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Trauma and Empathy

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TRAUMA AND EMPATHY

By

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Melanie Lagerstedt

Abstract

Childhood trauma, abuse and neglect can lead to lifelong consequences in emotional, physical, and cognitive development. There are five main types of trauma which all yield unfavorable consequences later in life such difficulties in identifying and communicating personal feelings, lower grades in school, anxiety, and substance abuse. (Aust et al., 2013; Lansford et al., 2002). Being abused and neglected as a child make the individual four times more likely to neglect their child, suggesting the effects of trauma are lifelong and shape ones development (Bartlett & Easterbrooks, 2012). Empathy is the ability to understand and share in another person's emotional state. Childhood trauma impacts the development of empathy through environmental factors and modeling which are explained in Albert Bandura's Social Learning Theory. The current study hypothesizes that higher total scores on childhood trauma would predict lower scores on the empathy scale and higher scores on the Sexual Abuse subscale would predictor lower scores on the empathy scale. One hundred and fifty two participants from Barry University were given the Childhood Trauma Questionnaire- Short Form and the Basic Empathy Scale. It was found that total childhood trauma accounted for a significant amount of variance in empathy scores at $p < .001$, and total sexual abuse accounted for a significant amount of variance in empathy scores at $p = .011$. The hypotheses of the study were supported and it was found that experiencing childhood trauma or sexual abuse before the age of 18 predicts lower levels of empathy. This study links literature between empathy and trauma. The generational cycle of abuse can be terminated by teaching survivors of trauma empathic skills to assist in treating their children with empathy.

Trauma and Empathy

It should come as no surprise that childhood trauma creates short-term and long-term mental and physical health consequences. Childhood is a time of growing physically, mentally, socially, and emotionally. According to the Federal Child Abuse Prevention and Treatment Act of 2010 (CAPTA), child abuse or neglect can be defined as, "Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act which presents an imminent risk of serious harm" (Child Welfare Information Gateway, 2013).

Positive and healthy familial relations are vital to a child's development. A child's developing brain thrives in an enriching environment full of structure and love. Childhood abuse and neglect can be considered one of the most determining factors of abnormal development (Cicchetti, 2002). It is necessary for a child to form relationships and attachments to their parents or caregivers. These interactions set the stage for all future relationships (Effects of Complex Trauma, n.d). When trauma occurs in a family environment, the child learns that they cannot trust people who are close to them. The child may begin to think that abuse is normal and acceptable, or that they deserve the abuse. A child learns through watching others. If a child sees abuse or lack of emotional support, they may learn to believe that is the proper way to live. Not having adequate care during childhood can be detrimental to one's lifelong development of mind and body.

Living and developing in an abusive and neglectful household may cause severe stress on a child. This trauma can cause many developmental problems (Cicchetti & Rogosch, 2009). Childhood abuse correlates with higher levels of Body Mass Index

(BMI) and adolescent obesity (Shin & Miller, 2012). Those with a history of trauma are more likely to report headaches, stomachaches and chronic physical problems (Effects of Complex Trauma, n.d). Children who have been maltreated are more likely to be in special education courses. Those with a history of trauma are about 42% likely to graduate from high school while 66% of children who have not experienced trauma will graduate high school (Johnson et. al., 2004). Youth who have a history of maltreatment were more likely to be involved in bullying and experience psychological distress (Mohapatra et al., 2010).

It is estimated that 1,580 children died from abuse or neglect in 2014, which is about four children per day. About 79 percent of childhood abuse or trauma is carried out by the child's parent or caregiver (Child Welfare Information Gateway, 2016). Trauma's impact on development is a topic that needs to be addressed to create a plan of action to battle the negative consequences. Trauma's relationship to empathy is crucial to intervention for healthy development and forming a sociable, wholesome adult. Understanding the relationship between trauma and empathy will help understand trauma's impact and how to help with recovery.

This paper will review current research pertaining to childhood trauma and its effects on development and, in particular, the development of empathy. Multiple studies have examined the impact of trauma on various areas of development. There is little research on maltreatment's effects on empathy. The remainder of this paper will look at the five types of trauma and their effect on the child. Second, there will be a discussion on empathy. Tanaka, Wekerle, Schmuck, Paglia-Boak, & MAP Research Team (2011) looked at maltreatments relationship to self-compassion and how this affects behavioral

risk taking. Some studies have briefly looked at the relationship between trauma and empathy but the confounding factors make it difficult to distinguish the association (Locher et. al., 2014). The review concludes with a discussion on the connection between trauma and empathy that will be explored through Social Learning Theory. This is followed by the specific research question and the hypothesis that were developed from a review of the literature and that will be closely examined in this thesis.

Literature Review

Trauma

In 2010, the U.S Department of Health and Human Services estimated that 10.1 of every 1,000 children had experienced childhood maltreatment. Child maltreatment is any intentional or unintentional, commission or omission that results in harm, potential harm or a threat. About 82% of maltreatment is carried out by a child's parent or caregiver (Gilbert, et. al., 2009). Trauma affects each individual differently based on many factors such as the type of abuse, the age of the child when they experienced the abuse and the relationship between the child and the person who caused the trauma (Child Welfare Information Gateway, 2013). There are 5 types of abuse including emotional abuse, emotional neglect, physical abuse, physical neglect, and sexual abuse.

Emotional abuse.

Child Welfare Information Gateway (2013) defines emotional abuse as, "a pattern of behavior that impairs a child's emotional development or sense of self- worth." This can be threats, criticism, withholding love, or rejection. Vahl et. al. (2016) explored the relationship between emotional abuse, gender and mental health problems in adolescents who have been detained. The researchers focused on internalizing versus externalizing

mental health problems in those who have been emotionally maltreated. It was hypothesized that females would report higher levels of maltreatment and mental health problems. Additionally, it was hypothesized that females would display more internalizing problems while males would show more externalizing behaviors. Lastly, the researchers hypothesized that emotional abuse would have a larger impact on mental health problems than other types of abuse.

Vahl et. al. (2016) studied 341 males and females in Juvenile Detention Centers in Belgium (54% female). The participant's ages ranged from 12-17 years old. Being placed in a Juvenile Detention Center (JDC) is the most extreme measure of punishment in Belgium. Children are sent to JDC's because of a criminal offence or educational situation such as aggression, truancy or prostitution. The participants had to be in JDC for at least one month and have sufficient knowledge of Dutch. Males must have Belgian or Moroccan origin while girls from all ethnicities were accepted due to a lower sample of females in JDC's.

To measure childhood maltreatment, the Dutch version of the Childhood Trauma Questionnaire was used. The Youth Self- Report was used to measure internalizing and externalizing mental health problems (Achenbach, 1991a). This 72-itme scale assesses internalizing factors of withdrawn/depressed, somatic complaints, anxious depressed, and externalizing factors of attention problems, rule breaking behavior and aggressive behavior. These are responded to with 'not true,' 'sometimes true,' 'often true' scale. The total for internalizing factors is summed and externalizing factors is summed.

The results of this study revealed that females scored significantly higher than males on internalizing ($p < .001$) and externalizing problems ($p < .05$). Females reported

higher rates of all types of abuse, except emotional neglect, which was equal between genders. Additionally, emotional neglect was the most common type of maltreatment. The first hypothesis was confirmed that females experienced more maltreatment and mental health problems than males. The second hypothesis was rejected due to females experiencing more internalizing and externalizing behaviors than males. The researchers rejected the null in the third hypothesis due to emotional abuse having the highest impact on mental health compared to other types of abuse.

These finding are important in targeting at-risk youth and assisting them before they end up in a JDC. Maltreatment is a risk-factor for imprisonment and increased mental health issues. Trauma affects multiple areas of development and if social services could improve upon a child's resilience, self-esteem and decision making skills, they may be less likely to suffer mental health issues or go to a detention center.

Emotional neglect.

Neglect is defined as " Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act which presents an imminent risk of serious harm." Neglect of a child can be physical, emotional, medical or educational (Child Welfare Information Gateway, 2013). Neglect is the most common type of child abuse.

Aust, Hartwig, Heuser, & Bajbouj (2013) assessed the relationship between emotional neglect and sharing personal emotional feelings. In this study, alexithymia is defined as a person who struggles to identify, decode and communicate their personal feelings as well as social interactions. People who have this personality trait focus on facts rather than emotions. There is research that this is biological, genetic or a result

from a previous trauma. Alexithymia is a risk factor emotional dysregulation, or not having an appropriate emotional response, as well as developing PTSD. Past research shows correlations between physical and sexual abuse and alexithymia. This study aimed to find the interdependencies of early childhood adversities and its relation to alexithymia, while considering the emotional functioning in healthy people.

There were 90 German volunteers who were between the age of 20 and 65. They were recruited through posters around the community. First, the subjects completed the Toronto Alexithymia Scale, or TAS-20 (Bagby, Taylor, & Parker, 1994b). This is a 20-item scale that was conducted online. The 2,500 participants who completed this online were then screened for rating high or low on this scale, age, sex, education and income. Matching groups were created for the high alexithymia group and the low alexithymia group. After these groups were created, consisting of 100 participants each, face-to-face interviews and questionnaires were conducted about early life stress and alexithymia. The Mini International Neuropsychiatric Interview was conducted by a clinical psychologist (Ackenheil, Stotz, Deits-Bauer, & Cossen, 1999). After both interviews, 90 participants total met the criteria for the study. All participants were rewarded with 50 euros.

Alexithymia was measured using the Toronto Alexithymia Scale-20 for screening and then the Bermond-Vorst Alexithymia Questionnaire (BVAQ) was administered (Bermond et. al., 2007). This is a more comprehensive, 40 item scale. Both scales have a Cronbach alpha > .80 and have been used in previous studies. The BVAQ has five subscales: verbalizing, identifying, analyzing feelings, emotionalizing, and fantasizing. Adverse childhood experiences were measured using the Childhood Trauma

Questionnaire. The early childhood Inventory was administered (Bremmer, Vermetten, Mazure, 2000). This interview began with a 45-minute interview about the volunteers' childhood, and then the topics of abuse and neglect are brought up. The emotional experiences scale was used to measure the participant's emotional dysfunction (Behr & Becker, 2004). This 42-item questionnaire is reported to have appropriate psychometric properties. The seven subscales are: acceptance of ones own emotions, experience of emotional flooding, experience of lack of emotion, physical symbolization of emotion, imaginative symbolization of emotions experience of emotion regulation, and experience of self-control.

The relationship between emotional neglect and alexithymia was significant. This can be explained by the notion that development of emotional competencies is created by positive emotional relationships between child and caregiver. This theory is influenced by Bowlby's attachment theory. This information can be beneficial in understanding emotional development as well as the negative effects of neglect. Early interventions can be implemented in order to help individuals who have experienced neglect with their emotional identifying, decoding and communicating.

Physical abuse.

The Child Welfare Information Gateway defines physical abuse as, "non-accidental physical injury […] as a result of punching, beating, kicking, biting, shaking, throwing, stabbing, choking, hitting […], burning, or otherwise harming a child, that is inflicted by a parent, caregiver, or other person who has responsibility for the child" (Child Welfare Information Gateway, 2013). A study by Schnitzer and Ewigman (2005) found that about 60% of child deaths due to physical abuse were carried out by the

victim's father or the victim's mother's boyfriend. Children living in a home with adults who are unrelated to them, for example a mothers boyfriend, are 50 times more likely to suffer a fatal injury than children living with two of their biological parents. Children under the age of 5 are most likely to be victims of abuse and/or neglect (Damashek, Nelson & Bonner, 2013).

Lansford et. al. (2002) published a study regarding the long term consequences of childhood physical abuse. Previous research indicated the link between childhood physical maltreatment and delinquency and psychopathology. The researchers were interested in determining if physical abuse caused consequences later in life or whether they were short term and only during adolescence. A non-clinical sample was used and the participants were controlled for ecological risk factors as well as child personality characteristics. Participants were recruited when they were registering for kindergarten at three different cities in the Midwest. After agreeing to participate, 585 children were assessed before kindergarten began. The sample was 52% male, 82% European American, 16% African American, and representative of the community. The participants were assessed annually. There was nearly 80% participant retention when the children had completed 11th grade, resulting in 463 participants.

Extensive interviews with the children's mothers were conducted before the children entered kindergarten. These interviews gathered information on the child's behavior, discipline practices and the child's history of physical abuse. The interviewers rated the likelihood of the child being maltreated based on their impression of the interview. SES, family composition, family stress, maternal social support, child's exposure to violence, child's temperament, and the child's health during pregnancy and

infancy. The children's high school records were obtained to analyze their grades and standardized test score as well as their absence and behavioral issues.

Once the children finished 11th grade, the mothers completed the Child Behavior Checklist (Achenbach, 1991a). This is a 113-item questionnaire scored on a Likert scale. Items were grouped to create subscales of dissociation, PTSD, social problems, thought problems, social withdrawal, aggression and anxiety/depression. The participants completed the Youth Self-report Form of the Child Behavior Checklist (Achenbach, 1991b). This measured the same items that the mother's answered about their children. The Adolescent Behavior Questionnaire was created solely for this study. This questionnaire was created for this study and measured the behavior problems of the participants. This included drug use, alcohol use, being in trouble with the police, pregnancy, running away from home, and gang participation. Lastly, the participants were asked about their likelihood of attending college.

Results indicated that children who were physically abused had lower school grades, high school absences, and more likely to be suspended. Based on mother's reports, those who experience physical abuse were more aggressive, anxious, dissociated, more socially withdrawn, had higher levels of thought and social problems. These were on average two times as likely to be reported compared to the non-maltreated group of children. Children who had been maltreated reported higher behavioral problems on the Adolescent Behavior Questionnaire. All of the long-term effects were worse for females and minorities.

Overall, physical maltreatment before five years old predicts behavioral and psychological issues 12 years later. This can lead one to believe that the psychological

and behavioral issues will be lifelong. This information shows the necessity for early intervention and treatments designed for children who have experienced physical abuse.

Physical neglect.

The CDC defines physical neglect as the failure to provide for a child's basic physical, medical, educational needs or to protect the child from harm or potential harm. This can include inadequate supervision or exposure to violent environments (Leeb, 2008). A larger number of children living in a home increase the risk for experiencing neglect (Damashek, Nelson & Bonner, 2013).

A study conducted by Bartlett & Easterbrooks (2012) examines the links between young mothers who have experienced neglect and their risk for neglecting their child. It was hypothesized that (a) the mother having a history of physical abuse would increase their risk for neglecting their child, (b) the mother experiencing positive care as a child would decrease the chances of neglecting their child, (c) some children would experience both positive care and physical abuse from their mothers and (d) the mother experiencing positive care as a child would moderate the relationship between a childhood history of abuse and their risk for neglecting their own child.

These hypotheses were created with Bowlby and Ainsworth's notion that receiving warm and positive care as a child increases the likelihood of being empathetic and sensitive as an adult. The sample of 92 mothers was chosen from a statewide program aimed for young mothers under the age of 21. This prevention program included home-visits. Data was collected every six months from 1998 to 2006 on mothers who were under 17 years old when they had their first child. When data collection terminated, the children of the young mothers averaged to be 7.9 years old.

The mean neighborhood per capita income of the participants was below the national average.

The Parental Bonding Instrument, PBI, assed the bonds between children and their mothers from birth to age 16 (Parker, Tupling, &Brown, 1979). This three point Likert scale instructed participants to indicate how their mothers behaved toward them. High scores on this measure are correlated with secure adult attachments to adolescents. The Conflict Tactics Scale- Parent-Child Version measured the mother's histories of maltreatment as a child (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). This measure is reported to have good test-retest reliability and validity. Child neglect was assessed by the Child Protective Services Agency. Cases in which there was no recorded neglect were excluded from this study.

The results of this study indicate that 25% of young mothers neglected their children. Previous research has indicated that 70% of these cases included another caretaker who victimized the child. The likelihood of a young mother neglecting her child quadrupled when the young mother herself had experienced a neglectful childhood. This is supportive of the first hypothesis. In support of the second hypothesis, young mothers who only reported positive interactions with their mothers were less neglectful to their children. The third hypothesis was supported. The fourth hypothesis is not sufficiently supported.

The authors propose that a history of abuse or neglect is a key risk factor for abusing or neglecting one's child. This suggests that the cycle of abuse is very common. This study points out the risk factors for neglect and abuse and can assist with prevention of neglect and abuse from mothers who have experienced maltreatment.

Sexual abuse.

The Federal Child Abuse Protection and Treatment Act defines sexual abuse as, "the employment, use, persuasion, inducement, enticement, or coercion of any child to engage in, or assist any other person to engage in, any sexually explicit conduct or simulation of such conduct for the purpose of producing a visual depiction of such conduct; or the rape, and in cases of caretaker or inter-familial relationships, statutory rape, molestation, prostitution, or other form of sexual exploitation of children, or incest with children" (Child Welfare Information Gateway, 2013).

A 30-year longitudinal study by Fergusson, McLeod & Horwood (2013) examined the lifelong effects of childhood sexual abuse. This study is particularly interesting due to its collection methods not suffering from recall bias or forgetting important details of past trauma. This study examined people between the ages of 18 and 21 who experienced childhood sexual assault. Their mental health, wellbeing, sexual risk taking behaviors, physical health and socioeconomic status were measured at the beginning of the study and again at age 30. The participants were part of the Christchurch Health and Development Study who were born over a 4-month period in 1977. These children were studied annually since birth. There were a total of 987 participants, 509 being female.

At ages 18-21, Childhood sexual abuse (CSA) was measured through interview and their responses were totaled and placed on a 4-point scale. The 4-point scale consisted of: no CSA, non-contact CSA, contact CSA without penetration, and CSA involving penetration. At ages 21, 25 and 30 the participants' were given a one to three hour structured interview. This interview questioned mental health, psychological

wellbeing, self-esteem, life satisfaction, partner relationship quality, sexual risk taking, physical health, and socioeconomic outcomes. These interviews were based on the Composite International Diagnostic Interview (World Health Organization, 1993) and additional included questions about suicidal behaviors. After each interview, the responses were evaluated against the DSM- IV to determine any psychiatric disorders.

The Diagnostic Interview Schedule (Shulman, Scharf, Lumer, & Maurer, 2001) was used to measure PTSD symptoms. This scale had an internal consistency of (a = .90). Self-esteem was measured using the Rosenburg Self-Esteem Scale (Rosenburg, 1965). This questionnaire consists of 10 items scored on a 4-point Likert scale. This scale had an internal consistency of (a = .91). Life satisfaction was measured using a custom written scale. This scale collected information of 12 areas of the respondent's life. The scores of the 4-point likerk scale were summed to create an overall life satisfaction score. This scale had an internal consistency of (a = .89). The Scale of Intimate Relationships was used to measure partner relationship quality. This 25-item questionnaire has two subscales: positive partner relations (a = 0.89) and negative partner relations (a = .84). Age of first consensual sexual experience, number of sexual partners, number of unplanned pregnancies, if a High School diploma or G.E.D was obtained, current income, and if welfare has been utilized was also recorded.

The researchers wanted to address the confounding factors between childhood sexual abuse and lifelong outcomes. The age of the participants mother when she gave birth as well as her education level, family living standards and family income from ages zero to ten were recorded. The interviewer used a five-point scale to measure family living standards. Parents of the participants were questioned about this drug use, alcohol

use and criminal background. The participants were questioned about interparental violence using the Conflict Tactics Scale (Straus, 1979). Eight items from this scale were included to measure various types of violence that the parents used on one another. This scale has an internal consistency of (a = .88). IQ was assessed when the participants were eight and nine years old using the WISC-R. The two scores were averaged. The participants were interviewed about their experience of childhood physical maltreatment.

The results show that those who had experience to childhood sexual assault had increased risk for mental health problems, greater number of PTSD symptoms, lower life satisfaction, higher rates of dependency on welfare, displayed more sexual risk taking behaviors, and lower self-esteem. These findings are consistent with previous meta-analysis research.

This research is imperative for understanding the importance of creating policies and programs to reduce childhood sexual trauma. This information can help in therapeutic settings for understanding future consequences of sexual assault and retrospectively gaining perspective of a client's childhood.

Other Forms of Childhood Trauma.

Goldstein, Wekerle, Tonmyr, Thornton, Waechter, Pereira, & MAP Research Team (2011) examined the relationship between post-traumatic stress and substance use among adolescents. The purpose of this study was to examine PTSD caused by child maltreatment and its relationship to alcohol and drug use. It is relevant to understand maltreatments effect on an enriching environment, or lack thereof. Additionally, child maltreatment may inhibit one's ability to handle distress, develop self-efficacy, and adapt to emerging adulthood.

In Goldstein et. al. (2011) it was hypothesized that those who have a history of maltreatment, which has caused PTSD, are at a higher risk for substance abuse. This is due to the self-medication hypothesis that people use alcohol or drugs to alleviate painful memories or be emotionally numb. The independent variables for this study are maltreatment and PTSD. The dependent variables are drug and/or alcohol use. According to the American Psychiatric Association, 2000, PTSD involves: intrusive thoughts that involve a re-experiencing of the trauma, persistent avoidance of trauma-related stimuli or emotional numbing, and persistent symptoms of increased physiological arousal.

Participants were adolescents randomly selected from the Maltreatment and Adolescent Pathways (MAP) study. MAP was a longitudinal study of adolescents in Canada who were involved in the welfare system. The participant's' ages ranged from 15-20 years old. There were 561 adolescents eligible. At the 1-year follow up, 253 adolescents were still eligible and available for data collection. The participants consisted of 61% female and 39% male. The participants were tested three times. First was an initial testing, Time 2 was a six month follow-up and Time 3 was a year after the initial test. Participants were given the choice of testing location: their home, a community center (library) or a child welfare agency. Each testing session was approximately 2.5 hours. Participants were compensated $28 after each session.

Childhood maltreatment was measured with the Child Trauma Questionnaire-Short Form. Test-retest reliability was found to be between (r = .52) and (r = .70) while Cronbach alpha scores ranged from .68 to .92 (Bernstein et. al., 2003). PTSD was measured with the Trauma Symptom Checklist for Children, TSCC. This is a 54-item

questionnaire that measures six areas including anxiety, depression, posttraumatic stress, dissociation, anger and sexual concerns. This 4-point likert scale had a Cronbach's alpha ranging from .82-.89 (Briere, 1996). Test-retest was moderate with (r = .50). The Ontario Student Drug Use Survey (OSDUS) measured marijuana and drug use. This asked students to rate their drug use within the last year from never to weekly. Alcohol use was measured with the AUDIT or Alcohol Use Disorders Identification Test. This is a 10-item scale with a 0-4 likert scale. A total score out of 40 is computed (Saunders, Aasland, Babor, Fuente, & Grant, 1993). The CRAFFT was used to measure drug use. The test-retest reliability is between (r = .71) and (r = .86) (Knight et. al., 1999).

All types of maltreatment from the CTQ were positively correlated with trauma symptoms gathered from the TSCC. More frequent trauma and maltreatment were correlated with more trauma symptoms. The hypothesis was partially supported. Anger and disassociation were the only two facets of PTSD that influenced drug and alcohol use. It is explained that adolescence is a time of finding yourself. Dissociation prevents this and may leave the teenager feeling lost and not knowing who they are. This can lead to using substances to emotionally numb them during this difficult time. The authors predict that anger and dissociation plays an important role connecting trauma and substance abuse. Anger may be a consequence of being abused as a child. This may cause continued anger, shame or guilt. The adolescent may be using illicit substances to cope with these feelings.

Remaining on welfare and protective services has a protective effect from drugs and alcohol. This study will help substance abuse prevention strategies, as well as early intervention, for when a child is discontinued from welfare. This could assist with future

research on motives for using substances and alcohol. This study contributes to my understanding of the effects of maltreatment on PTSD. This shows the emotional damage of trauma and its physical and mental health consequences.

Trauma's Developmental Impact

Considering the above stated research, the question arises as to how childhood trauma impacts the development of empathy. One's environment is extremely influential on current and future actions and cognitions. Bandura's social learning theory may best describe this influence and interaction. Social Learning Theory explains that behavior, cognitive factors, personal factors and environmental influences are intertwined. The combinations of these are coined as reciprocal determinism. Reciprocal determinism means that one's behavior affects one's cognitions, which effects their environment, and so on (Bandura, 1979). One's cognitions and perceptions determine what information is processed and how the person will respond. The cognitions and perceptions create a person's concept. A person's concept of themselves, their social and physical environment, and their personal skills actively create one's thoughts and behaviors. (Bandura & Walters, 1977).

One can learn new behaviors from direct experience or by observing others behaviors (Bandura & Walters, 1977). An abundance of social learning ensues from casual observations of excellent models. Modeling is the influence of behavior through example. This is learning through observing others. Modeling teaches us language, vocational activities (such as cooking, cleaning, etc.) family traditions, and cultural, social and political norms. Modeling teaches new skills or behaviors without having to directly give a reward or punishment. Bandura explains that some behaviors are nearly

completely learned through modeling. For example, teaching someone how to speak without modeling the sounds, words, and physical movements of the mouth, would be nearly impossible (Bandura & Walters, 1977).

Modeling teaches symbolic representations of the modeled activity. This is done in four ways: Attentional processes, Retentional processes, Motoric reproduction processes, and Reinforcement and motivational processes (Bandura & Walters 1977). Attentional processes explain that a person must be aware of the features of the observed behavior. How the person values the model of the behavior has an impact of if the model will be closely watched or ignored. If an observer sees the behavior associated with negative consequences, then they are less likely to be attentive to the actions. Additionally, if a person is exposed to a behavior more often, they will learn this behavior more thoroughly (Bandura & Walters, 1977).

Retentional processes explain that the person must remember the observed behavior in order to learn and repeat it. One must code their perceptions of events into verbal and visual memory. If these symbolic representations are rehearsed in their memory, then they are more likely to be remembered and strengthened. Motoric reproduction processes are how the learned symbolic representations direct behavior. If a person has learned the correct components of behavior, they can combine these skills to create a certain behavior (Bandura & Walters, 1977).

Lastly, there is reinforcement and motivational processes. A person may have learned and been able to execute a behavior, but if there are negative associations with this skill, then it will not be used. If the action is associated with positive incentives, then it will be quickly used as a behavior. This can also be learned through vicarious

punishment and vicarious reinforcement. If a person sees a friend be rewarded for their behavior, then said person would be more likely to perform this behavior. Seeing others rewarded provides motivation for the behavior to be performed (Bandura & Walters, 1977).

People choose their behavior based on benefits and anticipated consequences. When a behavior is rewarded in a favorable way, it is reinforced. Ineffective behaviors are forgotten. Reflective thought leads people to extend their knowledge to generate goals and plans of action based on the previous positive or negative responses to a specific behavior. These learned behaviors are combined and executed in patterns, reinforced or forgotten based on others reactions to the given behavior. Overgeneralized events can cause irrational behaviors. For example, a person may have had a traumatic experience with a male neighbor. Now the person will not go near any of her neighbors despite their gender, or may avoid all males, even if he is not her neighbor (Bandura & Walters, 1977).

Gallupe et. al. (2016) examined how modeling influences theft. Akers (1998) defined imitation as "committing behavior modeled on, and following the observation of, similar behavior in others." The purpose of this study was to explore how the independent variables of no verbal or behavioral cues, verbal prompting, behavioral modeling, and both verbal prompting accompanied by behavioral modeling influenced the dependent variable of theft. This study sampled 335 undergraduate college students from a Canadian University who were 18 years old and older. The mean age was 20.50 years old, nearly 70% were female, and 48% were white. The participants were recruited through email and campus posters.

Once the students arrived at the research location, they were informed that the study was to examine if having cash rewards on the table influenced performance. The participants were joined with one or two confederates. The researcher stated that the participants would earn 50 cents per word they unscrambled. The confederate interrupted and stated that they thought they earned $15 regardless. This was to make the participant feel cheated and give them an incentive to steal. They were directed to unscramble as many words on a worksheet as possible, within 10 minutes. There were gift cards spread across the table in which the participants were working. Once the 10 minutes was finished, the researcher collected the papers and announced that she was going to her office to count up the number of correct answers.

The first study consisted of 168 participants (Gallupe et. al., 2016). In the control group, the confederate did not do or say anything. In the verbal prompting group, the confederate stated that this study was unfair, and suggested taking a gift card. In the behavioral modeling condition, the confederate took a gift card and left. In the verbal and behavioral condition, the confederate stated the study was unfair, suggested taking a gift card, and then took the gift card. The second study included 167 participants. The procedure was nearly identical to the first study, except that there were two confederates. The verbal prompting and behaviors were implemented, and the script was only slightly altered. After the study, the participants were debriefed and given a $15 gift card.

In the first study, only two percent of the participants stole the gift card and they were all in the verbal prompting plus behavioral modeling group. This is statically significant (p = .005). Seven percent of participants stole a gift card in the group with two confederates. In the study with two confederates and verbal prompting plus behavioral

modeling, 15% of people stole the gift card. This is statically significant, $p < .001$. It is an interesting finding that in the study with one confederate and only behavioral modeling, none of the participants stole the gift card. In the study with two confederates and only behavioral modeling, 15 percent of the participants participated in the theft of the gift card.

This study demonstrates that verbal prompting combined with behavioral modeling is more powerful than one independent of the other. This study is significant in showing that behaviors modeled by multiple people have more of an impact of displayed behaviors by the watcher. Similarly, a child may be more likely to develop, or not develop, empathy depending on who they see having empathy and how many people they interact with who have or do not have empathy. Additionally, if a child observes the behaviors of empathy and verbal statements of empathy, then he or she may be more likely to demonstrate empathy him or herself.

Fox, Nobles, and Akers (2011) studied the different aspects of social learning theory and their relation to stalking. Stalking is often associated with intimate partner violence and can lead to serious physical and emotional health consequences. Therefore it is important to see why people become victims of stalking and/or perpetrators of stalking. Stalking can be defined as repeated, unwanted and threatening behaviors. Like many forms of abuse, stalking and intimate partner violence are both about the perpetrator wanting power and control.

Social learning theory suggests that interpersonal violence can be transmitted intergenerationally through modeling, reinforcement, and one's personal beliefs about crime (Akers, 1973). As a person views or experiences violence, these behaviors become

learned. The behaviors are reinforced or extinct through reward. The violence is experienced through one's personal concepts and may change the personal definition, values and beliefs about violence. It has been shown that exposure and closeness to interpersonal violent offenders increases one's risk of victimization and perpetration (Cullen, Wright, Gendreau, & Andrews, 2003)

Fox et. al. (2011) looked to explain stalking victim and perpetration through social learning theory. It was hypothesized that aspects of social learning theory can explain why some people become involved with stalking while other people do not. To test this prediction, 2,783 college students from a large southeastern university were surveyed. They were recruited via email. The survey was emailed to 15,000 randomly selected students and the sample demographics are consistent with the population demographics. The sample consisted of 58% female and 76% white.

The participants were given the definition of stalking and then given an 11-item scale to measure stalking victimization and an identical 11-item scale to measure stalking perpetration. Nine of the questions were from the National Violence Against Women Survey, or NVAWS (Tjaden, & Thones, 1998) and two questions were about cyber stalking. Responses were recorded on a 0-2 scale of, 0 meaning never happened, 1 meaning it has happened once, and 2 meaning it has happened more than once. Cronbach alpha for stalking victimization was $a = .89$ and for stalking perpetration was $a = .86$. These scales measured the dependent variables.

Nine variables were used to measure the independent variable of social learning theory. The questions operationalized some aspects of the theory. Two items measured if a person has favorable or unfavorable personal definitions of stalking or perpetration and

two items measured how the participant believes a friend would react to stalking or perpetration. This is called differential social reinforcement. 2 questions about risk versus reward of stalking or perpetration were posed. Lastly, 2 more questions about whether the participant has friends who have stalked or been stalked. Demographic information about age, sex, ethnicity and sexual orientation was also recorded.

The hypothesis was supported that the study found a relationship between elements of social learning theory (definitions, differential associations, modeling, and reinforcement) and stalking victimization and stalking perpetration. For example, significant results were found that victims of stalking were more likely to know someone who has been stalked. Also, victims believed that their friends would be less sympathetic of stalking, which reinforces the victimization. This reflects that stalking and victimization is a learned, modeled, peer-related behavior.

This study found that perpetrators of stalking believe that their stalking is justified. The researchers suggest that the victims of stalking may be influenced by experiences of childhood trauma. The person sees the violent stalking behaviors as normative because they adapted their personal definition of violence to be more accepting. This information leads one to question the relationship between childhood trauma and empathic development. If a child is not modeled empathy, they may never learn it or display it. The following section discusses empathy and how it is developed.

Empathy.

Jolliffe & Farrington (2004) define empathy as "… the ability to understand and share in another person's emotional state." Empathy is not only feeling sorry for a person but sharing in that emotion. Davis (1990) states that for a person to be empathetic they

must have a secure sense of self and be able to think abstractly. One will not care about another person or be able to put themselves in their shoes without these two skills being present. Empathy is taught by modeling and then reflecting on the empathic thought or behavior. Shantz (1975) suggests that people are more likely to empathize if the situation is similar and familiar. For example, a young adult is most likely to empathize with another young adult (similar) who has recently lost their entry-level job and broken up with their significant other (familiar).

Research has considered the relationship between trauma and empathy. Miller & Cromer (2015) conducted a study at the University of Tulsa to examine how proximity to interpersonal trauma (IPT) influenced perspectives on others traumatic experiences, or more specifically, childhood sexual assault. The researchers discussed that there have been decades of research on men and women's differences in believing disclosures of trauma from another person. It was hypothesized that women believe more disclosures of childhood sexual assault than men will. The researchers also hypothesized that despite gender, those who have closer proximity to interpersonal trauma are more likely to believe disclosures from others of childhood sexual assault than those who do not have proximity to IPT. The third hypothesis was that people who have experienced IPT are more likely to know other survivors of IPT. Data was collected from nearly 300 undergraduates' proximity to trauma using the Brief Betrayal-Trauma Survey. The participants were given a vignette about a friend who recently realized their father molested her when she was a young girl. The participants were asked to rate on a 1-5 Likert scale of how much they believe that the girl's confession about being molested.

The first hypothesis stating that women will believe more disclosures of IPT than men was not supported, despite the abundant previous evidence on this topic. The second and third hypotheses were supported. This shows that if you have personally experienced trauma, then you are more likely to believe that others have personally experienced trauma as well. One's proximity or experience of trauma causes them to be more accepting and understanding of others, therefore knowing more people who have similar experiences.

A study by Tanaka et. al. (2011) aimed to find a connection between childhood maltreatment and self-compassion, and which of these factors play a role in healthy development. The researchers hypothesized (1) self-compassion would be inversely associated with maltreatment and, in particular, emotional maltreatment. The second hypothesis was that self-compassion would be inversely related to health risk behaviors, such that maltreated youth who have higher self-compassion would have fewer indices of maltreatment-related impairment. This two year longitudinal study included 117 adolescents who were receiving assistance from Child Protective Services in Canada. The participant's races were as follows: White (30.5%), dual- or multiple-ethnicity (28.0%) and Black (26.1%)

The following measures were used in this study. Demographic information was collected with The Ontario Student Drug Use and Health Survey (2011), or OSDUHS. The Childhood Trauma Questionnaire is a 28-item scale that measures five types of trauma: emotional abuse, emotional neglect, physical abuse, physical neglect and sexual abuse. The Cronbach alpha ranged from (a = .69) to (a = .94) (Bernstein et. al., 2003). This measures the first independent variable of childhood maltreatment. The Self-

Compassion Scale was utilized (Neff, 2003). This is a 26-question scale measuring self-kindness vs. self-judgment, common humanity vs. isolation, mindfulness vs. getting carried out the present with high emotionality. This scale is reliable with (a = .92). The Center for Epidemiologic Studies Depression Scale (CES-D) is a 20-question scale measuring depression symptoms within the last week. This is internally consistent with (a = .89) (Radloff, 1977).

The CES-D measured the dependent variable in Hypothesis 2, which is maltreatment-related impairment. The General Health Questionnaire (GHQ) is a 12 question scale that measures current psychological distress in terms of depressed mood, anxiety, and problems with social functioning with an internal consistency of (a = .88) (Goldberg & Blackwell, 1970; Golderberg & Williams, 1988). This measures maltreatment related impairment. The Alcohol Use Disorders Identification Test or AUDIT is a ten question self-report using a likert scale that measures excessive alcohol use (Babor, Higgens-Biddle, Saunders, &Monteiro, 2001). The internal consistency of the AUDIT is (a = .88). The CRAFFT or Car, Relax, Alone, Forget, Friends, Trouble, is six questions that ask about substance abuse in adolescents aged 14 years old and older (Knight, Sherritt, Shrier, Harris, & Chang, 2002). This has a Cronbach alpha of (a = .85). This also measures maltreatment-related impairment, the dependent variable in the second hypothesis. The study included one question asking if the participant had attempted suicide within the last year.

Hypothesis 1 was supported. Participants with low self-compassion scores were associated with having experienced emotional abuse, physical abuse, and emotional neglect. Hypothesis 2 was supported. Low self-compassion was correlated with

maltreatment related impairment. Those adolescents with low self-compassion scores were more likely to experience anxiety, depression, psychological distress, alcohol abuse and have attempted suicide. In sum, this study provides support for self-compassion protecting a child from maltreatment-related impairments and/or help them recover from childhood maltreatment. It suggests that self-compassion may be associated with empathy and those who are maltreated may lack empathy.

Vettese, Dyer, Li, Werkele (2011) completed a study that examined the relationship between childhood maltreatment and emotional regulation dysfunction and self-compassion's relationship between the two. It was hypothesized that childhood maltreatment would impact emotion dysregulation with self-compassion as a mitigating factor.

The researchers collected data from 81 young adults between the ages of 16 and 24 who were recently admitted to a substance abuse program in a mental health hospital. The participants were 65.4% male, 34.6% female, and 72.8% Caucasian. The young adults completed the Difficulty With Emotion Regulation Scale to measure the dependent variable of emotional regulation. This scale contains six subscales: Non-acceptance of emotional reactions, Difficulty engaging in goal-directed behavior, Difficulty controlling impulses, Lack of emotional awareness, Limited access to emotion-regulation strategies, and Lack of emotional clarity. This scale has an internal consistence of (a = .90). The Childhood Trauma Questionnaire was administered to measure the independent variable of childhood maltreatment. The Self-Compassion Scale was given and measures the independent variable of self-compassion. This scale has an internal consistency of (a= .92). The Brief Symptom Inventory, BSI, was administered to measure emotional

regulation (Derogatis, & Melisaratos, 1983). This scale is internally consistent, (*a*= .92). The BSI is 53 questions on a likert scale that measure the degree of experiencing a psychopathological symptom within the last week. The subscale called the Substance Misuse Scale (SMS) was taken from the Behavior and Symptom and Identification Scale (BASIS; Eisen, Dill, & Grob, 1994). This includes six questions that ask about the participant's drug use within the past week. The Cronbach alpha is (*a*= .85). The Timeline Following Back (TLFB) measured substance use within the past month (Sobell & Sobell, 1992).

The hypothesis was supported. Those who experienced greater childhood maltreatment also experienced impaired emotion regulation and lower levels of self-compassion. Higher levels of childhood maltreatment were associated with higher levels of psychopathology and substance abuse. The inverse is also true; those who had higher levels of self-compassion reported less emotion dysregulation and lower severity of substance abuse and psychopathology.

The results of this study can help improve treatment at a mental health or substance abuse center. If a new patient arrives and has a history of trauma, it may be beneficial to address and improve upon their self-compassion. Additionally, teaching self-compassion to children can help fervent future emotional and substance-related disorders. Self- compassion can be related to empathy. If these health issues are a result of childhood trauma self-compassion or empathy can be compromised.

Chiu, Paesen, Dziobek, & Tollenaar (2016) researched empathy and dissociation proneness. According to the Diagnostic and Statistical Manual of Mental Disorders (2013), or DSM-5, dissociation is the disruption in normal integration of consciousness,

memory, identity, emotion, perception, body representation, motor control and behavior. Dissociation can be hereditary or developed from chronic traumatic experiences. The purpose of this study was to examine the effect of dissociation on socio-cognitive processing and empathy. Socio-cognitive perception is how one views social interactions. Empathy is necessary to understand and feel others emotions. This is significant to show a link between trauma, dissociation and empathy. This information can be used to understand the effects of trauma.

It was hypothesized that dissociates, or people who have dissociations, may be equipped with weakened empathic capacities and therefore have difficulties in grasping a correct understanding of (adverse) social environments. This means that the researchers expect that dissociations weaken empathy, which causes problems with understanding social interactions. The independent variable is dissociation proneness being low, medium or high. Additionally, negative affective state and difficulty in emotional awareness were examined. The dependent variables are cognitive empathic capacity and emotional empathic capacity. Parenting style was measured to investigate the connection between empathy and dissociation.

Chiu, Paesen, Dziobek, & Tollenaar (2016) studied 204 first year psychology students. They averaged to be 19 years old and 80% female. Of these participants, 128 also took the Parental Bonding Instrument. The Dissociative Experiences Scale, DES, yielded 30 participants in each the high dissociation proneness group (M = 41.85, SD = 9.51), medium dissociation proneness group (M = 16.60, SD = 5.43), and low dissociation proneness group (M = 5.93, SD = 2.73). There were not significant age or gender differences amongst the groups.

The Dissociative Experiences Scale-II was used to measure trait dissociation, the independent variable (Carlson et. al., 1993). This is a 28-item scale that describes experiences of dissociation related to absorption, depersonalization and amnesia. This was measured using an 11-point Likert scale. The Multifaceted Empathy Test (MET) is 40 randomly presented pictures of people with various positive and negative emotions. Participants identified the mental state of the person in the image by choosing four words in a forced-choice format. A Likert scale of 0-9 was used to rate their degree of arousal. This measures the dependent variable of emotional and cognitive empathy. The Bermond-Vorst Alexithymia Questionnaire (BVAQ) measures the cognitive and affective aspects of emotional awareness (Bermond et. al., 2007). Form B was used because it has better psychometrics. This consists of a Likert scale of 1-5 of "This applies to me" or "This in no way applies to me." The Parental Bonding Instrument, PBI, is a 25-item scale that measures parenting style during childhood (Parker, Tupling, & Brown, 1979). The Hospital Anxiety and Depression Scale (HADS) measured anxiety and depression within the last week. This is a 14-item scale with four possible answers ranging from 0-3 (Zigmond, & Snaith, 1983).

Dissociation proneness was positively correlated with anxiety and depression. High dissociation proneness led to more anxiety and depression than medium or low dissociation proneness. Those high on dissociation proneness had more difficulty recognizing, verbalizing and analyzing their own emotions than those with medium or low dissociation proneness. High control and low care was found to be the characteristics of parents of children with high dissociation proneness. This shows the relationship between parenting style and emotion, consciousness, and perception.

The hypothesis was partially supported. Dissociation proneness was significantly negatively correlated with identifying the mental states of others and with the capacity of cognitive empathy. There was no significant relationship between dissociation proneness and emotional empathy. This study suggests that poor parenting may be a cause of poor socio-cognitive functions in dissociations. This means that those who had a negative upbringing from their parents are less likely to be able to read and interpret risky situations and be able to relate to others. This also helps explain the relationship between to trauma and empathy.

Williford, et. al. (2015) examined the relationship between bullying and victimization on cognitive empathic development. This was done by investigating children's adjustment from elementary school to middle school and how this plays a role in naturally occurring changes in empathy. Empathy is generally thought to increase with maturation and during adolescence. It was hypothesized that bullying or being a victim of bullying would decrease ones cognitive empathy. Participants were chosen from 28 urban schools that were taking part of a curriculum about aggression and victimization called Youth Matters (YM). The participants were only taken from the group of students who did not participate in this program. There were 431 students; 52% Female, 52% Latino(a) 18% African-American, 11% White. Data was collected at four separate times. The demographic information is as follows: Age during spring of fourth grade (M = 10.18, SD = 0.45), fall of fifth grade (M = 10.79, SD = .46), spring fifth grade (M = 11.22, SD = .45), and spring of sixth grade (M = 12.26).

The dependent variable, cognitive empathy, was measured using a 5-item scale from the perspective-taking dimension of the Interpersonal Reactivity Index (Davis,

1983). This is a 4-point Likert scale in which a total empathy score was averaged for each participant. The Alpha coefficient across the four time points was .86, .84, .85, and .83. The independent variable, frequency of bullying, was measured using the Revised Olweus Bully/Victim Questionnaire (Olweus, 1996). This is a 6-item scale that has 2 questions about relational bullying and 4 questions for overt bullying measured on a 5-point Likert scale. A total bullying score was averaged for each participant. The alpha coefficient across the four-time points was .95, .89, .87, and .89. The second independent variable of victimization was measured with 6 similar items. The response scale was identical to the scale measuring bullying, as it was from the same questionnaire. A total victimization score was averaged for each participant. The alpha coefficient across the four-time points was .87, .88, .87, and .88

The hypothesis was supported: bullying and victimization were associated with lower levels of cognitive empathy. When bullying and victimization were combined, victimization becomes not significant. This shows that bullying is the primary factor associated with cognitive empathy. Understanding the development of empathy and what effects empathy may help create plans on how to teach empathy. This can be related to parents who bully their children having lower levels of cognitive empathy. The children may not develop empathically because they did not have anyone to learn empathy from.

Locher et. al. (2014) examined the relationship between empathy and childhood maltreatment. The study's purpose was to assess the relationship between trauma, emotions and empathic development. It was hypothesized that childhood trauma would be positively associated with impaired empathy, sadness, shame, and anger. The independent variables were childhood maltreatment and the four film clips that were

shown. The dependent variables were impaired empathy, impaired sadness, impaired shame, and impaired anger.

The participants were shown four different film clips from "A Long Night's Journey Into the Day." This movie shows the trials after the South African Truth Reconciliation Commission. This movement was the unification and desegregation of blacks and whites and the beginning of South African democracy. The researchers choose four film clips of the trials that happened after the movement. The family members of the deceased men who fought for change were shown one of the chosen film clips. There was a forgiving mother, an unforgiving mother, a distressed mother, and an unrepentant mother. The independent variable of childhood trauma was measured with the Childhood Trauma Questionnaire- Short Form (CTQ-SF). This 25 item, 5-point Likert scale, assessment measures the five types of trauma. The participants were also given a self- reported emotion scale. This measured how the participants were feeling after watching the given film clip, or the dependent variable. There was not specific information about this scale in the study. A qualitative questionnaire was administered. This consisted of 13 open-ended questions about the participant's thoughts and emotions that were evoked from the film clip.

The researchers collected data from 49 participants. Participants were university students and community residents, who were recruited through public flyers. There were 25 white, 12 black and 12 colored (a multiracial ethnic group) participants while 33 were female and 16 were male. All received 10 dollars compensation for completing the study.

The hypothesis was partially supported. Scores on the Childhood Trauma Questionnaire- Short Form correlated with shame and anger, but there was not a

significant correlation with empathy or sadness. Interestingly, empathy, positive worldview, and emotional awareness were more common in those who had not experienced childhood trauma while impaired empathy, malignant worldview and emotional distress were more common in those who have experienced maltreatment. Overall, this study shed light on how emotions are evoked and how trauma affects one's outlook on life. This can help create treatment plans on how to develop empathy and emotional regulation.

Current Study

As the literature has shown, there are multiple lifelong effects of trauma that are linked to empathic capabilities. Experiencing trauma affects how a person views or empathizes with another person's experience of trauma. Drug use and PTSD were increased among adolescents who had a history of trauma. If a person has experienced trauma, then they are less likely to have self-compassion and more likely to experience numerous psychological disorders. This may be due to lack of emotional regulation. Locher et al. (2014) found connections between trauma and various types of empathy and emotional disturbances. Lastly, being bullies was positively correlated with lower levels of cognitive empathy. This thesis will narrow down the relationship between types of trauma and its effect on empathy towards others.

Understanding trauma and its effect on the development of empathy is important in developing care plans. This information will be beneficial when faced with a child who is being abused or with an adult who has been abused in the past. Knowing how empathy is formed, or lack thereof, will allow therapies and treatment plans to be developed specifically for patients who have experienced trauma. While there is vast

literature on trauma and empathy separately, there is a large gap on the relationship between the two.

Hypotheses

It was hypothesized that children who experience childhood trauma would have lower levels of empathy. The null hypothesis was that there would be no relationship between childhood trauma and empathy.

Hypothesis 1: Higher total scores on childhood trauma would predict lower scores on the empathy scale.

Hypothesis 2: Higher scores on the Sexual Abuse subscale would predictor lower scores on the empathy scale.

Method

Participants

Participants were recruited through the online psychology portal. There were a total of 152 participants whose ages ranged from 18 to over 40 years old. Seventy five percent were 18-24 years old, 13% were 25-30 years old, and 12% were over the age of 31. Thirty two percent identified as Caucasian, 27% identified as African American, 28% identified as Hispanic, 6% identified as Caribbean, 1% identified as Asian and 5% identified as other.

Materials

The Childhood Trauma Questionnaire- Short Form was used to measure childhood trauma (Appendix B). This is a 28-item questionnaire using a 5 point Likert scale measuring the five types of trauma: physical abuse, physical neglect, emotional abuse, emotional neglect, and sexual abuse. For example, some items are " I had the

perfect childhood," or " There was someone to take me to the doctor if I needed it." Five individual scores for each type of trauma as well as an overall score are computed. Scores on the childhood trauma questionnaire can range from 0 to 140. High scores on the childhood trauma questionnaire indicate high levels of trauma. A total score was calculated by summing all of the points. After analysis, this questionnaire shows discriminant validity. The Cronbach's alpha for Childhood Trauma Questionnaire is (α = .91), The sexual abuse subscale consists of 5 questions. Scores can range from 0-25, with higher scores displaying higher levels of sexual abuse. The Cronbach's alpha for this scale is (a = .95).

The Basic Empathy Scale was used to measure participant empathy (Appendix A). This is a 20-item scale measures cognitive and affective empathy on a 5-point Likert scale, ranging from 1-5. Some of the items are as follows: "I don't become sad when I see other people crying," or "I get frightened when I watch characters in a good scary movie." Affective empathy is measured with nine items while affective empathy is measured with the remaining 11 items. These two scores are summed to create a total empathy score. Scores on the basic empathy scale can range from 0 to 100. High scores on the basic empathy scale indicate high levels of empathy. The Cronbach's alpha for the scale is (a = .88) (Jolliffe & Farrington, 2006).

Procedure

Participants responded to the surveys through the online psychology portal. The two questionnaires were embedded in a larger study about well-being.

Results

The Cronbach's Alpha was calculated for the Childhood Trauma Questionnaire (α = .91), the Sexual Abuse Subscale (α= .96) and the Empathy Scale (α=.88).

A Bivariate Correlation of the three scores of total childhood trauma (TOTCTQ), Sexual Abuse Subscale (SEXAB), and empathy (TOTALEMP) were conducted to ensure that there was indeed a relationship between the factors; results suggested that they were. See Table 1 for the means, standard deviations and correlations.

Table 1

Means, Standard Deviations, and Correlations

Measure	*M*	*SD*	1	2	3
1. TOTCTQ	52.84	17.20	-		
2. TOTEMP	70.87	5.20	-.29**	-	
3. SEXAB	7.83	10.95	.85*	-.21*	-

Note. TOTCTQ= Total Childhood Trauma; TOTEMP= Total Empathy; SEXAB= Sexual Abuse subscale. *$p < .05$. ** $p < .01$.

A linear regression was conducted to predict empathy as a function of childhood trauma. The independent variable was total childhood trauma and the dependent variable was total empathy. It was found that total childhood trauma accounted for a significant amount of variance in empathy scores F (1, 149) = 13.27, $p < .001$, $R^2 = .082$, adjusted $R^2 = .76$. This indicates that total childhood trauma accounted for 8.2% of the variance.

A linear regression was conducted to predict empathy as a function of sexual abuse. It was found that total sexual abuse accounted for a significant amount of variance

in empathy scores F (1, 149) = 6.60, p =.011, R^2 = .042, adjusted R^2 = .036. This indicates that sexual abuse accounted for 4.2% of the variance.

Discussion

The hypotheses of the study were supported. Hypothesis 1 stated that higher total scores on childhood trauma would predict lower scores on the empathy scale and hypothesis 2 stated that higher scores on the Sexual Abuse subscale would predictor lower scores on the empathy scale. Experiencing childhood trauma or sexual abuse before the age of 18 predicts lower levels of empathy. These findings are congruent with previous studies showing the lifelong effects of childhood trauma.

Previous research has shown the lifelong effects of trauma on an individual. Various types of abuse impact a person's mental health, psychological issues, and communication. Physical abuse before the age of 5 predicts behavioral and psychological issues when the person is 17, suggesting that the consequences of trauma are lifelong. When a female is neglected as a child she is more likely to neglect her child. Female children who reported positive interactions with their mother and did not experience abuse were less likely to neglect their children. This suggests that trauma affects a person's parenting and that abuse can be generational. Experiencing sexual trauma increased risk for mental health problems, PTSD symptoms, lower life satisfaction, higher dependency on welfare, more sexual risk taking behaviors, lower self-esteem.

Empathy is the ability to understand and share in another person's emotional state. Lower levels of empathy are found in people who bully and those who are a victim to bullying. A person who experienced trauma during their developmental periods may not

have developed empathy. Additionally, the child was not likely modeled empathy from their abuser and did not learn how to be empathetic.

Bandura's Social Learning Theory introduces modeling and reciprocal determinism. Modeling is the influence of behavior through example. Reciprocal determinism describes how behavior, cognitive factors, personal factors and environmental influences are intertwined and impact one another. For example, it has been shown that exposure and closeness to interpersonal violent offenders increases one's risk of victimization and perpetration. Reciprocal determinism suggests that experiences of trauma can change a person's view of themselves and how they interact with their environment. The child who experienced trauma is more likely to victimize others because their thoughts on themselves, abuse, and their behaviors have been altered during the experiences of trauma. Additionally, using Bandura's theory of modeling, it can be suggested that those who experienced childhood trauma were not modeled empathy, assuming that a person who abuses a child is not empathetic. The child was not modeled empathy so they are les likely to be empathetic as adults.

This study is different from other studies due to its specificity with trauma and empathy. This study links literature between empathy and trauma, uniting the two. Understanding the link between trauma and empathy will aid in the development of therapeutic treatment for survivors of childhood trauma. We can help stop the generational cycle of abuse by teaching survivors of trauma empathic skills to assist in treating their children with empathy.

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APPENDIX A

CHILDHOOD TRAUMA QUESTIONNAIRE- SHORT FORM

Directions: These questions ask about some of your experiences growing up as a child and a teenager. For each question, circle the number that best describes how you feel. Although some of these questions are of a personal nature, please try to answer as honestly as you can. Your answers will be kept confidential.

When I was growing up, . . .		Never true	Rarely true	Some times true	Often true	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 and protect 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 important or special.	1	2	3	4	5
When I was growing up, . . .						
6.	I had to wear dirty clothes.	1	2	3	4	5
7.	I felt loved.	1	2	3	4	5
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
When I was growing up, . . .						
11.	People in my family hit me so hard 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

When I was growing up, . . .		Never true	Rarely true	Some times true	Often true	Very Often true
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.	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
When I was growing up, . . .						
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 (took advantage of me sexually).	1	2	3	4	5
25.	I believe that I was emotionally abused.	1	2	3	4	5
When I was growing up, . . .						
26.	There was someone to take me to the doctor 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

Appendix B

Basic Empathy Scale

The following are characteristics that may or may not apply to you. Please tick one answer for each statement to indicate how much you agree or disagree with each statement. Please answer as honestly as you can.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. My friend's emotions don't affect me much.	☐	☐	☐	☐	☐
2. After being with a friend who is sad about something, I usually feel sad.	☐	☐	☐	☐	☐
3. I can understand my friend's happiness when she/he does well at something.	☐	☐	☐	☐	☐
4. I get frightened when I watch characters in a good scary movie.	☐	☐	☐	☐	☐
5. I get caught up in other people's feelings easily.	☐	☐	☐	☐	☐
6. I find it hard to know when my friends are frightened.	☐	☐	☐	☐	☐
7. I don't become sad when I see other people crying.	☐	☐	☐	☐	☐
8. Other people's feelings don't bother me at all.	☐	☐	☐	☐	☐
9. When someone is feeling 'down' I can usually understand how they feel.	☐	☐	☐	☐	☐
10. I can usually work out when my friends are scared.	☐	☐	☐	☐	☐

11. I often become sad when watching sad things on TV or in films.	☐	☐	☐	☐	☐
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
12. I can often understand how people are feeling even before they tell me.	☐	☐	☐	☐	☐
13. Seeing a person who has been angered has no effect on my feelings.	☐	☐	☐	☐	☐
14. I can usually work out when people are cheerful	☐	☐	☐	☐	☐
15. I tend to feel scared when I am with friends who are afraid.	☐	☐	☐	☐	☐
16. I can usually realise quickly when a friend is angry.	☐	☐	☐	☐	☐
17. I often get swept up in my friend's feelings.	☐	☐	☐	☐	☐
18. My friend's unhappiness doesn't make me feel anything.	☐	☐	☐	☐	☐
19. I am not usually aware of my friend's feelings	☐	☐	☐	☐	☐
20. I have trouble figuring out when my friends are happy.	☐	☐	☐	☐	☐
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree