9-2023

The Effect of Non-Offending Caregiver Substance Use on Posttraumatic Stress Symptoms in Survivors of Child Sexual Abuse

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by

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Master of Science
in Psychology
Florida Institute of Technology
2022

Master of Science
in Counseling
Johns Hopkins University
2019

Bachelor of Science
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University of Alabama
2017

A doctoral research project submitted to
the College of Psychology and Liberal Arts
at Florida Institute of Technology
in partial fulfillment of the requirements
for the degree of

Doctor of Psychology
in
Clinical Psychology

Melbourne, Florida

September 2023

We the undersigned committee, having examined the submitted doctoral research project, “The Effect of Non-Offending Caregiver Substance Use on Posttraumatic Stress Symptoms in Survivors of Child Sexual Abuse” by Katelynn Robison Jones, M.S. hereby indicate its unanimous approval.

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Abstract

The Effect of Non-Offending Caregiver Substance Use on Posttraumatic Stress Symptoms in Survivors of Child Sexual Abuse

by

Katelynn Robison Jones, M.S.

Committee Chair: Scott A Gustafson, Ph.D., ABPP

Prevalence rates for child sexual abuse and substance use have often been difficult to determine. The Centers for Disease Control and Prevention (2022) estimated that one in four girls and one in thirteen boys experience childhood sexual abuse (CSA) in the United States. Similarly, the Substance Abuse and Mental Health Services Administration (2021) estimated that 58.7% of individuals over the age of 12 have used a substance in the last month. Despite the identification of both of these experiences as relatively common societal concerns, the impact of parental substance use on children and families has primarily been evaluated in a general context, and the impact of non-offending caregivers substance use on posttraumatic stress symptoms has yet to be examined. The current study builds upon the current literature by examining the role that non-offending caregiver substance use plays in posttraumatic stress symptoms of survivors of child sexual abuse.

The current study utilized data from clients of Florida Institute of Technology's Family Learning Program (FLP). FLP is a sexual abuse treatment program utilizing evidence-based trauma-informed interventions such as Trauma-Focused Cognitive Behavioral Therapy (TF-CBT). The dataset included 90 victim/non-offending caregiver combinations, for a total of 141 participants. Of the 141 participants, 64 (45.4%) were child/adolescent victims and 77 (54.6%)

were non-offending caregivers. The study found no significant relationship between non-offending caregiver substance use and other variables measured (i.e., posttraumatic stress symptoms, parenting stress, intergenerational trauma). In addition, the effects of intergenerational trauma were evaluated as a secondary objective of this study. This study did not find a significant relationship between intergenerational trauma and posttraumatic stress symptoms; however, a significant relationship was identified between intergenerational trauma and parenting stress ($t(88) = 1.69$, $p < .05$). The results of this study have the potential to better inform clinical decisions and client conceptualizations.

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Acknowledgements

First and foremost, I would like to thank my committee chair, Dr. Scott Gustafson. Thank you for not only stepping in on this project, but for the dedication that you have shown to ensuring that I had a quality research project. I have learned so much from you over the last several years working together in other capacities, however, the wealth of knowledge that you have instilled in me in the past 7 months on this project will forever stay with me. You have not only helped me grow professionally, but personally as well.

I also want to thank Dr. Demara Bennett for choosing me to be a part of the Family Learning Program and allowing me the opportunity to learn and grow as a trauma-informed clinician. Additionally, I thank you for your guidance and support for getting this project started and allowing the use of the Family Learning Program data for this project.

To my committee members, Dr. Patrick Aragon and Dr. Ted Petersen, thank you for your support, time, and involvement in this research project. It has been a pleasure to work with you both.

Lastly, I would like to thank my family. Mom, Dad, Kenzie, and A.J., I would not have made it to this point without all of your love, patience, and support. I know it's been a long journey to this point but your unwavering support, especially during the challenging times, is more appreciated than you all know. Here's to one more hurdle before we finally reach the goal of Dr. Jones!

Dedication

This research project is dedicated to all the survivors of child sexual abuse and their families that I was fortunate enough to work with during my time at the Family Learning Program. Your willingness to allow your data to be collected during your time in the program allowed me to carry out this process and grow in my research skills. In addition, your participation in the sexual abuse treatment program allowed me to grow my clinical skills. I appreciate the opportunity to be a part of so many different journeys in my time at the Family Learning Program. I wish all the best to the families that I had the pleasure of working with.

Chapter 1: Introduction

Child sexual abuse is a significant public health problem. Despite definitions of child sexual abuse differing by source, the definition involves sexual acts involving a minor for the purpose of sexual gratification and/or control by the perpetrator. Although exact prevalence rates are unknown due to a variety of factors including underreporting, it is estimated that one in four girls and one in 13 boys experience sexual abuse in the United States (Centers for Disease Control, 2022). In the United States, approximately 45% of children have experienced at least one adverse childhood experience, while 11% have experienced three or more (Sacks & Murphey, 2018). Specifically, approximately 9% of children in the United States endorsed living with an individual with an alcohol or drug problem (Sacks & Murphey, 2018). Similar to child sexual abuse, substance use also presents a significant public health problem and accurate prevalence rates are challenging to identify. The presence of multiple adverse childhood experiences has demonstrated significant long-term effects in adulthood and unfortunately the greater the exposure to these traumatic events, the greater the likelihood that an individual will experience negative long-term consequences (Felitti et al., 1998).

Currently, there is no established body of literature that evaluates the correlation between parental or caregiver substance use on a survivor of child sexual abuse's posttraumatic stress symptoms. In considering the long-term impacts of multiple adverse childhood experiences, it is vital to examine this relationship. Further, the research has demonstrated the negative impacts of parental substance use on children and families and the co-morbidity of substance use in survivors of sexual trauma. Therefore, it is curious that the effects of parental or caregiver substance use on posttraumatic stress symptoms in child survivors of trauma and abuse has not been examined. If research can uncover a correlational relationship between caregiver substance use and child posttraumatic stress symptoms, clinicians may use this information to better

address a client's needs in treatment. In addition, this knowledge and understanding may contribute to more successful treatment outcomes by addressing the impacts of child sexual abuse as well as the impacts of caregiver substance use.

Chapter 2: Literature Review

Childhood Sexual Abuse

The current literature lacks an overall consensus regarding the operational definition of child, or childhood, sexual abuse, which represents an ongoing issue since the 1970's (Finkelhor et al., 2014; Mathews & Collin-Vezina, 2019). For example, The National Child Traumatic Stress Network (NCTSN) defines child sexual abuse as "any interaction between a child and an adult (or another child) in which the child is used for the sexual stimulation of the perpetrator or an observer. Sexual abuse can include both touching and non-touching behaviors" (The National Child Traumatic Stress Network, n.d.). However, the Center for Disease Control (CDC) defines child sexual abuse as:

> the involvement of a child (person less than 18 years old) in sexual activity that violates the laws or social taboos of society that he/she: does not fully comprehend, does not consent to or is unable to give informed consent to, or is not developmentally prepared for and cannot give consent to (Center for Disease Control, 2022).

Meanwhile, The Diagnostic and Statistical Manual of Mental Disorders - Fifth Edition Text Revision (DSM-5-TR) defines childhood sexual abuse as "any sexual act involving a child that is intended to provide sexual gratification to a parent, caregiver, or other individual who has responsibility for the child" (American Psychiatric Association, 2022, p. 824). The DSM-5-TR also states "sexual abuse also includes noncontact exploitation of a child by a parent or caregiver" (American Psychiatric Association, 2022, p. 824).

The discrepancies between these definitions from three reputable sources of information frequently used in research, legal, and clinical contexts, demonstrates the difficulties encountered in determining what constitutes child sexual abuse. Firstly, the definitions provided by the DSM-5-TR and NCTSN include non-contact abuse within the scope of child sexual abuse, unlike the

definition provided by the CDC. Additionally, the CDC definition specifically identifies a child as an individual under the age of 18, however, definitions provided by the APA and NCTSN do not. This is an important clarification as it may be difficult to determine who is considered a child if the ages vary by the source of the definition. In addition to the lack of consensus regarding the age of a child by many organizations and associations, there is also a lack of consensus by state. In most states, an individual becomes an adult at the age of 18, however, some states, such as Alabama consider a minor to be anyone under the age of 19. With regard specifically to sexual acts, states vary regarding the age of consent, which may cloud the judgement regarding the age at which an individual experiences child sexual abuse. Additionally, the age of consent, within specific parameters, varies from 16 to 18 depending on the state.

The variances within the definition of childhood sexual abuse have resulted in problems across many areas including research and knowledge formation, legal frameworks and principles, prevention efforts, policy responses, and the establishment of social norms (Mathews & Collin-Vezina, 2019). Currently, discrepancies in definitions have resulted in variance within research findings. Utilizing precise definitions results in more reliable outcomes within a research context. Next, legal implications surrounding the variance within child sexual abuse definitions include challenges in identifying, preventing, and responding to child sexual abuse. The inclusion or exclusion of an act as child sexual abuse may result in negative outcomes within the legal system. In addition, prevention efforts are hindered due to a lack of consensus regarding the definition of child sexual abuse. Depending on the operational definition utilized, the content and mechanisms required in prevention and policy efforts will be impacted. Similarly, policy development and implementation both nationally and internationally is hindered by the lack of an operational definition of child sexual abuse. Lastly, the establishment of social norms may be impacted by the definition of child sexual abuse. A lack of consensus on the definition results in

the lack of a reference point to evaluate whether conduct is harmful. However, the consensus of a definition of child sexual abuse would be beneficial in establishing acceptable behaviors (Mathews & Collin-Vezina, 2019).

Mathews and Collin-Vezina (2019) developed a conceptual model of child sexual abuse in an attempt to mediate these variances. This model includes four factors, which all must be met for an act of experience to be classified as child sexual abuse. First, the individual must be a child, both developmentally and below the legal age of adulthood. Second, true consent must be absent. Third, the acts must be sexual in nature, including all acts of sexual intercourse, contact or noncontact act involving sexual gratification, acts to groom a child, and verbal or written requests or demands for sexual acts or transmitting sexual imagery. Finally, the fourth factor is that the acts must constitute abuse. Specifically, abuse by any adult constitutes abuse as well as any nonconsensual sexual acts by other children that are in a superior position (Mathews & Collin-Vezina, 2019). Thus, the conceptual understanding of child sexual abuse and the identified operational definitions provided by Mathews and Collin-Vezina (2019) allow for a sound definition of child sexual abuse for research purposes in an attempt to reduce variance across research studies.

For the purpose of this study, the definition of child sexual abuse will include any and all forms of child sexual abuse including contact, non-contact, intrafamilial, extrafamilial, and child on child as this encapsulates the eligibility criteria for the Family Learning Program, wherein the data for this study was gathered.

Prevalence

Similar to defining child sexual abuse, identifying prevalence rates proves to be challenging for a variety of reasons. Firstly, the definition of child sexual abuse used by researchers may impact the results regarding prevalence rates. For example, the definition of

child sexual abuse by the NCTSN and DSM-5-TR specifically reference both touching and non-touching acts to be encompassed within the definition; however, the definition provided by the CDC does not include this specification. Consequently, researchers that utilize definitions provided by the CDC may have lower prevalence rates due to the exclusion of non-touching behaviors as sexual abuse. In addition, differences in study samples, questions, response rates, and data collection may interfere with obtaining reliable prevalence rates (Goldman & Padayachi, 2000). Lastly, and possibly most pertinent, is disclosure. Some children never disclose the occurrence of sexual abuse and thus cannot be included in statistics regarding prevalence rates. For the purposes of this study, the NCTSN definition of child sexual abuse will be utilized since it includes both touching and non-touching acts from adults or other children, which is most consistent with the eligibility criteria of FLP that encompasses any and all forms of child sexual abuse (i.e., contact, non-contact, intrafamilial, extrafamilial, etc.).

Globally, it is estimated that 118 per 1,000 children experience child sexual abuse before the age of 18 (Pereda et al., 2009; Stoltenborgh et al., 2011). Specifically, it is estimated that 18%-20% of females and approximately 8% of males experience child sexual abuse (Barth et al., 2013). Although there are discrepancies across the literature regarding the definition and prevalence rates of child sexual abuse, the literature consistently finds the prevalence rate among females to be higher than males. Despite females being more likely to experience child sexual abuse than males, both females and males likely experience child sexual abuse at a higher rate than that which is reported by research (Pereda et al., 2009; Stoltenborgh et al., 2011). According to Peake (1989), there are three identified reasons for the underreporting of child sexual abuse in males, including the expectation for males to be self-reliant, societal norms of early sexual experiences, and the stigma of child sexual abuse and potential consequences for male sexuality.

Impact of Childhood Sexual Abuse

The initial effects, or short-term effects, of child sexual abuse involve reactions that occur within the first two years of the termination of abuse (Browne & Finkelhor, 1986). Fear, anxiety, depression, anger, hostility, and inappropriate sexual behavior have been identified as common initial effects of child sexual abuse (Briere & Elliott, 1994; Browne & Finkelhor, 1986; Green, 1993). Research has shown that the risk of psychopathology is increased in individuals that have experienced child sexual abuse (Bulik et al., 2001; Guerra et al., 2018; Vilvens et al., 2021). Child sexual abuse is associated with high rates of internalizing symptoms, and common psychopathology may include posttraumatic stress disorder, depression, or anxiety (Briere & Elliott, 1994; Browne & Finkelhor, 1986; Green, 1993; Guerra et al., 2018; Vilvens et al., 2021). However, other identified psychopathologies include personality disorders, psychotic disorders, substance use disorders, and somatic disorders (Vilvens et al., 2021). Other negative impacts include suicide and self-injurious behaviors, impaired sense of self, academic failure, avoidance, and chronic health problems (Briere & Elliott, 1994; Browne & Finkelhor, 1986; Green, 1993; Vilvens et al., 2021). The identified psychopathology does not only occur in childhood, actually adult survivors of child sexual abuse have been identified as a greater risk for the development of anxiety, depression, low self-esteem, suicidal behavior, substance use, personality disorders, sexual dysfunctions, and are at an increased risk for revictimization (Fletcher, 2021; Green, 1993; Merrick et al., 2017; Monnat & Chandler, 2015).

In addition to impacts on psychological functioning, child sexual abuse has been associated with alterations in social and interpersonal functioning (Briere & Elliott, 1994; Browne & Finkelhor, 1986; MacIntosh & Menard, 2021). Changes in social functioning may include school difficulties, truancy, running away from home, and possible marriage at a young age (Browne & Finkelhor, 1986). Additionally, due to distrust of others, anger or fear of those in

authority positions, and concerns of abandonment; this may result in difficulties within interpersonal relationships (Briere & Elliott, 1994; Browne & Finkelhor, 1986). MacIntosh and Menard (2021) reviewed the literature to examine the impact of child sexual abuse on couple and parenting functioning in adulthood. Regarding couple functioning, the study found that child sexual abuse survivors had insecure attachments in their couple relationships, they were less likely to marry, they were more likely to divorce, and partners would experience difficulties within the partnership. Regarding parenting functioning, the study found that child sexual abuse survivors had different attitudes towards their children, functioned poorly as parents, and their children were at increased risk for victimization (MacIntosh & Menard, 2021).

Interestingly, survivors of single-trauma reported significantly higher PTSD and trauma-related symptoms, while complex traumatization was associated with lower rates of PTSD (Jonkman et al., 2013). Further, large portions of child sexual abuse victims disclose being victimized once, while approximately 25% of victims report chronic victimization (McLean et al., 2014). Despite these common reactions and psychopathology associated with child sexual abuse, each survivor's reaction is unique and should be treated as such. In fact, a minority of survivors of child sexual abuse reported no psychological distress (Briere & Elliott, 1994). One of the most important factors in preventing psychopathology following child sexual abuse is the perception of social support, particularly from family (Guerra et al., 2018).

The impact of child sexual abuse surpasses that of just the survivor (Davies & Bennett, 2022; Fuller, 2016; Runyon et al., 2014; Vilvens et al., 2021). Recently, the research has begun to focus on the impact of child sexual abuse for non-offending caregivers, often referred to as vicarious/secondary victimization or secondary victim-survivors (Davies & Bennett, 2022; Fuller, 2016). Failure to understand or acknowledge the impact that child sexual abuse has on

non-offending caregivers inhibits the understanding of support that is offered to all identified victims (Fuller, 2016).

Emotional responses from non-offending caregivers include anger, shock, confusion, anxiety, fear, failure, shame, guilt, depression, and sadness (Davies & Bennett, 2022; Fuller, 2016; Runyon et al., 2014; Vilvens et al., 2021). These emotional responses also affected their behaviors and responses to their children (Fuller, 2016). Non-offending caregivers' emotional reactions may lead to isolation of themselves and/or their child, becoming overprotective, and lower confidence in their ability to support their child (Davies & Bennett, 2022; Fuller, 2016; Vilvens et al., 2021). Non-offending caregivers may also engage in unhealthy coping strategies to deal with their emotional responses including avoidance, workaholism, and substance use (Runyon et al., 2014; Vilvens et al., 2021). However, factors such as household dysfunction, caregiver substance use, psychiatric disorders, violence/crime, unemployment, and isolation have been associated with increased posttraumatic stress symptoms for the child and limits the effectiveness of the caregiver's ability to support their child's healing process (Vilvens et al., 2021). The impact of child sexual abuse on non-offending caregivers extends beyond the individual and has notable impacts on the parent-child and spousal relationships (Davies & Bennett, 2022). Caregivers may have difficulty appropriately responding and supporting their children and their needs following a disclosure of child sexual abuse (Runyon et al., 2014).

As a result, it is important to assess and treat non-offending caregivers' distress to improve their emotional distress and facilitate their ability to support their child (Davies & Bennett, 2022; Runyon et al., 2014). In addition, treatment of non-offending caregivers is of the utmost importance due to the critical role they play in their child's healing process (Davies & Bennett, 2022). Vilvens et al. (2021) found that non-offending caregivers that were able to manage the child sexual abuse more productively were not only further along in their healing

process, but they also demonstrated effective processing of their emotions related to the abuse, reported less chaos within the family dynamics, and utilized healthy coping strategies.

Further, treatment models that include non-offending caregivers such as Trauma-Focused Cognitive Behavioral Therapy (TF-CBT), have been shown to not only reduce posttraumatic stress symptoms in survivors, but also alleviate these symptoms in the caregivers (Davies & Bennett, 2022). Thus, promoting the development of appropriate services for non-offending caregivers following child sexual abuse disclosures is recommended (Vilvens et al., 2021).

Posttraumatic Stress Symptoms

According to the American Psychological Association (n.d.), PTSD "may develop in some people after extremely traumatic events, such as combat, a terrorist attack, crime, an accident, or a natural disaster." The DSM-5-TR outlines six criteria that must be met to warrant a PTSD diagnosis. Firstly, an individual must experience a traumatic event via direct experience, witnessing an event, learning that an event occurred to a close family member or friend, or experiencing repeated exposure to details of traumatic events (American Psychiatric Association, 2022). In addition, an individual must have the presence of at least one intrusive symptom. Intrusive symptoms include recurrent involuntary memories, distressing dreams, flashbacks, and distress or physiological reactions to exposure of internal or external cues resembling the traumatic event. Persistent avoidance of stimuli associated with a traumatic event must also be present. This includes avoidance, or efforts to avoid, distressing memories, thoughts, or feelings, as well as, external reminders associated with the traumatic event. Additionally, an individual must experience at least two negative alterations in cognitions and mood. These include an inability to remember an important aspect of the event, persistent and exaggerated negative beliefs about oneself, others, or the world, persistent and distorted cognitions about the cause or consequences of the traumatic event, persistent negative emotional state, diminished interest or

participation in significant activities, feelings of detachment from others, and persistent inability to experience positive emotions. At least two alterations in arousal and reactivity must be present such as irritable behavior/angry outbursts, reckless or self-destructive behavior, hypervigilance, exaggerated startle response, problems with concentration, and sleep disturbance. Lastly, these symptoms must last for at least one month and cause significant impairment in the individual's functioning (American Psychiatric Association, 2022).

Although PTSD was initially associated with adults and their responses to natural disasters, accidents, and combat, the diagnosis has since been linked to child sexual abuse (Briere & Elliott, 1994; Davis & Siegel, 2000). A meta-analysis was conducted to examine risk factors in the development of PTSD in children and adolescents (Trickey et al., 2012). The study found small to medium effect sizes in risk factors involved with pre-trauma variables such as gender, low intelligence, low socioeconomic status, pre- and post-trauma life events, pre-trauma psychological problems, pre-trauma low self-esteem, bereavement, trauma severity, and exposure to the event via media. Additionally, large effect sizes were demonstrated for factors regarding subjective experience and post-trauma variables such as low social support, peri-trauma fear, perceived life threat, social withdrawal, comorbid psychological problem, poor family functioning, distraction, PTSD, and thought suppression (Trickey et al., 2012). This study evaluated risk factors for PTSD generally in trauma.

However, another study conducted by Wolfe et al. (1994) examined abuse related factors associated with the development of PTSD in child survivors specifically of sexual abuse. The researchers found that factors such as duration, severity, violence, coercion, and relationship to perpetrator significantly contributed to the development of PTSD. Further, the survivor's feelings of guilt also contributed significantly in the development of PTSD symptoms (Wolfe et al., 1994). Other risk factors that increase the likelihood of developing PTSD low self-esteem,

separation from parents before the age of ten, prior psychiatric disorder, family history of psychiatric disorders, and being female (Davis & Siegel, 2000).

A longitudinal study was conducted by Copeland et al. (2007) to examine traumatic events, posttraumatic stress, and psychiatric disorders in children ages 16 and younger. The study found that while more than two thirds of the children reported at least one traumatic event by the age of 16, 13.4% of these children developed posttraumatic stress symptoms. However, less than one percent of the children met criteria for PTSD as determined by the DSM-IV. Notably, violent and sexual trauma were associated with the highest rates of posttraumatic stress symptoms (Copeland et al., 2007). Subsequently, not all symptoms and/or behaviors following child sexual abuse are encompassed by the PTSD criteria. Moreover, an individual may not meet criteria for a PTSD diagnosis, but they may still experience posttraumatic stress symptoms. In fact, the prevalence of posttraumatic stress disorder (PTSD) in child sexual abuse is estimated between thirty and fifty percent (Maikovich et al., 2009), meanwhile an estimated 32% experience posttraumatic stress symptoms without meeting criteria for a PTSD diagnosis (Kendall-Tacket et al., 1993). When an individual experiences clinically significant PTSD symptoms but does not meet the full criteria for a PTSD diagnosis, this is referred to as “partial PTSD” (Pietrzak et al., 2011). It was found that individuals that met criteria for a PTSD diagnosis were more likely to meet criteria for additional psychiatric disorders than those with “partial PTSD” (Pietrzak et al., 2011). Within the DSM-5-TR, individuals who experience significant and functionally disruptive posttraumatic stress symptoms but do not meet full criteria for PTSD are considered to meet diagnostic criteria for Other Specified Trauma and Stressor Related Disorder (American Psychiatric Association, 2022).

However, not all outcomes of child sexual abuse are negative. Posttraumatic growth is a positive outcome of trauma that is defined as the “experience of positive change that occurs as a

result of the struggle with highly challenging life crises" (Tedeschi & Calhoun, 2004). The model of posttraumatic growth is initially activated by trauma wherein an individual's assumptions about the world have been destroyed. This threat to the assumptions of the world then triggers a process of rumination wherein existing schemas are revised. When an individual gives up these world assumptions for new assumptions that accommodate their traumatic experience, growth occurs and acceptance of the trauma and the alteration of schemas are reached (Tedeschi & Calhoun, 2004, p. 1). Further, posttraumatic growth occurs in an attempt to adapt to negative circumstances which have resulted in psychological distress (Shakespeare-Finch & de Dassel, 2009).

Adverse Childhood Experiences

Felitti et al. (1998) described an adverse childhood experience (ACE) as a traumatic life event that an individual experiences prior to turning 18-years-old. In the original ACE study, over fifty percent of respondents endorsed at least one ACE and twenty-five percent endorsed two or more ACEs. This suggests that childhood exposures to traumatic events are relatively "normal," however, the greater the exposure, the greater the risk of developing long-term negative consequences. An assessment of ACEs was developed and currently includes three versions, one for adults, one for adolescents, and one for children (Felitti et al., 1998). The ACE questionnaires are utilized to assess the adversity an individual faced during their childhood. Research has established long-term consequences related to an individual's ACE scores. The presence of multiple childhood exposures had a significant effect on the health status as adults and include greater risk for diseases such as ischemic heart disease, cancer, chronic lung disease, skeletal fractures, diabetes, heart attack, and liver disease (Felitti et al., 1998; Monnat & Chandler, 2015). In addition, poor self-rated health was found to be a long-term consequence of

ACE's along with premature mortality and functional limitations (Felitti et al., 1998; Monnat & Chandler, 2015).

Follow-up studies examined the role of ACEs in the development of substance use disorders (Dube et al., 2002; Felitti, 2004; Merrick et al., 2017). A substance use disorder "encompasses varying degrees of excessive use of a substance, including: alcohol; tobacco; opioids; caffeine; cannabis; hallucinogens; inhalants; sedative, hypnotics, or anxiolytics; stimulants (e.g., amphetamine, cocaine); and more" (American Psychological Association, n.d.). According to Dube et al. (2002), an individual that endorsed multiple ACEs, regardless of which events were endorsed, were two to four times more likely to engage in heavy alcohol use, identify themselves as an alcoholic, and marry an alcoholic compared to an individual with no ACEs. Thus, ACEs were determined to play a significant role in alcohol misuse in adulthood (Dube et al., 2002; Merrick et al., 2017; Monnat & Chandler, 2015).

The research then began to examine the relationship between ACEs and the use of other substances. Felitti (2004) examined the relationship between ACE scores and smoking tobacco, alcoholism, and injection of illegal drugs. In his evaluation of smoking, Felitti found that smoking had a strong relationship with ACEs. Further, as the number of ACEs increased, so did the percentage of individuals that endorsed smoking. Similarly, this study found that the prevalence of adult chronic bronchitis and emphysema also had a strong relationship with ACEs and demonstrated the conversion of an individual's emotional stressors into an organic disease through the emotionally beneficial behavior of smoking. Additionally, this study found that a strong relationship between self-reported alcoholism in adulthood and ACEs also exists. Lastly, the study found that the likelihood of injection of illegal drugs is strongly correlated with ACEs and as the ACE score increases, so does the likelihood of becoming an injection drug user. Notably, a male child with an ACE score of 6 is 46 times more likely to become an injection

drug user later in life compared to a male child with an ACE score of 0. The results of this study suggest that addiction may be predominantly experience dependent as opposed to substance dependent and revising this concept of addiction would suggest alternative approaches to prevention and treatment (Felitti, 2004).

More recently, Merrick et al. (2017) examined the relationship between an expanded ACE score, that is an ACE assessment that included the experience of being spanked as a child, and adult mental health outcomes. The study found a relationship between the expanded ACE score and moderate to heavy alcohol consumption and drug use. Further the likelihood of experiencing mental health problems including substance use in adulthood increased as the expanded ACE score increased (Merrick et al., 2017).

Given the profound effects that ACEs can have on an individual, identifying these experiences is a crucial step in trauma-informed care. Unfortunately, these experiences may be more prevalent than we would like to think. Notably, in the United States 45% of children have experienced at least one ACE and 11% have experienced three or more ACEs, with the most common endorsements being economic hardship and divorced or separated parents (Sacks & Murphey, 2018). Additionally, 9% of children in the United States endorsed the ACE regarding living with an individual that has a problem with alcohol or drugs (Sacks & Murphey, 2018).

Substance Use

There are varying levels of substance use including use, misuse, and abuse, which may involve the use of legal or illicit substances. While substance use is simply the use of an identified substance, substance misuse is utilizing a substance in a way that they were not intended (McLellan, 2017). Although often used interchangeably, substance abuse is defined as, “a pattern of compulsive substance use marked by recurrent significant social, occupational, legal, or interpersonal adverse consequences, such as repeated absences from work or school,

arrests, and marital difficulties" (American Psychological Association, n.d.). Over time, substance use, misuse, or abuse may develop into a substance use disorder (SUD). A substance use disorder: "encompasses varying degrees of excessive use of a substance" (American Psychological Association, n.d.).

The DSM-5-TR outlines several criteria to warrant a substance use disorder diagnosis and the diagnoses encompass 10 classes of drugs including alcohol, caffeine, cannabis, hallucinogens, inhalants, opioids, sedatives, stimulants, tobacco, and other or unknown (American Psychiatric Association, 2022). The most salient feature of a substance use disorder is the continued use of a substance despite significant substance-related problems. In order to diagnose a substance use disorder, an individual must demonstrate problematic use of the substance leading to clinically significant impairment or distress characterized by at least two of the following within a 12-month period: taking the substance in larger amounts or over a longer period than was intended, persistent desire or unsuccessful efforts to reduce or discontinue substance use, a significant amount of time is spent in activities related to obtain, use, or recover from substance use and its effects, craving or a strong desire or urge to use the substance, recurrent substance use resulting in failure to fulfill major role obligations, continued substance use despite persistent or recurrent social or interpersonal problems caused by the effects of substance use, important social, occupational, or recreational activities are reduced or ceased due to substance use, recurrent substance use in situations where it is physically hazardous, continued substance use despite persistent or recurrent physical or psychological problem that is caused or exacerbated by the substance, tolerance, or withdrawal (American Psychiatric Association, 2022).

Similar to the difficulties identified in the research on the prevalence of child sexual abuse, the prevalence rates of substance use are also challenging to determine. The first area of

overlap regarding difficulties in examining prevalence rates is the self-report nature of research (Carroll, 1995). In child sexual abuse the issue of self-report often stems from the nature of underreporting of trauma, however, with substance use individuals may deny or minimize substance use, particularly regarding the evaluation of illicit substances. Despite the potential downfalls of self-report as a method of evaluating substance use, it is the most widely used method within research (Carroll, 1995). Another issue raised in the reliability of self-report as a measurement of substance use is the recency and amount of an individual's substance use (Neale et al., 2006). For example, if an individual is participating in a study on acute intoxication but has not recently utilized a substance, this may impact the results of the study. Contrarily, if an individual has recently stopped utilizing a substance and is experiencing withdrawal while completing self-report measurements, overall results may also be compromised. Further, Neale et al. (2006) notes that "behavior is inherently difficult to measure," as such the assessment of substance use is inherently challenging.

Despite the numerous difficulties evaluating the prevalence rates of substance use among the general population, according to the National Survey on Drug Use and Health (NSDUH) in 2020, 58.7% of individuals ages 12 and older used a substance, including alcohol, in the past month (Substance Abuse and Mental Health Services Administration, 2021). It should be noted that individuals below the age of 12 were not included within this study. In addition, this study found that 40.3 million people or 14.5% of the population had a substance use disorder in the past year (Substance Abuse and Mental Health Services Administration, 2021). Given that over 50% of individuals in this sample endorsed using a substance in the past month, which did not encompass individuals under the age of 12, substance use amongst our society is a prevalent issue.

Substance Use Among Victims

Most of the theories regarding alcohol use problems indicate a role of emotional regulation (Holahan et al., 2001). Consuming alcohol to cope with emotional distress has been associated with solitary drinking behaviors and is more likely to result in alcohol abuse (Holahan et al., 2001). A longitudinal study conducted over the course of ten years evaluated drinking behaviors to cope at baseline, one, four, and ten-year follow up (Holahan et al., 2001). The study found that baseline drinking for coping was associated with increased alcohol use at each follow up. Further, the researchers found that baseline drinking was predictive of increases in alcohol use and drinking problems within the following year (Holahan et al., 2001).

This research further supports the self-medication hypothesis wherein it is believed that victims suffering from PTSD may engage in substance use to reduce intrusive symptoms related to PTSD (Briere & Elliott, 1994; Green, 1993; Fletcher, 2021; Raghavan & Kingston, 2006; Ullman et al., 2013). In the short term, this means of coping reduces trauma related symptoms, however, over a long period of time it may result in increased trauma related symptoms and chronic PTSD (Ullman et al., 2013). Another theory of the relationship between PTSD and substance use disorders suggests that substance use precipitates the development of PTSD (Raghavan & Kingston, 2006). This theory posits that substance use increases an individual's vulnerability to traumatic events, ultimately developing into PTSD (Raghavan & Kingston, 2006).

Comorbid PTSD and substance use disorders are common (Browne & Finkelhor, 1986; Davis & Siegel, 2000; Fletcher, 2021; Gielen et al., 2012; Pietrzak et al., 2011; Raghavan & Kingston, 2006; Roberts et al., 2015; Ullman et al., 2013). The prevalence of PTSD in individuals with substance use disorders is estimated to be three times higher than that of the general population (Gielen et al., 2012; Raghavan & Kingston, 2006). Specifically, alcohol use

disorder has been identified as the most common substance use disorder associated with PTSD, with prevalence rates estimated from 36%-52% (Roberts et al., 2015). Child sexual abuse has also been associated with amphetamine, cannabis, opiate, and polysubstance use (Fletcher, 2021). Although common, comorbid PTSD and substance use disorders are difficult to treat and associated with poor outcomes (Roberts et al., 2015). Specifically, individuals with PTSD and substance use disorders are more often unemployed, have a lower educational level, lower general functioning, and poorer well-being (Gielen et al., 2012; Roberts et al., 2015). Therefore, these individuals are also at an increased risk of other psychiatric disorders (Roberts et al., 2015).

Child sexual abuse, regardless of the development of PTSD symptomatology, is associated with an increased risk of substance use in adolescence and in adulthood (Briere & Elliott, 1994; Green, 1993; Fletcher, 2021). Briere and Elliott (1994) reported that female crisis center clients with a history of child sexual abuse were ten times more likely to have a history of drug abuse and two times more likely to have a history of alcohol abuse than their non-abused counterparts. Similarly, it is estimated that 27% of child sexual abuse survivors had a history of alcohol abuse and 21% had a history of drug abuse (Green, 1993). However, it is difficult to determine the exact prevalence rates as a result of difficulties related to identifying the prevalence rates of both child sexual abuse and substance use. In addition, the correlation between substance use issues and child sexual abuse do demonstrate gender differences (Fletcher, 2021). When adjusting for other factors such as age, race, ethnicity, parental substance use, and psychopathology, adolescent females were associated with a higher risk of heavy polysubstance use than their male counterparts. Despite these gender differences, men are more likely to report amphetamine abuse following child sexual abuse than women (Fletcher, 2021).

When PTSD is left untreated, poorer outcomes are noted in the treatment of substance use disorders (Gielen et al., 2012). Subsequently, comorbid PTSD and substance use disorders

are a substantial and vulnerable group of patients within addiction treatment (Gielen et al., 2012). Patients with comorbid substance use disorders and PTSD have been found to demonstrate more severe clinical profiles than patients with either disorder independent of the other (Roberts et al., 2015). Thus, incorporating trauma-focused interventions are essential to the treatment of substance use disorders and have demonstrated reductions in PTSD symptom severity and drug/alcohol use (Roberts et al., 2015).

Parental Substance Use

Estimates of children exposed to parental substance use vary. According to Schroeder et al. (2006), approximately 6 million youth live in an environment where a parent or caregiver abuses drugs or alcohol. However, Staton-Tindall et al. (2013) estimated that 50% of children in the United States are exposed to parental substance use. Although tobacco is the most common substance utilized in homes with children, binge drinking and illicit substances are utilized in approximately 27 million homes (Staton-Tindall et al., 2013). In addition, approximately 17 million children are exposed to caregivers engaging in binge drinking and approximately 9 million children are exposed to caregivers using illicit substances (Staton-Tindall et al., 2013). Parental or caregiver substance use has numerous negative effects on children and families. Firstly, parental substance use is associated with an increased risk for child abuse (Goldberg & Blaauw, 2019). Parental substance use is consistently identified as a significant risk factor for child physical abuse (Goldberg & Blaauw, 2019; Lander et al., 2013). In fact, a parent with a substance use disorder is three times more likely to physically or sexually abuse their child (Lander et al., 2013). Approximately one-third to two-thirds of child maltreatment cases involve substance use (Lander et al., 2013).

Despite this increased risk, the research is contradictory regarding what factors contribute to differences in abusive and non-abusive parents in relation to substance abuse. One study found

that there were no significant differences identified between abusive and non-abusive parents in relation to substance use (Goldberg & Blaauw, 2019). However, another study found that behaviors including heavy drinking, illicit drug use, polysubstance use, current substance use disorder, and substance use disorder within the last four years were significant factors in understanding differences in the frequency of child maltreatment (Kepple, 2017).

Secondly, exposure to parental substance use increases the likelihood that a child will engage in substance use and develop a substance use disorder (Lander et al., 2013; Ohannessian et al., 2004; Schroeder et al., 2006; Staton-Tindall et al., 2013; Stein et al., 2002). This suggests that children exposed to parental substance use may engage in drug and alcohol consumption as a means of coping with the chaos experienced in their environment. Thirdly, parental substance use increases the likelihood of child separation from their parent (Kepple, 2017). This separation can be the result of parental incarceration, long-term treatment, the removal of a child from the home and placement with a relative, foster care, group or residential home, or the death of a parent as a result of substance abuse (Kepple, 2017; Lander et al., 2013).

Lastly, exposure to parental substance use increases the risk for maladaptive behaviors and behavioral and psychological problems (Ohannessian et al., 2004; Schroeder et al., 2006; Staton-Tindall et al., 2013). Specifically, in comparison to their counterparts, children who have been exposed to parental substance use are more likely to experience internalizing problems, externalizing problems, academic problems, illness, and low self-esteem (Schroeder et al., 2006). These children are also more likely to develop mental health conditions including anxiety and depression (Schroeder et al., 2006; Staton-Tindall et al., 2013). Not only does parental substance use have profound psychological effects on children and families, it also demonstrates negative outcomes including increased rate of divorce, domestic violence, crime, and unemployment (Yaghoubi-Doust, 2013).

These patterns extend beyond the United States as well. Middle Eastern countries including Iran have demonstrated the detrimental effects of parental substance use within research. The most disturbing of which is the effects of parental substance use on domestic violence against children (Yaghoubi-Doust, 2013). A study conducted in Iran found a significant positive correlation between parental substance use and domestic violence towards children compared to families without a history of substance abuse (Yaghoubi-Doust, 2013). Further, parental substance use was also significantly positively correlated with their behavior towards their children (Yaghoubi-Doust, 2013).

Although exposure to parental substance use generally leads to poorer outcomes in children, some research indicates that the consequences of maternal substance use may be more significant than that of paternal substance use (Ohannessian et al., 2004). The study found that maternal substance use was significantly associated with adolescent alcohol dependence and major depressive disorder, while paternal substance use was significantly associated with adolescent alcohol dependence, but not with major depressive disorder (Ohannessian et al., 2004). This suggests that the consequences of maternal substance use may be more closely associated with adolescent psychopathology than paternal substance use.

Despite the research being comprehensive regarding the adverse effects of parental substance use on children, there is less emphasis on identifying why this is the case. However, some literature does exist regarding how these negative consequences come to be. One reason that has been offered in the research is the effect of substance use on a caregiver's judgment (Staton-Tindall et al., 2013). The impairment in one's judgment as a result of substance use may diminish their ability to respond to children's cues for nurturing. Furthermore, the lifestyle patterns that are often associated with parental substance use may result in instability within the home environment for children (Staton-Tindall et al., 2013). Consequently, children may be

exposed to toxic substances and crime. Lastly, parental substance use can affect emotional expression, which may negatively impact the secure parent-child attachment (Staton-Tindall et al., 2013). This results in negative consequences for the development of emotional regulation, confidence, social skills, and trustful relationships in children with exposure to parental substance use (Staton-Tindall et al., 2013).

The impacts of parental substance use on long-term outcomes of their children is an important factor when considering treatment of substance use disorders. Currently, there are tens of thousands of substance use treatment facilities in the United States. However, amongst these treatment programs, there is a lack of emphasis on parenting and addressing the needs of children who live within the same household as a parent or caregiver utilizing substances (Schroeder et al., 2006). Thus, there is a dire need for prevention programs and early intervention for children exposed to parental substance use.

Intergenerational Trauma

It is estimated that approximately 75% of children experience some form of stressful life event prior to age nine (Burke et al., 2021). During childhood, physiology is sensitive and as a result the body has an ability to respond to stressful stimuli both physically and psychologically. Consequently, adults that experienced traumatic events in their own childhood are more susceptible to psychiatric disorders, which increases the likelihood that their children will experience a traumatic event, thus creating the cycle of intergenerational trauma (Burke et al., 2021). The presence of intergenerational trauma is consistent with the intergenerational hypothesis, which suggests that “the experiences of one generation can influence the development of the next” (Howell et al., 2021, p. 2).

The expansion of research has suggested a possible intergenerational connection between caregiver’s ACE exposure and increased susceptibility of mental health problems for their

children (Leslie et al., 2022). African Americans are at a higher risk for exposure to ACEs due to overrepresentation within communities that experience economic, health, and geographic disparities. Leslie et al. (2022) examined the relationship between caregiver ACE exposure and their child's depression and PTSD symptoms within an urban African American community. Their results revealed that caregiver ACEs were significantly associated with their child's PTSD symptoms, however, the ACEs were not significantly associated with depression symptoms. Subsequently, the importance of ACE screening during medical visits and in other settings may be warranted to provide early intervention (Leslie et al., 2022). Although these findings cannot be generalized to the overall population, further examination of the impact of caregiver ACEs on children should be evaluated.

Exposure to trauma in childhood is associated with an increased risk of developing a substance use disorder later in life (Meulewaeter et al., 2019). This study found that a disruptive attachment increases the susceptibility for developing a substance use disorder and that substance use can be an expression of trauma. As a result, substance use disorders are a covert mechanism wherein intergenerational trauma can flourish. The results of this study suggest a clinical need for preventative measures targeted at intergenerational trauma through the use of attachment-based and trauma-informed interventions (Meulewaeter et al., 2019).

Because of the intergenerational impact of unresolved trauma, early intervention and treatment of traumatic events in childhood is essential in the mental health care industry (Isobel et al., 2021). This resulted in the development of The Intergenerational Trauma Treatment Model (ITTM). ITTM is a manualized treatment designed to reduce the impact of chronic trauma on a child's development in 21 sessions (Scott & Copping, 2008). The ITTM has three phases, the first phase is trauma information sessions. This consists of six 90-minute sessions in a group format with caregivers. There are four goals for the first phase of treatment including developing

caregiver empathy for the children's experience, to increase the caregiver's ability to provide their child with security, to improve caregiver self-regulation and reduce conflict with their child, and to increase levels of hope, self-efficacy, and motivation for change amongst caregivers. The second phase of treatment are caregiver treatment sessions where individual sessions are provided to address the impact of parental trauma. This phase typically occurs over the course of eight individual sessions. Finally, the third phase consists of three to eight sessions with the child and caregiver present. During this phase, the therapist works with the child and caregiver to address trauma-related behaviors and symptoms (Scott & Copping, 2008).

TF-CBT

Trauma-focused cognitive behavioral therapy (TF-CBT) is a sub-form of cognitive-behavioral therapy (CBT), wherein a phase and components-based treatment model incorporates trauma-sensitive interventions and techniques (Cohen & Mannarino, 2015; Slade & Warne, 2016). TF-CBT incorporates three phases including stabilization, trauma narration and processing, and integration and consolidation (Cohen & Mannarino, 2015). Additionally, eight components are used to form the acronym PRACTICE including psychoeducation/parenting skills, relaxation, affect modulation, cognitive processing, trauma narration, in-vivo mastery, conjoint child-parent sessions, and enhancing safety. TF-CBT treatment duration depends on the severity and complexity of the trauma endured. For simple trauma, 12 to 15 sessions are sufficient, whereas complex trauma is typically longer and averages 16 to 25 sessions (Cohen & Mannarino, 2015).

The stabilization phase lasts approximately 4 to 12 sessions and includes the following components: psychoeducation and parenting skills, relaxation skills, affect modulation, and cognitive processing (Cohen & Mannarino, 2015). The first component of the stabilization phase includes psychoeducation and parenting skills. Psychoeducation includes providing the client

with age-appropriate education on trauma responses and triggers and connecting this to how trauma manifests for a specific individual. This module allows for both parents and children in treatment to understand normal responses to trauma. The parenting skills aspect of this module assists parents in developing effective strategies for responding to the behavioral and emotional dysregulation expressed by their children in response to their trauma. The second component is relaxation, where the therapist provides relaxation techniques to the client and encourages them to practice the skills regularly. The third component is affect modulation where the therapist works with the client to comfortably and effectively express their emotions. In addition, the therapist assists the client in identifying skills for managing their affective states. In the fourth component of this stage, cognitive processing, the client and therapist work to identify connections between their thoughts, feelings, and behaviors related to their trauma. In addition, the therapist and client collaborate to restructure their maladaptive cognitions related to the traumatic event (Cohen & Mannarino, 2015).

The trauma narration and processing phase lasts approximately two to six sessions and only incorporates the trauma narrative component of the model (Cohen & Mannarino, 2015). During trauma narrative, the client works with the therapist in an interactive process to disclose increasingly difficult details surrounding their trauma. Throughout this process, the client repeatedly practices their trauma narrative and identifies the thoughts and feelings associated with sharing their story. Further, the process allows the client to develop an ability to recall these events without utilizing avoidance as a coping mechanism (Cohen & Mannarino, 2015).

The integration and consolidation phase lasts approximately two to eight sessions and includes the following components: in-vivo mastery, conjoint child-parent sessions, and enhancing safety (Cohen & Mannarino, 2015). The first component of this phase is in-vivo mastery, which is the only component of TF-CBT that is considered to be optional, while still

following the model with fidelity. This component is utilized with clients that demonstrate significant avoidance. If clinically indicated, the in-vivo mastery component can be utilized to gradually expose the client to the object or situation in which they fear to decrease avoidance. It is crucial that psychoeducation, relaxation skills, and parenting skills are introduced prior to in-vivo mastery so the client is able to tolerate the steps needed to reach the ultimate exposure. The second component in the integration and consolidation phase is conjoint child-parent sessions. During this component, the therapist facilitates numerous conjoint sessions to facilitate communication amongst family members prior to termination of services. The first session is typically dedicated to the client's presentation of their trauma narrative, completed in the second phase of treatment, while subsequent conjoint sessions may vary in the focus of the session. Lastly, enhancing safety is the final component of the TF-CBT model. Although this component is included last in the PRACTICE acronym, this is an ongoing component of the module where strategies for enhancing and maintaining safety for the client are addressed. Oftentimes, family safety plans are created to facilitate feelings of safety for each member of the family (Cohen & Mannarino, 2015).

TF-CBT has been shown in the research literature to be an effective treatment method for children that have experienced abuse. Slade and Warne (2016) completed a meta-analysis to examine the effectiveness of TF-CBT and play therapy for children that had experienced abuse. The researchers completed two meta-analyzes and analyzed ten studies evaluating TF-CBT and ten studies evaluating play therapy. The study found that both play therapy and TF-CBT were effective in reducing behaviors in four outcome categories, which included externalizing, internalizing, sexual behaviors, and parent reports. Although both treatment methods were effective in demonstrating positive outcomes, TF-CBT demonstrated more positive outcomes over play therapy (Slade & Warne, 2016).

In addition, TF-CBT has demonstrated effectiveness specifically with child sexual abuse survivors. Cohen et al. (2004) completed a randomized controlled trial to evaluate the effectiveness of TF-CBT and Child Centered Therapy (CCT) in the treatment of PTSD in survivors of child sexual abuse. Of the study participants, 89% met full PTSD criteria as outlined by the DSM-IV. The study found that both conditions fostered significant improvements in the participants' PTSD symptoms. However, the TF-CBT group demonstrated greater improvements than the Child Centered Therapy group. In addition, the TF-CBT group demonstrated greater improvements for parents as well as children (Cohen et al., 2004). Not only has TF-CBT been deemed effective with child sexual abuse survivors, it has the most empirical support for this population compared to other treatment modalities (Deblinger et al., 2012).

Parenting Stress

Parenting stress is defined as the "psychological distress that arises from the demands of being parenting" (Deater-Deckard, 1998, p. 314). Parenting stress is "represented as a complex process linking (a) the task demands of parenting, (b) the parent's psychological well-being and behavior, (c) the qualities of the parent-child relationship, and (d) the child's psychosocial adjustment" (Gusler et al., 2023, p. 2). Many factors contribute to the level of parenting stress including parents' perceptions of their ability to fulfill their parenting role, parenting knowledge, perceived competence, and emotional support (Salloum et al., 2015).

Although parenting stress is a normal parenting experience, high levels of parenting stress have been associated with increased risk of psychopathology in both parents and children, increased negative interactions with children, and negative impacts on the parent-child relationship (Davies & Bennett, 2022; Hugill et al., 2017; Salloum et al., 2015). Furthermore, high levels of parenting stress can result in more harsh and punitive parenting styles, which may demonstrate lower emotional closeness to their children (Hugill et al., 2017). These parenting

styles may exacerbate behavioral problems in children, which may increase levels of parenting stress causing a challenging cyclical relationship (Hugill et al., 2017).

Many studies have identified that parents experience heightened levels of parenting stress when the parent and/or their child have been exposed to a traumatic event (Hugill et al., 2017; Salloum et al., 2015). Moreover, parents experience significant parenting stress following a disclosure of CSA (Davies & Bennett, 2022). However, in 2020 over 407,000 children were in the foster care system in the United States (Gusler et al., 2023). So, what role does parenting stress play in homes wherein the primary caregiver is not a biological parent? Research has shown that foster or adoptive caregivers report higher dysfunction in their parent-child relationships than relative caregivers (Gusler et al., 2023). Additionally, it was found that different profiles of parenting stress exist for relative caregivers compared to foster or adoptive caregivers (Gusler et al., 2023).

As previously referenced, biological parents reported high levels of parenting stress following disclosure of child sexual abuse, whereas foster caregivers reported less parenting stress initially, but higher levels of parenting stress over time, particularly in relation to perceiving the child's behavior as challenging (Davies & Bennett, 2022; Gusler et al., 2023). In fact, parenting stress of foster mothers was greater than that of biological mothers when a child was in their care for an average of 17 months (Gusler et al., 2023). Therefore, it is hypothesized that biological caregivers may experience more self-blame related to their child's trauma, whereas foster or adoptive caregivers experience difficulties adjusting to the child's behavior resulting in differing profiles of parenting stress (Gusler et al., 2023).

Research has determined a relationship between childhood maltreatment and negative effects on parenting abilities (Hugill et al., 2017; Lange et al., 2019). For example, childhood physical abuse has been associated with increased hostile behavior towards their child, whereas

childhood sexual abuse has been associated with decreased involvement with their child (Lange et al., 2019). Similarly, multiple studies in a meta-analysis demonstrated a direct association between parental experiences of child sexual abuse and later parenting stress (Hugill et al., 2017). Parental ACEs have also demonstrated significant relationships with levels of parenting stress (Lange et al., 2019). As a result of the demonstrated negative impact of parental childhood maltreatment on later parenting abilities and stress interventions and policy initiatives should be implemented in an attempt to prevent the development of ACEs.

Chapter 3: Rationale for Current Study

Currently, the research has demonstrated clear connections between parental substance use and poor outcomes on children and families, high comorbidity of sexual trauma and substance use among victims, and the impacts of intergenerational trauma. However, most of the research regarding substance use and child sexual abuse tends to focus on overlap between trauma histories and substance use in survivors of trauma. While these findings are an important contribution to the field and assist in the conceptualization, treatment, and diagnosis of these clients from a clinical perspective, it does not identify the relationship between parental substance use and posttraumatic stress symptoms. This gap in the research is important because parental substance use has been identified as an ACE as well as child sexual abuse. Subsequently, examining the compounding effects of these traumatic experiences together should be evaluated to determine possible changes in conceptualization, intervention, and treatment.

Chapter 4: Study Objectives and Hypotheses

The following study objectives and hypotheses are proposed:

Objective 1: To determine the impact of non-offending caregivers' substance use on posttraumatic stress symptoms in survivors of child sexual abuse.

Hypothesis 1.1: Survivors of child sexual abuse will have higher mean baseline scores on measures of posttraumatic stress symptoms (as measured by the TSCC and TSCYC) in the presence of non-offending caregiver substance use (as measured by self-report) than non-offending caregivers not endorsing substance use.

Objective 2: To determine the correlation between intergenerational trauma and posttraumatic stress symptoms.

Hypothesis 2.1: Survivors of child sexual abuse will have higher mean baseline scores on measures of posttraumatic stress symptoms (as measured by the TSCC and TSCYC) in the presence of intergenerational trauma (as measured by self-report and endorsements on the ACE-Q) than survivors not endorsing intergenerational trauma.

Objective 3: To determine the correlation between intergenerational trauma and non-offending caregivers' substance use and the overall impact on posttraumatic stress symptoms in survivors of child sexual abuse.

Hypothesis 3.1: Intergenerational trauma (as measured by self-report and endorsements on the ACE-Q) and substance use (as measured by self-report) will be positively correlated in non-offending caregivers.

Hypothesis 3.2: Survivors of child sexual abuse will have higher mean baseline scores on measures of posttraumatic stress symptoms (as measured by the TSCC and TSCYC) in the presence of both intergenerational trauma (as measured by self-report and endorsements on

the ACE-Q) and substance use (as measured by self-report) than survivors of child sexual abuse that did not endorse either of these variables.

Objective 4: To determine the role of parenting stress on the levels of posttraumatic stress symptoms in survivors of child sexual abuse.

Hypothesis 4.1: Non-offending caregivers mean levels of parental stress at baseline (as measured by the PSI-4 and SIPA) will be positively correlated with survivors of child sexual abuse's posttraumatic stress symptoms (as measured by the TSCC and TSCYC).

Hypothesis 4.2: Non-offending caregivers will have higher mean baseline scores on measures of parental stress (as measured by the PSI-4 and SIPA) in the presence of intergenerational trauma (as measured by self-report and endorsements on the ACE-Q) than non-offending caregivers not endorsing intergenerational trauma.

Hypothesis 4.3: Non-offending caregivers will have higher mean baseline scores on measures of parental stress (as measured by the PSI-4 and SIPA) in the presence of substance use (as measured by self-report) than non-offending caregivers not endorsing substance use.

Chapter 5: Methods

Participants in this study were selected from archival data from the Family Learning Program (FLP), a Sexual Abuse Treatment Program (SATP) sponsored by the Florida Department of Health. As of May 2023, FLP was no longer funded through the Florida Department of Health, however, all data was generated prior to that time.

FLP utilized a family-focused model of treatment to provide services of child sexual abuse survivors ages 3 to 17 and non-offending family members, such as caregivers and siblings. Although FLP's main modality of treatment was group therapy, other services such as individual therapy, family therapy, couples therapy, safety planning, and treatment planning were also provided throughout treatment as clinically indicated. FLP utilized components of Trauma Focused-Cognitive Behavioral Therapy and other evidence-based and evidence-supported treatment interventions.

During the onset of treatment, clients participated in psychological assessments to identify symptoms and areas of need. All family members completed age-appropriate assessments. Assessments that were utilized include The Adult Hope Scale, The Children's Hope Scale, The Trauma Symptom Checklist for Children (TSCC), The Trauma Symptom Checklist for Young Children (TSCYC), The Child Revised Impact of Events Scale - 13 (CRIES-13), The Parent Stress Index - Fourth Edition (PSI-4), The Stress Index for Parents of Adolescents (SIPA), Adverse Childhood Events Questionnaire (ACE), Patient Health Questionnaire (PHQ), Protective Factors Survey - Second Edition (PFS-2), and Belief in a Just World Scale (BJW). These assessments were readministered after six months of treatment for midpoint assessments and upon discharge to assess treatment progress and outcomes. For the purposes of this study, only baseline assessments were utilized.

Authorization was obtained from the Florida Institute of Technology Institutional Review Board on April 14, 2023 to utilize the Family Learning Program's archival data. Data were entered and stored within a HIPAA-compliant database, and all personal identifying information was de-identified to maintain confidentiality. Descriptive statistics were initially analyzed to examine demographic variables including age, race, and gender of participants. Descriptive statistics were also utilized to record the means and standard deviations for posttraumatic stress symptoms and parenting stress. Posttraumatic stress symptoms were retrieved directly from the TSCC or the TSCYC dependent upon the age of the participant. Levels of parenting stress were retrieved directly from the PSI-4 and the SIPA, also dependent upon the age of the child in which the non-offending caregiver completed the measure on. All symptoms were recorded based on the score of the assessments.

Intergenerational trauma and non-offending caregiver substance use were coded based on client intake summaries, demographic information, and endorsements from the ACE-Q. Data was coded numerically assigning numbers for each variable such as 1= yes and 0= no. Intergenerational trauma was deemed yes if the non-offending caregiver endorsed a personal history of sexual abuse in addition to the victim's personal history of sexual abuse. Non-offending caregiver substance use was deemed yes if the non-offending caregiver endorsed any substance use including nicotine and alcohol during a time in which the substance use could be observed by their child (i.e., since the child's birth).

Measures

Identifying Information. Participant demographics were obtained from the identifying information forms. There are two versions of this form, including an adult form for non-offending caregivers, and a child form for victims and siblings. Demographic variables that were obtained from these forms include age, race/ethnicity, and gender. On the adult identifying

information form, information regarding substance use was also obtained and used as a source to identify parental substance use.

Clinical Intake Interview Form. FLP clinicians utilized a standard intake template when conducting intakes to ensure consistent report information and compliance with Florida Department of Health guidelines, which allowed for standardization across intake interviews and documentation. There are two versions of the clinical intake interview form, including a child/adolescent version and a non-offending caregiver version. Each version provides guidance on information for clinicians to gather during the initial clinical interview. Variables that were obtained from these forms include endorsements of caregiver substance use and endorsements of intergenerational trauma that will be corroborated with reported ACEs. For non-offending caregivers that endorsed a personal history of sexual abuse during their intake, they were coded as a 1. For caregivers that did not endorse a personal history of sexual abuse during their intake, they were coded as a 0. These scores were coded for the intergenerational trauma variable. In addition, if non-offending caregivers reported any substance use including alcohol or nicotine during the duration of their child's life, they were coded as a 1. If they did not endorse substance use during the duration of their child's life, they were coded as a 0. These scores were coded for the substance use variable.

Adverse Childhood Experiences Questionnaire (ACE-Q). The ACE-Q is a 10-item scale used to determine experiences with childhood maltreatment and adverse rearing contexts (Felitti et al., 1998). The ACE-Q has been adapted into three versions including the ACE-Q child, the ACE-Q teen, and the ACE-Q adult. All three versions of the ACE-Q were utilized in this study to examine adverse childhood experiences such as the presence of intergenerational trauma and caregiver substance use. For the intergenerational trauma variable, the non-offending caregiver's ACE-Q adult was evaluated. If a non-offending caregiver endorsed item 3 (Did an adult or

person at least 5 years older than you ever touch or fondle you or have you touch their body in a sexual way? *or* Attempt or actually have oral, anal, or vaginal intercourse with you?) then they were coded as a 1. In addition, for the caregiver substance use variable, the ACE-Q child and teen versions were evaluated. If a victim endorsed the following item in section 1: living with someone who had a problem with drinking or using drugs, then they were coded as a 1.

Trauma Symptom Checklist for Children (TSCC). The TSCC is a 54-item measure utilized to evaluate posttraumatic stress and psychological symptomatology in children ages 8 to 16 (Briere, 1996). The completion time of this assessment is approximately 15-20 minutes. The TSCC consists of two subscales (General Trauma and Sexual Concerns), six clinical scales (Anxiety, Depression, Anger, Posttraumatic Stress, Dissociation, Sexual Concerns), and eight critical items. Individuals rate symptoms on a four-point Likert Scale from zero (never) to three (almost all of the time). In addition, there are two embedded validity scales to assess under and over reporting of symptoms (*Underresponse* and *Hyperresponse*; Briere, 1996). Based on the scores reported for each scale, a T-score is identified based on the age and gender of the client.

The original sample of 3,008 children was used to determine the internal consistency of the assessment (Briere, 1996). Specifically, the Cronbach's alpha coefficient for the Posttraumatic Stress scale demonstrated good reliability (.87), which is notable as this scale was utilized in this study. The TSCC demonstrated high internal consistency for five of the six clinical scales with Cronbach's alpha coefficients ranging from .82 to .89 each scale, with an average of .84 (Anxiety - .82; Depression - .86; Anger - .89; Posttraumatic Stress - .87; Dissociation - .83). The last clinical scale, Sexual Concerns, was moderately reliable and demonstrated a Cronbach's alpha of .77.

Trauma Symptom Checklist for Young Children (TSCYC). The TSCYC is a 90-item measure completed by the caregiver to measure acute and chronic posttraumatic

symptomatology in children ages 3 to 12 (Briere, 2005). The completion time of this assessment is approximately 15-20 minutes. The TSCYC consists of two subscales (General Trauma and Sexual Concerns), eight clinical scales (Anxiety, Depression, Anger/Aggression, Posttraumatic Stress-Intrusion, Posttraumatic Stress-Avoidance, Posttraumatic Stress-Arousal, Dissociation, Sexual Concerns), and a summary scale. Caregivers rate 90 symptoms on a four-point Likert Scale from one (not at all) to four (very often) over the proceeding 30 days. In addition, there are two embedded validity scales to assess under and over reporting of the child's symptoms (*Response Level* and *Atypical Response*). The TSCYC contains separate norms for males and females of three ages group: 3-4 years, 5-9 years, and 10-12 years (Briere, 2005). Based on the scores reported for each scale, a T-score is identified based on the age and gender of the client. The Posttraumatic Stress scales are combined to create a Posttraumatic Stress – Total T-score, which was utilized in this study to examine levels of posttraumatic stress symptoms based on the caregiver's report.

A validation sample of 219 of the children from the original standardization sample (N = 750) was used to determine the internal consistency of the assessment (Briere, 2005). The Posttraumatic Stress – Total scale demonstrated the highest internal consistency of all of the clinical scales. This is noteworthy as this is the clinical scale that was utilized in this study. The TSCYC demonstrated relatively high internal consistency for the clinical scales with Cronbach's alpha coefficients ranging from .73 to .86 in the validation sample (Anxiety - .78; Depression - .84; Anger/Aggression - .91; Posttraumatic Stress-Intrusion - .87; Posttraumatic Stress-Avoidance - .82; Posttraumatic Stress-Arousal - .85; Posttraumatic Stress-Total - .93; Dissociation - .91; Sexual Concerns - .81).

Additionally, 33 individuals were randomly selected from the standardization sample to evaluate the test-retest reliability of the TSCYC (Briere, 2005). Initially a Pearson correlation

was computed, but then these scores were corrected due to variability of the sample. The corrected *r* values ranged from .68 to .96 on the clinical scales. The clinical scales received the following corrected *r* values: Anxiety (.89), Depression (.90), Anger/Aggression (.96), (Briere, 2005). Posttraumatic Stress-Intrusion (.68), Posttraumatic Stress-Avoidance (.82), Posttraumatic Stress-Arousal (.91), Posttraumatic Stress-Total (.87), Dissociation (.96), and Sexual Concerns (.96)

Parenting Stress Index – Fourth Edition (PSI-4). The PSI-4 is a 120-item measure of parenting stress in caregivers of children ages 0-12 years old (Abidin, 2012). The assessment is completed by the caregiver and takes approximately 20 minutes for completion. In addition, there is a short form version of the PSI-4 available. The PSI-4 focuses on three domains of stress including the Child Domain, Parent Domain, and Life Stress. Within the Child Domain, there are six subscales including Distractibility/Hyperactivity, Adaptability, Reinforces Parent, Demandingness, Mood, and Acceptability. Within the Parent Domain, there are seven subscales including Competence, Isolation, Attachment, Health, Role Restriction, Depression, Spouse/Parenting Partner Relationship. Each subscale measures the caregiver's perceived level of stress related to each scale and is not indicative of the child or caregiver's actual behavior. The Life Stress Scale measures the number of stressful life events experienced by the caregiver within the last year. Finally, the Total Stress Scale represents the overall parenting stress across all domains (Abidin, 2012).

The PSI-4 demonstrates variable reliability amongst its subscales (Abidin, 2012). The original sample of 1,056 parents was used to determine the internal consistency of the assessment. Coefficient alpha reliability coefficients ranged from .75 to .98 on each scale. The Total Stress scale had a coefficient alpha of .98, which demonstrates excellent reliability. This is notable as the Total Stress scale was utilized in this study. The coefficient alphas for each scale is

as follows: Child Domain (.96), Distractibility/Hyperactivity (.78), Adaptability (.83), Reinforces Parent (.80), Demandingness (.84), Mood (.79), Acceptability (.88), Parent Domain (.96), Competence (.86), Isolation (.79), Attachment (.86), Health (.75), Role Restriction (.81), Depression (.87), Spouse/Parenting Partner Relationship (.86), and Total Stress (.98). Additionally, the manual presented a sample of 30 mothers for a clinical sample to examine test-retest reliability (Abidin, 2012). The results indicated stability across the scores with the following correlation coefficients: Child Domain (.63), Parent Domain (.91), and Total Stress (.96) (Abidin, 2012).

Stress Index for Parents of Adolescents (SIPA). The SIPA is a 112-item measure of parenting stress for caregivers of adolescents ages 11-19 years old (Sheras et al., 1998). The assessment is completed by the caregiver and takes approximately 20-30 minutes for completion. The SIPA consists of domains including the Adolescent Domain, Parent Domain, Adolescent-Parent Relationship Domain, Life Stress Scale, and Total Parenting Stress. Within the Adolescent Domain, there are four subscales including Moodiness/Emotional Lability, Social Isolation/Withdrawal, Delinquency/Antisocial, and Failure to Achieve or Persevere. These subscales measure the caregiver's perceived level of stress regarding different facets of their adolescent's life, however, are not indicative of the adolescent's actual behavior. Within the Parent Domain, there are four subscales including Life Restrictions, Relationship with Spouse/Partner, Social Alienation, and Incompetence/Guilt. Similarly, the subscales in the Parent Domain measure the caregiver's perceived level of stress related to each characteristic. The Adolescent-Parent Relationship Domain does not consist of subscales; however, the domain score reflects the parent or caregivers perceived quality of the relationship with the adolescent. Additionally, the Life Stress Scale measures the number of stressful life events experienced by the caregiver within the past year. Lastly, the Total Parenting Stress Scale represents the overall

parenting stress across all domains (Sheras et al., 1998). This study utilized the Total Parenting Stress Scale percentile score to examine levels of parental stress in non-offending caregivers.

The SIPA demonstrates adequate reliability (Sheras et al., 1998). The manual presented a sample of 46 parents from the original 778 in which the test was normed on to examine the test-retest reliability. Cronbach's alpha ranged from .83 to .93 on each scale, with an average of .85. The Adolescent Domain received a Cronbach's alpha of .92 and the scales within this domain received the following: Delinquency/Antisocial (.83), Moodiness/Emotional Liability (.90), Failure to Achieve or Persevere (.91), and Social Isolation (.75). Additionally, the Parent Domain received a Cronbach's alpha of .87 and the scales within this domain received the following: Life Restrictions (.85), Relationship with Spouse/Partner (.85), Social Alienation (.74), Incompetence/Guilt (.83), and Adolescent/Parent Relationship (.91). The Index of Total Parenting Stress, which is the scale that was utilized in this study, demonstrated a Cronbach's alpha of .93.

Additionally, the original sample of 778 parents was used to determine the internal consistency of the assessment (Sheras et al., 1998). Cronbach's alpha ranged from .81 to .97 on each scale, with an average of .89. The Cronbach's alpha for each scale is as follows: Adolescent Domain (.95), Delinquency/Antisocial (.90), Moodiness/Emotional Liability (.90), Failure to Achieve or Persevere (.90), Social Isolation (.85), Parent Domain (.94), Life Restrictions (.89), Relationship with Spouse/Partner (.81), Social Alienation (.81), Incompetence/Guilt (.82), and Adolescent/Parent Relationship (.91). The Index of Total Parenting Stress had a Cronbach's alpha of .97 (Sheras et al., 1998).

Participants

Data were collected from the clinical database through the Community Psychological Services at the Florida Institute of Technology, encompassing participants in the FLP program

from 2014 to 2023. The dataset included 90 victim/non-offending caregiver combinations, for a total of 141 participants. Of the 141 participants, 64 (45.4%) were child/adolescent victims and 77 (54.6%) were non-offending caregivers. Of the child/adolescent victim group, 70.3% (45) were female, while 29.7% (19) were male. Additionally, 37 (57.8%) were Caucasian, 12 (18.8%) were African American, 10 (15.6%) were Hispanic, 4 (6.3%) were multi-racial, and 1 (1.6%) were Asian. The child/adolescent victim group had an average age of 11.17 (*SD* = 3.84). Of the non-offending caregiver group, 72.7% (56) were female, while 27.3% (21) were male. Additionally, 58 (75.3%) were Caucasian, 10 (13.0%) were African American, 8 (10.4%) were Hispanic, and 1 (1.3%) were multi-racial. The non-offending caregiver group had an average age of 42.60 (*SD* = 10.97). Please see *Table 1* and *Table 2* for demographic information. Participants were omitted if they did not complete an intake and/or baseline assessments and if their baseline assessments were deemed invalid. Three participants were omitted from this study due to invalid profiles on the TSCC. These participants received Hyperresponse scores of 106, 107, and 110, which exceed the cutoff scores based off of gender and age. Participants were also omitted if a victim presented to treatment without an accompanying non-offending caregiver, or if a research consent was not obtained by the participant.

Chapter 6: Results

The primary goal of this study was to examine the prediction that non-offending caregiver substance use effects posttraumatic stress symptoms in survivors of child sexual abuse. To accomplish this, two groups were formed, one with non-offending caregiver substance use and one without non-offending caregiver substance use. This goal, as well as the impact of non-offending caregiver substance use on other variables is addressed in the hypotheses below. A series of *t*-tests and correlational analyses examined the differences and correlations of posttraumatic stress symptoms and parenting stress with the presence of intergenerational trauma and non-offending caregiver substance use. All analyses were conducted using the Statistical Package for the Social Sciences (SPSS) version 28.

To test the hypotheses in this study, three primary analyses were utilized: independent-samples *t*-test, chi square, and Pearson correlation coefficient. A pre-hoc power analysis, setting the alpha to .05, beta to .8, and an estimated effect size of medium, set the recommended *N* to 24. The *N* for Hypothesis 1.1, 2.1, 3.1, 4.1, 4.2, and 4.3 was 90. The *N* for Hypothesis 3.2 was 48.

Hypothesis 1.1

Survivors of child sexual abuse will have higher mean baseline scores on measures of posttraumatic stress symptoms (as measured by the TSCC and TSCYC) in the presence of non-offending caregiver substance use (as measured by self-report) than non-offending caregivers not endorsing substance use.

An independent-samples *t*-test was performed to examine if survivors of child sexual abuse posttraumatic stress symptoms were higher in the presence of non-offending caregiver substance use. Results from 90 participants (38 with substance use, 52 without substance use) showed that the substance use group (M = 59.87, SD = 19.24) did not have significantly higher levels of posttraumatic stress symptoms than the non-substance use group (M = 59.65, SD =

19.50), $t(88) = 0.05$, $p = .479$ (see *Table 3*). The mean difference was 0.22, with a 95% CI [-8.01,8.44]. The hypothesis was not supported.

Hypothesis 2.1

Survivors of child sexual abuse will have higher mean baseline scores on measures of posttraumatic stress symptoms (as measured by the TSCC and TSCYC) in the presence of intergenerational trauma (as measured by self-report and endorsements on the ACE-Q) than survivors not endorsing intergenerational trauma.

An independent-samples *t*-test was performed to examine if survivors of child sexual abuse posttraumatic stress symptoms were higher in the presence of intergenerational trauma. Results from 90 participants (44 with intergenerational trauma, 46 without intergenerational trauma) showed that the intergenerational trauma group ($M = 60.55$, $SD = 17.52$) did not have significantly higher levels of posttraumatic stress symptoms than the non-intergenerational trauma group ($M = 58.98$, $SD = 21.00$), $t(88) = 0.38$, $p = .351$ (see *Table 4*). The mean difference was 1.57, with a 95% CI [-6.55, 9.69]. The hypothesis was not supported.

Hypothesis 3.1

Intergenerational trauma (as measured by self-report and endorsements on the ACE-Q) and substance use (as measured by self-report) will be positively correlated in non-offending caregivers.

A chi-square test of independence indicated that there was not a significant association between intergenerational trauma and substance use in non-offending caregivers, $x^2(1) = 0.37$, $p = .544$, phi coefficient = .06 (see *Table 5*). The hypothesis was not supported.

Hypothesis 3.2

Survivors of child sexual abuse will have higher mean baseline scores on measures of posttraumatic stress symptoms (as measured by the TSCC and TSCYC) in the presence of both

intergenerational trauma (as measured by self-report and endorsements on the ACE-Q) and substance use (as measured by self-report) than survivors of child sexual abuse that did not endorse either of these variables.

An independent-samples *t*-test was performed to examine if survivors of child sexual abuse posttraumatic stress symptoms were higher in the presence of both intergenerational trauma and non-offending caregiver substance use. Results from 48 participants (20 with both intergenerational trauma and substance use, 28 without intergenerational trauma or substance use) showed that the group with both intergenerational trauma and substance use (M = 61.70, SD = 19.10) did not have significantly higher levels of posttraumatic stress symptoms than the group without intergenerational trauma or substance use (M = 59.71, SD = 22.09), $t(46) = -0.32$, p = .374 (see *Table 6*). The mean difference was -1.99, with a 95% CI [-14.30, 10.33]. The hypothesis was not supported.

Hypothesis 4.1

Non-offending caregivers' mean levels of parental stress at baseline (as measured by the PSI-4 and SIPA) will be positively correlated with survivors of child sexual abuse's posttraumatic stress symptoms (as measured by the TSCC and TSCYC).

In order to test the hypothesis, a Pearson product-moment correlation was conducted on 90 participants. Non-offending caregiver levels of parenting stress (M = 63.88, SD = 28.17) was not significantly correlated with survivors of child sexual abuse posttraumatic stress symptoms (M = 59.74, SD = 19.28), r = .12, p = .128 (see *Table 7*). The hypothesis was not supported.

Hypothesis 4.2

Non-offending caregivers will have higher mean baseline scores on measures of parental stress (as measured by the PSI-4 and SIPA) in the presence of intergenerational trauma (as

measured by self-report and endorsements on the ACE-Q) than non-offending caregivers not endorsing intergenerational trauma.

An independent-samples *t*-test was performed to examine if non-offending caregivers parental stress was higher in the presence of intergenerational trauma. Results from 90 participants (44 with intergenerational trauma, 46 without intergenerational trauma) showed that the group with intergenerational trauma (M = 68.95, SD = 26.22) had significantly higher levels of parenting stress than the group without intergenerational trauma (M = 59.02, SD = 29.39), t(88) = 1.69, $p < .05$ (see *Table 8*). The mean difference was 9.93, with a 95% CI [-1.75, 21.62] and reflects a small effect size with Cohen's d = -.36. The hypothesis was supported.

Hypothesis 4.3

Non-offending caregivers will have higher mean baseline scores on measures of parental stress (as measured by the PSI-4 and SIPA) in the presence of substance use (as measured by self-report) than non-offending caregivers not endorsing substance use.

An independent-samples *t*-test was performed to examine if non-offending caregivers parental stress was higher in the presence of caregiver substance use. Results from 90 participants (38 with substance use, 52 without substance use) showed that the group with substance use (M = 59.29, SD = 34.00) did not have significantly higher levels of parenting stress than the group without substance use (M = 67.23, SD = 22.79), $t(88) = 1.33$, $p = .094$ (see *Table 9*). The mean difference was 7.94, with a 95% CI [-3.96, 19.84]. The hypothesis was not supported.

Chapter 7: Discussion

Both exposure to caregiver substance use and child sexual abuse are considered to be adverse childhood experiences (Felitti et al., 1998). Research has consistently shown that the presence of multiple childhood exposures has long-term consequences including but not limited to negative effect on health, development of substance use disorders, and premature death (Dube et al., 2002; Felitti et al., 1998; Merrick et al., 2017; Monnat & Chandler, 2015). Although studies have not identified the effect of multiple adverse childhood experiences on posttraumatic stress symptoms, this study predicted that a relationship would exist between non-offending caregiver substance use and posttraumatic stress symptoms due to the established literature on other negative long-term effects (i.e., negative impact on health, development of mental health disorders, development of substance use disorders, and premature mortality) of multiple adverse childhood experiences endorsements. However, the current study did not find a significant relationship between non-offending caregiver substance use and posttraumatic stress symptoms for victims of childhood sexual abuse.

Although the concept of intergenerational trauma is a relatively new development in research, some studies have been conducted on the impact of intergenerational trauma on PTSD symptoms in children. A study conducted by Leslie et al. (2022) found that caregiver's adverse childhood experiences were significantly associated with their child's PTSD symptoms. Subsequently, this study predicted that survivors of child sexual abuse would have higher posttraumatic stress symptoms in the presence of intergenerational trauma. However, the results did not indicate a significant relationship between intergenerational trauma and survivor's posttraumatic stress symptoms. One explanation of this may be this study's definition of intergenerational trauma. For the purposes of this study, intergenerational trauma included

families with histories of child sexual abuse. However, the aforementioned study did not limit intergenerational trauma to child sexual abuse and included all adverse childhood experiences that are included on the adverse childhood experiences questionnaire. Additionally, the assessments used to measure posttraumatic stress symptoms are measures of trauma and are not exclusive to child sexual abuse. As a result, it is possible that the posttraumatic stress symptoms endorsed on these measures could be associated with other traumatic events (i.e., physical abuse, neglect, witnessing domestic violence, etc.) or intergenerational trauma impacting the overall posttraumatic stress symptoms used in this study.

Research has consistently demonstrated a connection between child sexual abuse and substance use behaviors (Briere & Elliott, 1994; Fletcher, 2021; Green, 1993; Holahan et al., 2001; Raghavan & Kingston, 2006; Ullman et al., 2013) Although the mechanisms are not completely understood, multiple hypotheses exist behind this relationship including the role of emotional regulation and self-medication. As such, this study predicted that a relationship would exist between intergenerational trauma and non-offending caregiver substance use. However, the results did not support this hypothesis. One possible reason for this could be related to the fact that both of these variables are likely to be under-reported as demonstrated in the research related to difficulties identifying the prevalence rates of child sexual abuse and substance use (Goldman & Padayachi, 2000).

In addition, the threshold for endorsements of substance use in this study was relatively low. In order for substance use to be considered in this study, the non-offending caregiver or the survivor of child sexual abuse must have endorsed the use of any substance, including tobacco and alcohol, in the presence of the child. No numerical value cut-off score was established. Previous literature has utilized other mechanisms of measurement for substance use including

assessments such as the Brief COPE, Michigan Alcoholism Screening Test, Addiction Severity Index, and the Drug Abuse Screening Test (Raghavan & Kingston, 2006; Ullman et al., 2013). Similarly, studies have utilized a coding system to code substance use based on frequency and quantity reported (Holahan et al., 2001).

As mentioned previously, intergenerational trauma and parental substance use are both considered to be adverse childhood experiences, which increase an individual's chances of long-term negative consequences including mental illness, such as PTSD, poor health, and premature mortality (Dube et al., 2002; Felitti et al., 1998; Leslie et al., 2022; Merrick et al., 2017; Monnat & Chandler, 2015). Given this information, this study expected to find a stronger correlational relationship between victim posttraumatic stress symptoms and the presence of both intergenerational trauma and non-offending caregiver substance use. However, the results did not support this hypothesis. One possible reason for this may be related to the operational definitions of both variables, intergenerational trauma and parental substance use, utilized in this study. The threshold for a positive endorsement of parental substance use was relatively low, as we included any parental substance use that could have been observed by the child including alcohol and nicotine use. However, this study did not identify a particular amount or frequency of substance use for inclusion, thus the threshold was relatively low. Similarly, intergenerational trauma in this study was identified as a family history of child sexual abuse. However, other literature expands upon the definition of intergenerational trauma and does not specify that the types of trauma endured have to be consistent. Overall, the operational definitions in this study may have restricted the variance resulting in non-significant results.

Previous research has demonstrated that non-offending caregivers of survivors of child sexual abuse experience clinically significant levels of parenting stress (Davies & Bennett,

2022). Non-offending caregivers of survivors of child sexual abuse are more likely to experience social isolation, judgement, or shame (Elliott & Carnes, 2001; Van Toledo & Seymour, 2013). High parenting stress has been linked as a risk factor for the development of psychopathology in the caregiver, increased negative interactions with their child, and impacts on the healing process of their child's trauma (Bux et al., 2016; Deater-Deckard, 1998; Holly et al., 2019; Neece et al., 2012; Ward & Lee, 2020). Similarly, non-offending caregivers of survivors of child sexual abuse experience higher than average levels of parenting stress compared to normative data. This is further supported by the large effect size of the mean differences between the normative data and the non-offending caregivers (Davies & Bennett, 2022). As such, the study predicted that non-offending caregivers' parental stress would be positively correlated with survivors of child sexual abuse posttraumatic stress symptoms. The results did not support this hypothesis. While it has been found that non-offending caregivers of survivors of child sexual abuse do experience higher levels of parenting stress, this study does not support the idea that the levels of parenting stress are related to the posttraumatic stress symptoms that the child is exhibiting. One possible reason for this could be related to the caregiver's relationship to the child. In this study, biological parents were included, but so were extended family members such as grandparents, as well as foster and adoptive parents. It is possible that extended family members and foster or adoptive parents may not experience heightened levels of parenting stress related to the child's posttraumatic stress symptoms due to the proximity of them to the child. The effects of the child's posttraumatic stress symptoms may not directly impact these caregivers in the same way that they may for a biological parent. However, this would be dependent on individual situations and future research should focus on factors that contribute to higher levels of parenting stress in those with a child survivor of child sexual abuse, such as relationship to the child.

As mentioned previously non-offending caregivers experience higher levels of parenting stress when their child has experienced child sexual abuse (Davies & Bennett, 2022), however, research has also found that parents and caregivers with a personal history of trauma exhibit heightened levels of parenting stress as well despite their child's abuse status (Davis & Bennett, 2022; Hugill et al., 2017; Salloum et al., 2015). The results of the current study identified a positive correlational relationship between non-offending caregivers parenting stress and intergenerational trauma. This is concurrent with the research that identified a relationship between child sexual abuse and parenting stress (Hugill et al., 2017) and dovetails with the long-term impacts of intergenerational trauma on adults (Burke et al., 2021). One possible interpretation of these results is that non-offending caregivers that have their own personal history of child sexual abuse as well as dealing with their child's disclosure of child sexual abuse may increase levels of parenting stress. This could be due to potential triggers they may experience and long-term effects of their trauma, such as PTSD, depression, and anxiety (Green et al., 1995; Hugill et al., 2017; Salloum et al., 2015). Future research would benefit from an evaluation of factors that contribute to increased parental stress in the presence of intergenerational trauma. Specifically, evaluating if a relationship exists between non-offending caregivers' long-term effects of their trauma (i.e., PTSD, depression, anxiety) and parenting stress. Additionally, evaluating if there is congruence between the abuse experienced by the child and the non-offending caregiver, such as both experiencing sexual abuse, if this contributes to higher parenting stress than different types of abuse (i.e., sexual and physical etc.). Increasing our understanding the mechanisms behind increased parental stress in the presence of intergenerational trauma would have significant clinical implications for trauma work.

The literature has determined that parental substance use is associated with increased likelihood of child maltreatment, child substance use, separation from parents, and increases in maladaptive behaviors including behavioral and psychological problems in children (Kepple, 2017; Lander et al., 2013; Ohannessian et al., 2004; Schroeder et al., 2006; Staton-Tindall et al., 2013). Based on these increased risks, this study hypothesized that non-offending caregivers would exhibit higher levels of parental stress in the presence of substance use. However, the results of this study did not support this prediction and no significant relationship existed between these variables. However, it is possible that the findings in the current study were not consistent with findings of previous literature based on the relationship of the caregiver to the child. Previous research has focused primarily on biological parents (Kepple, 2017; Lander et al., 2013; Ohannessian et al., 2004; Schroeder et al., 2006; Staton-Tindall et al., 2013), whereas this study included biological, foster, and adoptive parents as well as grandparents for the accompanying non-offending caregiver. Thus, it is possible that these caregivers may be less impacted by the negative consequences of substance use on children.

Study Limitations and Research Implications

There were a number of limitations to this study that may have led to rejection of the hypotheses that were divergent from the established literature. A pre-hoc power analysis set the recommended *N* to 24. The N for Hypothesis 1.1, 2.1, 3.1, 4.1, 4.2, and 4.3 was 90. The *N* for Hypothesis 3.2 was 48. All of the study sample sizes exceeded the recommended *N* suggesting sufficient power for each analysis. One hundred and ninety-three individuals from the data set were excluded from this study due not completing baseline assessments, the lack of an accompanying non-offending caregiver, or invalid assessment results. Due to the limited number of individuals that met the required inclusion criteria, this limited the overall sample size. There

might be a confounding self-selection bias for people who did meet the criteria vs. those who did not that restricted the experimental variance for this study.

Similarly, the COVID-19 pandemic resulted in a transition to telehealth services within the Family Learning Program for approximately two years. Thus, two of the nine years in which data was collected for this study was unable to be utilized in this data set. Due to copyright laws and test integrity, the TSCC, TSCYC, PSI-4, and SIPA were unable to be administered via telehealth. Consequently, intakes during this time period did not meet inclusion criteria for the study.

Additionally, the lack of uniformity of the assessments utilized presented a challenge for measuring posttraumatic stress symptoms and parenting stress amongst participants. Due to assessment age restrictions, multiple measures were utilized for the same variable (i.e., TSCC/TSCYC for posttraumatic stress symptoms and SIPA/PSI-4 for parenting stress). Unfortunately, research regarding the multicollinearity of these assessments is currently unavailable and the extent of this limitation is unknown. Future research should attempt to identify one assessment that can be utilized regardless of the child's age to ensure uniformity or determine the multicollinearity across these assessments.

Further, the assessments utilized in this study were all self-report in nature. Self-report answers may be exaggerated or over-reported, participants may be uncomfortable revealing private details, which can result in under-reporting, and social desirability bias may also influence assessment responses (Carroll, 1995; Goldman & Padayachi, 2000; Neale et al., 2006). As mentioned previously, child sexual abuse and substance use often go unreported due to a variety of reasons, such as recency and amount of substance use, legal implications, and possible negative judgement from others (Carroll, 1995; Goldman & Padayachi, 2000; Neale et al., 2006).

This may also have impacted the endorsements of intergenerational trauma and non-offending caregiver substance use in this study. Future studies may benefit from the inclusion of data from additional sources rather than just the participant at hand. Lastly, the lack of a control group in this study presented a limitation. Because the Family Learning Program is primarily focused on clinical treatment for victims of child sexual abuse, data was not available to form a control group.

Chapter 8: Conclusion

The primary aim of this study was to identify whether a relationship existed between non-offending caregiver substance use and posttraumatic stress symptoms in survivors of child sexual abuse. Based on a quantitative analysis of these variables, this study found no significant relationship between non-offending caregiver substance use and posttraumatic stress symptoms in survivors of child sexual abuse. Additionally, this study included secondary objectives to evaluate the impact of intergenerational trauma. This study examined the relationships between non-offending caregiver substance use and intergenerational trauma in relation to each other, parental stress, and posttraumatic stress symptoms. Based on a quantitative analysis of these various variables, the only significant relationship founded existed between intergenerational trauma and parental stress. This study clearly illustrates a positive correlational relationship between intergenerational trauma and parental stress, but it also raises the question of why this relationship exists and the factors that may contribute to this relationship. To better understand the implications of these results, future studies could address factors that may contribute to this relationship such as the relationship of the caregiver to the child, the overlap between traumatic experiences, and changes in levels of parental stress throughout treatment. In addition, identifying impacts on treatment outcomes in victims and their families and potential protective factors when intergenerational trauma is present would be useful to practitioners within the field. This information has the potential to better inform clinical decisions and client conceptualizations.

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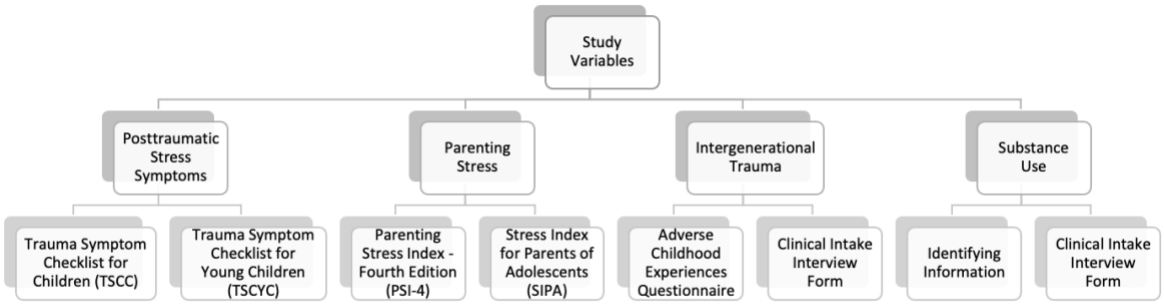
Appendix

Figures

Figure 1

Study Variables Flowchart.



Tables

Table 1

Participant demographic information.

Demographic Variable	Victims *n* (%)	NOC's *n* (%)
Gender		
Female	45 (70.3)	56 (72.7)
Male	19 (29.7)	21 (27.3)
Race		
Caucasian	37 (57.8)	58 (75.3)
African American	12 (18.8)	10 (13.0)
Hispanic	10 (15.6)	8 (10.4)
Multi-racial	4 (6.3)	1 (1.3)
Asian	1 (1.6)	-

Victim $N = 64$ and non-offending caregivers (NOC) $N = 77$.

Table 2

Means and standard deviations of participant ages.

Sample Group	*M*	*SD*
Victims	11.17	3.84
NOC's	42.60	10.97

Victim $N = 64$ and non-offending caregivers (NOC) $N = 77$.

Table 3

Independent Samples T-test of non-offending caregiver's substance use on post-traumatic stress symptoms.

Variable	N	Mean (*SD*)	t-value
Substance Use	38	59.87 (19.24)	0.05
No Substance Use	52	59.65 (19.50)	

Note. $p < .05$*

Table 4

Independent Samples T-test of intergenerational trauma on post-traumatic stress symptoms.

Variable	N	Mean (*SD*)	t-value
Intergenerational Trauma	44	60.55 (17.52)	0.38
No Intergenerational Trauma	46	58.98 (21.00)	

Note. $p < .05$*

Table 5

Results of Chi Square.

Group	Yes	No
Intergenerational Trauma	44	46
Substance Use	38	52
Both	20	70
Neither	28	62

χ^2 (1) = 0.37, p = .544, phi coefficient = .06

Table 6

Independent Samples T-test of both substance use and intergenerational trauma on post-traumatic stress symptoms.

Variable	N	Mean (*SD*)	t-value
Both	20	61.70 (19.10)	-0.32
Neither	28	59.71 (22.09)	

Note. $p < .05$*

Table 7

Pearson Correlation for parental stress and post-traumatic stress symptoms.

Variable	*M*	*SD*	1	2
1. Parental Stress	63.88	28.17	-	
2. PTSS	59.74	19.28	.12	

Note. $p < .05$*

Table 8

Independent Samples T-test of intergenerational trauma on non-offending caregiver's parenting stress.

Variable	N	Mean (*SD*)	t-value
Intergenerational Trauma	44	68.95 (26.22)	1.69*
No Intergenerational Trauma	46	59.02 (29.39)	

Note. $P < .05$*

Table 9

Independent Samples T-test of substance use on non-offending caregiver's parenting stress.

Variable	N	Mean (*SD*)	t-value
Substance Use	38	59.29 (34.00)	1.33
No Substance Use	52	67.23 (22.79)	

Note. $p < .05$*