

5-8-2019

The Effects of Child Maltreatment on Social Relationships in Emerging Adulthood

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THE EFFECTS OF CHILD MALTREATMENT ON SOCIAL RELATIONSHIPS
IN EMERGING ADULTHOOD
by Roxanne E. Heikin

A Thesis Submitted in Partial Fulfillment
of the Requirements for the Master of Arts in
The Department of Psychology
The School of Arts and Sciences
Rhode Island College
2019

Abstract

This retrospective study examined the relationship between childhood maltreatment and social relationships in an emerging adult sample of 159 individuals between 18 and 25 years of age. This research provides additional evidence on the effects of child maltreatment by investigating outcomes found in both friendship and romantic relationship quality in emerging adulthood. Protective factors likely to reduce the negative impact of child maltreatment on social relationships, including emotion regulation, coping, and optimism were examined as moderators. Emotion regulation was the only significant moderator that reduced the negative effect of child maltreatment on friendship and romantic relationship outcomes. Self-report of child maltreatment was associated with friendship quality and romantic relationship quality during emerging adulthood. Differential effects of maltreatment type were also assessed. The results indicated that physical abuse was the only significant indicator of child maltreatment that was associated with the outcomes of friendship experiences, satisfaction, and conflict. Sexual abuse was the strongest indicator of child maltreatment associated with romantic relationship satisfaction, conflict, and trust. Results contribute to the extant literature by revealing earlier life predictors of friendship and romantic relationship outcomes in emerging adults and the influence that emotion regulation has as a protective factor. Findings may inform additional interventions for children who have experienced child maltreatment by focusing on strengthening emotion regulation skills that increase the likelihood of building healthy social relationships in emerging adults.

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The Effect of Child Maltreatment on Social Relationships in Emerging Adulthood

The National Child Abuse & Neglect Data Systems (NCANDS) of the Children's Bureau (2016) reported one in four children experience maltreatment. Child maltreatment, which includes physical, sexual and psychological abuse or neglect increases risks of social, cognitive, and behavioral impairments (Bremner & Vermetten, 2001; Majer, Nater, Lin, Capuron & Reeves, 2010; Peterson & Welsh, 2014). Impairments found in these areas have been shown to play a significant role in the development of social skills, which influence relationship outcomes in adolescence and adulthood. Establishing and maintaining healthy social relationships with peers (i.e., romantic and friendships) is one of the most important developmental tasks during emerging adulthood (Roisman, Masten, Coatsworth & Tellegen, 2004) and child maltreatment earlier in life may have consequences for accomplishing this developmental task. As such it is paramount to examine associations between child maltreatment and peer relationships in emerging adulthood and when possible identify factors that might mitigate those associations.

To date, research examining the effects of maltreatment on social relationship development during emerging adulthood has generally focused on the effects of physical forms of child maltreatment on the development of aggression in romantic relationships in adulthood and has failed to explore how different forms of maltreatment (e.g., emotional and neglect) might be associated with relationship development (e.g., satisfaction, attachment) more broadly. Furthermore, the impact of child maltreatment on friendship development in emerging adulthood has been largely ignored. Yet we know,

that peer relationships during childhood and early adolescence are affected by experiences with primary caregivers growing up and as such the effect of child maltreatment on friendships during emerging adulthood needs further attention. Thus, the first aim of this study is to investigate the effects of experiencing childhood maltreatment on friendships and romantic relationships in emerging adults.

The consequences of maltreatment partly depend on the presence of individual protective factors to increase resilience and promote healthier outcomes later in life (Affifi & MacMillan, 2011). Resilience refers to an individual's ability to recover from hardship and adapt to experiences of misfortune (Southwick, Bonanno, Masten, Panter-Brickand & Yehuda, 2014). Protective factors that may mitigate the effects of child maltreatment on negative adjustment include emotion regulation, coping, and having a positive disposition. These factors have rarely been looked at in previous studies (Mestre, Núñez-Lozano, Gómez-Molinero, Zayas & Guil, 2017) but a limited body of literature supports that individual resilience factors are important to include in future research on the effects of child maltreatment (Barfield, 2004; Peterson, Peugh, Loucks & Shaffer, 2017). Thus, this study plans to investigate protective factors associated with resilience that may decrease the negative impact child maltreatment has on friendships and romantic relationships in emerging adulthood. Toward that end, this research will use a retrospective approach to investigate the relationship between child maltreatment and social relationships in emerging adulthood and how the factors of emotion regulation, coping and having a positive disposition may mitigate the negative effects on child maltreatment and

Friendships and Romantic Relationships during Emerging Adulthood

Two of the most important types of relationships during emerging adulthood are friendships and romantic relationships (Boisvert & Poulin, 2016; Rauer, Pettit, Lansford, Bates & Dodge, 2013). Relationships are important to overall health and well-being throughout life. They are known to affect behavioral, psychosocial, and physiological pathways (Umberson & Montez, 2010) such that emotional support and healthy relationship development are shown to increase subjective well-being. Furthermore, social support from peers is significantly associated with cardiovascular reactivity to stressors, which has been found to reduce blood pressure reactivity to stress (Howard, Creaven, Hughes, O'Leary & James, 2017). Peer relationships have shown to influence social skills involved in stress management and coping (Barnes, 2013). Notably, there is a distinct connection between the development of social skills and peer relationships. In that, social skills are necessary to build and maintain peer relationships, and peer relationships are the primary source for which children learn social skills needed for building healthy relationships throughout life. Poor peer relations in adolescence have been found to decrease relationship competencies and increase anxiety, depression and aggressive behaviors in young adulthood (De Matos, Barrett, Dadds & Shortt, 2003; Shin, Cho, Shin & Park, 2016; Sidorowicz & Hair, 2009).

Relationship competence in emerging adulthood involves the ability to use skills, knowledge, and appropriate behavior to develop and maintain relationships. These competencies may include conflict management, mutual satisfaction, and trust. The ability to share and understand the emotions of others are vital aspects of building

successful relationships as they influence communication and active listening skills that may reduce conflict and promote healthy relationships. Peer conflict is characterized as hostility or mutual disagreements among peers that may influence aggressive behaviors and negative attitudes. Conflict management involves having the ability to create and control a situation or event and respond effectively in tense situations or hostile environments (Suppiah & Rose, 2006). Emerging adulthood is a time in which individuals continue to learn conflict resolution techniques through difficult situations and disagreements with peers. However, individuals that lack conflict management skills in adolescence are more likely to continue facing problems within friendships and romantic relationships later in life (Sidorowicz & Hair, 2009; Zafirakis, 2013).

Adolescence is a time when individuals become curious about physical intimacy and begin to develop sexual feelings for peers, which hastens the development of romantic relationships in adolescence (Zhu, 2016). Adolescence is also a time in which exploration of physical intimacy and sexual relationships occurs. Researchers argue that understanding life tasks such as intimacy development is a significant predictor of subjective well-being, which has been found to influence happiness and overall life satisfaction (Diener, 1984; Skalacka & Gerymski, 2018; Zimmer-Gembeck & Petherick, 2006). Building romantic relationships in emerging adulthood has been shown to improve conflict management skills and increase mutual satisfaction in future relationships. The main characteristics found in positive intimate relationships in emerging adulthood include trust, mutual support and understanding, and verbal and nonverbal expressions of attention (Andersen, Guerrero & Jones, 2006). Those that experience negative peer

relationships in adolescence, are at increased risk for facing difficulties in personal development, and in turn, are more likely to experience less happiness and satisfaction in later relationships. Thus, it is essential to build positive intimate friendships and romantic relationships with peers in emerging adulthood as it significantly predicts more relationship satisfaction and increases positive well-being in adulthood.

Child Maltreatment and Social Relationships

Theory

Child maltreatment may negatively affect one's ability to develop social relationships later in life (Young & Widom, 2014). Child maltreatment is the act of causing or the failure to protect a child from harm, predominantly by a parent or caregiver. As a result of previous observations and experiences, maltreated children are at potential risk of facing difficulties in behavioral and cognitive development, which may affect appropriate development to form healthy relationships. Thus, the present study aims to investigate the impact child maltreatment has on future relationships by examining friendships and romantic relationships in those with experiences of maltreatment in childhood. Several theories have been employed to understand the association found between childhood maltreatment and the later difficulties in social relationships. Most notably, attachment theory suggests that the relationship formed between a child and primary caregiver impacts a child's ability to develop close relationships and create emotional bonds in adulthood (Bowlby, 1969). Attachment patterns form in the context of early childhood experiences with caregivers with the purpose of making a child feel safe, secure and protected (Benoit, 2004). A child that

develops a secure attachment to a primary caregiver is more likely to view others as reliable and available, unlike a child that develops an insecure attachment who is more likely to view others as inconsistent and unreliable.

The attachment system involves sustaining a sense of felt security, which is child's belief that the world is generally safe and that others will provide support and comfort in times of need. Felt security produces working models of attachment that function as templates for the beliefs and expectations for relationships with others. These expectations and beliefs are initiated by the expectations of parent responsiveness early in life. Children learn the behavioral patterns of parents or caregiver in response to their protection, comfort, and attention. Those with inadequate and inappropriate responses from parents in times of need are more likely to have lower levels of trust and loyalty in future interactions and relationships. Working models allow for the interpretation and prediction of others behaviors. Thus, children that develop secure working models tend to predict availability and a faster response from their caregiver. Children who have been maltreated, however, may develop an insecure attachment style as a result of experiencing the inconsistent actions and behaviors of caregivers in times of need. Thus, those children that lack security and support early in life and develop insecure attachment styles with a primary caregiver, are more likely to have difficulties in social skills and healthy relationship development because of the tendency to follow the same pattern of behavior within family relationships, and later expressing similar behavior in future social interactions with peers (Bowlby, 1969). Research identifies working-models of childhood attachment in parent-child relationships as a significant predictor of later

relationship quality, such that those with secure working models of attachment in childhood report less conflict and more positive relationship qualities in adulthood compared to those who report insecure working models (Cohn, Silver, Cowan, Cowan & Pearson, 1992). There is evidence that supports and extends this proposition indicating that over two-thirds of maltreated children will develop insecure attachment styles (Friedrich, 2002) and that the more dysfunctional the attachment, the greater potential for secondary consequences (e.g., depression) (Putnam, 1997) that may affect their relationship development.

Correspondingly, Social Learning Theory (1977) emphasizes how relationships with important individuals within one's life may influence later development but does so by focusing on observational learning as a key tool for development of social and cognitive processes. Bryant and Conger (2002) drew on social learning theory and proposed a model to conceptualize and predict how Development of the Early Adult Romantic Relationships (DEARR) are influenced by characteristics found in the context of early family experiences. This model suggests that the characteristics of early family environment, may predict the future feelings and behaviors that a child may display toward others, which is assumed to affect the quality of romantic relationships later in life. Specifically, the model suggests that the primary way in which early family experiences may affect later social development is through the socialization of individual attributes in the emerging adult. This theoretical proposition has largely been supported by studies that find that use of parental hostility is associated with aggressive behaviors among youth that are later exhibited in romantic relationships in the form of poor conflict

management (Conger, Cui, Bryant, & Elder, 2000). This proposition is also relevant to understanding why child maltreatment may affect individual attributes such as aggression and mental health problems that are then experienced in friendships and romantic relationships.

Childhood Maltreatment and Romantic Relationships

Childhood maltreatment may have lasting impacts that affect the development of competencies needed to be successful in both romantic relationships and friendships in emerging adulthood (Jentoft-Kinniburgh, Blaustein, Spinazzola & van der Kolk, 2017; Reyome, 2010). These competencies, discussed above, may include conflict, mutual satisfaction and trust. One relationship outcome that has been examined frequently is aggression and conflict in relationships (Aloia, 2018; DiLillo, Lewis & Loreto-Colgan, 2007). Researchers examining the effects of child maltreatment on romantic relationships in young adulthood utilizing retrospective designs have found that those who experience physical abuse or witness family violence in childhood are more likely to report more conflict and violence in future romantic relationships (Labella et al., 2017; Leadbeater, Banister, Ellis & Yeung, 2008; Martínez-Gómez et al., 2011; Stoops, 2015). The association between physical maltreatment experienced in the family and later conflict and aggression in romantic relationships is consistent with the DEARR model, which proposes that social behaviors are acquired through early family experiences, and those that observe or experience negative interparental interactions often exhibit the same behavior in future romantic relationships. Thus, it is expected that children who have

experienced maltreatment are more likely to confront their partner in a hostile or an argumentative manner due to what they learned about relationships early in life.

Previous research indicates that child maltreatment may be associated with problems developing trust in romantic relationships in adulthood (Labella et al., 2017). This research is consistent with the notion that a child deprived of the opportunity to form a secure attachment with a primary caregiver early in life will have more difficulties forming close relationships in adulthood, resulting from the inability to develop a sense of trust in others (Bowlby, 1969). As a result of experiencing maltreatment in childhood, children who are maltreated often develop an avoidant attachment in adulthood, leaving them emotionally unavailable in their romantic relationships (Yumbul, Cavusoglu & Geyimci, 2010). Adults that develop insecure attachment styles are more likely to have feelings of distrust and rejection and as such become unresponsive and disinterested toward others, which may have an effect on the development of trust in romantic relationships (Gleeson & Fitzgerald, 2014).

The literature demonstrates that maltreated children are more likely to report low levels of quality in romantic relationships in adulthood, which refers to the amount of happiness, communication, intimacy, agreeableness and consistency there is within a relationship (Franz, 2015; Lassri & Shahar, 2012; Peterson et al., 2018). For instance, Peterson, Peugh, Lovcks and Shaffer (2017) investigated the effects of child maltreatment on romantic relationships in a sample of young adults and found that child maltreatment was associated with high levels of hostility and low levels of relationship satisfaction. This coincides with past research that indicates experiencing maltreatment in

childhood leads to challenges in maintaining stable and romantic relationships, often as a result of poor communication and a lack of trust (Beatty, 2013; DiLilio & Long, 1999). Paradis and Boucher (2010) investigated the effect of child maltreatment on adult romantic relationships in a sample of 1,728 male and female university students and found that experiences of maltreatment in childhood negatively influenced interactions with others and those who were maltreated were more likely to report difficulties in current romantic relationships, as a result of lacking communication skills and exhibiting characteristics of passive behavior. This finding supports social learning theory indicates which posits that children learn relationship skills through observing parent behaviors and maltreated children often experience hostile or neglectful family environments, which may affect the development of romantic relationship competencies.

Taken together, the research to date suggests that the competencies needed to be successful in romantic relationships include positive communication, conflict resolution, support and consistent behavior. The experiences of maltreatment in childhood may impact the adequate development of these skills, leaving maltreated children vulnerable to difficulties in relationship development. It is expected that the same relationship competencies that disrupt success in romantic relationships will equally impact the successful development of friendships.

Child Maltreatment and Friendships

Negative family experiences in childhood, such as child maltreatment, may impact several areas of development involved with building healthy social relationships in adulthood (Hornor, 2014; Koizumi & Takagishi, 2014). Research indicates children

that observe negative family interactions, often lack the skills necessary for developing successful social relationships. For instance, children that experience negative interactions with parents or witness the negative social interactions parents have with others, may lack empathy and the capability of developing a sense of trust with others. Research suggests that children who are maltreated have difficulty understanding the emotions of others and lack the confidence in safely sharing their feelings (Perry, Pollard, Blakely, Baher & Vigilante, 1995; Vettese, Dyer, Li & Wekerle, 2011). There is evidence to suggest that these difficulties may result from the tendency children have to imitate behaviors observed in their early family environment (Sege & Amaya-Jackson, 2017).

To date, few studies have focused on the effects of child maltreatment on friendship development, particularly during emerging adulthood. Yet, we know that friendships are important social relationships during this developmental time (Barry, Madsen, Nelson, Carroll & Badger, 2009; Tokuno, 1983). As previously mentioned, social and cognitive skills learned through the context of family early in life play a significant role in the future behaviors and actions an individual may display toward others. Researchers found that experiencing a nurturing family and stable environment in childhood is a significant predictor of relationship quality in adulthood (Vangelisti, 2012). In contrast, those that experience an unstable, negative environment in childhood tend to display more antisocial behaviors, hostility and aggression in relation to their peers and more likely to have difficulties with relationship development in adolescence, as well as, in adulthood (Thornberry et al., 2014). Furthermore, research examining the effects of parental hostility and family conflict on difficulties in friendships during

adolescence and young adulthood (Baumgardner & Bovatzis, 2018; Cook, Buehler & Blair, 2013; Cook, Buehler & Fletcher, 2012; Doorn, Branje, Vandervalk, Goede & Meeus, 2011) has found that children who experience family conflict or parental psychological control, are more likely to display negative emotional responses and conflict in social interactions during middle adolescence. Although parental hostility and family conflict may be less extreme forms of maltreatment, the evidence suggests that living in a hostile family environment has detrimental effects on later social development, specifically on friendship development (Higgins, 2004; Sandstrom & Huerta, 2013; Tomison & Tucci, 1997).

The handful of studies that have examined the association between child maltreatment and friendship development during adolescence or emerging adulthood have generally found that child maltreatment undermines social development resulting in negative friendship outcomes (Cicchetti & Valentino, 2006; Flynn, Cicchetti & Rogosch, 2014; Teisl & Cicchetti, 2008; Teisl, Rogosch, Oshri & Cicchetti, 2012). Specifically, researchers have found that individuals who experience child maltreatment may become frequently frustrated and confrontational with peers, which may produce conflict and affect one's ability to form successful relationships (Al Odhayani, Watson & Watson, 2013; Cullerton-Sen et al., 2008; Howe, 1996; Parker & Herrera, 1996; Sidorowicz & Hair, 2009). Furthermore, in a study consisting of 120 University students with experiences of maltreatment in childhood, researchers found that maltreatment in childhood was associated with difficulties in interpersonal interactions and that maltreated children were less likely to initiate friendships (Vandevender, 2014). In

addition, research suggests that children who are maltreated often misinterpret social cues. Misinterpretation of social cues within peer interactions often results in an angry or aggressive response to peers, with the potential of producing physically aggressive behaviors (Cullerton-Sen et al., 2008; Engelhardt & Bartholow, 2013).

Given the dearth of research on the effects of maltreatment on friendships during emerging adulthood, this study will further examine the effects of child maltreatment on not only romantic relationships, but also friendships, contributing to existing literature and providing further understanding of social relationship outcomes.

Differential Effects of Childhood Maltreatment on Social Relationships

The effects of maltreatment on relationship development during young adulthood may depend on the type of maltreatment that was endured during childhood. The main types of maltreatment an individual may experience in childhood include sexual, physical and emotional abuse or neglect. Physical abuse is any intention to injure or deeply distress another person using bodily contact to inflict harm, whereas sexual abuse is the force of inflicting undesired sexual contact upon another person. Emotional abuse is the behavior or actions of significant people in one's life that cause psychological stress and trauma.

Current research indicates that all forms of maltreatment are shown to have detrimental effects, but that there may be variability in these effects depending on the type of maltreatment experienced (Hodgdon et al., 2018). Examining if variability in childhood maltreatment experiences are associated differentially with relationship outcomes contributes to our understanding of a key concept in developmental

psychopathology of whether multiple pathways or risk factors lead to common outcomes (Hinshaw, 2013). Shedding light on this question is important to successful intervention development for youth who have experienced maltreatment. Attachment and social learning theories suggest that physical forms of maltreatment may lead to conflict and hostility in future peer relationships. That is, physically maltreated children are more likely to be violent and aggressive in peer relationships (Keene & Epps, 2016; Kolla, 2013; Malinosky-Rummell & Hansen, 1993; Merrill, Hervig & Milner, 1996). Children who have been sexually abused tend to be more isolated from peers because they may feel worthless and often display self-destructive behaviors and high levels of depression, which may impact attachment and trust in later relationships (Hall & Hall, 2011). Experiences of emotional abuse and neglect often lead to impairments in social development and leave those maltreated without the skills necessary to form healthy peer and intimate relationships later in life (Taillieu, Brownridge, Sareen & Afifi, 2016; Ungar, 2001). Existing literature supports that emotional neglect is a significant indicator of difficulties in social functioning development, which can be seen early in childhood and adolescence (Gardner, 2008). Despite theorizing about the differential effects of maltreatment, few studies systematically examine differential effects of type of maltreatment on relationship development (Hodgdon et al., 2018; Edwards, Holden, Felitti, & Anda, 2003; Rodgers, 2004).

Resilience in Child Maltreatment and Social Relationships

Individuals respond differently in terms of the way they handle environmental adversities. The outcomes of living in a negative environment vary depending on an

individual's response to a situation. Luthar and colleagues (2000) proposed a resilience framework to explain why some youth who grow up in adverse environments are still able to succeed despite exposure to harsh environments. This framework suggests that individual levels of competence may protect and defend against adverse experiences and thus promote resilience in these individuals. Resilience factors that have been examined regarding childhood maltreatment include individual factors such as, emotion regulation, coping, and optimism.

Emotion Regulation

Emotion regulation is critical in one's ability to make associations between what has been learned and stored in memory, with what is newly introduced and experienced on a daily basis (Briere, Hodges & Godbout, 2010). Related to emotion regulation is emotional intelligence, which is the capability of an individual to recognize their emotions, as well as, the emotions of others. Emotional intelligence consists of four steps one must incorporate when processing emotional information: Perceiving emotions; using emotions to facilitate thinking; understanding emotions; and regulating one's own emotions and the emotions of others (Mayer & Salovey, 1997). These abilities are thought to be important for social interactions because emotions serve communicative and social functions, moreover, are significant abilities for conveying information about people's thoughts and intentions (Bigras, Gidbout, & Briere, 2015). Out of these four abilities, emotional regulation is probably the most important for social interactions because it influences emotional expression and behavior directly. The sharing of emotional experience is a key aspect of human relationships. Therefore, when there is not

comfort in sharing aspects of self, people may be unable to build intimate human relationships. Many children who experience maltreatment, struggle with the ability to safely and effectively express internal experience.

Emotion regulation has been found to be a significant factor that protects individuals after experiencing maltreatment in childhood (English, John & Gross, 2013; Mestre, Núñez-Lozano, Gómez-Molinero, Zayas & Guil, 2017; Richards, Butler & Gross, 2003). The findings suggest that those with the ability to control emotional reactions to situations and events have higher levels of stress tolerance (Grant, Salsman & Berking, 2018; Jeffries, McLeish, Kraemer, Avallone & Fleming, 2016). Further, research argues that those individuals that use positive reappraisal, problem-solving and mindful emotion regulation strategies, are more likely to combat negative emotional responses and often adapt after adverse experiences (Garland, Gaylord & Park, 2009; Verzeletti, Zammuner, Galli & Agnoli, 2016).

Currently, literature is lacking in terms of understanding the impact emotion regulation has on social relationship development in emerging adulthood after the experience of maltreatment in childhood. However, there is evidence to suggest that emotion regulation moderates the role of stress and well-being. Past research has found that those adults who report higher levels of perceived stress and higher emotion regulation also report higher levels of perceived happiness and lower depression symptoms. These results suggest that emotion regulation may promote healthy relationships in emerging adults with a history of maltreatment by reducing stress perceived and increasing happiness (Extremera & Rey, 2015).

Coping

Coping is defined as how an individual deals with or attempts to overcome problems or difficulties that arise throughout life (Baqtayan, 2015). The Transactional Theory of Stress and Coping (Lazarus & Folkman, 1984) suggests that individual strategies and actions utilized within cognitive, physiological, psychological and neurological processes in response to environmental stressors predicts one's ability to adapt and cope effectively. Research suggests that those with coping abilities are more likely to have less distress, despite experiences of maltreatment in childhood, which may influence social relationship development later in life (Afifi & Macmillan 2011; Marriott, Hamilton-Giachritsis & Harrop, 2013). Moreover, individuals with positive coping strategies tend to develop a healthy attachment style in young adulthood (Beutel et al., 2017; Harford, 2004), which facilitates healthy cognitive and behavioral development. Perhaps, most importantly, learning positive coping strategies such as positive self-talk, problem-solving and relaxation techniques, has been shown to promote healthy relationships and overall quality of life (Meichenbaum, 2007). This study aims to examine the way in which positive coping influences the impact that child maltreatment has on social relationships in young adulthood.

Optimism

Individuals who are optimistic produce positive emotions that buffer against stress, and increase psychological resilience (Tugade, Fredrickson & Barrett, 2004). Optimism can be defined as the hope and confidence one has toward the future and the belief in successful outcomes. Children with a positive attitude are more resilient to

negative events that may impact them throughout adulthood (Cicchetti & Rogosch, 2009). Optimism has been found to play a significant role in overall outcomes including a positive outlook on relationships, social interactions and self-esteem (Li, 2009). Individuals that think positively about the future increase the likelihood of overcoming traumatic experiences and having successful outcomes (Prati & Pietrantonio, 2009). Research conducted by Brodhagen and Wise (2008) utilized 199 college students between the ages of 18 and 63 years to examine the influence a positive disposition has on the outcomes of individuals with past experiences of abuse, trauma or distress. The results indicated that higher levels of optimism were associated with lower levels of stress. Those that remain optimistic are often more resilient, as well as more self-reliant and confident. Further, findings indicate that an optimistic attitude influences positive outcomes after emotional maltreatment in childhood and promotes healthier mental health outcomes (Kashden et al., 2002). Optimistic people are more likely to believe that they have control to generate positive things to happen in their lives. Optimists have faith in positive outcomes and show perseverance and motivation to achieve success, which may influence healthier outcomes after the experiences of maltreatment in childhood (Prati & Pietrantonio, 2009). Children that have an optimistic disposition are more likely to experience less external and internal problems later in life (Hagen, Myers & Mackintosh, 2005). Thus, this research plans to investigate optimism as a factor that might mitigate the effects of child maltreatment.

Hypotheses

The experience of maltreatment significantly influences a person's functioning and development, which disrupts social relationship development (Mikulincer & Shaver, 2007). Furthermore, the presence of individual protective factors may increase resilience and promote healthier outcomes after negative experiences, such as child maltreatment. Thus, the current study will examine if emerging adults' retrospective reports of maltreatment in childhood and adolescence are associated with functioning in romantic relationships and friendships in emerging adulthood. Specifically, we hypothesize that adults who report more experiences of child maltreatment will report lower relationship quality in friendships and romantic relationships as measured by conflict, satisfaction, and trust. Additionally, we hypothesize that there will be differential effects of maltreatment type on relationship development, such that those with experiences of emotional abuse and neglect will report lower levels of trust in both romantic and peer relationships. In addition, we expect that those with experiences of physical abuse will report higher levels of conflict and lower levels of trust in both romantic relationships and friendships, and those with experiences of sexual abuse will report lower levels of trust. Finally, it is expected that protective factors to include emotion regulation, positive coping skills, and having an optimistic disposition will decrease the negative impact that child maltreatment has on romantic relationships and friendships in emerging adulthood.

Method

Participants

Participants were 159 males (32%) and females (66%), with 2% identifying as other, between 18-25 years old (M age for males = 22.4, SD = 2.3; M age for females

$M = 20.3$, $SD = 2.7$). Seventy-six percent of respondents identified themselves as white (non-Hispanic), 10% identified as Black or African American and 17% identified as Hispanic. Sixty six percent of participants reported working between 1-39 hours, with 13% reporting working 40 or more hours a week. Over half of the participants reported some college education, but no degree (61%). Participants were classified as single, not currently dating (44%), dating (11%) or in a committed relationship (45%). Participants most often described parents' relationship status, when growing up, as married (39%), with 21% reporting parents' relationship status as remarried and 16% reporting parents' relationship status as separated. The most frequently reported income bracket was 25,000-49,000 a year (21%).

Participants were recruited from several places in order to increase the range of childhood experiences. The majority of students were recruited from introductory psychology classes using the participant pool (57% of participants). However, participants were also recruited through flyers posted in communities within the State of Rhode Island including doctors' offices, coffee shops, restaurants, barber shops, hardware stores, the public library and colleges. Individuals living in a trauma-focused residential setting provided by the Family Service of Rhode Island (FSRI), a non-profit organization working with high risk young adults, were also recruited.

Procedures

All participants completed the survey on-line through Qualtrics. Participants were first asked to fill out an on-line consent form in order to proceed to the survey. Participants were informed of the reasons for the proposed study, made aware that they could drop-out

at any time and that all information provided would remain confidential. The consent form stated that many of the questions would be about childhood maltreatment and thus might be triggering to some participants. Resources were given to participants should they find the survey upsetting. The survey took approximately 30 minutes to complete and contained 150 multiple-choice questions. A \$10 Amazon Gift Card was offered as an incentive to complete the survey except for participants who completed the survey as part of the requirement of the introduction to psychology class who received course credit. Participants received online gift card codes to Amazon.com immediately after survey completion. Participants were thanked for their time at the end of the survey. All procedures were approved by the Rhode Island College Institutional Review Board (IRB).

Measures

Childhood maltreatment. To measure the variable of childhood maltreatment, the Childhood Trauma Questionnaire (CTQ) was used. The CTQ is a 28-item, self-report instrument that assesses maltreatment in five categories: physical abuse and neglect, sexual abuse, and emotional abuse and neglect (Bernstein and Fink, 1997). Participants were asked to retrospectively think about childhood experiences of maltreatment prior to age 17. Response options ranged from 1 (*Never True*) to 7 (*Very Often True*). Participants reported how often they experienced each event or situation (e.g., “I didn’t have enough to eat”, “I got hit so hard by someone in my family that I had to see a doctor or go to the hospital”). This scale has been shown to be an effective measure to assess traumatic experiences in childhood (Bernstein & Fink, 1998). Cronbach’s alpha was excellent in this study, $\alpha = .93$.

Emotion regulation. To assess the variable of emotion regulation, the Difficulties in Emotion Regulation Scale – Short Form (DERS-SF) was used. The DERS-SF is an 18-item, self-report questionnaire designed to assess emotion regulation difficulties using a 5-point Likert Scale (Gratz & Roemer, 2004). Responses ranged from 1 (*Almost Never*) to 5 (*Almost Always*) on six subscales examining specific constructs that include Strategies, Non-acceptance, Impulse, Goals, Awareness and Clarity (e.g., “I experience my emotions as overwhelming and out of control”; “I have no idea how I am feeling”). Several items were reverse coded so that higher scores indicated better emotion regulation. The DERS-SF has demonstrated high reliability and excellent validity (Victor & Klonsky, 2016). For purposes of the current study an overall scale was computed with higher scores indicating more emotion regulation ($\alpha = .93$).

Coping. To assess the variable of coping, The Coping Inventory for Stressful Situations Short Form (CISS-21) was used. The CISS-21 is a 21-item, self-report questionnaire that assesses coping styles in three categories: Problem-Focused, Emotion-Focused Coping and Avoidant Coping (Endler & Parker, 1999). Participants reported on the ways in which they engaged in coping activities in stressful situations (e.g., “Analyze my problem before reacting”, “Spend time with a special person”) on a 5-point Likert Scale. Responses ranged from 1 (*Not at All*) to 5 (*Very Much*). Higher scores reflected positive coping skills participants use in stressful situations. Cronbach’s alpha was good in this study, $\alpha = .82$

Optimism. To measure the variable of optimism, the Life Orientation Test-Revised (LOT-R) was used. The LOT-R is a 10-item measure that includes four filler

questions, designed to assess positive psychological well-being and individual differences in optimism versus pessimism (Carver, 2013). Participants were asked to respond to statements (e.g., “I’m always optimistic about my future”, “If something can go wrong for me, it will”) on a 5-point Likert Scale. Responses ranged from 1 (*Disagree a lot*) to 5 (*I agree a lot*). Items were averaged and higher scores reflected more optimism ($\alpha = .68$).

Social Relationships. Several measures were used to assess romantic relationship outcomes and friendship outcomes. To measure trust and anxiety in romantic relationships, the Experiences in Close Relationships Scale-Short Form (ECR-S) is designed to measure anxiety and avoidance by asking participants to respond to how they feel in romantic relationships (Wei, Russel, Mallinckrodt & Vogel, 2007). This 12-item measure asks participants to respond to how they feel in general about their experiences with romantic relationships (e.g., “I try to avoid getting close to my partner”) and not just the current relationship they may be in now. Response options range from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*). Higher scores indicate higher levels of anxiety and avoidance in romantic relationships. This scale has shown to be a highly reliable and precise measurement of close relationships (Sibley, Fischer & Liu, 2005). In the current study internal consistency was adequate, $\alpha = .71$.

To further measure levels of trust in romantic relationships, the Trust in Close Relationships Scale was used (Rempel, Holmes & Zanna, 1985). This 17-item measure is designed to assess predictability (e.g., “I feel very uncomfortable when my partner has to make decisions which will affect me personally”), dependability (e.g., “I can rely on my partner to keep the promises he/she makes to me”), and faith (e.g., “When I am with my

partner, I feel secure facing unknown new situations”) within close relationships using a 7-point Likert Scale ranging from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*). Higher scores indicate higher levels of trust within a close relationship, $\alpha = .94$.

To measure level of quality in friendships, the Intimate Friendship Scale (IFS) was used (Sharabany, 1994). The IFS is a 35-item measure designed to assess frankness and spontaneity, sensitivity and knowing, attachment (“Whenever you see me, you can be pretty sure that my friend is around, too”), exclusiveness, giving and sharing, common activities, trust and loyalty (“I can be sure that my friend will help me whenever I ask for it”), and imposition within friendships.. Participants were asked to respond using a 5-point Likert Scale ranging from 1 (*Strongly Agree*) to 5 (*Strongly Disagree*). Higher scores indicate more negative experiences within friendships. Cronbach’s α for the scale was .96.

To measure an individual's satisfaction within friendships and romantic relationships, the 7-item Relationship Assessment Scale (RAS) was used (Hendrick, 1988). Participants were asked on two separate scales, one for romantic relationship satisfaction and one for friendship satisfaction, to respond to items such as “In general, how satisfied are you with your relationship?”, using a 5-point Likert Scale ranging from 1 (*Unsatisfied*) to 5 (*Extremely Satisfied*). Higher scores indicated higher levels of satisfaction within a close relationship. This scale has been shown to be a valid and reliable measure of assessing investment and commitment within friendships and romantic relationships (Hendrick, 1988). Cronbach’s α for the friendship scale was .91 and cronbach’s α for the romantic relationship scale was .92.

To measure frequency of conflict the Conflict and Antagonism subscale from the Network and Relationships Inventory (NRI) was used (Furman & Buhrmester, 1985). This 6-item measure is designed to assess frequency of relationship conflict using a 5-point Likert Scales ranging from 1 (*Never*) to 5 (*Everyday*). This measure was used to measure conflict in both friendships and romantic relationships. Participants were asked to respond to questions (e.g., “How much do you and this friend get mad at each other?”; “How often do you get annoyed with each other’s behavior?”) in regard to a current relationship with a close friend. Participants were asked to respond to the same 6 items with romantic relationship substituted for friendship. Higher scores reflect higher conflict within the friendship ($\alpha = .93$) and romantic relationship ($\alpha = .96$). The NRI has been shown to be a reliable and valid measure of relationship conflict between friends (Furman & Buhrmester, 1985).

Control variables. This study also controlled for covariates associated with child maltreatment and relationship development to include gender and participant’s current relationship status. Gender was coded to include only emerging adults who identified as male (1) or female (2), as the number of emerging adults identifying as “other” was too small a percentage of the sample to separate out for analyses. Relationship status was used as a control for the romantic relationship models and this variable was coded such that a higher score indicated being in a more committed relationship (1 = single, 2 = dating but not in relationship, and 3 = serious relationship).

Planned Analyses

The IBM SPSS AMOS 25.0 structural modeling program (SEM) was used for data analysis. SEM is an analytic tool that allows for the estimation of unobservable latent factors using a measurement model based off actual observed variables and a structural model that looks at the relationship between variables. SEM has several advantages when compared to basic regression models that include the creating of latent constructs, accounting for random and systematic errors in measurement, and providing the opportunity to examine both overall model fit and individual relationships between constructs.

To test the first hypothesis, structural equation models were estimated to examine the effect of child maltreatment, as represented by a latent construct, on romantic relationship competence and friendship competence, also both represented by latent constructs. To test the second hypothesis, a separate model was estimated to examine the differential effects of different types of maltreatment, modeled as manifest indicators, on manifest indicators of friendship and romantic relationships. Due to a smaller sample size than is often recommended for SEM and the high number of variables in the model, we estimated friendship and romantic relationship outcomes in separate models for hypothesis 2. To examine the moderating hypothesis, we estimated three separate models that examined the impact of the interaction of child maltreatment and the protective factors (e.g., optimism) on the latent outcomes of friendship and romantic relationship quality. The interactions were created in SPSS by centering variables and multiplying the overall child maltreatment scale with the different protective factors (e.g., child maltreatment by optimism). The manifest variables created in SPSS were used in the

structural models. The first model examined the main effects and the interaction between emotion regulation and child maltreatment on friendship and romantic relationship outcomes. The second model examined the main effects and interaction between coping and child maltreatment on friendship and romantic outcomes. Lastly, the third model examined the main effects and interaction between optimism and child maltreatment on friendship and romantic outcomes.

To assess model fit for all SEM analysis the chi-square goodness-of-fit statistic was examined. A nonsignificant chi-square indicates a good model fit. The chi-square statistic is sensitive to sample size and often is significant with larger samples and as such other fit statistics are used to determine overall model fit. A CFI value of .95 or higher will indicate a good model fit and values above .90 indicate an adequate model fit. The root mean square error of approximation (RMSEA) also was examined, which indicates close approximation fit, with a value close to zero indicating a good model fit and values under .10 indicating that model fit is adequate (Klem, 2000).

The threshold of significance for all models will be set at $p < .05$. The full information maximum likelihood estimation procedure (FIML) will be used to address values missing from all collected data. FIML addresses attrition to ensure results will not be affected by missing data and produces less biased estimates than does listwise case deletion or mean substitution (Acock, 2005). All estimated models include estimated error variances on the dependent variables and covariances between independent variables and controls.

Results

Preliminary Analyses

Table 1 includes the means, standard deviations and bivariate correlations between all study variables. Mean physical abuse and neglect for the sample was 2.00 ($SD = .91$). Mean emotional abuse and neglect was 2.50 ($SD = .71$). Mean for sexual abuse was 1.97 ($SD = 1.19$). Gender was controlled for in all models given the significant relationships it had with child maltreatment and friendship and romantic relationship outcomes. The experiences in romantic relationships scale was highly associated to physical abuse and neglect ($r = .39, p < 0.01$). Romantic satisfaction ($r = -.53, p < 0.01$), romantic relationship conflict ($r = .47, p < 0.01$), and romantic relationship trust ($r = -.60, p < 0.01$) were highly related to physical abuse and neglect. The friendship experience scale was highly related to physical abuse and neglect ($r = .77, p < 0.01$). Friendship satisfaction and friendship conflict were associated with physical abuse and neglect ($r = -.71, p < 0.001$; $r = .77, p < 0.01$) such that those who reported more physical abuse and neglect experienced less satisfaction and more conflict in friendships. Sexual abuse was highly associated with physical abuse and neglect ($r = .84, p < 0.01$) suggesting that individuals who experienced one form of child maltreatment were very likely to experience other forms of child maltreatment. Friendship satisfaction was highly related to friendship experiences ($r = -.81, p < 0.01$). Romantic relationship trust was highly associated with romantic relationship satisfaction ($r = .85, p < 0.01$) such that individuals that reported more trust in romantic relationships also reported more satisfaction in romantic relationships. Emotion regulation was associated with physical abuse and neglect ($r = -.54, p < 0.01$), sexual abuse ($r = -.59, p < 0.01$), and emotional

abuse and neglect ($r = -.60, p < 0.01$). Emotion regulation was associated with all relationship variables (Table 1). Coping was significantly associated with physical abuse and neglect ($r = -.33, p < 0.01$), sexual abuse ($r = -.38, p < 0.01$) and emotional abuse and neglect ($r = -.34, p < 0.01$). Coping was also strongly associated with friendship conflict ($r = .28, p < 0.01$). Optimism was significantly correlated with physical abuse and neglect ($r = -.16, p < 0.05$) and emotional abuse and neglect ($r = -.44, p < 0.01$). Optimism was also significantly associated with romantic relationship experiences ($r = -.22, p < 0.01$).

Measurement Models

To test hypothesis 1, a latent construct representing child maltreatment was estimated that included manifest indicators of physical abuse and neglect, sexual abuse, and emotional abuse and neglect. Each of the manifest indicators loaded well on the latent construct of child maltreatment (Figure 1). Latent constructs were also estimated for hypothesis 1 and hypothesis 3 to represent friendship quality and romantic relationship quality. The friendship quality construct was a latent construct that included manifest indicators of friendship experiences, satisfaction, and conflict. Factors loadings were strong for each of the manifest indicators. The romantic relationship construct was a latent variable that included manifest indicators of romantic relationship experiences, satisfaction, conflict and trust. Factors loadings were generally high for the manifest indicators and model fit for the factor model was excellent, $\chi^2 = 3.76 (2), p = .16$, CFI = .99, RMSEA = .06.

Structural Models

Hypothesis 1. To examine the effect of child maltreatment on friendship quality and romantic relationship quality a structural equation model was estimated that controlled for gender and relationship status (Figure 1). Model fit for the model was marginally adequate, $\chi^2 = 140.93$ (45), $p = .00$, CFI = .92, RMSEA = .11. Child maltreatment was significantly associated with overall friendship quality ($b = .61$; 95% CIs [.50, .72]; $\beta = .85$, $p = .00$) such that youth who reported higher child maltreatment also reported higher negative friendship quality. Child maltreatment was significantly associated with overall romantic relationship quality ($b = .47$; 95% CIs [.32, .62]; $\beta = .57$, $p = .00$) such that those youth who reported more childhood maltreatment also reported negative romantic relationship quality. Gender was not significantly associated with friendship quality or romantic relationship quality. Romantic relationship status was significantly associated with romantic relationship quality ($b = -.19$; 95% CIs [-.10, -.42]; $\beta = -.37$, $p = .00$) such that those who were in a committed relationship reported better overall relationship quality than those who were either not dating or dating but not seriously. The predictors in the model explained 74% of the variability in friendship quality and 62% of the variability in romantic relationship quality.

Hypothesis 2 – romantic relationship model. To examine differential effects of child maltreatment on romantic relationship outcomes a second path analysis with manifest variables measuring the independent and dependent variables was estimated. This model controlled for gender and relationship status (Figure 2). Model fit was not adequate, $\chi^2 = 128.32$ (7), $p = 0.00$, CFI = .85, RMSEA = .33, suggesting that important variables may have been omitted from this model or that it may be better to model these

manifest variables as latent constructs. Sexual abuse was significantly associated with romantic relationship satisfaction ($b = -.28$; 95% CIs $[-.47, -.10]$; $\beta = -.36$, $p = .002$), romantic relationship conflict ($b = .23$; 95% CIs $[.02, .45]$; $\beta = .27$, $p = .030$), and romantic relationship trust ($b = -.24$; 95% CIs $[-.45, -.03]$; $\beta = -.26$, $p = .027$) such that those young adults who reported more sexual abuse also reported more romantic relationship conflict and less romantic relationship satisfaction and trust. Sexual abuse was not significantly associated with negative friendship experiences. Emotional abuse was significantly associated with romantic relationship conflict ($b = .37$; 95% CIs $[.11, .63]$; $\beta = .27$, $p = .005$) such that those adults who reported more emotional abuse also reported more romantic relationship conflict. There were no significant associations between emotional abuse and negative romantic relationship experiences, relationship satisfaction, and trust in relationships. Physical abuse was not significantly associated with any of the romantic relationship outcomes. There were significant associations between the control variable of relationship status and romantic relationship satisfaction ($b = .41$; 95% CIs $[.27, .55]$; $\beta = .41$, $p = 0.00$), trust ($b = .43$; 95% CIs $[.26, .59]$; $\beta = .37$, $p = 0.00$), and romantic relationship experiences ($b = -.26$; 95% CIs $[-.38, -.12]$; $\beta = -.31$, $p = 0.00$) such that those emerging adults who reported to be in a committed relationship also reported more romantic relationship satisfaction, more trust in romantic relationships, and less negative romantic relationship experiences. Gender was not significantly associated with any of the romantic relationship outcomes. Child maltreatment explained 21% of the variability in romantic relationship experiences, 42%

of the variability in romantic relationship trust, 29% in romantic relationship conflict, and explained 38% of the variability in romantic relationship satisfaction.

Hypothesis 2 – friendship model. To examine differential effects of child maltreatment on friendship quality, a path analysis with manifest variables measuring the independent and dependent variables was estimated. This model controlled for gender (Figure 3). Model fit for the model was good, $\chi^2 = 1.14 (1), p = .29$, CFI = .99, RMSEA = .03. Physical abuse was significantly associated with friendship satisfaction ($b = -.74$; 95% CIs [-.99, -.49]; $\beta = -.74, p = 0.00$), negative friendship experiences ($b = .44$; 95% CIs [.24, .63]; $\beta = .52, p = 0.00$), and friendship conflict ($b = .85$; 95% CIs [.63, 1.00]; $\beta = .90, p = 0.00$) such that emerging adults who reported more physical abuse also reported less friendship satisfaction, more negative friendship experiences, and more friendship conflict. Sexual abuse and emotional abuse were not significantly associated with the different manifest indicators of friendship quality (i.e., friendship satisfaction, friendship conflict, and friendship experiences). Gender was not significantly associated with the indicators of friendship quality. The predictors and gender explained 61% of the variability in friendship conflict, 61% of the variability in friendship experiences and 53% of the variability in friendship satisfaction.

Hypothesis 3 – moderation. To examine if individual protective factors lessened the impact of child maltreatment on friendship and romantic relationship quality three separate structural equation models were estimated, one for each moderator.

To examine emotion regulation as a protective factor in the effect of child maltreatment on relationship outcomes a structural equation model was estimated that

controlled for gender and relationship status (Table 2). Model fit for the model was marginally adequate, $\chi^2 = 135.17(39)$, $p = .00$, CFI = .91, RMSEA = .13. The effect of child maltreatment was significantly associated with the latent construct of friendship quality ($b = .67$; 95% CIs [.53, .81]; $\beta = .76$; $p = 0.00$) and the latent construct of romantic relationship quality ($b = .54$; 95% CIs [.34, .74]; $\beta = .76$, $p = 0.00$). Emotion regulation was not significantly associated with outcomes. There was a significant interaction between child maltreatment and emotion regulation in romantic relationships ($b = -.49$; 95% CIs [-.77, -.25]; $\beta = -.23$, $p = 0.00$) and friendships ($b = -.19$; 95% CIs [-.37, -.01]; $\beta = -.12$, $p = .03$). These interactions were probed using a graph (Figures 4 & 5) and results suggested that those emerging adults who reported higher child maltreatment and higher emotion regulation also reported less friendship and romantic relationship difficulties compared to those who reported higher child maltreatment and lower emotion regulation. Child maltreatment and emotion regulation explained 72% of the variability in friendship quality and 56% of the variability in romantic relationship quality.

To examine if coping lessened the impact of child maltreatment on friendship and romantic relationship quality a structural equation model was estimated that controlled for gender and relationship status (Table 2). Model fit for the model was marginally adequate, $\chi^2 = 132.48(42)$, $p = .00$, CFI = .92, RMSEA = .10. The effect of child maltreatment continued to significantly be associated with friendship quality ($b = .69$; 95% CIs [.64, .87]; $\beta = .78$, $p = 0.00$) and romantic relationship quality ($b = .57$; 95% CIs [.40, .76]; $\beta = .54$, $p = 0.00$). Coping was significantly associated with friendship quality

($b = -.17$; 95% CIs $[-.38, -.04]$; $\beta = -.11$, $p = .04$) such that those emerging adults who reported more coping also reported fewer negative friendships qualities. Coping was not significantly associated with romantic relationship quality. There was no significant interaction between coping and child maltreatment for either outcome. Child maltreatment and coping explained 45% of the variability in romantic relationship quality and explained 71% of the variability in friendship quality.

To examine if optimism lessened the impact of child maltreatment on friendship and romantic relationship quality a structural equation model was estimated that controlled for gender and relationship status (Table 2). Model fit for the model was marginally adequate, $\chi^2 = 120.14(42)$, $p = .00$, CFI = .92, RMSEA = .11. The effect of child maltreatment continued to significantly be associated with friendship quality ($b = .70$; 95% CIs $[.58, .80]$; $\beta = .79$, $p = 0.00$) and romantic relationship quality ($b = .56$; 95% CIs $[.37, .73]$; $\beta = .55$, $p = 0.00$). Optimism was significantly associated with romantic relationship quality ($b = -.22$; 95% CIs $[-.04, -.42]$; $\beta = -.14$, $p = .04$) such that those young adults who reported more optimism reported less negativity in romantic relationships. Optimism was not significantly associated with friendship quality. Optimism did not significantly interact with child maltreatment to predict friendship or romantic relationship outcomes. Child maltreatment and optimism explained 71% of the variability in friendship quality and explained 45% of the variability in romantic relationship quality.

Discussion

One of the cornerstones of healthy development throughout the lifespan involves the ability to establish successful relationships. However, to date, few studies have examined how earlier life experiences affect relationship development throughout the distinct developmental time frame of emerging adulthood. The current study addresses gaps in the literature by examining the deleterious effect that child maltreatment has on relationship outcomes during emerging adulthood and potential protective factors that may reduce these negative effects. The results of this study provide empirical support for the negative impact that child maltreatment has on both friendship and romantic relationship development. Furthermore, the current study expanded upon previous literature by examining the differential effects of child maltreatment on social relationship outcomes and increased the understanding of how child maltreatment affects different aspects of these relationships. These findings support that different types of maltreatment may have stronger associations with specific aspects of friendship quality and romantic relationship quality. Finally, this study identifies modifiable factors that may protect adolescents from the negative effects of child maltreatment and specifically highlights the important role of emotion regulation as a protective factor.

Child Maltreatment and Social Relationships

The results found in this study support past research that suggests that child maltreatment has a negative impact on later intimate relationships (Nguyen, Karney & Bradbury, 2016). To our knowledge, this was the first study to demonstrate the effect of child maltreatment on both friendship quality and romantic relationship quality. Surprisingly, results suggest that child maltreatment was a stronger predictor of

friendship quality than romantic relationship quality. Past research and theory generally suggest that romantic relationships are of particular importance during emerging adulthood and friendship development tends to be more salient during adolescence (Halfon et al. 2018). Friendships, however, are still important throughout the lifespan (Demir, Orthel-Clark, O€zdemir & O€zdemir, 2015) and may continue to be important during emerging adulthood (Wood. et al., 2017). Furthermore, establishing competencies in friendships is important developmentally before establishing similar competencies in romantic relationships (Guerrero & Mongeau, 2008). It is possible, that for individuals who have experienced maltreatment that their social development may be somewhat stunted (Peterson & Feit, 2014) and that youth may be having trouble initiating romantic relationships thus explaining the stronger correlation between child maltreatment and friendships. Past research somewhat supports this explanation as victims of abuse often have more sexual partners, which may deny the formation of stable romantic relationships that involve intimacy in emerging adulthood (Cashmore & Shackel, 2013).

Future research should continue to examine the effect of child maltreatment on both romantic relationships and friendships and examine if findings replicate across different age groups to include adults and adolescents. Results also can be used to inform interventions such as counseling or therapy that may improve relationship outcomes by reducing the negative impact of child maltreatment and influencing positive behavior and attitude toward peers. Therapies that have shown to influence positive behavior after adverse experiences in childhood include cognitive behavioral therapy, dialectical behavior therapy and acceptance and commitment therapy (Reyes, 2018).

Differential Effects of Child Maltreatment

When examining differential effects of child maltreatment on romantic relationship quality, sexual abuse had the largest impact on romantic relationships in emerging adulthood. The results coincide with past research that indicate sexual abuse is a significant predictor of challenges in romantic relationships in adulthood (Larson, Newell, Holman & Feinauer, 2007), such that those with experiences of sexual abuse tend to have less trust, less satisfaction, more conflict and more negative romantic relationship experiences (Cashmore & Shakel, 2013; Collibee, & Furman, 2014; Karakurt & Silver, 2014; Katz, & Tirone, 2008; Leonard, Iverson, & Follette, 2008; Trickett, Noll & Putnam, 2011). Sexual abuse has also been found to increase mental health symptoms, negatively affecting one's ability to maintain a romantic relationship (Tardif-Williams, 2017). The findings also may also be the result of difficulties emerging adults have in their ability to trust others, as a result of the negative experiences of physical contact in childhood that is directly associated with sexual abuse.

Results provide evidence that coincides with existing research suggesting relationship outcomes after experiences of maltreatment are strongly associated with the type of maltreatment experienced in childhood (Hodgdon, Spinazzola, Briggs, Liang, Steinberg & Layne, 2018). The results from previous research indicate that emotional abuse and neglect has the most detrimental effect on mental health outcomes in adults, which has shown to negatively affect friendship development. However, findings of the present investigation indicate physical abuse and neglect has the strongest associations with different indicators of friendship quality to include friendship conflict, friendship

satisfaction and negative friendship experiences. It is interesting that although past research and the DEARR Model argue that physical abuse is significantly associated with aggression and conflict in later romantic relationships, in this research physical abuse was related greater to overall friendship quality in emerging adulthood, specifically, in the results found in friendship conflict. These results may be attributed to victims of physical abuse trying to gain control of the hurt and healing through the formation of friendships. Friendships have such an importance on healing through support systems, but victims of maltreatment may use physical violence or coercion to gain control of friendship experiences. Emerging adults with experiences of maltreatment may feel they need to be seen as the dominant figure in social groups, because they fear showing vulnerability and may require an excessive amount of attention from others, which may increase friendship difficulties (Parker & Herrera, 1996).

Contrary to predictions, emotional abuse and neglect in childhood was not a significant predictor of emerging adults' friendship and romantic relationship qualities as indicated in past research (O'Dougherty-Wright, 2007). Although psychological maltreatment may contribute to toxic stress in childhood and adolescence (Garner & Shonkoff, 2012), it may be that emerging adults relationships increase one's sense of self and reduces negative effects of emotional abuse, in turn, victims of emotional abuse have more favorable outcomes in relationships.

Protective Factors

One main goal of the current study was to examine potential protective factors that reduce the negative impact of child maltreatment on social relationships in emerging

adulthood. Contrary to expectation, there were few significant interaction effects with the exception of the interaction between child maltreatment and emotion regulation.

Specifically, those emerging adults with better emotion regulation skills, experience less negative impacts of child maltreatment in future friendships and romantic relationships than those who did not have good emotion regulation skills. The strong associations emotion regulation has as a protective factor may be accredited to increases in emotional control and ability to lessen negative emotional responses and reactions that arise during negative situations and unexpected events, which decreases the negative impact child maltreatment has on relationship outcomes. This is one of the first studies to examine if emotion regulation may reduce the negative impacts of child maltreatment on friendship and romantic relationship quality. Given that emotion regulation may act as a protective factor that increases resilience after experiences of maltreatment in childhood, it will be important for emotion regulation strategies to be taught to children and adolescents who experience maltreatment in order to increase an individual's chance of developing healthy relationships with peers in the future.

Contrary to expectations, coping and optimism did not protect against the negative effects of maltreatment. Previous research has found that coping may mediate the relationship between child maltreatment and developmental outcomes during emerging adulthood (Runtz & Schallow, 1997). Thus, it is possible that coping and optimism, to a lesser extent, may be better viewed as potential explanations as to why child maltreatment influences later relationship development. In the current study, bivariate correlations indicated that coping was significantly associated with child

maltreatment and friendship quality, whereas optimism was significantly associated with child maltreatment and romantic relationship quality. The strong association coping has on friendship quality may indicate those with better coping abilities may initiate friendships to increase social support as a positive coping mechanism. Future research may benefit from incorporating additional coping measures such as the Brief COPE (Carver, 1997) to assess both adaptive and maladaptive coping styles being used by emerging adults with experiences of maltreatment in childhood. Literature reports that social support, which is generally an adaptive coping mechanism, is associated with higher levels of physiological stress in romantic relationships (Gunlicks-Stoessel & Powers, 2009) Thus, these previous findings may explain why coping was not found as a significant predictor for decreasing the negative effects of child maltreatment on romantic relationship quality. Future studies should utilize longitudinal data to assess whether coping, optimism, and emotion regulation may be better conceptualized as mediators than moderators of the relationships between child maltreatment and relationship outcomes.

Limitations and Future Directions

The current study includes several limitations. First, the small sample size decreases generalizability of results and interpretation of statistical analyses. SEM requires larger sample sizes of around 200 and the sample size in the current study was slightly less than that. This may have also affected overall model fit. Future research should include a larger sample size in order to utilize SEM models that test moderation. Future research should also consider recruiting samples that more adequately represent youth in emerging adulthood. The sample was predominately female and White, Non-

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Hispanic, as well as included a larger population of college students. Past research shows that the effects of maltreatment may vary based on race/ethnicity and gender (Kim & Drake, 2018) and thus it will be important for future studies to recruit more heterogeneous samples. Furthermore, the sample may not have represented the larger population in terms of abuse history. Specifically, the current study had low mean scores and standard deviations on abuse measures compared to other community samples (van Harmelen et al., 2016). Thus, it will be important for future studies to recruit diverse samples who may have experienced more adverse childhood experiences than is typical among college students.

Another limitation of the current study is the retrospective report measures that involve selection bias and misclassification bias, which involves the classification of an individual or attribute to a category such as child maltreatment and may arise from measurement errors, which potentially limits the findings because of the retrospective design. Furthermore, the use of self-report measures on all constructs may result in mono-method bias. Bias may create an association that is not true and increases the potential for systematic errors and inaccuracies (Pannucci & Wilkins, 2010). The use of retrospective report may explain the extremely larger correlations between child maltreatment and friendship outcomes. Future studies should consider using additional techniques, such as official reports of maltreatment, or friends' reports, to obtain a more accurate measure of maltreatment and social relationships that are not affected by self-report bias. Utilizing longitudinal data would also help minimize recall bias by asking about abuse concurrent with it happening (Sedqwick, 2014; Tofthagen, 2012).

Further, individuals were not asked the age at which time they experienced maltreatment in childhood, which may influence the results because of greater levels of resilience that younger children may have to negative situations and events (Wagnild, 2009; Zolkoski & Bullock, 2011). In contrast, age of exposure to maltreatment is associated with increased negative symptoms such as depression and anxiety, and negatively impacts stress tolerance levels later in life, as a result of a negative impact on the body's systematic response to stressors (Ogundele, 2018). In addition, the study neglected to consider the duration of time in which maltreatment was experienced in childhood, such that those who experience repeated instances of maltreatment in childhood, may have more negative outcomes as a result (Ethier, Lemelin & Lacharite, 2004).

Additionally, this study did not consider extraneous factors that may account for the results, such as mental health characteristics. Past research suggests that mental health, particularly self-esteem and life satisfaction, which is associated with trust in social relationships, is an important predictor of relationship functioning (Markowitz, 2001) and may be associated with child maltreatment (Cashmore & Shackel, 2013). Extant research also indicates that child maltreatment influences negative mental health symptoms and that maltreated children might experience severe consequences, including the development of Post-Traumatic Stress Disorder (PTSD) (De Bellis. & Zisk, 2014). The current study neglected to account for symptoms of post-traumatic stress. Post-Traumatic Stress Disorder (PTSD) is significantly related to experiences of maltreatment (Famularo, Fenton & Kinscherff, 1993) and may have a significant influence on the

effects of child maltreatment on social relationships in emerging adults. Evidence suggests that higher levels of PTSD symptoms are associated with social relationship impairments in that PTSD negatively influences social relationship satisfaction (Freedman, Gilad, Ankri, Rozier & Shalev, 2015). Future studies may include PTSD measures such as The Impact of Event Scale- Revised (IES-R) that assesses subjective distress caused by traumatic events, which may have a mediating effect in the relationship found between child maltreatment and the outcomes in both friendship and romantic relationship quality in emerging adulthood.

Mental health more broadly also is a mediator of the relationship between child maltreatment and romantic relationship functioning in young adults (Tardiff-Williams, Tanaka, Biyle, & MacMillan, 2017), as is substance abuse (Wekerle, Leung, Goldstein, Thornton, & Tonmy, 2009). That is, those with mental health symptoms are more likely to have difficulties in expressing emotions and controlling behaviors, which may negatively affect social relationship development and quality. Future investigation may also want to include mental health measures such as the Positive Mental Health (PMH) Scale to assess mental health functioning and may benefit from including these measures in the model either as a covariate or mediator to account for the important role that mental health plays in relationship development (Lukat Margraf, Lutz, van der Veld & Becker, 2016).

Future studies may include screening instruments to assess substance abuse disorder, such as the Drug Abuse Screening Test (DAST), as substance abuse disorders have been shown to be significantly associated with childhood maltreatment (Herrenkohl,

Hong, Klika, Herrenkohl & Russo, 2011). Substance abuse disorders have also been found to negatively impact social relationships in young adulthood (Whitesell, Bachand & Brown, 2013). Sexuality may also be a factor that has an influence on results. The current study did not assess the differences that may be found between heterosexual and homosexual romantic relationships. Previous literature reports that differences exist between same-sex and different-sex relationship dynamics (Hawes, 2016), thus future research may benefit from assessing differences in romantic relationships that involve one or more partners with experiences of maltreatment in childhood.

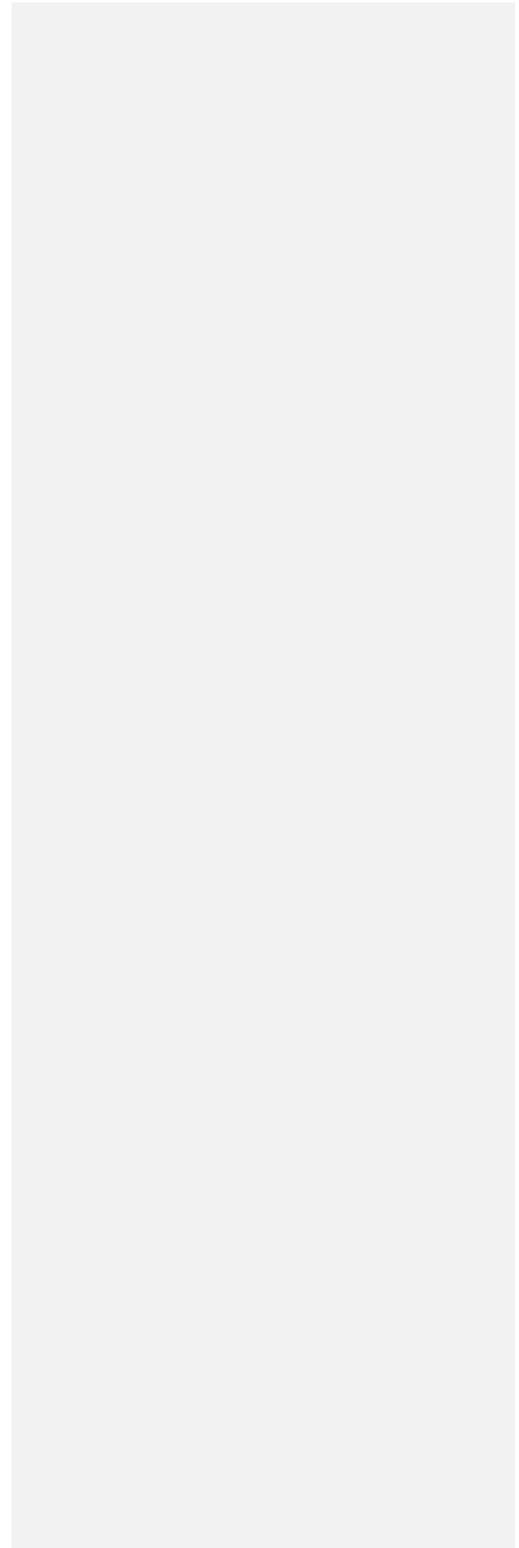
Implications

Child maltreatment has a negative impact on later intimate relationships (Nguyen, Karney & Bradbury, 2016). Emotion regulation serves as a protective factor for emerging adults, which increases resilience and buffers against negative impacts of experiencing maltreatment in childhood, promoting positive friendships and romantic relationships. Thus, it is important for emotion regulation strategies to be taught to children and adolescents who experience maltreatment, in order to increase an individual's chance of developing healthy relationships with peers in emerging adulthood. Victims of maltreatment in childhood may benefit from learning these strategies before entering adulthood, in order to prevent difficulties in peer relationships that have shown to have detrimental effects on overall life satisfaction and psychological well-being (Mestre, Núñez-Lozano, Gómez-Molinero, Zayas & Guil, 2017).

Children are immature, vulnerable and dependent on caregivers to provide a nurturing environment and a sense of security. Adolescence is a critical period in life

when a child makes the transition from a dependent being into an independent adult (Lenz, 2001). The situations and events that young children experience may impact their lives for years to come. Thus, children who are maltreated are at risk for several developmental issues, including behavioral, social and psychological difficulties, as a result of their negative experiences early in life (Font & Berger, 2015). Each year, there are several reports of child abuse and neglect made to child protection agencies (Mennen, Kim, Sang & Trickett, 2010). However, not all cases of abuse and neglect are reported, which leaves these children unprotected and at risk for negative consequences that may arise in cognitive, social and behavioral development. These consequences may have an effect on social relationships in emerging adulthood and throughout one's lifetime. Children may not report the abuse they experience in fear of negative consequences, shame or guilt. Victims of maltreatment in childhood would benefit from early detection, in order to inhibit further abuse, and increase opportunities to receive support from others outside of the family environment. Caregivers have opportunities to ask children personal questions and become involved in their experiences and emotions to different life events. However, if negative experiences are happening within the home, these children may not have other people to turn to for comfort and support to safely share their feelings. In order to detect child maltreatment early, to prevent negative outcomes in development, doctors' offices and schools may incorporate questionnaires or psychological screenings that ask specific types of questions related to abuse or neglect. Taking these types of actions may influence children who are experiencing maltreatment to report their abusers

and stop the abuse from occurring, which increases the likelihood for healthy development and development of positive social relationships later in life.



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Table 1. Means, standard deviations, and bivariate correlations for all variables.

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Physical Abuse & Neglect	—														
2. Sexual Abuse	.84**	—													
3. Emotional Abuse & Neglect	.67**	.57**	—												
4. Friendship Experiences	.77**	.69**	.59**	—											
5. Friendship Satisfaction	-.71**	-.60**	-.51**	-.81**	—										
6. Friendship Conflict	.77**	.64**	.49**	.63**	-.73**	—									
7. RR Experiences	.39**	.35**	.34**	.37**	-.42	.38**	—								
8. RR Satisfaction	-.53**	-.53**	-.37**	-.44**	-.47**	-.49**	-.50**	—							
9. RR Conflict	.47**	.48**	.46**	.40**	-.46**	.47**	.28**	-.59**	—						
10. RR Trust	-.60**	-.56**	-.41**	-.52**	-.48**	-.47**	-.55**	.85**	-.56**	—					
11. Gender	-.53**	-.42**	-.30**	-.46**	.35**	-.38**	-.17*	-.34**	-.21*	.41**	—				
12. Relationship Status	-.21*	-.12	-.09	-.19*	.20*	-.24**	-.33**	.37**	-.03	.41**	.34**	—			
13. Emotional Regulation	-.54**	-.59**	-.60**	-.44**	.49**	-.55**	-.52**	.44**	-.42**	-.44**	-.25**	.19*	—		
14. Coping	-.33**	-.38**	-.34**	-.46**	.35	-.28**	-.17*	.34*	-.21*	.41	.34	-.19	.36**	—	
15. Optimism	-.16*	-.09	-.44**	-.20*	.23**	-.20*	-.22**	.09	-.11	.00	.00	-.01	.45**	.00	—
M	2.00	1.97	2.50	2.55	3.43	2.25	3.56	3.42	2.58	4.63	1.67	2.21	2.65	3.01	2.70
SD	.91	1.19	.71	.77	.91	.86	.79	.98	1.00	1.18	.47	1.28	.66	.45	.51
Skew	.28	.62	-.05	.03	.21	-.02	-.82	.07	-.17	.13	-.75	.86	-.28	-.48	.10
Kurt	-1.74	-1.18	-.91	-.83	-1.29	-1.49	.40	-.92	-.94	-.76	-1.46	.48	-.74	2.27	.50

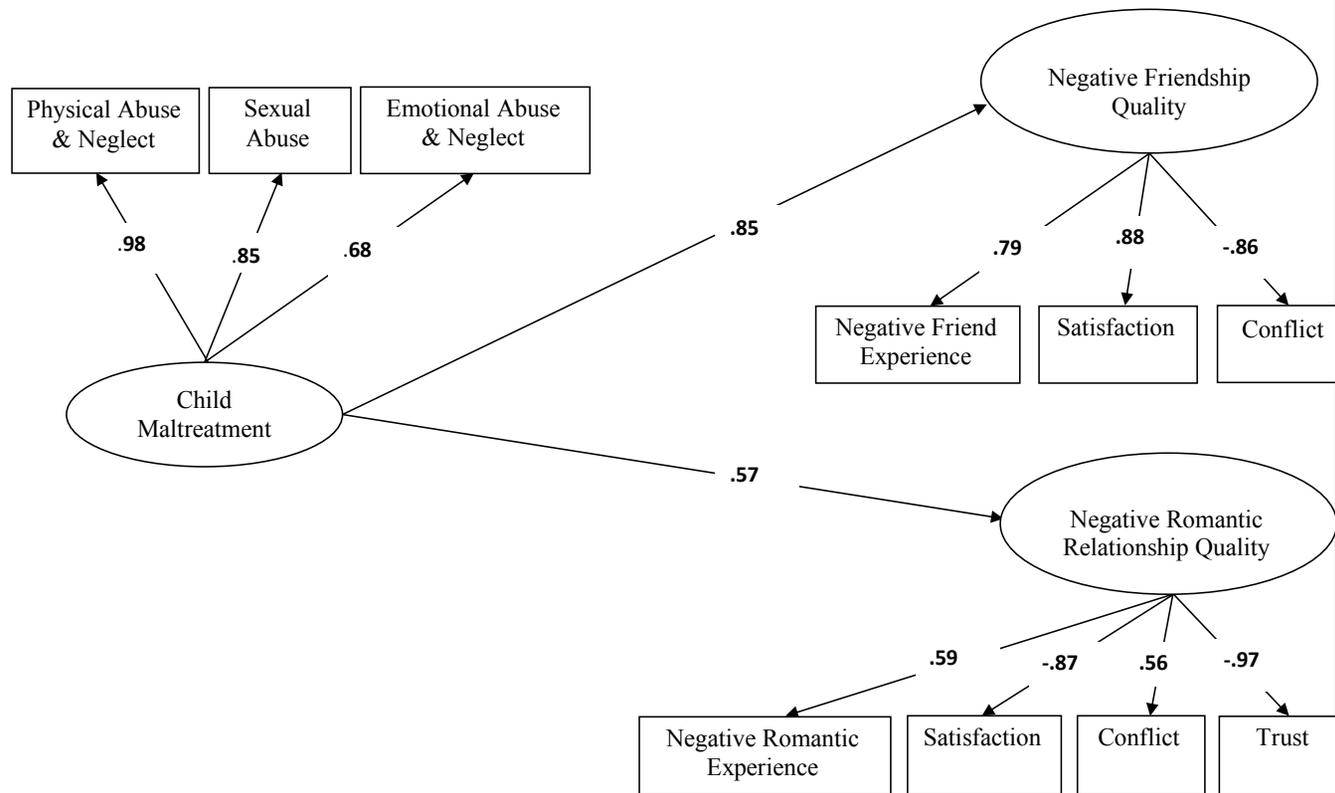


Figure 1. The Effect of Child Maltreatment on Relationship Quality. All pathways in the model are significant. This model controls for youth gender and current relationship status but for parsimony the controls are not included in the figure. $\chi^2 = 140.936 (45), p = .00$, CFI = .92, RMSEA = .11. $N = 159$.

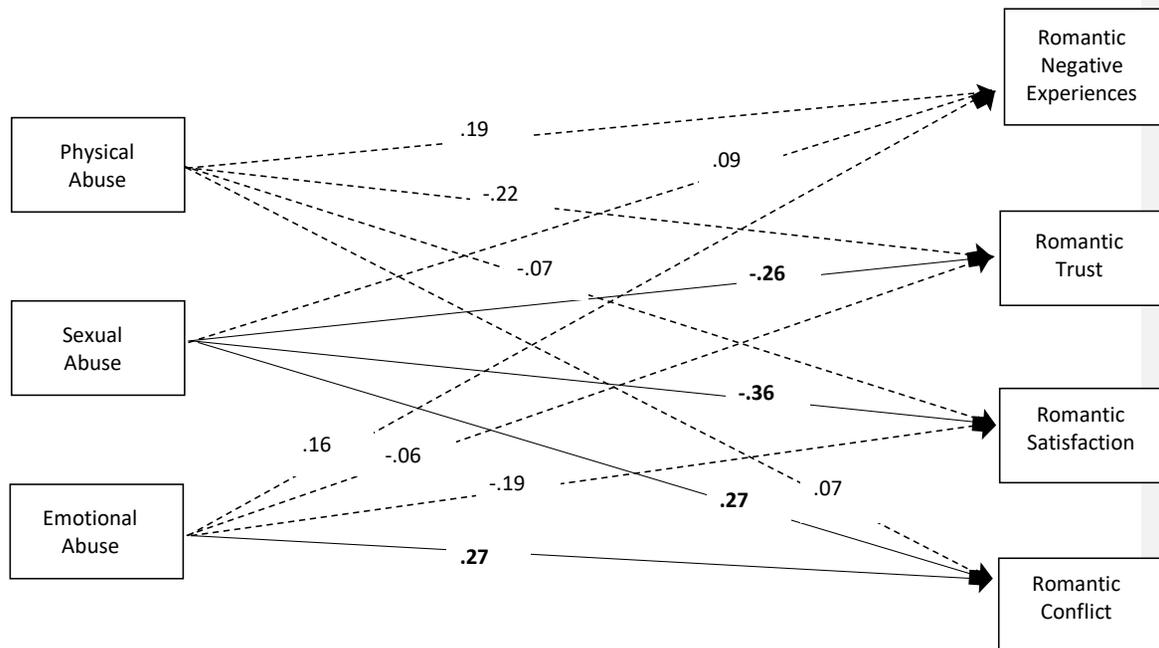


Figure 2. The Differential Effects of Child Maltreatment on Romantic Relationships. Error variances on dependent variables are estimated but not represented here. Covariances between independent variables were also estimated but not represented. Significant pathways are bolded, and non-significant pathways are represented by dashed lines. $\chi^2 = 128.32 (7), p = 0.00, CFI = .85, RMSEA = .33. N = 159$ participants.

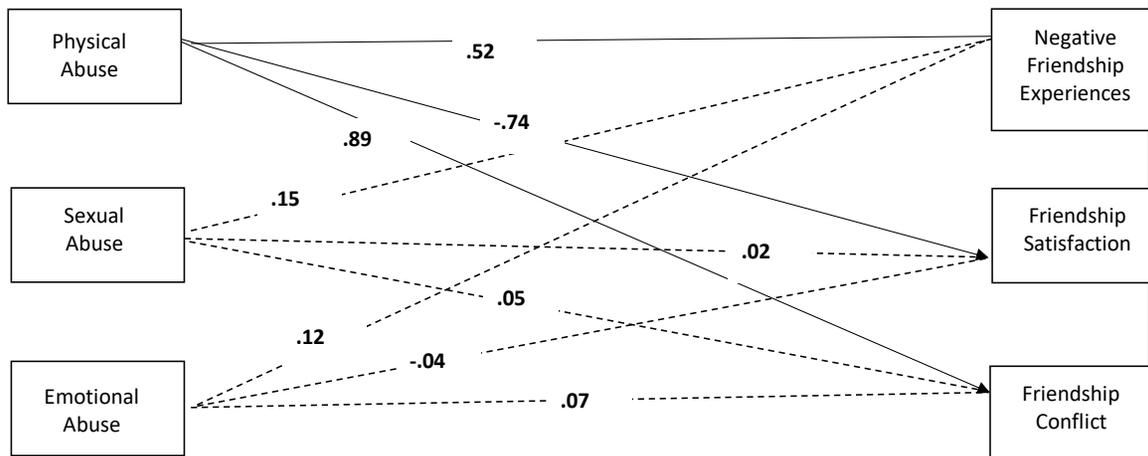


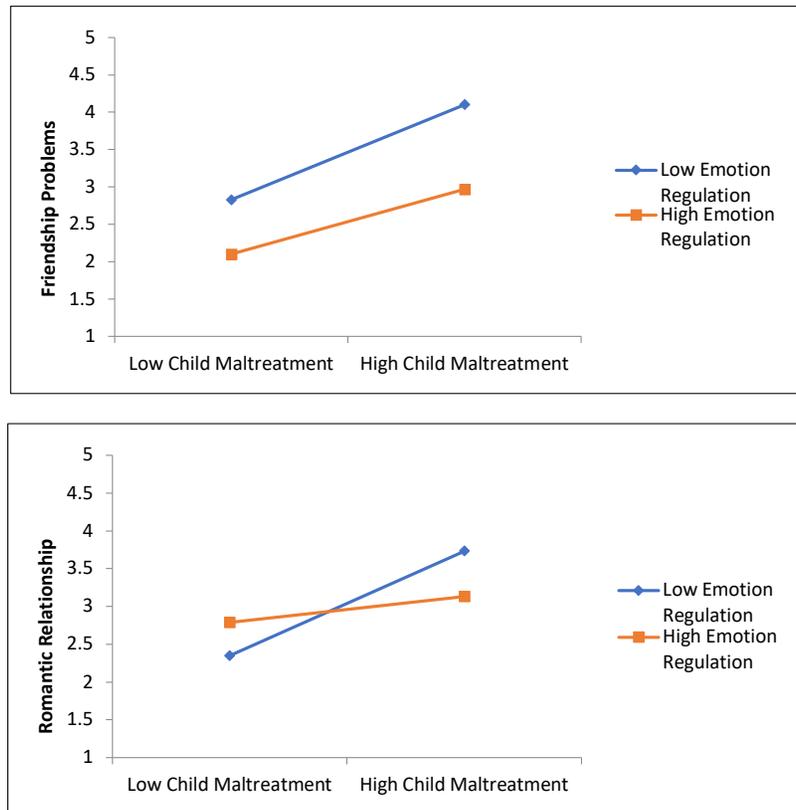
Figure 3. The Differential Effects of Child Maltreatment on Friendships. Error variances on dependent variables are estimated but not represented here. Covariances between independent variables were also estimated but not represented. Significant pathways are bolded, and non-significant pathways are represented by dashed lines. $\chi^2 = 1.14 (1), p = .29$, CFI = .99, RMSEA = .03, $N = 159$ participants.

Table 2. Moderation Effects of Emotion Regulation (EM), Coping, and Optimism on the Relationship between Child Maltreatment (CM) and Young Adult Romantic Relationships (RR) and Friendships, N = 159.

Predictor	Friendships				Romantic Relationships			
	<i>b</i>	95 % CI Lower	95% CI Upper	β	<i>b</i>	95 % CI Lower	95% CI Upper	β
	Model 1				Model 1			
Child Maltreatment	.67***	.53	.81	.76	.54***	.34	.74	.76
Emotion	-.07	-.23	.10	-.06	-.06	-.17	.29	-.04
EM x Child Maltreatment	-.19*	-.37	-.01	-.12	-.49***	-.77	-.25	-.23
	Model 2				Model 2			
Predictor	<i>b</i>	95 % CI Lower	95% CI Upper	β	<i>b</i>	95 % CI Lower	95% CI Upper	β
Child Maltreatment	.69***	.64	.87	.78	.57***	.40	.76	.54
Coping	-.17*	-.38	-.04	-.11	-.13	-.22	.27	-.07
Coping x Child Maltreatment	-.05	-.19	.28	-.02	-.19	-.19	.55	.02
	Model 3				Model 3			
Predictor	<i>b</i>	95 % CI Lower	95% CI Upper	β	<i>b</i>	95 % CI Lower	95% CI Upper	β
Child Maltreatment	.70***	.58	.80	.79	.56***	.37	.73	.55
Optimism	-.06	-.74	-.39	-.04	-.22*	-.42	-.04	-.14
Optimism x Child Maltreatment	-.08	-.13	.27	-.04	-.08	-.07	.50	-.10

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. All moderators were estimated in separate models but for ease of presentation are presented in the same table. CIs were obtained from Bayesian Estimation in AMOS

Figure 4.
The two-way interaction effects for child maltreatment and emotion regulation on friendships and romantic relationships problems.



APPENDIX

Childhood Trauma Questionnaire (CTQ)

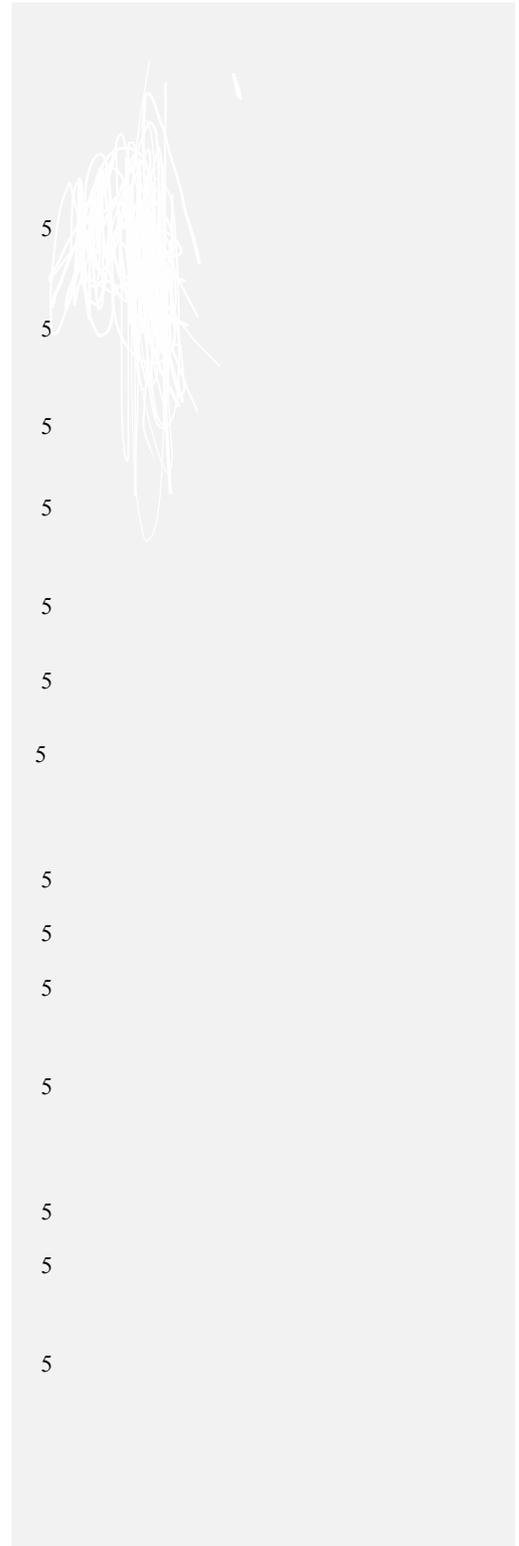
(David P. Bernstein & Laura Fink, 1997)

- 1 = Never True
 2 = Rarely True
 3 = Sometimes True
 4 = Often True
 5 = Very Often True

1. I didn't have enough to eat.	1	2	3	4	5
2. I knew that there was someone to take care of me.	1	2	3	4	5
3. People in my family called me things like "stupid," "lazy," or "ugly".	1	2	3	4	5
4. My parents were too drunk or high to take care of the family.	1	2	3	4	5
5. There was someone in my family who helped me feel that I was important or special.	1	2	3	4	5
6. I had to wear dirty clothes.	1	2	3	4	5
7. I felt loved.					
8. I thought that my parents wished I had never been born.	1	2	3	4	5
9. I got hit so hard by someone in my family that I had to see a doctor or go to the hospital.	1	2	3	4	5
10. There was nothing I wanted to change about my family.	1	2	3	4	5



11. People in my family hit me so hard that it that it left me with bruises or marks.	1	2	3	4	5
12. I was punished with a belt, a board, a cord, or some other hard object.	1	2	3	4	5
13. People in my family looked out for each other.	1	2	3	4	5
14. People in my family said hurtful or insulting things to me.	1	2	3	4	5
15. I believe that I was physically abused.	1	2	3	4	5
16. I had the perfect childhood.	1	2	3	4	5
17. I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor.	1	2	3	4	5
18. I felt that someone in my family hated me.	1	2	3	4	5
19. People in my family felt close to each other.	1	2	3	4	5
20. Someone tried to touch me in a sexual way, or tried to make me touch them.	1	2	3	4	5
21. Someone threatened to hurt me or tell lies about me unless I did something sexual with them.	1	2	3	4	5
22. I had the best family in the world.	1	2	3	4	5
23. Someone tried to make me do sexual things or watch sexual things.	1	2	3	4	5
24. Someone molested me.	1	2	3	4	5



25. I believe that I was emotionally abused.	1	2	3	4	5
26. There was someone to take me to the doctors if I needed it.	1	2	3	4	5
27. I believe that I was sexually abused.	1	2	3	4	5
28. My family was a source of strength and support.	1	2	3	4	5

Social Relationship Measures

Relationship Assessment Scale (RAS)

(Hendrick, 1988).

How well does this friendship meet your needs?

A B C D E
 Poorly Somewhat Average Pretty well Extremely well

In general, how satisfied are you with this friendship?

A B C D E
 Unsatisfied So-so Average Very Satisfied Extremely satisfied

How good is your friendship compared to most?

A B C D E
 Poor Fair Average Very Good Excellent

How often do you wish you hadn't gotten in this friendship?

A B C D E
 Never Sometimes Average Often Very often

To what extent has this friendship met your original expectations:

A B C D E
 Hardly at all Somewhat Average Mostly Completely

How many problems are there in your relationship?

A B C D E
 Very few A few Average Above average Very man

Experience in Close Relationship Scale -Short Form (ECR-S)

(Wei, Russell, Mallinckrodt & Vogel, 2007)

- 1- Strongly Disagree
- 2- Disagree
- 3- Slightly Disagree
- 4- Neutral
- 5- Slightly Agree
- 6- Agree
- 7- Strongly Agree

1. It helps to turn to my romantic partner in times of need.
2. I need a lot of reassurance that I am loved by my partner.
3. I want to get close to my partner, but I keep pulling back.
4. I find that my partner doesn't want to get as close as I would like.
5. I turn to my partner for many things, including comfort and reassurance.
6. My desire to be very close sometimes scares people away.
7. I try to avoid getting too close to my partner.
8. I don't worry about being abandoned.
9. I usually discuss my problems and concerns with my partner.
10. I get frustrated if my romantic partner is not available when I need them.
11. I am nervous when my partner gets too close to me.
12. I worry that a romantic partner won't care about me as much as I care about them.

Conflict and Antagonism Subscales from the Network of Relationships Inventory

(Furman & Buhrmester, 1985)

How often do you and this friend have a disagreement or bother each other?

1) never; 2) once a month; 3) once a week; 4) a few times a week; 5) every day

1. How much do you and this friend get upset with or mad at each other?
2. disagree and quarrel?
3. argue with each other?
4. get on each other's nerves?
5. get annoyed with each other's behavior?
6. hassle or nag one another?

Trust in Close Relationships Scale

(Rempel, Holmes & Zanna, 1985)

1 (*Strongly Disagree*) to 7 (*Strongly Agree*)

1. My partner has proven to be trustworthy and I am willing to let him/her engage in activities which other partners find too threatening.
2. Even when I don't know how my partner will react, I feel comfortable telling him/her anything about myself, even those things of which I am ashamed.
3. Though times may change, and the future is uncertain, I know my partner will always be ready and willing to offer me strength and support.
4. I am never certain that my partner won't do something that I dislike or will embarrass me.
5. My partner is very unpredictable. I never know how he/she is going to act from one day to the next.

6. I feel very uncomfortable when my partner has to make decisions which will affect me personally.
7. I have found that my partner is unusually dependable, especially when it comes to things which are important to me.
8. My partner behaves in a very consistent manner.
9. Whenever we have to make an important decision in a situation we have never encountered before, I know my partner will be concerned about my welfare.
10. Even if I have no reason to expect my partner to share things with me, I still feel certain that he/she will.
11. I can rely on my partner to react in a positive way when I expose my weaknesses to him/her.
12. When I share my problems with my partner, I know he/she will respond in a loving way even before I say anything.
13. I am certain that my partner would not cheat on me, even if the opportunity arose and there was no chance that he/she would get caught.
14. I sometimes avoid my partner because he/she is unpredictable, and I fear saying or doing something which might create conflict.
15. I can rely on my partner to keep the promises he/she makes to me.
16. When I am with my partner, I feel secure in facing unknown new situations.
17. Even when my partner makes excuses which sound rather unlikely, I am confident that he/she is telling the truth.

Intimate Friendship Scale (IFS)

(Sharabany, 1994)

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

- ___1. I stick with my friend when my friend wants to do something that other people don't want to do.

- ___2. I feel free to talk to my friend about almost anything.
- ___3. The most exciting things happen when I am with my friend and nobody else is around.
- ___4. I feel close to my friend.
- ___5. I know that whatever I tell my friend will be kept secret between us.
- ___6. I tell people nice things about my friend.
- ___7. Whenever you see me, you can be pretty sure that my friend is around, too.
- ___8. If my friend does something I don't like, I can always talk to him/ her about it.
- ___9. If know how my friend feels about his/her girlfriend/boyfriend.
- ___10. I can tell when my friend is worried about something.
- ___11. I can tell my friend when I have done things that other people do not approve of.
- ___12. If my friend wants something, I let him/her have it, even if I want it too.
- ___13. I work with my friend on some school or work projects.
- ___14. I do things with my friend that are quite different than what other people might do.
- ___15. I can plan how we'll spend our time without first having to check with my friend.
- ___16. I speak up to defend my friend when other people say bad things about him/her.
- ___17. I can use my friend's things without asking permission.
- ___18. I talk to my friend about my hopes and plans for the future.
- ___19. I like to do things with my friend.
- ___20. When something nice happens to me, I share the experience with my friend.
- ___21. When my friend is not around, I keep wondering where he/she is and what he/she is doing.
- ___22. I work with my friend on some hobbies.
- ___23. I know how my friend feels about things without having to be told.
- ___24. I know what kind of books, hobbies and other activities my friend likes.
- ___25. I will not go along with others to do anything against my friend.

- ___26. I offer my friend the use of my things (like clothes, possessions, food, etc).
- ___27. It bothers me to have other people come around and join in when the two of us are doing something together.
- ___28. If I want my friend to do something for me, all I have to do is ask.
- ___29. Whenever my friend wants to tell me about a problem, I stop what I am doing and listen for as long as my friend wants.
- ___30. I like my friend.
- ___31. I can be sure that my friend will help me whenever I ask for it.
- ___32. When my friend is not around, I miss him/her.
- ___33. I enjoy drinking (alcohol) with my friend.
- ___34. My friend's views on alcohol are very similar to mine.
35. Please list the major activities you and your friend engage in together (for example, going to the movies, going out to bars, playing baseball, studying in the library.)
-

Difficulties in Emotion Regulation Scale – Short Form (DERS-SF)

(Gratz & Roemer, 2004)

- 1-----2-----3-----4-----5
 almost never sometimes about half the time most of the time almost always
 (0-10%) (11-35%) (36-65%) (66-90%) (91-100%)
- ___ 1) I am clear about my feelings.
- ___ 2) I pay attention to how I feel.
- ___ 3) I experience my emotions as overwhelming and out of control.
- ___ 4) I have no idea how I am feeling.
- ___ 5) I have difficulty making sense out of my feelings.

- _____ 6) I am attentive to my feelings.
- _____ 7) I know exactly how I am feeling.
- _____ 8) I care about what I am feeling.
- _____ 9) I am confused about how I feel.
- _____ 10) When I'm upset, I acknowledge my emotions.
- _____ 11) When I'm upset, I become angry with myself for feeling that way.
- _____ 12) When I'm upset, I become embarrassed for feeling that way.
- _____ 13) When I'm upset, I have difficulty getting work done.
- _____ 14) When I'm upset, I become out of control.
- _____ 15) When I'm upset, I believe that I will remain that way for a long time.
- _____ 16) When I'm upset, I believe that I will end up feeling very depressed.
- _____ 17) When I'm upset, I believe that my feelings are valid and important.
- _____ 18) When I'm upset, I have difficulty focusing on other things.
- _____ 19) When I'm upset, I feel out of control.
- _____ 20) When I'm upset, I can still get things done.
- _____ 21) When I'm upset, I feel ashamed at myself for feeling that way.
- _____ 22) When I'm upset, I know that I can find a way to eventually feel better.
- _____ 23) When I'm upset, I feel like I am weak.
- _____ 24) When I'm upset, I feel like I can remain in control of my behaviors.
- _____ 25) When I'm upset, I feel guilty for feeling that way.
- _____ 26) When I'm upset, I have difficulty concentrating.
- _____ 27) When I'm upset, I have difficulty controlling my behaviors.
- _____ 28) When I'm upset, I believe there is nothing I can do to make myself feel better.
- _____ 29) When I'm upset, I become irritated at myself for feeling that way.

- _____ 30) When I'm upset, I start to feel very bad about myself.
- _____ 31) When I'm upset, I believe that wallowing in it is all I can do.
- _____ 32) When I'm upset, I lose control over my behavior.
- _____ 33) When I'm upset, I have difficulty thinking about anything else.
- _____ 34) When I'm upset I take time to figure out what I'm really feeling.
- _____ 35) When I'm upset, it takes me a long time to feel better.
- _____ 36) When I'm upset, my emotions feel overwhelming

Coping Inventory for Stressful Situations Short Form (CISS-21)

(Endler & Parker, 1990)

1 (*Not at All*) to 5 (*Very Much*)

Shortened version (21-items) Coping Inventory for Stressful Situations (CISS-21)

1. Take some time off and get away from the situation (A) *
2. Focus on the problem and see how I can solve it (T)
3. Blame myself for having gotten into this situation (E)
4. Treat myself to a favorite food or snack (A)
5. Feel anxious about not being able to cope (E)
6. Think about how I solved similar problems (T)
7. Visit a friend (A)
8. Determine a course of action and follow it (T)
9. Buy myself something (A)
10. Blame myself for being too emotional about the situation (E)
11. Work to understand the situation (T)
12. Become very upset (E)
13. Take corrective action immediately (T)

14. Blame myself for not knowing what to do (E)
15. Spend time with a special person (A)
16. Think about the event and learn from my mistakes (T)
17. Wish that I could change what had happened or how I felt (E)
18. Go out for a snack or meal (A)
19. Analyze my problem before reacting (T)
20. Focus on my general inadequacies (E)
21. Phone a friend (A)

T = Task-oriented coping

E = Emotion-oriented coping A = Avoidance coping

Life Orientation Test – Revised (LOT-R) will be used

(Carver, Scheier & Segerstrom, 2010).

A = I agree a lot

B = I agree a little

C = I neither agree nor disagree

D = I DISagree a little

E = I DISagree a lot

1. In uncertain times, I usually expect the best.
2. It's easy for me to relax.
3. If something can go wrong for me, it will.
4. I'm always optimistic about my future.
5. I enjoy my friends a lot.
6. It's important for me to keep busy.
7. I hardly ever expect things to go my way.
8. I don't get upset too easily.
9. I rarely count on good things happening to me.
10. Overall, I expect more good things to happen to me than bad.