Recommendations for Effective Intervention Approaches to Address Childhood Trauma

Approved: Dr. Mike Klemp-North Date: May 17, 2020

Recommendations for Effective Intervention Approaches to Address Childhood Trauma.

A Seminar Paper

Presented to the Graduate Faculty

University of Wisconsin – Platteville

In Partial Fulfillment of the Requirement for the Degree

Master of Science in Criminal Justice

Jasmine Peterson

May 2020

Acknowledgements

First and foremost, I would like to acknowledge my boys: Emmett, Wyatt and Jace. For two years, I have had to divide my focus between my degree work, my career, and my three young boys. Their love and understanding, despite not even realizing it due to their ages, has been something that I could not have completed this degree program without. I also need to acknowledge my husband for his support in my decision to pursue my degree. Also, I would not have been able to complete my degree without the emotional support I received from a number of friends and family. I want to thank my father, Dave, for all of his support and encouragement throughout my life and particularly through my completion of this degree. My in laws, Kathy and Greg, for their support with helping with the boys whenever needed and their continued encouragement. My friends, Debra and Staci, who were there through all the struggles and triumphs while they were pursuing their own degrees. And a huge thank you to my friend Ashley, who grounded me when needed and who provided feedback to help me succeed.

I would also like to thank the Marshfield Child Advocacy Center for their support with my internship experience, teaching me further about Adverse Childhood Experiences, as well as introducing me to Trust Based Relational Intervention.

Lastly, I would like to thank the UW-Platteville Criminal Justice Graduate Faculty. Particularly Dr. Mike Klemp-North and Dr. Amy Nemmetz. Both of these instructors provided more flexibility and understanding than I ever could have imagined in times that I needed it most in my degree program due to personal circumstances. I can honestly say that I would not have been able to complete my degree without their understanding, support, and guidance. I can never thank them enough!

Abstract

Adverse childhood experiences are present in all populations and have a long-lasting impact on a child's development. Research into adverse childhood experiences has shown a significant link to behavioral and emotional impacts of adverse childhood experiences, as well as negative physical health outcomes. Intervention is necessary to minimize these effects and stop the intergenerational cycle. This paper informs of the impacts of adverse childhood experiences and the comparison of current intervention approaches. The Life Course theory can be used to evaluate the impacts and needs due to adverse childhood experiences. There is currently no recommended universal approach to address adverse childhood experiences. Current interventions such as parenting interventions, educational interventions, and therapeutic interventions exist and show promise but do not utilize a collaborative approach or address the need for trusting relationships. Trust Based Relational Intervention, utilized as a collaborative multidisciplinary approach, will address the needs of children exposed to adverse childhood experiences. By further study and future recommendations, impacts of adverse childhood experiences on current and future generations can be minimized.

Table of Contents

APPROVAL PAGE i

TITLE PAGE ii

ACKNOWLEDGEMENTS iii

ABSTRACT iv

TABLE OF CONTENTS v

SECTIONS

I. INTRODUCTION 1

II. LITERATURE REVIEW 3

- A. Overview of Adverse Childhood Experiences
- B. Types of Child Maltreatment Impacting Adverse Childhood Experiences
  - i. Physical Abuse
  - ii. Sexual Abuse
  - iii. Emotional Abuse
  - iv. Neglect
    - a. Substance Abuse
    - b. Mental Health
- C. Impacts of Adverse Childhood Experiences
  - i. Neurobiology of Adverse Childhood Experiences
  - ii. Intergenerational trauma
  - iii. Misdiagnosis due to Trauma
- D. Comparison of Response to Adverse Childhood Experiences
  - i. Parenting Interventions
    - a. Love & Logic
    - b. Therapeutic Parenting
    - c. Circle of Security
  - ii. Educational Intervention: Conscious Discipline
  - iii. Therapeutic Interventions
    - a. Trauma Focused Cognitive Behavioral Therapy
    - b. Theraplay
    - c. Neurosequential Model of Therapeutics
    - d. Trust Based Relational Intervention
- E. Key Issues in Response

III. THEORETICAL FRAMEWORK 30

- A. Life Course Theory & Adverse Childhood Experiences

IV. SYSTEM RECOMMENDATIONS 34

A. Use of Trust Based Relational Intervention (TBRI) & Collaborative Approach

V. SUMMARY/CONCLUSION 37

VI. REFERENCES 39

I. Introduction

Adverse childhood experiences are a significant concern for children worldwide. There has been much research and information shared regarding Adverse Childhood Experiences in the United States and the negative outcomes that this can have on an individual long term, as well as the negative health outcomes. Adverse childhood experiences and negative health outcomes occur regardless of race, sex, socioeconomic status, or proximity/access to health care (Harris, 2018; Hughes et al, 2017). Hughes et al. (2017) estimated that about forty percent of American children will experience at least one adverse childhood experience before they turn eighteen.

Although adverse childhood experiences do not discriminate by race, minority population in the United States have been found to have higher rates of morbidity and mortality in certain negative health outcomes related to adverse childhood experiences such as pregnancy outcomes, childhood illness, and adult chronic disease (Salinas-Miranda, Salemi, King, Baldwin Berry, Austin, & Salihu, 2015). There are a number of reasons that minority populations may suffer from worse outcomes related to adverse childhood experiences. Some of these factors may include environment and economic factors, discrimination, racism, and lack of quality health care (Salinas-Miranda et al, 2015).

When adverse childhood experiences are not properly addressed, particularly for children who have experienced multiple adverse childhood experiences, they will suffer lifelong consequences. Research supports that children who have experienced neglect may engage in delinquent behaviors and be neglectful parents to their own children (Sudiyanto, 2018). These children are likely to continue the cycle of adverse childhood experiences with future generation, as they have not worked through their own trauma or learned appropriate coping skills to change the pattern (Hughes, Bellis, Hardcasetle, Sethi, Butchart, Mikton & Dunne, 2017). Early

identification and intervention of children exposed to adverse childhood experiences is necessary (Salinas-Miranda et al., 2015).

The purpose of this research paper is to argue that a best practice intervention such as Trust Based Relational Intervention, in conjunction with a collaborative approach, is more effective than current independent practices for children exposed to adverse childhood experiences. The methodology used for this paper will include research regarding adverse childhood experiences and future outcomes, intergenerational trauma, and current interventions for children who have experienced trauma. This will be secondary research and will include scholarly articles, textbooks, and other formal governmental reports/data. The research gathered will support the need for and utilization this best practice approach.

The anticipated contribution to the field of this research paper will be to provide support for and recommendations of a best practice intervention for children who have experienced adverse childhood experiences. The literature cited will support the intervention of Trust Based Relational Therapy, as well as a collaborative approach. Further research and implementation could lead toward a more preventative societal approach to child maltreatment as well as addressing adverse childhood experiences effectively, which could lead to cost savings in multiple areas such as the medial field, Child Protective Services field, and corrections/law enforcement by minimizing the long term effects of adverse childhood experiences.

II. Literature Review

A. Overview of Adverse Childhood Experiences

Adverse childhood experiences are events that a child has experienced which cause some level of trauma to the child which impacts their stress response system (Salinas-Miranda et al., 2015). Adverse childhood experiences have been a growing topic of discussion over the past decade. Adverse childhood experiences were brought to light by a study done by Dr. Vincent Felliti & Dr. Robert Anda. In this study, adverse childhood experiences were defined into the following 10 categories: emotional abuse, physical abuse, sexual abuse, physical neglect, emotional neglect, substance abuse in the household, mental illness in the household, mother treated violently, divorce or parental separation, and criminal behavior in household such as household member going to prison (Harris, 2018).

A person's adverse childhood experiences score is determined by adding the total number of adverse experience categories someone had up until age 18. With the ten categories of adverse childhood experiences, the highest score a person can have is a 10. The original adverse childhood experiences study by Dr. Felliti & Dr. Anda determined that 67% of the study population identified at least one adverse childhood experience, and 12% of the study population identified four or more adverse childhood experiences (Harris, 2018). The study was conducted with middle class individuals in San Diego, California; about 70% of the participants were Caucasian and about 70% were college educated (Harris, 2018). In data gathered by the Centers for Disease Control and Prevention, it is estimated that across 23 states, about 62% of adults reported at least one adverse childhood experience and almost 25% had experienced three or more adverse childhood experiences (Centers for Disease Control and Prevention, 2019).

It is important to have a clear understanding of the different categories of adverse childhood experiences. Child maltreatment is a major factor in adverse childhood experiences and includes emotional abuse, physical abuse, sexual abuse, and neglect. Other adverse childhood experiences, such as substance abuse in the household, mental illness in the household, domestic violence, and criminal behavior in the household are also factors that can increase the likelihood of child maltreatment. The category of divorce or parental separation is also important, as it involves a single parent household, which is also another potential risk factor for child maltreatment.

In 2012, approximately 676,000 children in America were victims of child maltreatment and about 1,750 of those had died due to their maltreatment (Tarantola, 2018). In 2018, it was estimated that about one in eight children in the United States experienced child maltreatment and 1,770 of those children died ("Preventing Child Abuse and Neglect," 2020). All of these estimates are likely less than the current number of children being maltreated, because child maltreatment is underreported (Perry & Szalavitz, 2017; Tarantola, 2018; "Preventing Child Abuse and Neglect," 2020). Most child maltreatment, other than physical abuse resulting in injury, is not likely to leave obvious outward physical symptoms. However, there are many signs of abuse that can be recognized by individuals appropriately trained to recognize the warning signs. For many children, mandated reporters such as school staff and physicians are essential to the child and family receiving necessary services to address maltreatment.

B. Types of Child Maltreatment Impacting Adverse Childhood Experiences

Physical abuse is one of the adverse childhood experiences identified. Physical abuse of a child is defined as the causing of a non-accidental injury (Child Welfare Information Gateway, 2019). Physical abuse can include things such as biting, hitting, kicking, burning, or other cause

of injury (Child Welfare Information Gateway, 2019). It is important to understand that physical abuse does include intentional harm to a child, but it also includes harm to a child as a result of inappropriate physical discipline. For example, if a parent loses their temper and spanks a child repeatedly, causing bruising, this is considered physical abuse. Although the parent may not have meant to cause the bruising to the child, the result of an injury still occurred and injuries to children are considered excessive discipline.

Sexual abuse of a child involves inappropriate sexual contact and/or intercourse. All states in the United State include sexual abuse as a form of child abuse and their definitions are similar (Child Welfare Information Gateway, 2019). Sexual abuse is done for the purpose of gratification of the perpetrator. Sexual abuse is more often perpetrated by someone the child is familiar with, which can have additional long-term emotional implications for the child. Sexual abuse perpetrated by a parent or primary caregiver is especially difficult for a child to process and cause significant emotional and/or behavior struggles for the child.

Emotional abuse is a more controversial form of child maltreatment. Emotional abuse is a negative impact to the emotional stability of the child and this must be shown by the child exhibiting an observable change in their emotional/mental health functioning, their behaviors, or their cognitive functioning to a substantial level (Child Welfare Information Gateway, 2019). This change in behavior can be considered observable by symptoms such as anxiety, depression, withdrawal, or aggression (Child Welfare Information Gateway, 2019). Emotional abuse has a long lasting negative impact on an individual’s resilience as well as their mental health, which supports that this is a significant topic of concern that should be addressed. However, emotional abuse is oftentimes the most difficult form of maltreatment to prove because there is oftentimes not a physical observable consequence to the child and it may be difficult to prove the child had

a substantial and observable change in behavior due to maltreatment. There are many different situations occurring with children every day and some of those situations involve other adverse childhood experiences which can also impact their functioning.

Child neglect is particularly harmful to a child's development because children who do not experience consistent physical affection, nurturing touch, or loving relationships lack the repetitive stimulation needed for proper brain growth and development (Perry & Szalavitz, 2017). Also due to this lack of growth and experience, these children do not receive necessary feedback in regards to human interactions (Perry & Szalavitz, 2017). Child neglect can also have unforeseen long-term consequences such as aggressive behaviors, difficulties relating to peers, delinquent behavior, and future maltreatment of their own children (Sudiyanto, 2018). This can create a cycle of negative outcomes because children with aggressive and delinquent behaviors who struggle with human interactions and lack age appropriate brain development will oftentimes get into trouble due to their behavior. What is perceived as their misbehavior can cause additional stress in the household and increase the risk of further maltreatment such as physical abuse, emotional abuse, or further neglect. Children who have been neglected also lack appropriate care modeling by their caregivers, therefore it may be difficult for these children to provide appropriate care and nurturing to their own children in the future.

Child neglect is essentially a primary caregiver's lack of necessary care to a child to the extent that it threatens the child's physical health, safety, and/or well-being (Child Welfare Information Gateway, 2019). Child neglect can cause immediate concerns in regards to inadequate care such as concerns related to lack of food, appropriate clothing, medical care, or shelter (Child Welfare Information Gateway, 2019). Child neglect can also involve concern for safety related to lack of supervision of a child that could result in serious harm (Child Welfare

Information Gateway, 2019). There are many reasons that a parent or caregiver may neglect their child. However, there are a couple that are common risk factors.

One of these risk factors is substance abuse. Between 2002-2007, it was estimated that over eight million children in the United States lived with at least one parent who was substance dependent. In 2012, almost 31% of children placed in the foster care system had been removed due to parental alcohol or substance abuse. This percentage differed between states, with some percentages of removal due to parental substance abuse being over 60% (Child Welfare Information Gateway, 2014).

Substance abuse involves a number of behaviors that may lead to additional risk factors for the individual struggling with substance abuse, as well as their child. Oftentimes a parent struggling with substance abuse may experience social isolation, poverty, unstable or inadequate housing, domestic violence, and other stressors (Child Welfare Information Gateway, 2014). This may support a repeated cycle of substance abuse for the parent. For example, if a parent is struggling with poverty due to using their money for illegal substances they may be unable to handle the stress of this feeling and this may lead them to continue to use their money for substances in an effort to make them feel better. In reality, they are spiraling further into the cycle of substance abuse and dependency.

Parental substance abuse impacts an individual's ability to function effectively as it can cause mental impairment to the point that the individual may not have the physical capacity to respond to the child's needs (Child Welfare Information Gateway, 2014). Parent's abusing substances may have difficulty regulating their emotions, particularly those such as anger and impulsivity, leading to an increased risk of child maltreatment (Child Welfare Information Gateway, 2014). Parental substance abuse can also impact the parent's ability to appropriately

understand their infant's cues and respond effectively to those cues (Meulewaeter et al., 2019). Parental substance abuse also has an impact on attachment between the child and infant (Child Welfare Information Gateway,2014; Meulewaeter et al., 2019).

All of these things impact the infant's development and even when substance abuse stops, the effects to both child and parent may continue without intervention (Meulewaeter et al., 2019). Parental substance abuse, particularly for mothers, is likely to impact their interaction and consistency with their child and have a significant negative impact on bonding (Meulewaeter et al., 2019). When a parent struggles with substance abuse, the disruption of attachment can continue to negatively impact the child by leading to further isolation (Child Welfare Information Gateway, 2014). For example, the child and parent may be estranged from family and other potential supports that could otherwise have a positive impact on the child's growth and development (Child Welfare Information Gateway, 2014). Children of substance dependent parents are at an increased risk for adverse childhood experiences and the negative consequences such as the following: difficulties with concentration and learning, difficulties controlling physical and emotional responses to stress, and difficulties forming trusting relationships (Child Welfare Information Gateway, 2014).

Another significant risk factor of childhood maltreatment, as well as adverse childhood experiences in general, is uncontrolled parental mental health. Mental health and substance abuse are often co-occurring disorders (Meulewaeter, De Pauw, & Vanderplasschen, 2019). Mental health problems, such as depression, impact more than 25% of the population during their lifetime and are present in all cultures (Smith, 2014). It is estimated that about one in four families has at least one individual family member with a behavioral and/or mental health disorder (Smith, 2014).

Mental health, particularly uncontrolled mental health, can have a significant impact on parenting practices. A caregiver struggling with uncontrolled mental health will likely have disruptions in parenting, such as a caregiver struggling with depression and therefore being unavailable to the child emotionally and at times physically due to their own thoughts and struggles (Smith, 2014). In more severe circumstances, such as a caregiver struggling with schizophrenia, this could expose their child to behaviors such as delusions, aggressive behavior, or neglectful behavior due to the caregiver's preoccupation with their own symptoms (Smith, 2014). Mental health can significantly impact a caregiver's ability to parent effectively, as well as to ensure proper care for their child. This can in turn lead to the potential for numerous adverse childhood experiences for that child.

C. Impact of Adverse Childhood Experiences

Adverse childhood experiences can have lifelong negative effects on health, wellbeing, and opportunity. Adverse childhood experiences can affect people physically by directly impacting brain growth and healthy brain development. It can also compromise the immune system and increase the likelihood of negative health outcomes. Adverse childhood experiences can also have an impact on social development, emotional development, and behavior. Some of the primary negative health outcomes that have been found to be associated with adverse childhood experiences include obesity, diabetes, depression, suicide attempts, STDs, heart disease, cancer, stroke, chronic obstructive pulmonary disease, and broken bones (Centers for Disease Control and Prevention, 2019).

An adverse childhood experiences score of seven or more triples the odds of getting lung cancer, and increases the odds of having ischemic heart disease by three and a half times (Harris, 2018). An adverse childhood experiences score of four or more doubles the likelihood to develop

heart disease or cancer in general and increases risk of developing chronic obstructive pulmonary disease by three and half times (Harris, 2018).

Studies have found that adverse childhood experiences impact the nervous, endocrine, and immune system due to chronic stress (Hughes et al., 2017). Individuals with multiple adverse childhood experiences are more susceptible to negative long term health outcomes as well as engaging in behaviors that negatively impact their health. Hughes et al. (2017) conducted a study in which a moderate association was found for smoking, heavy alcohol use, poor self\-rated health, cancer, heart disease and respiratory disease for individuals with multiple adverse childhood experiences. This study also found a strong association for problematic drug use and interpersonal and self-directed violence for individuals with multiple adverse childhood experiences (Hughes et al., 2017).

It is also important to note that chronic stress impacts the body and brain, therefore some impacts of chronic stress are present even when individuals engage in healthy and positive behaviors. Harris (2018) found that bad behavior accounted for only about 50% of an increased likelihood of disease for those who had adverse childhood experiences. This means even when individuals who had adverse childhood experiences engage in healthy behaviors and positive choices, they are still more likely to develop significant health problems (Harris, 2018).

Neurobiology of Adverse Childhood Experiences

To fully understand the impact adverse childhood experiences has on a developing brain, the neurobiology of trauma must be explored. Brain development is impacted by environmental experiences, and when this occurs it can permanently impact the expression of the genome (Anda et al, 2005). The following are the main components of the brain that are responsible for

the stress response system, i.e. fight, flight, or freeze responses: amygdala (brain fear center), prefrontal cortex (regulations cognitive and executive function), hypothalamic-pituitary-adrenal HPA (production of cortisol-long acting stress hormone), sympatho-adrenomedullary SAM (production of adrenaline and noradrenaline-short acting stress hormone), hippocampus (process emotional information), noradrenergic nucleus (within the brain stress response system that regulates mood, irritability, locomotion, arousal, attention, and startle response) (Harris, 2018). When the stress response system is dysregulated, this has a significant negative impact on the brain's functioning.

For example, the hippocampus plays a major role in memory storage and retrieval (Anda et al, 2005). Anda et al (2005) conducted a study which found that women who had been sexually abused as children had reductions in both the hippocampus and amygdala evidenced by an MRI. Dopamine plays a major role in substance abuse, as individuals struggling with substance abuse are oftentimes lacking appropriate dopamine levels and therefore seek alternatives to replace/increase the dopamine in their system to feel good. Anda et al. (2005) found that adverse childhood experiences can lead to increased activity in the locus coeruleus, increasing the release of norepinephrine in the brain, which is a stress hormone. Adverse childhood experiences may also disrupt the dopamine circuit in a developing brain (Anda et al., 2005). Substances such as alcohol, cigarettes, and other drugs may decrease the firing of the locus coeruleus which can lead individuals to feel better when they use substances and increase their negative side effects when they experience withdrawal from these substances (Anda et al., 2005). Substance use also increases dopamine levels, therefore making individuals feel better while under the influence of the substance (Anda et al., 2005). An individual who has struggled with adverse childhood experiences has an increased risk of smoking, alcohol abuse, and other

substance abuse to help improve their emotional feeling due to the physical impacts that adverse childhood experiences had on their brain development and function (Anda et al.., 2005).

There are three types of stress responses, which include positive stress response, tolerable stress response, and toxic stress response (Harris, 2018). Everyone experiences stress during their lives, therefore to have a healthy stress response system it is necessary to experience positive stress and tolerable stress (Harris, 2018). However, each adverse childhood experience leads an individual toward toxic stress rather than tolerable stress and when toxic stress occurs repeatedly in an individual due to repeated scenarios. This causes an extreme stress response and leads to a dysregulated stress response system (Harris, 2018). Children who experienced maltreatment have been found to have a higher overall cortisol level and a disruption of the normal daily cortisol pattern (Harris, 2018). This supports that repeated child maltreatment is an example of stress that could lead to a toxic stress response, and therefore cause a dysregulated stress response system.

Another important factor that the stress response system is responsible for is activation of the immune system. In cases of a dysregulated stress response system, this could suppress the immune system in some ways which can cause an increased likelihood of viruses and illnesses (Harris, 2018). A dysregulated stress response can also activate the immune system in other ways causing hypersensitivity leading to things such as allergies, eczema, and asthma (Harris, 2018). When the human body has a lowered immune system, this creates potential for illnesses and negative health outcomes to occur during the individual's lifetime.

Intergenerational trauma

Research has also shown the impact of trauma can be intergenerational, particularly due to the physical impact that trauma has on the human brain (Harris, 2018). It is well known that behavior is in part due to the environment and in part due to genetics. This is in part due to epigenetics, which is outside factors impacting an individual's DNA sequence (Harris, 2018). For example, children could be impacted by trauma that their parents were exposed to before their birth and possibly even before they were conceived (Yehuda & Lehrner, 2018). Yehuda & Lehrner (2018) shared research indicating that children of Holocaust survivors had risk factors of post-traumatic stress disorder and other mood disorders overall and this increased if they experienced their own traumatic exposure. Traumatic experiences during pregnancy can result in generations of trauma due to the child being impacted in utero and their germ cells being impacted as well (Yehuda & Lehrner, 2018). When an individual had adverse childhood experiences, those experiences can change how that individual's genetic code is read and expressed within their body. This change is then passed down from parent to child through their DNA, which causes the child's DNA to already contain genetic changes due to trauma (Harris, 2018).

Environmental circumstances can impact intergenerational trauma in other ways as well. For example, when an individual has adverse childhood experiences such as living with a parent struggling with substance abuse, their attachment is negatively impacted. When this occurs, it can lead to the parent feeling they are not capable of good parenting and the child experiencing emotional abuse and/or neglect (Meulewaeter et al., 2019). These negative effects on attachment between the child and parent can impact the child's parenting practices in the future and may lead to the child being abusive and/or neglectful to their own child (Meulewaeter et al., 2019).

Parental history of child maltreatment, if intervention does not occur, can increase the likelihood that the individual will expose their own child to adverse childhood experiences (Merrick & Guinn, 2018). This impact increases with each generation that does not receive intervention to counteract the adverse childhood experiences. Hughes et al. (2017) found that violence, mental illness, and problematic substance abuse as adverse childhood experiences are most likely to lead to adverse childhood experiences for the next generation, specifically exposure to parental domestic violence, mental illness, and substance abuse. This study also supports that adverse childhood experiences can be passed down from generation to generation and can trap these families into a cycle of negative effects, including illness and disease (Hughes et al., 2017).

Misdiagnosis of Adverse Childhood Experiences

Trauma has many impacts on the brain and body, which includes behavior. Harris (2018) found that an individual with four or more adverse childhood experiences is twice as likely to be physically overweight or obese, but also over 32 times as likely to be diagnosed with learning and/or behavioral problems. Adverse childhood experiences themselves do not directly cause learning or behavioral problems, however this is a common outcome for those exposed to adverse childhood experiences.

One consideration in regards to why these individuals are being diagnosed with learning or behavioral problems is how these learning or behavioral problems are defined. The Diagnostic and Statistical Manual of Mental Disorders (DSM) is utilized to diagnose defined mental disorders. However, Attention Deficit Hyperactivity Disorder (ADHD) is noted in the DSM to include symptoms of inattention, impulsiveness, and hyperactivity. Some potential behavioral problems related to adverse childhood experiences are significantly similar to those of ADHD. If

a diagnosing medical/mental health provider does not take potential adverse childhood experiences and the impact of those experiences into consideration, there is a high likelihood for a misdiagnosis of organic ADHD when the behavioral concerns and/or learning difficulties may instead be due to the trauma the child has experienced. This also means that prescribing medication for organic ADHD, in circumstances when the concerns are related to trauma, will not significantly improve the behavioral outcomes and have potential for increased side effects for the child and increased frustration for the parent due to the feeling that the medication is ineffective (Harris, 2018).

Children who experience adverse events are also at higher risk for additional mental health concerns and at risk behaviors. Anda et al. (2005) found that individuals who had experienced adverse childhood experiences had potential for increased unexplained panic, depression, anxiety, hallucinations, sleep problems, and impaired memory of childhood. Smith (2004) discussed estimates that children of a parent with depression are between two to five times more likely to develop problem behaviors than those without a parent with depression and about 40$ of children with a parent with depression had behavior or emotional problems. Individuals who had adverse childhood experiences also have an increased risk for behaviors such as smoking, alcohol or drug problems, and risky sexual behavior such as sexual relations with multiple partners (Anda et al., 2005).

In addition, there are lasting behavioral impacts such as lack of anger control, risk of aggression against intimate partners, and overall disruption of their ability to form long term healthy attachments in adulthood (Anda et al., 2005). Adverse childhood experiences impact a child's attachment, which can result in hyper activation as an adult (Meulewaeter et al., 2019). Examples of this could be the individual appearing to be overly demanding of affection, overly

sensitive in regards to fear of rejection, or over dependence of a partner (Meulewaeter et al., 2019). These unhealthy attachment behaviors can lead to additional relationship problems.

D. Comparison of Response to Adverse Childhood Experiences

Parenting & Educational Interventions

There are a number of programs geared toward parental education and skill building, oftentimes referred to as parenting programs. These programs are designed to provide education and/or skill building to caregivers of children. Sometimes these programs focus on children who have experienced trauma and sometimes they have a more general child discipline focus. Circle of Security is a video based parenting program, typically eight to ten weeks in length, which focuses on the science of attachment and the interactions between parents and children. There is also an intensive model of Circle of Security, which is the same video program conducted in a group setting for about a six month timeframe. This intensive version of the program allows caregivers to explore attachment and interactions further with a clinician experienced in Circle of Security and to go through this process over a longer period of time ("The Circle of Security International: Early Intervention Program for Parents & Children," n.d.).

Another parenting program, Therapeutic Parenting, is an approach for parents that focuses on intentional, connected parenting and involves both high structure and high nurture practices. The purpose of this approach is to attempt to help the child to feel safe and connected to the caregiver. Therapeutic parenting can involve a number of different strategies for parenting practices such as Circle of Security or Trust Based Relational Intervention, but the focus must be on a balance of high structure and high nurture by the caregiver ("Therapeutic Parenting," 2020).

Educational development is also impacted by adverse childhood experiences and these impacts differ with age. Preschool age children with adverse childhood experiences may be more easily frustrated, angrier, and more noncompliant while older children may struggle with things such as attention and executive functioning (Purvis, Milton, Harlow, Paris & Cross, 2015). Children with adverse childhood experiences are also more likely to be referred for disciplinary actions, special education services, and have higher rates of academic struggles than children who have not had traumatic experiences (Purvis et al., 2015). This information supports that there needs to be some level of educational intervention for children who have a history of adverse childhood experiences.

Conscious discipline is a program for educators to utilize in the classroom setting, which involves a primary focus on social and emotional learning to help address challenging behaviors (Calderella, Page, & Gunter, 2012). Conscious discipline has been utilized and has been found to improve student outcomes as well as school climate (Calderella et al., 2012). Calderella et al. (2012) conducted a study regarding social validity of Conscious Discipline and found that the program does have high social validity, which included positive experiences for teachers and children utilizing the program.

Conscious discipline focuses on self-change, relationship building to solve problems, and acceptance that conflict is necessary for learning, teaching, and building relationships. For Conscious Discipline, the educators must first be trained in seven parts of self-control for themselves which includes composure, encouragement, assertiveness, choices, positive intent, empathy, and consequences. Once the educator has mastered these skills for themselves, they should then be able to manage their own emotions and responses appropriately and can be more proactive in the classroom setting. The next step for Conscious Discipline is to teach the students

those skills and help them through scenarios that occur in the classroom, with the educator utilizing Conscious Discipline (Calderella et al., 2012).

Despite the research indicating Conscious Discipline can be a successful educational intervention to help teach children social and emotional skills, some participants of the program indicate that it is a process for the educator to be able to learn and master the skills which can be a challenge (Calderella et al., 2012). Conscious Discipline involves the educator learning and mastering new skills, being able to consistently utilize those skills to create habits, and then teaching those skills to students who may already struggle significantly with social and emotional skills. This may be difficult and time consuming for some educators, which may be a barrier to utilizing the intervention effectively. This may also be difficult to incorporate in large classroom sizes, as the educator does not have the time to be able to spend directly with each student to walk through how the child should respond with their social and emotional skills (Calderella et al., 2012). Conscious Discipline is specifically for the educational setting and does not include caregivers in the practice.

Another approach, Parenting with Love & Logic, is a program particularly geared for parents and educators to utilize practical strategies to reduce problem behaviors and build resiliency. There are 12 developmental assets that are the focus of the Love and Logic theory, which include the following: highly supportive and loving families and schools, parental open communication with the child, positive parent-teacher relationships which include parental involvement, positive school climate, appropriate behavior standards at home and school, positive discipline at home and school, positive relationships between child and adults, child motivation, empathy, decision making skills, self-esteem, and positive view. Love & Logic follows a concept that interventions must enhance the child's self-concept by helping the child

through situations and helping them to achieve success in handling those situations. Love & Logic also supports children being taught how to solve their own problems by important adults in their life modeling this behavior. Sharing control and building the adult-child relationship are also necessary components of Love & Logic, helping to meet the child's emotional need for control as well as their relational connections such as those between student and teacher. When interventions or consequences are necessary, Love and Logic supports that parents and educators should first model healthy appropriate behaviors and when needed provide logical consequences to the child that is presented in a warm and empathetic approach. This type of approach for consequences increases the likelihood of positive behavioral outcomes for children (Fay, n.d.).

Therapeutic Interventions

Trauma Focused Cognitive Behavioral Therapy, is a therapeutic intervention utilized by mental health professionals to address the impact of trauma on a child's development through working with both the child and parent (Harris, 2018). The goal of Trauma Focused Cognitive Behavioral Therapy is to provide psychoeducation to caregivers and children, and for caregivers to help reinforce skills that the child has learned in therapy (Lai, Tiwari, Self-Brown, Cronholm, & Kinnish, 2019). There are a few primary barriers to successful completion of Trauma Focused Cognitive Behavioral Therapy, which include caregiver engagement, clinician commitment to the program, and completion of the program by the family. Lai et al. (2019) conducted a study which found that the strongest predictor of enrollment in Trauma Focused Cognitive Behavioral Therapy was caregiver attitude, which included openness to seeking treatment and assumed value of treatment. Clinician's utilizing this form of therapy must involve caregivers in the therapy and ensure they are reinforcing the skills learned by the child for the therapy to be successful. Past traumatic experiences by the caregiver, as well as parenting stress, are important

factors that impact the family's completion of Trauma Focused Cognitive Behavioral Therapy (Lai et al., 2019).

Theraplay is another therapeutic approach that involves both caregiver and child. This approach has been present for over 50 years and utilized globally by trained Theraplay professionals (The Theraplay Institute, 2020). Theraplay focuses on teaching caregivers to utilize playful interactions to improve attachment, which in turn has a positive impact on challenging child behaviors (Purvis et al., 2013). A Theraplay clinician guides the parent and child through numerous games and activities while providing the caregiver with guidance to begin to regulate the child's behavior and allow the child to feel safe and connected with the caregiver (The Theraplay Institute, 2020).

The Neurosequential Model of Therapeutics is another intervention to address adverse childhood experiences. The three necessary elements of the Neurosequential Model of Therapeutics includes gathering of a complete developmental history of the child, current assessment of the child's functioning (brain map), and prescribed recommendations for intervention (Purvis, Cross, Dansereau & Parris, 2013). The Neurosequential Model of Therapeutics suggests a series of interventions for each child, first addressing self-regulation and anxiety concerns and then professing toward additional interventions (Purvis et al., 2013). The Neurosequential Model of Therapeutics requires a trained clinician to complete the process and the materials necessary for the process come with a significant expense (Purvis et al., 2013). The Neurosequential Model of Therapeutics also expanded to include the Neurosequential Model of Education as well, which follows a similar process but provides interventions specific to the child's educational setting.

Trust Based Relational Intervention

Purvis et al. (2013) discuss how relationship-based trauma needs to be addressed through appropriate relational connections and treatment should occur in the environments where challenges occur. Children who had adverse childhood experiences and the negative consequences associated, oftentimes lack the nurturing environment needed to help the child to be resilient to these experiences. Particularly for foster and adoptive children who had adverse childhood experiences, the resulting behaviors are oftentimes a barrier to the child creating healthy and positive connections with their new caregivers. Some of the behaviors these children may exhibit can be dysregulation, disassociation, and behavioral and cognitive problems. This creates a continuous cycle of negative behaviors, because the child is unable to heal and develop appropriately without a nurturing connection (Purvis et al., 2013).

In an attempt to create an approach that meets the needs of these children, Texas Christian University Institute of Child Development developed Trust Based Relational Intervention. Trust Based Relational Intervention is a therapeutic model that has been used in numerous settings to include courts, foster homes, group homes, residential treatment centers, orphanages, schools, churches, and adoptive homes. Trust Based Relational Intervention was developed after Texas Christian University Institute of Child Development held a summer camp for foster and adopted children who had a history of adverse childhood experiences. At the camp sensory activities, social skills groups, and nurture groups were utilized with parents and children in attendance. At the conclusion of the camp, it was found that many of the children in attendance had significant gains in the areas of behavior and attachment. However, it was also found that by around two months after the conclusion of camp, many of the gains had faded away. This circumstance led to further research and evaluation, which resulted in the three main principles utilized in Trust Based Relational Intervention (Purvis et al., 2013).

The three main principles for Trust Based Relational Intervention are Empowerment, Connection, and Correction. Trust Based Relational Intervention follows a protocol of addressing these principles in order. In doing so, this provides the child to be more accepting of the connecting and correcting principles. Each of these principles also allows for a relational connection to be built and nurtured between the child and caregiver throughout the process (Purvis et al., 2013).

The empowering principles are addressed first and are meant to address both physical needs as well as environmental needs. This focuses on creating a safe and structured environment and appropriately addressing numerous types of transitions to ensure the child continues to feel safe. The empowering principles process creates an environment in which the caregiver helps the child to feel safe, by ensuring their physical environment is safe and their emotional needs are met. For example, if a child has struggled with access to food or drinks in the past, a process the caregiver may need to engage in would be ensuring the child has continual access to food and water so they no longer have the fear that they will be hungry or thirsty. Fear impacts both cognitive and emotional functioning, and therefore if the child is fearful they will not have enough food they are going to be at a standstill for development. Caregivers may not even realize this as a barrier, because they may feel that the child knows they have access to food in the home so they must feel safe. However, fear is an emotional response and therefore their fear may make the child feel that they will not have access to food despite the caregiver saying they will. Providing the child with physical reassurance, such as having food accessible in a bin or backpack specifically for the child, may help to minimize that fear. Nutrition is also a necessity for proper cognitive and emotional functioning in a child, therefore ensuring the child has proper nutrition is likely to impact behavior in a positive manner. Children who have

experienced adverse childhood experiences may also struggle with changes to their insulin receptor sites. When this occurs, if the child's blood sugar levels drop too low they may have a dramatic change in behavior. To address this concern regarding blood sugar levels, proper nutrition, and potential fear of food accessibility, Trust Based Relational Intervention recommends offering nutritious snacks and/or meals to the child at least every two hours. Proper hydration is also important, particularly for things such as attention and memory. Trust Based Relational Intervention also recommends making hydrating drinks available to children to help to improve behavior and cognitive functioning, much like ensuring blood sugar levels are appropriate and stable (Purvis et al., 2013).

Another very important role in keeping the child feeling safe is to ensure the child has a predictable environment. This means addressing the three main types of transitions: daily transition, major life transitions, and developmental transitions. Any of these types of transitions can have a negative impact on the child feeling safe and create barriers. To address daily transitions, the caregiver needs to provide advanced notice of a transition. Sometimes this advanced notice may need to occur repeatedly to prepare the child for the transition. Major life transitions are significant changes for a child, such as changing school or joining a new family. The concept is the same for all transitions, which is to help the child to prepare for the transitions. Some ideas to help the child prepare for life transitions include life book, memory books, storytelling, or writing in a journal. The last type of transition to prepare for is developmental transitions, which occur during major development during the child's life. Some examples of this may be a child transitioning from an infant to toddler, to an adolescent, and to an adult. The main focus of the caregiver during these developmental transitions should be to help the child have as much predictability as possible and as much perceived control as possible.

This may include things such as typical daily rituals, like dinner as a family at a certain time at night. This consistent expectation, even if something the child may rebel against at times, provides predictability and consistency in an unfamiliar and fearful time when things feel very out of control to the child (Purvis et al., 2013).

Many children who have experienced significant adverse childhood experiences can struggle with sensory processing disorders which can significantly impact their functioning in numerous domains such as school, home, and community interactions and learning. Sensory limitations may cause many behaviors that are misconstrued as bad behavior if not recognized that it is related to their sensory needs. When recognized, these needs can be addressed with interventions, such as occupational therapy, to help the child and caregiver work through the barriers in an effective way (Purvis et al., 2013).

It is well known that an adequate amount of sleep is necessary to ensure a child is functioning at their best. Adequate sleep and sleep quality can positively impact cognitive functioning as well as emotional regulation. Adverse childhood experiences can cause a child's sleep patterns to be disrupted. It is important for caregivers to recognize if a child is struggling with sleep disruption, as this impacts the quality of sleep. The caregiver may be unaware of sleep disruptions. A recommendation for Trust Based Relational Intervention in some situations has been a weighted blanket to provide deep muscle input and a calming sensation for the child throughout the night. Further medical intervention may also be necessary if the child has significant sleep disruptions that need to be addressed (Purvis et al., 2013).

Physical activity is also a necessary component of a healthy daily routine for children who have experienced adverse childhood experiences. Utilizing physical activity every 1-2 hours can have numerous benefits such as lower obesity, improved academic performance, increased

physical fitness, and lower the need of medications for things such as asthma and ADHD. Physical activity reduces cortisol in the body and has a positive impact on behaviors (Purvis et al., 2013).

The connecting principles are the next step in the Trust Based Relational Intervention approach. These principles are geared toward building trust and a secure attachment between the child and caregiver. There are three main parts of the connecting principles which include awareness, playful engagement, and attunement. Observational awareness is necessary to be able to identify when a child is exhibiting stress by recognizing things such as pupil dilation, heart rate, respiration, and muscle tension. Self-awareness is also necessary to be able to foster a secure connection between child and caregiver. A caregiver must be aware of their own emotional state, emotional availability, and their attachment style. This requires acknowledging the caregiver's history and how that impacted their current attachment style as a parent.

Adverse childhood experiences may have impacted the emotional availability and/or attachment style of the caregiver. This impact is not permanent; the caregiver is able to improve their attachment style with the child. Once a caregiver knows their attachment style and is able to recognize the child's nonverbal stress cues, skills of attachment come into play. Trust Based Relational Intervention focuses on the skills of giving care and seeking care with the connecting principles. This can be done through things such as nurture group activities or Theraplay activities. Negotiation is also used in both the connecting and correcting principles, particularly in regards to giving the child a voice in circumstances which are frustrating to them. Playful engagement is also a large part of Trust Based Relational Intervention because it builds trust and promotes attachment between the child and caregiver. Theraplay is an attachment based model of playful interaction in a therapeutic setting and these interactions are an integral part of the Trust

Based Relational Intervention approach. Playful engagement, no matter the age of the child, allows the caregiver to become aware and responsive to the child's needs. Playful engagement also gives caregivers opportunities to redirect negative behavior in a playful manner, which is more likely to have a positive response from the child (Purvis et al., 2013).

The correcting principles are the final principle of the Trust Based Relational Intervention. Some of the primary focus areas of the correcting principles are self-awareness, self-calming, and self-regulation. The correcting principles are based on cognitive behavioral therapy that includes a combination of two approaches. The first approach is a proactive approach to help the children learn and practice problem solving and conflict management. The second approach is a responsive approach to address challenging behaviors. The purpose of the proactive approach is to teach self-calming and regulation skills. These skills will lead to less need of correction and more positive behavior responses (Purvis et al., 2013).

There are many different techniques that can be used for self-calming such as the magic mustache pressure point under the nose, deep breathing, use of fidget toys, and chair pulls ups. Trust Based Relational Intervention practices self-regulation for children with games. When children are able to observe appropriate behaviors and receive consistent verbal reminders, this demonstrates to them what appropriate and inappropriate behaviors look like (Purvis et al., 2013).

Another important factor in the correcting principles is using life-value terms. The child must learn to use life-value terms to demonstrate mutual respect. Some examples of life-value terms that can be utilized include: reminding the child to use respect, making eye contact, reminding the child to use words rather than negative behavior, reminding the child to be gentle, teaching the child to accept consequences, teaching the child to accepting no, and teaching the

child to ask permission. An important consideration with the correcting principles is that lasting behavioral change requires consistent and repetitive interactions. On average, a child who has experienced adverse childhood experiences takes one month per year of age to develop new lasting behaviors (Purvis et al., 2013).

Lastly, the correcting principle of Trust Based Relational Intervention involves responsive correcting behavior by the caregiver to resolve a problem. There are four levels of engagement for correcting behaviors based upon the level of behavior the child is exhibiting. Level one is playful engagement, which is a playful correction of the child's behavior. Level two is structured engagement, which may be offering the child choices of appropriate response or behavior when they do not respond appropriately to playful engagement. Level three is calming engagement, which is utilized when the child is on the verge of escalation. When this occurs, the caregiver directs the child to utilize a "time in." A "time in" is similar to a time out but instead allows the child to process their behavior and what they need with an adult nearby rather than isolating the child. Level four is protective engagement, which is used when there is significant threat of violence or harm by the child. This level does utilize containing the child's violent behavior and the caregiver is encouraged to remain calm and reassuring during the incident and remain with the child after the incident to help them feel that they have remained safe and connected with the caregiver (Purvis et al., 2013).

No matter what level of engagement is utilized for correcting behaviors, the caregiver should also follow the IDEAL response: Immediate, Direct, Efficient, Action Based, and Level. An immediate behavior response is important to address the behavior for the child to learn from it. A direct response to the child means responding with eye contact, physical proximity, and undivided attention. An efficient response is also a measured response, meaning the response

should be the least amount of corrective behavior necessary by the caregiver. For the response to be action based, the response should redirect the child to practice the appropriate behavior. Lastly, to level the response to the behavior means the caregiver must ensure the child is aware that the behavior is the problem, not the child (Purvis et al., 2013).

E. Key Issues in Response

Early intervention and support for caregivers who have a history of adverse childhood experiences themselves, as well as those who are at risk of common adverse childhood experiences, is necessary to break the cycle of trauma and all of the adverse consequences associated. There is a significant basis of research that has shown the associated risks of adverse childhood experiences and the long term impact, some of which have already been mentioned. Yet despite the identified needs, action is not being taken to provide a universal and collaborative recommendation for the United States response to adverse childhood experiences.

There are numerous suggestions and research to support parenting and educational interventions, therapeutic interventions, and medical interventions for children who had adverse childhood experiences. Unfortunately, these approaches are not pursued as a uniform collaborative approach. Many current interventions are geared toward a specific area of study, such as therapy or school settings, rather than a collaborative approach. Most therapeutic treatment approaches occur at a practitioner's office or at a setting outside the home, with minimal caregiver involvement in treatment. Research supports intervention is more effective with caregiver involvement because children spend the majority of their time with their caregiver. These therapeutic approaches are oftentimes providing the child with some form of therapeutic intervention for a short period of time, such as an hour weekly, which is not sufficient independently to provide lasting change (Purvis et al., 2013).

Sudiyanto (2018) indicated that treatment efforts for children who have experienced neglect should be a team effort to include a physician and all parties involved to educate the family, community, non-governmental organizations, professional organizations, and governmental agencies involved with the family. Other than Trust Based Relational Intervention, none of the other approaches explored in this research paper have involved a team effort or successful utilization in multiple settings. The intervention should be specific to the child and family, rather than the professional. It is also important to recognize that collaboration does not typically occur between involved parties and communication is oftentimes lacking as well. In these circumstances, children are not receiving consistent messages and nurturing responses, which negatively impacts their ability to heal and develop.

III. Theoretical Framework

A. Life Course Theory and Adverse Childhood Experiences

Adverse childhood experiences can occur at any point during an individual's childhood. It is common for individuals to have more than one adverse childhood experience, with the most significant long-term impacts occurring with those that have four or more adverse childhood experiences. This means that these experiences, which occurred at some point in their childhood, will impact them negatively for the rest of their lives. When considering criminological theory in regards to adverse childhood experiences, life course theory is important to explore.

Life course theory finds that individuals are impacted by three main avenues that can alter their life course which include routine activities, social control, and human agency. All individuals have a trajectory that their life course is following. Trajectories are described as a life path. Trajectories are long term and include things such as work life, marriage, parenthood, and criminal behavior. All individuals also come across transitions within their trajectories, such as a new job, getting married, having a baby, or for those involved in the criminal justice system something such as being sentenced to prison. Life course theory also describes that individuals may experience turning points, which are transitional events that result in modification to the previous life path trajectory (Cullen, Wright & Blevins, 2017).

Adverse childhood experiences can be considered significant transitions. In these circumstances, a negative event such as maltreatment or incarceration of a parent occurs and causes a significant impact to the child. This impact can then lead to a turning point for the child, which changes the child's life trajectory. For example, a child that may have been on a positive upward trajectory may experience one or more adverse childhood experiences which leads that

child to a downward trajectory. That downward trajectory can include things such as negative health impacts due to the adverse childhood experiences, as well as negative life choices that further direct to the child toward a negative life path trajectory.

Life course theory also identifies that the extent of impact that a life event has on an individual may be very different depending on when it occurred in their life (Cullen et al., 2017). This is relevant to adverse childhood experiences as well when they occur at different stages of a child's life. For example, an infant may be more significantly impacted by a caregiver with a substance use disorder than a teenager, as that infant relies entirely on their caregiver to meet all of their needs while a teenager is more self-sufficient and can at least meet their own basic needs in most circumstances.

Oftentimes children who have experienced adverse childhood experiences do not have the support systems necessary to help to buffer the impact that adverse childhood experiences can have. Their caregivers and support system lack the skills to be able to help protect the child from the negative experiences and they lack the ability to appropriately support and nurture the child after the negative experiences to be able to help them recover from the adverse effects. Children impacted by adverse childhood experiences do not just recover when they are removed from their environment. The adverse childhood experiences have impacted that child's functioning and ultimately their life course trajectory.

Life course theory suggests that individuals are impacted by three main avenues that can alter their life course which include routine activities, social control, and human agency (Cullen et al., 2017). Weak informal social control, minimal structured routine activities, and human agency explain early criminal behavior (Cullen et al., 2017). When considering a typical lifestyle for a child who has experienced multiple adverse childhood experiences, oftentimes their parents

are struggling in more than one way to be able to meet their own needs and also the needs of the child. In these circumstances, it is unlikely that the child experiences routine activities because the focus is oftentimes on survival rather than consistency for the family.

Social control is an interesting topic to consider in regards to children struggled with adverse childhood experiences. Lippman (2018) describes social control as ensuring individuals follow social norms or perceived appropriate conduct. Social control is a form of regulation of appropriate conduct (Lippman, 2018). Laws are written to deter negative behaviors and those behaviors may result in consequences enforced by government, such as the justice system and law enforcement officers. Observation of those consequences should provide an example of what can happen to those who deviate from social norms.

When considering caregivers of children who have been exposed to adverse childhood experiences, these caregivers are oftentimes lacking their own appropriate social network and support system. The caregiver's primary focus is likely on day to day survival; therefore, they are not considering what socially appropriate conduct is and are at times willing to ignore the laws. For example, a caregiver may be unable to handle their own emotions due to their stressors and may maltreat their child because of this. On some level of consciousness, the caregiver is aware that the maltreatment is not socially acceptable and may even be aware that they are violating laws by engaging in the maltreatment. However, when faced with their current circumstances, they are not immediately concerned with the potential consequences of deviating from those social expectations.

Lack of social control also directly impacts an individual's human agency. Human agency is described as an individual's ability to perform an action intentionally (Schlosser, 2019). In other words, human agency is an individual's ability to make their own decisions and

act on those decisions. If a child is exposed to adverse childhood experiences impacting their development, as well as being raised in an environment that lacks social control, their likelihood to have appropriate problem solving skills and to make appropriate decisions is negatively impacted.

All of these factors combined, particularly without intervention, can lead to the child engaging in criminal behavior and other at risk behaviors. Current methods of intervention, such as mental health intervention, works to address specific factors such as a child's human agency by helping the child to process their adverse childhood experiences. Without also changing the child's environment and building appropriate nurturing relationships, the progress the child makes on their human agency will likely not be sufficient to change their life course trajectory. The intervention instead needs to be a transitional event, leading to a turning point in the child's life course trajectory.

Trust Based Relational Intervention is an approach that focuses on three evidence based principles, which include empowerment, connection, and correction. This approach addresses both the child and caregiver. Trust Based Relational Interventional teaches the caregiver to provide necessary nurturing support and direction, within the child's primary environment, to address behavioral challenges. This intervention can help to build resilience in the child and improve outcomes (Purvis et al., 2013). When properly utilized, Trust Based Relational Intervention can become a turning point in a child's life course trajectory to move them toward an upward trajectory. With their needs met and feeling supported, the child can focus on more aspects of appropriate behavior rather than survival instinct.

IV. System Recommendations

Despite significant gains in knowledge regarding adverse childhood experiences and their potential long term effects, there is still a large gap in regards to interventions to build resilience in children who had adverse childhood experiences (Salinas-Miranda, Salemi, King, Baldwin Berry, Austin, & Salihu, 2015). Relationship based trauma, such as that from adverse childhood experiences, has to be resolved through loving and stable relationships (Purvis et al., 2013). Adverse childhood experiences are known to impact multiple life domains, such as physical health, mental health, emotional health, and relational attachment. To truly address the needs of the child, a collaborative approach between caregivers and professionals to ensure the family receives necessary services.

To be effective, both the child and the caregiver's behaviors should be addressed to combat adverse childhood experiences and associated negative behaviors. For example, a caregiver struggling with substance abuse is likely to continue to have negative interactions with their child and likely to continue to expose the child to adverse experiences. Meulewaeter et al. (2019) stressed the importance of involving attachment enabling interventions for substance dependent caregivers in an attempt to promote bonding and healing. The importance of this is that if a substance dependent parent is struggling with their self-concept, they are likely to relapse which is likely to continue the cycle of adverse experiences for both the child and parent. This further supports the importance of both the child and caregiver receiving consistent intervention and support.

Children also spend a significant amount of their time in an educational setting. Therefore, both the home and school environment play a major role in the child's experiences as well as in regards to interventions for their behaviors. Relationships between the child and

professionals involved can also have a positive influence in relational connections for the child. For these positive relational connections to be fostered, a collaborative approach involving at minimum educational staff, mental health professionals, and caregivers, should be utilized.

Trust Based Relational Intervention has been used in different settings for children who have experienced numerous adverse childhood experiences and have significant challenging behaviors. Research has shown that Trust Based Relational Intervention can be effective in minimizing these challenging behaviors for different types of caregivers and for children of all ages and backgrounds. Trust Based Relational Intervention has been effective in school settings, as well as with adoptive and foster parents. This supports that this intervention can be utilized in multiple settings with multiple types of caregivers (Purvis et al., 2013).

Behavioral change is a goal of Trust Based Relational Intervention, but the primary underlying goal is to improve the parent-child relationship. Trust Based Relational Intervention is conducted by a trained professional who provides face to face interactions with the caregiver to provide the Trust Based Relational Intervention Training. This personal training process allows for the following benefits: open dialogue between caregiver and professional regarding training information, questions to be answered immediately, skills to be practiced between the trainer and caregiver prior to utilization with the child, feedback to be provided to the caregiver, and allows the caregiver to have a devoted time and space to learn and practice the skills (Purvis et al., 2015).

The Centers for Disease Control and Prevention (2019) notes that preventing adverse childhood experiences must be a priority and utilizes evidence to support that adverse childhood experiences could be prevented by the following: strengthening economic support to families, promoting social norms that protect against violence and adversity, ensuring a strong start for

children, teaching sills (parenting, social-emotional, safe dating), connecting youth to caring adults and activities, intervention to lessen immediate and long-term harms (treatment to lessen harms, prevent problem behavior, family centered treatment for substance use disorders). Perry (2009) suggests that policies, programs, and practices must be substance abuse informed, attachment informed and neglect informed to be able to fully understand and address adverse childhood experiences. Cloitre, Khan, Mackintosh, Garvert, Henn-Haase, Falvey & Saito (2019) conducted a study which supported that emotion regulation significant mediated the relationship between adverse childhood experiences and the following health outcomes: post-traumatic stress disorder, depression, and physical health. Cloitre et al. (2019) suggest that interventions for adverse childhood experiences should focus on improving emotional regulation skills, which may be able to address psychological and physical health problems associated with adverse childhood experiences.

Trust Based Relational Intervention utilizes many of the suggested areas of focus to effectively address adverse childhood experiences. This intervention focuses on the building of social-emotional skills with both the child and the parent, improving attachment between the child and parent, consistency between caregivers to include both the home and school environment, and a family centered trauma informed approach. The outcomes of improved attachment, improvement of challenging behaviors, and improvement of emotional challenges all support that this approach is able to address adverse childhood experiences. If addressed effectively and collaboratively between caregivers, therapeutic providers, and educators, this consistency and support will provide the necessary factors to promote resiliency in the child and allow that child to begin to heal from their adverse childhood experiences.

V. Summary/Conclusion

Adverse childhood experiences have a significant impact on future health and functioning. Tarantola (2018) estimated the lifetime cost of child maltreatment in America to be $124 billion. The Centers for Disease Control and Prevention (n.d.) estimated that in 2015 the total economic burden of child maltreatment in America was $428 billion. Adverse childhood experiences may result in a child growing up to have struggle with employment, poverty, relationships, education, and mental health (Centers for Disease Control and Prevention, 2019; Hughes et al., 2017). Evidence has shown that simple removal of the child from the environment in which they were exposed to adverse childhood experiences does not eliminate the long term effects (Purvis et al., 2015).

Despite the knowledge of the significant impact that adverse childhood experiences have, prevention and treatment efforts for adverse childhood experiences has been slow in regards to public policy (Hughes et al., 2017). The Centers for Disease Control and Prevention (2019) indicate that creating a safe and nurturing environment for children and families can help to prevent adverse childhood experiences as well as minimize the impact of intergenerational trauma if the effects of adverse childhood experiences are addressed through appropriate prevention and treatment avenues.

A best practice for working with children who have experienced adverse childhood experiences needs to be shared with caregivers and professionals working with these children. To address this, a best practice approach should include an intervention to help build resiliency in these children, as well as a collaborative approach involving all professionals and primary caregivers of the child. Education and utilization regarding this best practice approach could address both a medical crisis and societal crisis regarding the significant number of individuals

negatively impacted by adverse childhood experiences. This in turn will also address intergenerational trauma in regards to adverse childhood experiences, due to minimizing impacts for future generations by utilizing effective interventions for the current generation.

Trust Based Relational Intervention shows promise as a best practice approach to address adverse childhood experiences. This approach helps caregivers to learn to meet the child's needs and allows the primary caregiver to be the catalyst for change (Purvis et al., 2015). Trust Based Relational Intervention also addresses the attachment between the parent and child, which improves behavioral outcomes (Purvis et al., 2015). As long as the primary caregiver is committed to learning and utilizing Trust Based Relational Intervention, this approach can be used with all caregivers of children who had adverse childhood experiences. Trust Based Relational Intervention is likely to improve overall outcomes for the child and minimize the lifelong negative impacts that adverse childhood experiences can otherwise have.

VII. References

Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C., Perry, B. D., Dube, S., & Giles, W. H. (2005). The Enduring Effects of Abuse and Related Adverse Experiences in Childhood. *European Archives of Psychiatry and Clinical Neuroscience*, *256*(3), 174–186. doi: 10.1007/s00406-005-0624-4.

Centers for Disease Control and Prevention (2019). *Preventing Adverse Childhood Experiences: Leveraging the Best Available Evidence.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Retrieved from https://www.cdc.gov/violenceprevention/childabuseandneglect/aces/fastfact.html

Child Welfare Information Gateway. (2019). Definitions of child abuse and neglect. Washington, DC: U.S. Department of Health and Human Services, Children's Bureau. Retrieved from https://www.childwelfare.gov/topics/systemwide/laws-policies/statutes/define/

Child Welfare Information Gateway. (2014). Parental substance use and the child welfare system. Washington, DC: U.S. Department of Health and Human Services, Children's Bureau. Retrieved from https://www.childwelfare.gov/pubPDFs/parentalsubabuse.pdf

Circle of Security International: Early Intervention Program for Parents & Children. (n.d.). Retrieved from https://www.circleofsecurityinternational.com/circle-of-security-model/cosp-vs-cos-intensive/).

Cloitre, M., Khan, C., Mackintosh, M.-A., Garvert, D. W., Henn-Haase, C. M., Falvey, E. C., & Saito, J. (2019). Emotion regulation mediates the relationship between ACES and physical and mental health. *Psychological Trauma: Theory, Research, Practice, and Policy*, *11*(1), 82–89. doi: 10.1037/tra0000374

Cullen, Francis T., Wright, John P., Blevins, Kristie R. (2017). *Taking Stock: The Status of Criminological Theory*. New York, NY: ROUTLEDGE.

Faye, C. (n.d.). Effects of the Becoming A Love and Logic Parent Training Program on Parents' Perceptions of Their Children's Behavior and Their Own Parental Competence: A Preliminary Investigation. Retrieved from http://www.happyheartfamilies.citymax.com/f/CharlesFayLoveLogicResearch.pdf

Harris, N. B. (2018). *The Deepest Well: Healing the Long-term Effects of Childhood Adversity*. Boston: Houghton Mifflin Harcourt.

Hughes, K., Bellis, M., Hardcastle, K., Sethi, D., Butchart, A., Mikton, C., Jones, L., Dunne, M. (2017). The effect of multiple adverse childhood experiences on health: A systematic review and meta-analysis. The Lancet Public Health, 2(8), E356-E366.

Lai, B.S., Tiwari, A., Self-Brown, S., Cronholm, P., & Kinnish, K. (2019). Patterns of Caregiver Factors Predicting Participation in Trauma-Focused Cognitive Behavioral Therapy. *Journal of Child & Adolescent Trauma, 12(*1). 97-106. https://doi-

org.ezproxy.uwplatt.edu/10.007/s40653-017-0177-5.

Lippman, M. R. (2018). *Law and Society* (2nd ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Merrick, M. & Guinn, A. (2018). "Child Abuse and Neglect: Breaking the Intergenerational Link." *American Journal of Public Health,* 108(9), pp 1117-1118.

Meulewaeter, F., Pauw, S. S. W. D., & Vanderplasschen, W. (2019). Mothering, Substance Use Disorders and Intergenerational Trauma Transmission: An Attachment-Based Perspective. *Frontiers in Psychiatry*, *10*. doi: 10.3389/fpsyt.2019.00728

Perry, B. (2009). Examining Child Maltreatment Through a Neurodevelopmental Lens: Clinical Applications of Neurosequential Model of Therapeutics. *Journal of Loss & Trauma, 14*(4), 240-255. https://doi-org.ezproxy.uwplatt.edu/10.1080/15325020903004350.

Perry, B. D., & Szalavitz, M. (2017). *The boy who was raised as a dog: and other stories from a child psychiatrists notebook: what traumatized children can teach us about loss, love, and healing*. New York: Basic Books.

"Preventing Child Abuse & Neglect." Centers for Disease Control and Prevention. (2020, April 7). Retrieved from https://www.cdc.gov/violenceprevention/childabuseandneglect/fastfact.html

Purvis, K. B., Cross, D. R., Dansereau, D. F., & Parris, S. R. (2013). Trust-Based Relational Intervention (TBRI): A Systemic Approach to Complex Developmental Trauma. *Child & youth services*, *34*(4), 360–386. doi:10.1080/0145935X.2013.859906.

Purvis, K. B., Milton, H. S., Harlow, J. G., Paris, S. R., & Cross, D. R. (2015). Importance of Addressing Complex Trauma in Schools: Implementing Trust Based Relational Intervention in an Elementary School. *Engage: The International Journal of Research and Practice on Student Engagement*. Retrieved from http://www.dropoutprevention.org/engage-backup/the-importance-of-addressing-complex-trauma-in-schools-implementing-trust-based-relational-intervention-in-an-elementary-school-2/

Purvis, K. B., Razuri, E. B., Howard, A. R. H., Call, C. D., Deluna, J. H., Hall, J. S., & Cross, D. R. (2015). Decrease in Behavioral Problems and Trauma Symptoms Among At-Risk Adopted Children Following Trauma-Informed Parent Training Intervention. *Journal of Child & Adolescent Trauma*, *8*(3), 201–210. doi: 10.1007/s40653-015-0055-y

Salinas-Miranda, A., Salemi, J., King, L., Baldwin, J., Berry, E., Austin, D., Scarborough, K., Spooner, K., Zoorob, R., & Salihu, H. (2015). Adverse childhood experiences and health-related quality of life in adulthood: Revelations from a community needs assessment. Health and Quality of Life Outcomes, 13(1), 123.

Schlosser, Markus, (Winter 2019 Edition). *"Agency"* The Stanford Encyclopedia of Philosophy. Retrieved from https://plato.stanford.edu/archives/win2019/entries/agency/.

Smith, M. (2004). Parental mental health: disruptions to parenting and outcomes for children. *Child & Family Social Work, 9*(1), 3-11. https://doi-org.ezproxy.uwplatt.edu/10.1111/j.1365-2206.2004.00312.x

Smith, V. C,. Wilson, C.R., and Committee on Substance Use and Prevention (2016). Families Affected by Parental Substance Use. Pediatrics. 138(2):e20161575.

Sudiyanto, S. (2018). Child Neglect. *Paediatrica Indonesiana*, *35*(5-6), 113-7. https://doi.org/10.14238/pi35.5-6.1995.113-7.

Tarantola, D. (2018). Child Maltreatment: Daunting and Universally Prevalent. *American Journal of Public Health*, *108*(9), 1119–1120. doi: 10.2105/ajph.2018.304637

"Therapeutic Parenting." (2020, April 2). Retrieved from https://www.attachmenttraumanetwork.org/parenting/#.

Yehuda, R., & Lehrner, A. (2018). Intergenerational transmission of trauma effects: putative role of epigenetic mechanisms. *World Psychiatry*, *17*(3), 243–257. doi: 10.1002/wps.20568