of abuse and dyadic cohesion. One significant implication from this research is that the use of mature defenses might serve as a protective factor for abuse survivors against adverse romantic relationships.

Psychological Flexibility

The current study proposes that psychological flexibility will mediate the relationship between childhood abuse/neglect and adult romantic relationship. Psychological flexibility can be defined as “the ability to contact the present moment more fully as a conscious human being and to change, or persist in, behavior when doing so serves valued ends” (Biglan, Hayes, & Pistorello, 2008, p. 142). It is one of the main components of acceptance and commitment

therapy (ACT), which focuses on mindfulness and acceptance. Psychological flexibility can be broken down into six core processes, including contact with the present moment, acceptance, defusion, self as context, values, and committed action. Previous research has not examined the role of psychological flexibility in childhood abuse/neglect and later romantic relationships. Therefore, this review will touch upon the relationship between psychological flexibility and trauma symptomatology and then, separately, psychological flexibility and romantic relationships.

Psychological flexibility has been researched specifically with individuals with a history of childhood abuse in terms of experiential avoidance. Experiential avoidance is a common reaction to distressing experiences, where individuals attempt to avoid painful emotions (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Experiential avoidance can contribute to an inability to be present in the moment (Dick, Niles, Street, DiMartino, & Mitchell, 2014). The psychological flexibility model proposes that this way of coping with uncomfortable emotions leads to even greater distress (Batten, Follette, & Aban, 2001). For victims of child abuse and neglect, avoidance of their experience can lead to the development of symptoms associated with posttraumatic stress disorder (Shenk, Putnam, & Noll, 2012). Palm and Follette (2011) found that experiential avoidance was a common factor among individuals with severe distress and diagnosed with PTSD. Given that there is a relationship between avoidance and severity of PTSD symptoms, the development of components of psychological flexibility might be appropriate in the treatment of PTSD and trauma (Twohig, 2009).

Looking further into the development of symptoms associated with a diagnosis of PTSD, Shenk and colleagues (2012) interviewed adolescent females looking at different variables that may mediate the relationship between childhood abuse and symptoms of PTSD. These variables

included experiential avoidance, respiratory sinus arrhythmia and cortisol reactivity. Of the three variables, experiential avoidance was the only variable of the set to individually mediate the relationship between child maltreatment and symptoms of PTSD. Notably, there was a range of PTSD symptoms that were present in participants in this study, and so experiential avoidance did not just mediate the relationship between child maltreatment and one cluster of PTSD symptoms, but moreover a range of different symptoms associated with PTSD.

The components of psychological flexibility have been examined within romantic relationships, specifically in the treatment of couples. Peterson, Eifert, Feingold, and Davidson (2009) sought to promote psychological flexibility in the treatment of couple distress through ACT. This study utilized a single case research design incorporating two couples seeking treatment for couple distress. The therapist provided manualized interventions aiming to promote psychological flexibility and specifically assist in each individual's recognition and acceptance of thoughts, feelings, and emotions that had previously maintained their unhelpful behaviors within their relationships and, in turn, promoted their relationship distress. Couples were given the Dyadic Adjustment Scale (DAS) in order to measure their relationship satisfaction and adjustment. Couples were also administered the Beck Depression Inventory-II (BDI-II), The Outcome Questionnaire 45.2 (OQ-45.2), the Mindfulness Attention Awareness Scale (MAAS), the White Bear Suppression Inventory (WBSI), and the Acceptance and Action Questionnaire (AAQ). Measures were completed pre-treatment, midway through treatment, post-treatment, and then six months post-treatment. Results suggested that couples developed increased marital satisfaction and marital adjustment throughout therapy as well as at the six-month follow-up. Peterson et al. also found that, at post-treatment, couples reported clinically significant reductions in interpersonal distress as well as psychological distress. The small

sample size of this study limits generalizability, but the results suggest promise for the incorporation of psychological flexibility in treatment of couples with relationship problems.

Breaking down the construct of psychological flexibility to look further at its individual components, acceptance is a component that has been utilized in many different types of treatments, including integrated behavioral couple therapy (IBCT). IBCT promotes acceptance in couples and uses acceptance as a central mechanism of change in improving couple's relationships (Cordova, Jacobson, & Christensen, 1998). A highlight of this approach is that there are some problems in the couple relationship that cannot be solved, and therefore are useful to talk about them with an acceptance that they exist (Jacobson & Christensen, 1996). Another component of psychological flexibility that has been utilized in a number of treatments is contact with the present moment, or mindfulness. Carson, Carson, Gil, and Baucom (2004) discuss mindfulness in terms of how it can potentially improve intimate relationships using mindfulness-based relationship enhancement. This type of treatment is described as an adapted version of mindfulness-based stress reduction for couples. In this particular randomized control trial, 44 heterosexual couples who were either married or cohabiting for at least 12 months were included. Because researchers of this study aimed to enhance the couples' relationship as a preventative treatment, only couples who reported a predetermined level of non-distress were included in the study. Participants were randomly assigned to either the mindfulness-based relationship enhancement group treatment or a waiting list control group. The treatment group consisted of eight sessions that incorporated an introduction to mindfulness, mindfulness meditation, and yoga. Results from this study found that couples that received mindfulness-based relationship enhancement reported increased relationship satisfaction, relatedness, closeness, acceptance of one another, and decreased relationship distress. These results were

also maintained 3-months following the intervention's completion. A potential limitation of this study is that treatment gains might not translate with couples that endorse or experience a greater level of distress and therefore research with a more distressed population is necessary to support results found in this study. Nevertheless, more couples research highlighting the components of psychological flexibility is warranted given the support in previous literature.

Current Study

The present study aims to examine the role of psychological flexibility in the relationship between childhood abuse and adult romantic relationships. Potential results from this research include better understanding of the links between childhood abuse and couple distress and, in turn, improvement in how we treat couples with a history of abuse. Based on previous findings in abuse literature as well as the theories behind psychological flexibility, there are three hypotheses. It is hypothesized that those participants who disclose a higher level of childhood abuse will report lower levels of relationship quality. It is hypothesized that there will be a significant relationship between degree of psychological flexibility and perceived relationship quality. It is also anticipated that the relationship between reported abuse and perceived relationship quality will be mediated by the degree of psychological flexibility. Thus, psychological flexibility will serve as a potential mechanism through which abuse impacts relationship quality.

Method

Participants

Participants will be a sample of approximately 120 students attending a mid-sized university in the Northeastern United States.. Inclusion criteria will include females, 18 years and older, currently in a romantic relationship. Although participants will not receive any

monetary compensation, many of the participants will likely receive extra credit in their course work for taking part in this study. We expect a fairly diverse background based on the geographical area; specifically, Hispanic, White, African American, and Asian.

Measures

The questionnaires chosen for this study have been widely used in past research and are all measures with good psychometric properties. Participants will complete a measure of demographics, The Childhood Trauma Questionnaire (CTQ), Acceptance and Action Questionnaire 2 (AAQ-II), and The Perceived Relationship Quality Components Inventory (PRQC). Measures will be distributed in a packet separate from consent forms in order to ensure confidentiality.

Demographics

Demographics will be assessed using a data sheet asking participants to indicate their age, race, relationship status, marital status, and length of current relationship.

Childhood Abuse/Neglect

The Childhood Trauma Questionnaire - Short Form (CTQ) will be used in order to determine each participant's history of abuse and/or neglect (Bernstein & Fink, 1998). This self-report questionnaire is comprised of 28 items aimed to assess an individual's past experiences of abuse and neglect in childhood and adolescence. Previous research has demonstrated that the CTQ is a valid and reliable measure when used in clinical and non-clinical populations (Scher, Stein, Asmundson, McCreary, & Forde, 2001). Childhood trauma is broken up into subscales of Emotional Abuse, Sexual Abuse, Physical Abuse, Emotional Neglect, and Physical Neglect. Items are rated on a 5-point Likert scale ranging from "Never True" to "Very Often True".

Based on the examinee's responses to these items, scoring scales might range from no history of

abuse or neglect to very extreme history of abuse or neglect.

Psychological Flexibility

In order to measure each participant's level of psychological flexibility, the Acceptance and Action Questionnaire 2 (AAQ-II) will be administered (Bond et al., 2011). The AAQ-2 is a 7-item questionnaire that assesses an individual's degree of acceptance and experiential avoidance. This questionnaire asks individuals to assess each given statement on a 7-point Likert scale ranging from "Never True" to "Always True". Normative data from a clinical sample found mean scores of 28.3 ($SD= 9.9$). Based on the examinee's responses to these items, higher scores correspond with greater levels of psychological flexibility.

Relationship Quality

Participants will be asked to complete the brief version of The Perceived Relationship Quality Components Inventory (PRQC) in order to provide a measure of relationship quality (Fletcher, Simpson, & Thomas, 2000). The brief version of the PRQC is a 6-item questionnaire aiming to measure global relationship quality on a 7-point Likert scale ranging from not at all to extremely. The full version assesses perceived relationship quality via six subscales, including satisfaction, commitment, intimacy, trust, passion, and love. The brief version includes one item from each subscale of relationship quality offering a global relationship quality score, with higher scores suggesting greater perceived relationship quality. This brief version has good internal reliability (Cronbach's $\alpha = .88$). This version of the PRQC has also been used in past research wanting a global relationship quality measure rather than using the full measure's individual subscales (Boucher, 2015; Fletcher et al., 2000; Jayamaha, Girme, & Overall, 2017). Boucher (2015) recruited 79 couples aiming to investigate the relationship between causal uncertainty (uncertainty about one's interpretation of social interactions), relational uncertainty,

and relationship quality. Both partners were given measures for each variable, including the brief version of the PRQC in order to measure relationship quality. Here, the brief version of the PRQC was utilized in order to obtain a perceived global relationship quality score. Results supported the researcher's hypothesis that higher levels of causal uncertainty were associated with higher relationship uncertainty as well as lower relationship quality.

Procedure

Students from Kean University who meet the inclusion criteria and agree to participate in this study will complete informed consent forms followed by self-report measures of demographics, The Childhood Trauma Questionnaire (CTQ), Acceptance and Action Questionnaire 2 (AAQ-II), and The Perceived Relationship Quality Components Inventory (PRQC). Demographics will always be the first given measure. The remaining measures will be randomized. Participants will all be given the option to take these measures in a different location due to the sensitive nature of some of the questions asked. After completion of these measures, participants will be thanked and given a debriefing form as well as the e-mail address of the researcher in case they subsequently had any questions or concerns. These procedures will be provided to the Institutional Review Board of Kean University in order to gain their approval.

Results

Research Design

Scores on all measures will be analyzed using IBM SPSS Statistics software. An alpha level of 0.05 will be used to determine if statistically significant differences appear. When necessary, demographic factors will be included as covariates or control variables in the analysis. The minimum number of participants desired was determined by a power analysis for multiple regression with three predictor variables using G*Power (Faul, Erdfelder, Buchner, & Lang,

2013). According to G*Power, using an alpha of .05, a power of 0.80, and a medium effect size ($f^2 = 0.15$), a sample size of at least 77 is desired. Research questions will be analyzed as follows. For the first hypothesis, stating that participants who disclose a greater level of childhood abuse will report lower levels of perceived relationship quality, a regression analysis will be conducted based on scores on the CTQ and The Perceived Relationship Quality Components Inventory (PRQC). For the second hypothesis, which states that there will be a significant relationship between degree of psychological flexibility and perceived relationship quality, a correlation analysis will be ran. For the final hypothesis, stating that psychological flexibility affects how individuals with past childhood abuse function in and define their romantic relationships, a mediation analysis will be ran using PROCESS (Hayes, 2013) (Figure 1).

Discussion

The hypotheses identified earlier can be directly related to the possible findings from this study. It is hypothesized that participants with a greater level of childhood abuse/neglect will have a lower relationship quality in their current relationship. It is hypothesized that degree of psychological flexibility will be correlated with perceived relationship quality. It is also hypothesized that this relationship will be mediated by psychological flexibility, such that participants who report childhood abuse and/or neglect and have higher levels of psychological flexibility will report higher perceived relationship quality than individuals who have a lower level of psychological flexibility.

The proposed study can potentially make significant contributions to both understanding long-term effects of childhood abuse/neglect and treatment for those who are abuse/neglect victims. By potentially identifying psychological flexibility as a mediator of the relationship

between childhood abuse/neglect and romantic relationship quality, treatment for those who are victims of abuse/neglect can be better attuned to promoting psychological flexibility.

There are some limitations of the proposed study. One limitation is that the proposed study design does not include individuals who are not currently in a relationship. This potentially leaves out valuable data on individuals who have been in romantic relationships in the past as well as data on individuals who are not in a romantic relationship or have not wanted to or been able to enter such relationships. Another limitation is that participants will all be currently attending an undergraduate university in the state of New Jersey. Future research should include a wider variety of participants from different areas as well as different levels of education.

References

- Batten, S. V., Follette, V. M., & Aban, I. B. (2001). Experiential avoidance and high-risk sexual behavior in survivors of child sexual abuse. *Journal of Child Sexual Abuse, 10*(2), 101-120. doi: 10.1300/J070v10n02_06
- Bernstein, D. P., & Fink, L. (1998). *Childhood Trauma Questionnaire: A retrospective self-report*. San Antonio, TX: Harcourt, Brace, and Company.
- Biglan, A., Hayes, S. C., & Pistorello, J. (2008). Acceptance and commitment: Implications for prevention science. *Prevention Science: The Official Journal of the Society for Prevention Research, 9*(3), 139–152. doi: 10.1007/s11121-008-0099-4
- Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., & Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire–II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy, 42*(4), 676-688. doi: 10.1016/j.beth.2011.03.007
- Boucher, E. M. (2015). Doubt begets doubt: Casual uncertainty as a predictor of relational uncertainty in romantic relationships. *Communication Reports, 28*(1), 12-23. doi: 10.1080/08934215.2014.902487
- Carson, J. W., Carson, K. M., Gil, K. M., & Baucom, D. H. (2004). Mindfulness-based relationship enhancement. *Behavior Therapy, 35*, 471-494. doi: 10.1016/S0005-7894(04)80028-5
- Cherlin, A. J., Burton, L. M., Hurt, T. R., & Purvin, D. M. (2004). The influence of physical and sexual abuse on marriage and cohabitation. *American Sociological Review, 69*, 768-789. doi: 10.1177/000312240406900602
- Colman, R. A., & Widom, C. S. (2004). Childhood abuse and neglect and adult intimate

- relationships: A prospective study. *Child Abuse and Neglect*, 28, 1133-1151. doi: 10.1016/j.chiabu.2004.02.005
- Cordova, J. V., Jacobson, S. N., & Christensen, A. (1998). Acceptance versus change intervention in behavioral couple therapy: Impact on couples' in-session communication. *Journal of Marital and Family Therapy*, 24(4), 437-455. doi: 10.1111/j.1752-0606.1998.tb01099.x
- Dick, A., Niles, B., Street, A., DiMartino, D., & Mitchell, K. (2014). Examining mechanisms of change in a yoga intervention for women: The influence of mindfulness, psychological flexibility, and emotion regulation on PTSD symptoms. *Journal of Clinical Psychology*, 70(12), 1170-1182. doi: 10.1002/jclp.22104
- DiLillo, D., Peugh, J., Walsh, K., Panuzio, J., Trask, E., & Evans, S. (2009). Child maltreatment history among newlywed couples: A longitudinal study of marital outcomes and mediating pathways. *Journal of Consulting and Clinical Psychology*, 77, 680-692. doi: 10.1037/a0015708
- Fairweather, A. & Kinder, B. (2013) Predictors of relationship adjustment in female survivors of childhood sexual abuse. *Journal of Interpersonal Violence*, 28(3), 538-557. doi: 10.1177/0886260512455510
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2013). G*Power Version 3.1.7 [computer software]. Universität Kiel, Germany. Retrieved from <http://www.pscho.uni-duesseldorf.de/abteilungen/aap/gpower3/download-and-register>
- Feinauer, L., Callahan, E. & Hilton, H. G. (1996). Positive intimate relationships decrease depression in sexually abused women. *American Journal of Family Therapy*, 24(2), 99-106. doi: 10.1080/01926189608251023

- Fletcher, G. J. O., Simpson, J. A., & Thomas, G. (2000). The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psychology Bulletin*, 26, 340-354. doi: 10.1177/0146167200265007
- Godbout, N., Briere, J., Lussier, Y., & Sabourin, S. (2013). Childhood sexual abuse and subsequent psychological and interpersonal distress: The role of parental support. *Child Abuse and Neglect*, 38, 317-325. doi: 10.1016/j.chiabu.2013.10.001
- Godbout, N., Runtz, M., Manintosh, H., & Briere, J. (2013). Childhood trauma and couple relationships. *Integrating Science and Practice*, 3(2), 14-17.
- Hall, M., & Hall, J. (2011). *The long-term effects of childhood sexual abuse: Counseling implications*. Retrieved from http://counselingoutfitters.com/vistas/vistas11/Article_19.pdf
- Han, M., Choi, Y., & Jung, S. (2016). Exploring the relationship between exposure to interparental violence and child physical abuse in childhood and the impacts on mental health problems in later young adulthood among South Korean college students. *International Social Work*, 59(6), 821-835. doi: 10.1177/0020872814562481
- Hartman, M., Finn, S., & Leon, G. (1987). Sexual-abuse experiences in a clinical population: Comparisons of familial and nonfamilial abuse. *Psychotherapy: Theory, Research, Practice, Training*, 24(2), 154-159. doi: 10.1037/h0085699
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: NY, The Guilford Press.
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology*, 64, 1152-1168. doi:

10.1037/0022-006X.64.6.1152

Jacobson, S., & Christensen, A. (1996). *Integrative couple therapy: Promoting acceptance and change*. New York, NY: Norton.

Jayamaha, S. D., Girme, Y. U., & Overall, N. C. (2017). When attachment anxiety impedes support provision: The role of feeling unvalued and unappreciated. *Journal of Family Psychology, 31*(2), 181-191. doi: 10.1037/fam0000222

Lawson, D. M., & Quinn, J. (2013). Complex trauma in children and adolescents: Evidence-based practice in clinical settings. *Journal of Clinical Psychology, 69*, 497–509. doi: 10.1002/jclp.21990

Maltz, W. (2002). Treating the sexual intimacy concerns of sexual abuse survivors. *Sexual and Relationship Therapy, 17*(4), 321-327. doi: 10.1080/1468199021000017173

Maniglio, R. (2009). The impact of child sexual abuse on health: A systematic review of reviews. *Clinical Psychology Review, 29*, 647-657. doi: 10.1016/j.cpr.2009.08.003

Nguyen, T. P., Karney, B. R., & Bradbury, T. N. (2016). Childhood abuse and later marital outcomes: Do partner characteristics moderate the association? *Journal of Family Psychology*, Advance online publication. doi: 10.1037/fam0000208

Palm, K. M., & Follette, V. M. (2011). The roles of cognitive flexibility and experiential avoidance in explaining psychological distress in survivors of interpersonal victimization. *Journal of Psychopathology and Behavioral Assessment, 33*, 79–86. doi: 10.1007/s10862-010-9201-x

Peterson, B. D., Eifert, G. H., Feingold, T., & Davidson, S. (2009). Using acceptance and commitment therapy to treat distressed couples: A case study with two couples. *Cognitive and Behavioral Practice, 16*, 430-442. doi: 10.1016/j.cbpra.2008.12.009

- Scher, C. D., Stein, M. B., Asmundson, G. J. G., McCreary, D. R., & Forde, D. R. (2001). The childhood trauma questionnaire in a community sample: Psychometric properties and normative data. *Journal of Traumatic Stress, 14*, 843-857. doi: 10.1023/A:1013058625719
- Shenk, C. E., Putnam, F. W., & Noll, J. G. (2012). Experiential avoidance and the relationship between child maltreatment and PTSD symptoms: Preliminary evidence. *Child Abuse and Neglect, 36*, 118-126. doi: 10.1016/j.chiabu.2011.09.012
- Twohig, M. (2009). Acceptance and commitment therapy for treatment-resistant posttraumatic stress disorder: A case study. *Cognitive and Behavioral Practice, 16*(3), 243-252. doi: 10.1016/j.cbpra.2008.10.002
- Unger, J. & De Luca, R. (2014). The relationship between childhood physical abuse and adult attachment styles. *Journal of Family Violence, 29*, 223-234. doi: 10.1007/s10896-014-9588-3
- United States Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2017). Child maltreatment 2015. Retrieved from <https://www.acf.hhs.gov/cb/research-data-technology/statistics-research/child-maltreatment>

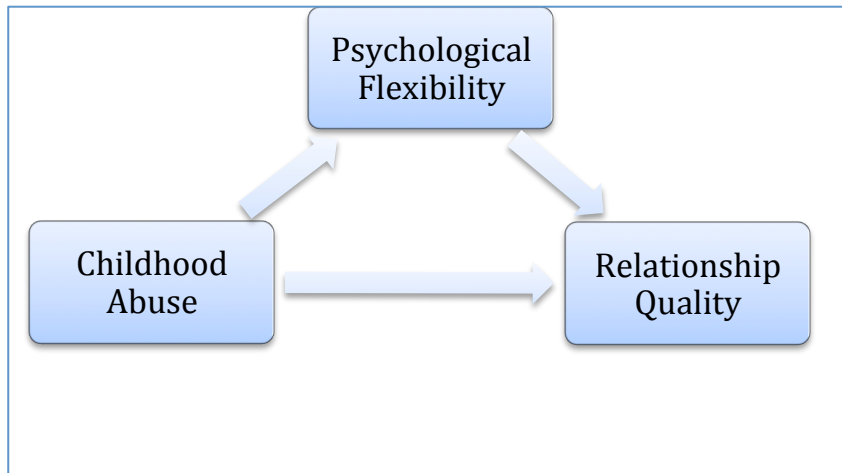


Figure 1: *Mediation Analysis*