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A RETROSPECTIVE STUDY ON THE RELATIONSHIPS BETWEEN COMPLEX TRAUMA, FAMILY ENVIRONMENT, FAMILY COHESION, RESILIENCE AND DEPRESSION IN YOUNG ADULTS

A Dissertation in

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ABSTRACT

Much of the research focused on complex trauma demonstrates the negative impact it can have on individuals. However, with a movement focused on providing trauma-informed-care, building resilience, and utilizing a strengths-based approach, it is important for more research to be conducted to find factors that may lead to resilience for individuals who have experienced complex trauma. This quantitative dissertation begins with an overview of the research on complex trauma, resilience, family environment, and their relation to mental health outcomes. Furthermore, the present study sought to find if family environment and family cohesion are related to levels of resilience and depression in young adulthood. The sample consisted of 494 young adults aged eighteen to thirty-five. The sample consisted of undergraduate students, graduate students, as well as young adults who are not currently students. Participants were found via social media sites such as, Facebook and Instagram. Correlation analyses and Hierarchical Multiple Linear Regression were utilized to assess each research question. The purpose of the study is to examine the relationship between family environment, family cohesion, resilience, and depression. The scales utilized in this study were the Family Environment Scale (Moos & Moos, 2009), The Connor-Davidson Resilience Scale (Connor & Davidson, 2003), the ACE Questionnaire (Centers for Disease Control and Prevention; Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, & Marks, 1998), and the Patient Health Questionnaire-9 (Spitzer, Kroenke, & Williams, 1999) Findings show that family environment and cohesion are significantly associated with levels of resilience. In one regression model, results indicate that those who experience complex trauma and have low family cohesion and low resilience levels, also experience higher levels of depression. Other models show high levels of family environment are positively correlated to high levels of resilience. Another finding

indicated that participants were more likely to respond with ‘no’ when asked if they ever experienced trauma prior to eighteen years of age. However, many participants that scored one or higher on different types of complex trauma demonstrated a lack of knowledge about trauma and its impacts. The discussion section delves into this lack of knowledge as well as mental health stigma. The discussion continues with implications of the study, and a summary of future research to further the line of resilience, complex trauma, and family systems literature in Counselor Education and Supervision.

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CHAPTER ONE: INTRODUCTION

Background of Study

The Impact of Trauma

In the United States, 26% of children will experience some form of trauma by the age of four (Mental Health Connection, 2017). Sixty percent of adults were able to remember a traumatic event that occurred during childhood. In the timeframe of a year, 39% of adolescents reported they witnessed violence. Seventeen-percent of these adolescents were physically assaulted, and 8% of them were sexually assaulted (Mental Health Connection, 2017). Delving into the impact of trauma, children under three who experienced at least five adverse life events were 76% more likely to have delays in their speech, emotional or neurological development (Mental Health Connection, 2017). As children progress in their development, the more traumatic experiences they have are correlated to a higher likelihood of health problems such as, diseases of the heart and liver, problems during pregnancy, chronic stress, anger management problems, family stress, trouble with finances, and problems with their job (Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, Koss, & Marks, 1998; Mental Health Connection, 2017). Those who experienced trauma are more likely to attempt suicide, become dependent on alcohol and other substances, obtain a sexually transmitted disease, and have depression (Mental Health Connection, 2017).

What is Trauma?

An event which brings feelings of pain and being overwhelmed is the general definition of trauma (Arnold & Fisch, 2011). It should be understood that there are multiple types of trauma. Specifically, acute trauma, historical trauma, and complex trauma. Acute trauma is a traumatic event which occurs one time, a single such as a natural disaster, car accident, or other

disaster (Harville, Jacobs, & Boynton-Jarret, 2015). Historical trauma, also known as intergenerational trauma is, trauma that effects various cultural groups, generations, and communities. Furthermore, this is a response to racism, losing one's culture, forced removal from families, communities, war, genocide, slavery, and colonization. The coping and patterns of adaptation are then generationally passed (Heart, Yellow Horse, Chase, Elkin, & Altschul, 2011). Complex trauma resides under the umbrella of ongoing trauma, which means, complex traumas occur over for a period of time, rather than the traditional type of trauma that is a one-time event in someone's life (Curtois & Ford, 2013; Spinazzola, Ford, Zucker, van der Kolk, Silva, Smith, & Blaustein, 2005; Van Der Kolk 2005; McCrea, Guthrie, & Bulanda, 2016). Complex trauma impacts the family system, and tends to directly impact the parent-child subsystem. Complex trauma has the potential to hinder a child's development biologically, socially, and emotionally (Arnold & Fisch, 2013). The main trauma focus for the present study was complex trauma. It should be noted that complex trauma was measured as the subjective experience of participants rather than symptomatology.

Delving Deeper into the Negative Impact of Trauma

Trauma impacts children's functioning as the trauma a child experiences continues to be a part of their present memories, preventing them from moving forward and living with their present memories (Arnold & Fisch, 2011). Various complex traumas have been found to be a predictor of diagnoses. Children who were neglected were found to be more likely to have chronic depression as well as partake in violent acts as adolescents (Lee, Cronley, & White, 2012). Children who were physically or sexually abused were found to be more likely to have chronic depressive disorders (Spinhoven, et al., 2010). It has also been found that those who experienced physical abuse in childhood are more prone to avoiding thoughts, emotions, and

memories in adulthood (Watts, O'Sullivan, Panlilio, & Daniels, in press). In general, childhood complex traumas are correlated with diagnoses of depression and anxiety (Spinhoven et al., 2010)

Looking at the complex trauma in which a parent has alcoholism, adult children of alcoholics (ACOAs) were found to be more likely to abuse substances, partake in violent behaviors, have diagnosed mental health disorders, and struggle academically (Chassin, Pitts, DeLucia, & Todd, 1999). ACOAs are more likely to have major depressive disorder as well as being more likely to depend on alcohol in comparison to those who are not adult children of alcoholics (NACOAs) (Morgan, Desai, & Potenza, 2010; Raucher-Chene, Gierski, Hubsch, Cuervo-Lombard, Bera-Potelle, & Cohen, 2012). Continuing to look at parents with alcohol use disorders (AUDs) as the form of complex trauma, Schroeder and Kelly (2008) found ACOAs had a poor ability to regulate their behavior. An interesting piece of this finding is that NACOA participants were younger than the ACOAs in this study. Despite being older, ACOAs still displayed a lesser ability to regulate their behavior, showing the detriments of this type of complex trauma (Schroeder & Kelly, 2008). The finding of disorganized families with a lack of control shows poor behavioral regulation in comparison to organized families has shaped the direction in which the current research should focus (Schroeder & Kelly, 2008).

Focusing on physical abuse as a type of complex trauma, adults who experienced this during childhood have been found more likely to report depression, anxiety, and other mental and physical health issues in adulthood (Herrenkohl, Hong, Klika, Herrenkohl, & Russo, 2013). Physical health can also be impacted by complex trauma (Herrenkohl, et al., 2013). Regarding sexual abuse, another complex trauma, Langevin, Cossette, & Hebert (2016) found the timing of which maltreatment occurs can impact the type of developmental impacts the complex trauma

has on a child. Maltreatment that occurs during preschool age can impair the development of emotion regulation. Impairments can also impair a child's ability to form interpersonal relationships, and use of poor behaviors to feel better (Langevin, Cossette, & Hebert, 2016). Pre-school children who were sexually abused in comparison to those who were not sexually abused had significant differences. Children who were sexually abused scored lower in emotion regulation, lower in ability to express emotions, and presented with higher levels of negativity. Gender comparisons show boys who were sexually abused score lower in ability to show empathy or express emotions in comparison to boys who were not sexually abused, have fewer positive interactions with their peers (Langevin, Cossette, & Hebert, 2016). The complex trauma domestic violence; Those who witnessed domestic violence were significantly more likely to be diagnosed with a conduct disorder (Meltzer, Doos, Vostanis, Ford, & Goodman, 2009).

Resilience Building Despite Complex Trauma

Considering parental impact on children, a focus on resiliency building in the home is needed in the literature. For the purpose of this research, resilience will be measured during young adulthood to assess for a lasting impact. Resilience can be defined as, advocating for the proper resources to be utilized in a way that is significant in regards to the specific person's culture (Ungar, Ghazinour, & Richter, 2013).

Upon experiencing traumatic events, and in the case of this research, complex-trauma-families may experience confusion and irritation. If the families do not have plans in place when traumatic events happen, many issues can occur in the household (Walsh, 2016), which can lead to a disruption to family functioning (Walsh, 2016), cohesion, negative reciprocal processes, and more (Steele, Rabash, & Jenkins, 2013; White, Shelton, & Elgar, 2013).

Considering the current literature presents complex trauma does not always lead to negative effects, counselor understanding is needed as to how resilience and family environment may impact a young adult's success in life despite past adverse experiences. Protective factors such as, "education, interpersonal and emotional competence, control beliefs, active coping, optimism, social attachment, external attribution of blame" (Domhardt, Münzer, Fegert, & Goldbeck, 2014, p. 490) as well as "social support from the family and wider social environment" (Domhardt, et. al., 2014, p. 490) are correlated with high resilience rates in those who experienced sexual abuse as children, which can be acquired in a family with high levels of cohesion (DiClemente, Rice, Quimby, Richards, Grimes, Morency, & Pica, 2016). In families where a parent has an AUD, family environment may lead to the life outcomes of the child as they become an adult (Schroeder & Kelly, 2008). Households with a positive family environment are more likely to provide protective factors for children leading to resilience.

Complex Trauma and Resilience

In many cases, those who experienced complex trauma during childhood or adolescence do not experience such negative experiences as a result. Regarding complex trauma in which a parent has an alcohol addiction, ACOAs also showed less of an ability to utilize positive coping skills and were more likely to partake in avoidance coping behaviors (Drapkin, Eddie, Buffington, & Mcgrady, 2015). Despite their challenges with utilizing positive coping skills, however, ACOAs' were not found to have significant problems with alcohol or depression in comparison to those who did not experience this complex trauma (Drapkin, Eddie, Buffington, & Mcgrady, 2015). Researchers believe these results could be due to ACOAs not always having the luxury to partake in planful coping skills considering the source of the trauma is their parent who they see on a frequent basis (Drapkin, Eddie, Buffington, & Mcgrady, 2015). It should be noted

planful coping consists of learning about what the positive methods of coping are, and planning to utilize them in the future after an event which requires them one to do so for their mental wellness (Drapkin, et al., 2015).

Children who do not have parents with alcoholism are more likely to partake in typical coping skills considering the household environment was less hostile (Drapkin et al., 2015). It would have been beneficial for this study to delve further into what type of coping was occurring with the ACOAs as well as the protective factors they may have had access to which led to strong resilience despite the complex trauma they had experienced. Hussong and Chassin's (2004) study focused more on children of alcoholic (COA) coping found COAS who learn how to sufficiently use coping skills have a better likelihood of positive life outcomes as young adults. They also had a lower risk of abusing substances as young adults as they utilized planful coping into their lives, which acted as the buffer between adverse experiences and substance abuse in young adulthood (Hussong & Chassin, 2004).

In regards to complex trauma when it is in the form of abuse, McGloin & Widom (2001) formulated stringent definition of resilience, and delved into the 22% of those who qualified as being resilient. To qualify as resilient, participants had to report at least 6 of the following 8 outcomes, "successful employment, no homelessness, high school graduation, social activity, no psychiatric disorder, no substance abuse, no arrest, and no self-reported violence" (McGloin & Widom, 2001, p. 1030). It was found that the 22% were able to thrive despite their past experiences. Results indicated that these persons were able to recover from the trauma they experienced (McGloin & Widom, 2001).

Critical issues of family environment, family cohesion, and complex trauma

In regards to complex trauma, high family cohesion is associated with lower levels of internalizing and externalizing behavior in children, as well as low rates of depression and anxiety during adolescence. It should be noted that family cohesion is a component of family environment, which is the amount of support family members are able to provide a child both internally and externally. Components of family environment consist of cohesion, expressiveness, conflict, independence, orientation, culture, recreation, morals and religion, organization, and control (Moos & Moos, 1986, 2009). Family cohesion is defined as "shared affection, support, helpfulness, and caring among family members" (Barber & Buehler, 1996, p. 433), and commitment, assistance, and support family members share with each other (Moos & Moos, 2009). Low family cohesion has been correlated to behavioral problems in children and adolescents (McGuiness, Ryan, & Robinson, 2005). In contrast, high family cohesion has led to less symptoms of depression (White et al., 2014). With this information, it can be hypothesized that families with high levels of cohesion will have a higher likelihood of being resilient despite the family's experiences of complex trauma. High levels of family cohesion have led to lower likelihood for adolescents to have problems associated with alcohol (DiClemente, Rice, Quimby, Richards, Grimes, Morency, White, Miller, & Pica, 2016). The present study consisted of an assessment of family environment overall as well as family cohesion specifically.

Cohesion is viewed as a factor that can lead to higher self-esteem, positive affect, and positive ethnic identity (DiClemente et. al., 2016). Family cohesion has led to a decline in delinquent behaviors (Barr et al., 2012). A child's perceived family support was correlated to lower levels of depression and anxiety (DiClemente et. al., 2016). It has been found that not all children who experienced sexual abuse experience negative symptoms as a result of the abuse (Guerra, Farkas, & Moncada, 2018) such as, symptoms of depression, anxiety, or PTSD. A lack

of these symptoms was correlated to high levels of family support (Guerra, Farkas, & Moncada, 2018). Family support was also found to be a moderator for strong self-efficacy (Guerra, Farkas, & Moncada, 2018).

Parental subsystem

My research was focused on the impact family environment has on the resilience of children who experienced complex trauma. Therefore, Structural Family Therapy was one of the main theories which encompassed the theoretical model. The parent-child relationship will be examined to gain further understanding of how a parent can cultivate a more positive family environment which allows for stronger relationships with their children, where children are able to learn and develop appropriately in the household. Minuchin (1985) states that a mother's experiences as a child will heavily influence the way she parents her children, and the relationships she has with them. Today, it would most likely be argued all parents' childhood experiences in their household will influence who they are as a parent despite their gender. Minuchin also stated children are constantly watching their parent(s) and learning more about ways humans behave in a variety of social scenarios (1985). The parental subsystem, therefore, is important as the environment of the household will most likely be defined as negative or positive based on the ways in which the parent(s) and/or caregiver(s) react to unnerving situations or generally mild scenarios. In a negative family environment, it can be hypothesized that a parent would not have much ability to regulate their emotions when conflict arises, therefore, children will learn early on in their lives to be anxious and they will not learn how to manage their emotions and maintain a calm attitude when they are confronted with issues, which can lead to lower levels of resilience in adulthood. The ways in which parents navigate their relationships with their children can impact other subsystems as well such as the sibling

subsystem (Cox & Paley, 1997). Parenting styles in the wake of complex trauma can also have an impact on children. Some parents may partake in good-enough parenting (Arnold & Fisch, 2011) where they are able to be emotionally available for their children despite the trauma surrounding the environment. Other parents may partake in pathogenic parenting in which parents become reclusive or attempt to control children by using threatening language (Arnold & Fisch, 2011). Sadistic parenting may also occur in which children are maltreated (Arnold & Fisch, 2011).

Statement of the Problem

The literature has a variety of gaps in regards to complex trauma and the outcomes that manifest into adulthood. Some studies present a case that complex trauma leads to depression or other mental health struggles (Collishaw, Pickles, Messer, Rutter, Shearer, & Maughan, 2007; Lee, Cronley, & White, 2012). Other studies (Cook et al., 2005; Collishaw et al., 2007), however, exemplify some children who grow into young adults are not heavily impacted, as they are resilient. There needs to be more research investigating what factors contribute to the resilience.

Family environment, which is the amount of support family members are able to provide a child (Moos & Moos, 1986), consists of three dimensions: relationship, personal growth, and system maintenance (Moos & Moos, 2009). Relationship and personal growth are focused on the functioning of the family, while personal growth emphasizes the families' interactions with outside systems. Regarding human development, family environment has a strong impact on how children, adolescents, and young adults succeed in school and life transitions (Moos & Moos, 2009). For elementary school-aged children, strong family environment is correlated with increased social skills and academic success versus partaking in problematic behaviors (Moos &

Moos, 2009; Johnson, 2005; Overstreet & Braun, 1999). Strong family environments are also correlated to higher self-confidence and stronger adaptation skills when transitioning to college, and have higher college retention rates (Rich & Bonner, 1987; Searight & Openlander, 1986; Moos & Moos, 2009).

Characteristics of family environment as per the Family Environment Scale (Moos & Moos, 1974), consist of cohesion, expressiveness, conflict, independence, orientation, culture, recreation, morals and religion, organization, and control (Moos & Moos, 2009). Relationships within a family can decrease the likelihood of anxiety and other mental health challenges in adolescents (Rowat, 1995; Uruk, Sayger & Cogdal, 2007). Cohesion predicted lower levels of depression, ability to utilize coping skills, express emotions, and feelings of loneliness in children experiencing family migration from rural to urban migration in China (Zhao, Liu & Wang, 2015). Meanwhile, children with no perceived cohesion in the family reported depression and feelings of loneliness (Zhao, Liu, & Wang, 2015).

Resilience is, the ability to thrive and adapt after an adverse event. Advocating for the proper resources to be utilized in a way that is significant in regards to the specific person's culture (Ungar, Ghazinour, & Richter, 2013). These resources consist of community supports, familial supports, neighbor supports, school supports, and others found within one's community. Therefore, those who are resilient are able to utilize systems outside of their family system to thrive. The ability to effectively persevere and recover after traumatic experiences (Werner & Smith, 2001). Emmy Werner (1992) set the original factors for resilience to be cultivated in children and adolescents as they age into adulthood which are (1) positive interactions with parent(s)/caregiver(s), teachers, mentors, friends, spouses, significant others (2) positive outlook on life, faith, developmentally appropriate responsibilities, realistic future goals pertaining to

education and career (3) parent(s)/caregiver(s) encouraging high self-esteem, modeling pro-social behaviors (4) Adults/parent(s)/caregiver(s) child/adolescent can trust and lead children/adolescents to success despite risk factors they experience (Werner, 1992).

Resilience has been found in individuals who experience complex trauma. Most of the literature which presents these results only measures a single form of trauma and resilience post trauma. Resilience is seen as positively adapting to adverse situations. However, it is important to understand what may lead to this resilience, hence the present study. Characteristics of resilience in the present study comprised the ability to adapt to changes, the presence of a support system, flexibility, positive self-concept, the ability to stay calm under pressure, and coping skills (Connor & Davidson, 2003).

In this study, the assessment of the impact of family environment on mental health outcomes, as measured by depression, was examined as many studies exist that point towards a relationship between complex trauma and depression, without any information about what else occurred in their lives other than the trauma.

Research Questions

The research questions for the present study are as follows:

1.
    a. Does family environment predict level of resilience after controlling for level of complex trauma?
    b. Does family cohesion predict level of resilience after controlling for level of complex trauma?
    c. Does family environment moderate the relationship between level of complex trauma and resilience?

d. Does family cohesion moderate the relationship between complex trauma and resilience?

2.

a. Does family environment and resilience predict levels of depression in young adulthood after controlling for level of complex trauma?

b. Does resilience mediate the relationship between family environment and depression?

c. Does family cohesion and resilience predict levels of depression in young adulthood after controlling for level of complex trauma?

d. Does resilience mediate the relationship between family cohesion and depression?

Purpose of the Study

The purpose of the study is to examine the relationship between level of complex trauma, family environment, family cohesion, resilience, and depression. It is important to measure family cohesion separately from family environment, as past research concludes family cohesion's impact insert study here. Complex trauma can either lead to resilient or non-resilient young adults. For the purpose of this study, focus is given to family environment and family cohesion to see if it they have a moderating effect or any other predictive effect on resilience and depression levels. The objective of the current research is to determine the relationship between complex trauma, family environment, family cohesion, and experiences of resilience and depression. Implications of this study include, gaining a better understanding of the prevalence of negative or positive impacts post-experience of complex trauma, and understanding if a factor such as family environment has an impact on the ways in which individuals develop into young adults in regards to resilience and depression levels.

Significance of the Study

It is important for counselor educators to have an understanding of trauma, trauma-informed care, and complex trauma. This is largely due to the fact that practicum level counselors-in-training and counseling interns who work with children and/or families, will undoubtedly come across clientele who are actively experiencing complex trauma. Trauma informed care (TIC) is treatment that places high regard for the pervasiveness of traumatic experiences clients may be experiencing or have experienced (Jennings, 2004). TIC focused counselors are able to acknowledge the ways in which trauma can have a neurological, psychological, biological, and social impact on a client (Jennings, 2004).

It is imperative for counselors who work with clients who experienced or are experiencing trauma to utilize this lens when partaking in advocacy in order to effectively empower clients while assisting them as well (Jennings, 2004). Counselors should be more apt to understand "what has happened to you?" rather than "What's wrong with you?", considering most of the behavioral symptoms counselors see in individuals or family systems are the direct result of coping with adverse experiences (Mirksy, 2010). More research on the topic of complex trauma will allow counselor educators to have more of an understanding of these populations, and how to train students to approach these clients more efficiently.

Considering many clients are able to be resilience after the experience of complex trauma, it is important to understand what factors lead to resilience in order for preventative counseling interventions to be created so children and adolescents will have a higher chance of having positive life outcomes despite complex trauma experienced.

Limitations

As a self-report survey study, participants may provide inaccurate results. Participants may not want to share the complex trauma they experienced. If complex trauma has been repressed by participants, they may be unable to recall past trauma. Also, the constructs, complex trauma and resilience are being measured retroactively, meaning participants are asked to remember past experiences. Because these experiences will be from several years ago, it may be difficult for participants to remember them accurately.

Another limitation is sampling bias, as the participants are a convenience sample. Given the demographics of the university, it may be difficult to obtain a diverse sample. I will recruit young adults via social media groups to assist in diversifying the sample. Mental Health stigma may lead to under reporting of mental health struggles (depression, anxiety, stress).

Definition of Terms

Trauma. An event which brings feelings of pain and being overwhelmed is the general definition of trauma (Arnold & Fisch, 2011).

Complex trauma. Resides under the umbrella of ongoing trauma, which means, complex traumas occur over for a period of time, rather than the traditional type of trauma that is a one-time event in someone's life (Curtois & Ford, 2013; Spinazzola, Ford, Zucker, van der Kolk, Silva, Smith & Blaustein, 2005; Van Der Kolk 2005; McCrea, Guthrie, & Bulanda, 2016). Complex trauma impacts the family system, and tends to directly impact the parent-child subsystem. Complex trauma has the potential to hinder a child's development biologically, socially, and emotionally (Arnold & Fisch, 2013). The main trauma focus for the present study

was complex trauma. It should be noted that complex trauma was measured as the subjective experience of participants rather than symptomatology.

Family environment. The amount of support family members are able to provide a child both internally and externally. Components of family environment consist of cohesion, expressiveness, conflict, independence, orientation, culture, recreation, morals and religion, organization, and control (Moos & Moos, 1986, 2009).

Family cohesion. Defined as the "shared affection, support, helpfulness, and caring among family members" (Barber & Buehler, 1996, p. 433), and commitment, assistance, and support family members share with each other (Moos & Moos, 2009).

Resilience. The ability to thrive and adapt after an adverse event. Advocating for the proper resources to be utilized in a way that is significant in regards to the specific person's culture (Ungar, Ghazinour, & Richter, 2013). These resources consist of community supports, familial supports, neighbor supports, school supports, and others found within one's community. Therefore, those who are resilient are able to utilize systems outside of their family system to thrive. The ability to effectively persevere and recover after traumatic experiences (Werner & Smith, 2001). Emmy Werner (1992) set the original factors for resilience to be cultivated in children and adolescents as they age into adulthood which are (1) positive interactions with parent(s)/caregiver(s), teachers, mentors, friends, spouses, significant others (2) positive outlook on life, faith, developmentally appropriate responsibilities, realistic future goals pertaining to education and career (3) parent(s)/caregiver(s) encouraging high self-esteem, modeling pro-social behaviors (4) Adults/parent(s)/caregiver(s) child/adolescent can trust and lead children/adolescents to success despite risk factors they experience (Werner, 1992).

Depression. When a person holds destructive thoughts towards themselves, holds a bleak idea of the future and their life in general, persistently experiences the feeling of sadness, and feels it physically (Blackmon, Liptak, & Recklitis, 2015). Furthermore, those who have depression have a lacking interest in activities they originally found joy in, their sleep is impacted, they can be observably slower or more restless than usual, can experience fatigue, feel unworthy, have difficulty concentrating, can display indecisiveness, and can experience frequent thoughts of death or suicidal ideation (American Psychiatric Association, 2013).

CHAPTER TWO: LITERATURE REVIEW

This chapter consists of a review of literature relevant to the present study. The theoretical framework and statistical models are also introduced in this chapter. The theoretical framework is based on the constructs, family environment and resilience. The base of the theoretical framework is Structural Family Therapy (Minucin, 1974), which emphasized the family environment construct. The theoretical framework also included Masten's systemic view of resilience (Masten, 2009; Masten, 2016; Masten, 2018), alongside wave one of the metatheory of resilience and resiliency (Richardson, 2002). This chapter also provides a more expansive description of the constructs.

Introduction to the Literature

The present study is centered on complex trauma, trauma which occurs during childhood with the potential to hinder the development process (Arnold & Fisch, 2011). Investigation of how family environment; the social environment, and interpersonal relationships within a family (Moos & Moos, 1994) can affect resilience; advocating for the proper resources to be utilized in a way that is significant in regards to the specific person's culture (Ungar, Ghazinour, & Richter, 2013) will be conducted in the present study. Further definition of resilience is the ability to effectively persevere and recover after traumatic experiences (Werner & Smith, 2001). Emmy Werner (1992) set the original factors for resilience to be cultivated in children and adolescents as they age into adulthood which are (1) positive interactions with parent(s)/caregiver(s), teachers, mentors, friends, spouses, significant others (2) positive outlook on life, faith, developmentally appropriate responsibilities, realistic future goals pertaining to education and career (3) parent(s)/caregiver(s) encouraging high self-esteem, modeling pro-social behaviors (4) Adults/parent(s)/caregiver(s) child/adolescent can trust and lead children/adolescents to success

despite risk factors they experience (Werner, 1992). The assessment of how both of these constructs impact levels of depression; when someone has a positive psychological and emotional condition, indicating they can productively function emotionally (Seligman, 2013) will be uncovered in the present study.

As found in past research, complex trauma can have a multitude of negative effects on an individual (Felitti et al., 1998; Lee, Cronley, & White, 2012; Chassin, Pitts, DeLucia, & Todd, 1999; Raucher-Chene, Gierski, Hubsch, Cuervo-Lombard, Bera-Potelle, & Cohen, 2012; Morgan, Desai, & Potenza, 2010; Herrenkohl, Hong, Klika, Herrenkohl, & Russo, 2013). However, it has also been found that this is not always the case for some. Therefore, it is important to understand what leads to resilience and mental wellness as it will lead to preventative counseling interventions that will increase the likelihood that children who experienced complex trauma can have positive life outcomes.

Trauma

An event which brings feelings of pain and being overwhelmed is the general definition of trauma (Arnold & Fisch, 2011). Sub divisions of trauma exist that relate to specific individual trauma. An important term for this study is, complex trauma which occurs during childhood (Arnold & Fisch, 2011). Complex trauma resides under the umbrella of ongoing trauma, meaning, complex traumas occur over for a period of time, rather than the traditional type of trauma that is a one-time event in someone's life (Curtois & Ford, 2013; Spinazzola, Ford, Zucker, van der Kolk, Silva, Smith, & Blaustein, 2005; van der Kolk 2005; McCrea, Guthrie, & Bulanda, 2016). Another term used to explain complex trauma is chronic (Cook, Spinazzola, Ford, Lanktree, Blaustein, Cloitre, DeRosa, Hubbard, Kagan, Liautaud, Mallah, Olafson, & van der Kolk, 2005), as it is a recurring trauma that does not go away during childhood and/or

adolescence, similar to chronic illnesses. Furthermore, the definition of complex trauma is an ongoing trauma which begins during childhood with the potential to hinder the development process (Arnold & Fisch, 2011; McCrea, Guthrie, & Bulanda, 2016). Complex traumas exist over an extended period of time, such as domestic violence in the home until both pairs separate. Complex trauma tends to involve interpersonal relationships, as the parental subsystem is typically involved in the trauma, despite the role they hold in the household (e.g., abusing someone, victim, addicted to substances, etc.) (Cook et al., 2005; Vergano, Speranza, & Lauriola, 2015). Complex trauma can impact a child into adolescence and adulthood. Typically, complex trauma consists of more than one ongoing traumatic experience occurring at a time in one's life (McCrea, Guthrie, & Bulanda, 2016). Forms of complex trauma are drug and alcohol addiction in the home, watching a family member endure domestic violence, when a child is being abused emotionally, sexually, or physically, the absence of a caretaker, exposure to community violence, family separation, role reversal, loss and medical issues (Arnold & Fisch, 2011; Vergano, Speranza, & Lauriola, 2015). This specific form of trauma is problematic as it has led to many negative effects in young adults who have experienced it during childhood and/or adolescence (Arnold & Fisch, 2011; Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, Koss, & Marks, 1998). Complex trauma will be operationalized via the ACE score of the participants, which comes from the adverse childhood experiences questionnaire (Felitti et al., 1998) (It should be noted that adverse childhood experiences and complex trauma are terms that have been used interchangeably). The higher the ACE score, the more experiences of complex trauma the participants have or are experiencing. Meanwhile, some participants will have a 0 as an ACE score, suggesting no complex trauma has been experienced. In order to account for the broader definition, which includes symptoms as a result of trauma, participants

will complete the UCLA PTSD Index (Pynoos & Steinberg, 2002) symptomatology questions. In which the severity of the symptomatic response is dependent on the score, in which higher scores would be considered severe symptoms.

Theoretical Framework

The core of the theoretical framework for the present study focuses on family environment and resilience, the most salient constructs in the present study. The theory for the present study derives primarily from Structural Family Therapy (Minuchin, 1974) and Masten's systemic view of resilience which ties in with Structural Family Therapy (Masten, 2009; Masten, 2016; Masten, 2018), alongside wave one of the metatheory of resilience and resiliency (Richardson, 2002).

Family is where a majority of child development occurs, and complex trauma can have large impact on development depending on the family system (Arnold & Fisch, 2013). Family is essential to the development of a child's social development, which can impact the ways they are able to interact with society (Uruk, Sayger, & Cogdal, 2007), therefore, the base of the theoretical model is Structural Family Therapy.

Structural Family Therapy

According to Minuchin's Structural Family Therapy approach, a child's development can be impacted by their parent or caregiver. Structural Family Therapy (SFT) is a key component of the present study's theory, originally developed by Salvador Minuchin (1974).

Boundaries. One of the key components of SFT is the concept of boundaries. Families should aim for clear, normal boundaries, as this is when families partake in healthy, close, emotional relationships while also allowing each other to be their own person, which is differentiation (Gehart, 2013). Meanwhile, disengagement and rigid boundaries are associated

with disconnection amongst the relationships amongst family members. Therefore, family relationships may lack emotional connections, therefore, family members may be disengaged and inattentive to supporting each other (Gehart, 2013). In families with disengagement, there are not typically repercussions for bad behavior, too much freedom for family members to behave as they wish, lack of family commitment and loyalty, and parallel interactions such as family members being in the same room while doing separate things with little to no interaction (Gehart, 2013). Meanwhile, other families may have difficulties with enmeshment, where there are little to no boundaries, which allows little space for individuality. Typically, complex trauma will hinder boundaries that are already rigid or disengaged. This occurs in families experiencing complex trauma as the parental subsystem is typically impaired, leading to the inability to partake in more meaningful attentive connections with children. However, it is still possible for these families to achieve normal boundaries in order to assist the children to continue with an appropriate development process (Lindblad-Golderg & Northey, 2013).

Parental hierarchy. Parental hierarchy is also important to acknowledge as it is a huge factor in child and adolescent develop overall. Effective hierarchy consists of parent(s)/caregiver(s) able to set appropriate boundaries while also having an emotional connection with their children. When there are insufficient boundaries, parents struggle with behavior management of their children, and tend to be more permissive. When there is an excessive hierarchy, parent(s)/caregiver(s) are extremely strict, and severe with punishments and expectations. Each of these has a huge impact on development and social behaviors children and adolescents will partake in. Children experiencing complex trauma are more likely to experience insufficient and excessive hierarchy as parent(s)/caregiver(s) are preoccupied with the complex trauma(s) at hand. Therefore, if a family system experiences complex trauma, resilience and

mental health may be impacted as they are not experiencing the family cohesion which teaches them the life skills to make decision, cope with life stressors, socialize, and more. Considering the complication of complex trauma, there is an ability for one of the parent(s)/caregiver(s) to have an effective hierarchy with their children, while the other parent/caregiver has little to no presence or problematic hierarchy.

The family's role. Regarding child and adolescent development, families have multiple roles that they can partake in assisting children and adolescents (Colapinto, 1991). If the family is an ineffectual challenger to a child at-risk, the parents tend to be passive, which leads to extreme levels of disengagement amongst the family members or enmeshment. Since the complex trauma leads to disengagement, in turn there is little to no change in a child or adolescent's struggles as a result of complex trauma. If the family is a shaper of the child or adolescent's response to trauma, they are able to shape the child's behaviors in a way that can lead to pro-social behaviors and thriving in society, as well as provide positive experiences for the child both within and outside of the family system. For the present study, it is believed that families who are shapers will lead children and adolescents to develop into resilient adults, who experience lower to no levels of depression. Families who are ineffectual challengers will lead children and adolescents to develop with little to no resiliency and higher levels of depression.

Subsystems. Within the family system, subsystems can also occur (Gehart, 2013; Minuchin, 1974). Subsystems within the family consist of couple, parental, and sibling. The highlighted subsystem in this study is the parent-child. However, each should be acknowledged as each subsystem can impact ways in which family members respond to and heal from complex trauma. For example, if a parent is partaking in substance use, there may be blurry lines between subsystems, as a sibling subsystem turns into a parent-child subsystem if the children are forced

to take on a parental role. Within the parent-child subsystem, roles may reverse as children and adolescents experiencing complex trauma may take on the parent role, and the parent takes on a child role, also known as parentification (Cho & Lee, 2019). In families where the family environment and cohesion are strong, these subsystems will either not consist of role reversals and changes or if these reversals do happen, the family will be able to work as a unit to bring the subsystems back to their original, normal state.

Circular patterns of behavior. In structural family therapy, counselors seek to understand which circular patterns of behavior exist within families, and how it could lead to negative interactions amongst family members and lead to poor outcomes for children (Gehart, 2013). For a family experiencing complex trauma, the parents may fight which leads to domestic violence, causing the child to run away from home for the night, leading to a heightened response from the parents when they finally find the child. If these patterns continue to occur with no resolution, children will not learn how to properly regulate their emotions, how to communicate, or how to cope during stressful situations. In families where a positive family environment or strong family cohesion exists despite the complex trauma, these negative circular patterns of behavior will be corrected, leading to learning experiences for the child or adolescent. These learning experiences are considered a component of resilience.

How Resilience Ties in with Structural Family Therapy

Some of the family structures in place for resilience are, family, parent-child attachment relationship, systems which regulate emotions, behavior, and arousal, education systems, religion, spirituality, and systems focused on cultural beliefs (Masten, 2009). Masten and Cicchetti (2016) described themes of systems which promote resilience which consist of a variety of systems interacting. Furthermore, the resilience of one system will be dependent on the

resilience of systems to which it is connected (Masten & Cicchetti, 2016); therefore, a child's resilience is dependent on multiple systems that provide direct support such as their parent(s)/caregiver(s) (Masten & Cicchetti, 2016). Since family environment and family cohesion leads to positive development, it can be stated that the family system is the most salient of the systems, therefore the health of the family system will impact the other systems of which a child develops in.

Due to the need for family systems as a means for resiliency, resilience cannot be seen as a fixed trait that one has or does not. Rather, resilience may change overtime dependent on a person's interactions and developments (Cicchetti, 2016) among systems. For example, when child is a part of a strong family system, they are able to make strong positive connections with their school-system, leading to further resilience (Masten & Cicchetti, 2016). Typically, societal expectations consist of parents nurturing their children and socializing them to be productive members of society (Masten, 2018). Socialization consists of modeling, disciplining, teaching, providing routines, observing children while they play, assisting with emotion regulation until they are able to do so on their own (Masten, 2018). When adverse experiences occur, it can be extremely difficult for a parent(s)/caregiver(s) to provide socialization, however, many parents have been able to do so despite facing financial issues, war, being without a home, and other trying situations (Masten, 2018). Masten has also explained that systems are interdependent on each other which impacts resilience (Masten, 2018). Since systems are interdependent and always susceptible to change, it is understandable that resilience is the same considering systems have an impact on resilience levels.

Wave-one of the Metatheory of Resilience and Resiliency

Wave one of the metatheory of resilience and resiliency (Richardson, 2002) ties in into the theoretical model as it is understood that changes within the home during development lead to protective factors are not being accrued which leads to a lower likelihood of being resilient within their own ecosystem (Richardson, 2002; Richardson & Waite, 2002). Therefore, a positive family environment is of high importance considering environment can have an impact on which protective factors, if any are being acquired such as positive self-esteem, a strong support system, self-efficacy (Richardson, 2002) positive, loving relationships, positive view of life, good executive functioning, humorous (Richardson & Waite, 2002). A supportive family environment can be viewed as the overarching protective factor which leads to many other protective factors listed previously (Richardson & Waite, 2002). This is important as a positive family environment where protective factors available to children allows for the attainment of new skills, which can be obtained if there are healthy boundaries and hierarchies within a family system (Gehart, 2013).

In families, the environment can be shaped by the reciprocal influences two individuals may have on each other (Steele et al., 2013). For the purposes of this research, the two individuals stem from the parent-child subsystem. Tying into the theory, a positive reciprocal influence will occur when a parent is able to overcome the adversity of complex trauma to cultivate a positive family environment, and cohesion which leads to positive interactions in a household that carry into systems outside of the home (Gehart, 2013; Masten, 2018).

As per the theory for the present study, positive family environment is the base protective factor which leads to multiple positive protective factors leading to resilience in children. As a result of resilience building in childhood, children become resilient adults, which prevents

negative mental health outcomes, such as depression. A child who is in a family environment in which there is no positivity will have fewer protective factors, which can impact their resiliency throughout their childhood up until adulthood, and can result in depression.

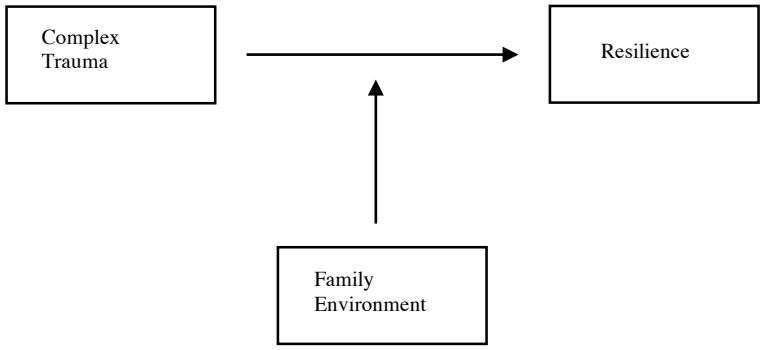
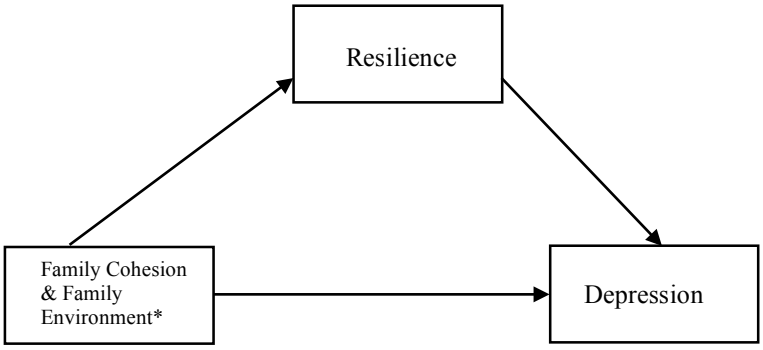


Figure 1

Moderation Model for Research Question One



Fi*gure 2*

Mediation for Research Question Two

*Two separate models will be established, one for family cohesion and another for family environment

Family Environment

Family environment is the amount of support family members are able to provide a child (Moos & Moos, 1986). Operationally, this is measured via the quality of family interactions, as well as the quantity of time that families spend time together (Moos & Moos, 1986), and eight domains; cohesion, expressiveness, conflict, acceptance and caring, independence, active recreational orientation, orientation, and control (Moos & Moos, 1986). It should be noted that family environment is the umbrella the following characteristics, cohesion, expressiveness, conflict, independence, orientation, culture, recreation, morals and religion, organization, and control (Moos & Moos, 1986, 2009). Many findings conclude a relationship between a strong family environment and resiliency in children (McClure, 2008; Simpson, 2010). This has been found via the Family Environment Scale (Moos & Moos, 2009), when measuring for cohesion specifically, which is an important aspect of family environment (Crea, Chan, & Barth, 2014; Moos & Moos, 1974).

There is plenty of literature on family cohesion as a salient component of family environment. Family cohesion is defined as, the "shared affection, support, helpfulness, and caring among family members" (Barber & Buehler, 1996, p. 433), and commitment, assistance, and support family members share with each other (Moos, 2009). Using the Family Environment scale (Moos & Moos, 2009), in the current study strong family cohesion is measured based on the scores achieved on the 9-item family environment scale focused on cohesion. Operationalizing cohesion, it is the amount of support, assistance, and commitment the family is able to provide to each other (Moos & Moos, 1986; Vostanis & Nicholls, 1995).

Family environment is measured via the Family Environment Scale (Moos & Moos,

1994). The ninety-item scale overall is in place to measure multiple constructs of family environment such as relationships in the home, personal growth, and system maintenance (Moos & Moos, 1994). The three subscales for the relationship portion consist of cohesion, expressiveness, and conflict (Moos & Moos, 1994). Moos & Moos define cohesion as the support, assistance and commitment family members are able to provide to each other (1994). The FES has multiple versions in which participants can reflect on the real; their actual experience in the home, ideal; what participants wish their family environment was like, or expected; what they expect from a family environment (Moos & Moos, 1994). The present study will measure the real family environment, as the study is investigating how participant's real family environments during childhood and adolescents impact present day depression and resilience levels.

Family environment is a large component of the theoretical model, as it is the main system in a child or adolescent's life, therefore, it can impact other aspects of a child's life as they move into adolescence and young adulthood, which can manifest as depression or other mental health challenges. It can also manifest as resilience, and ability to utilize resources to bounce back from adverse experiences (Ungar, Ghazinour, & Richter, 2013; Uruk, Sayger, & Cogdal, 2007).

Families with high conflict and low cohesion are at risk for psychological problems (Uruk, Sayger, & Cogdal, 2007; Daniels & Moos, 1990; Jaycox & Repetti, 1993; Kleinman, Handal, Enos, Searight, & Ross, 1989). Overall, positive, healthy, family environments lead to strong emotional support within the family relationships, which lead to positive feelings such as, security and acceptance (Lucey & Lam, 2012; Negy & Snyder, 2006). Meanwhile a

dysfunctional family environment may be full of conflict, and lacking warmth, and nurture, which stalls development (Walsh 2003; Lucey & Lam, 2012).

The Importance of Family Environment and Cohesion

Peers and social interactions at school also assist in the process of social development, however, it has been found that family is the most salient of the three (Uruk, Sayger, & Cogdal, 2007). The cohesion provided by the family provides individuals with a sense of belonging with a group of people, it also "enhances emotional, intellectual, and physical closeness" (Uruk, Sayger, & Cogdal, 2007). Family cohesion also teaches children about adaptability; meaning, children will see how power dynamics and roles in the house may change depending on a variety of environmental changes in the home (Uruk, Sayger, & Cogdal, 2007). Children also learn about communication, interacting, understanding, vouching, listening, and forming rules and boundaries in relationships (Uruk, Sayger, & Cogdal, 2007). Families with strong cohesion display strong communication amongst each other, mutual feelings, ability to openly express feelings, there is a sense of belonging, and all household members understand the rules (Uruk, Sayger, & Cogdal, 2007).

Family Environment and Trauma

Family cohesion is a key factor in an individual's ability to thrive after experiencing any form of trauma, which has been seen when refugee families are split, it leads to a toll of emotional stress for all in the family, the separation can also lead to loss of identity (Rousseau, Mekki-Berrada & Moureau, 2001; Uruk, Sayger, & Cogdal, 2007). A retroactive study where college student aged participants reflected on childhood trauma, found those with more childhood traumas have more problems with psychological and physical health in comparison to those who do not (Morrow, 2002). Understanding how family environment impacts this,

parents/caregivers tend to spiral into poor psychological well-being as stressors such as financial distress and marital problems may plague the family following a traumatizing event (Uruk, Sayger, & Cogdal, 2007). Despite a traumatizing issue occurring, the relationships within a family can decrease the likelihood of anxiety and other mental health challenges in adolescents (Rowat, 1995; Uruk, Sayger, & Cogdal, 2007).

Family Environment and Resilience

McClure et al. (2008) evaluated characteristics of a family as well as the characteristics of abuse and how they correlate to resilience. Sexual abuse type and severity was assessed via a self-report survey. It was found that the cohesion of a family was correlated to a child thriving in the environments they are a part of. This is most likely because strong family cohesion has led the child to obtaining self-efficacy and confidence to navigate through a variety of environments (McClure et al., 2008). Meanwhile, conflict within a family was not correlated to children thriving outside of the home.

Considering a positive family environment can lead to salient protective factors, it is important to understand how protective factors lead to resilience. Another study focused on resilience in women who experienced sexual abuse as children, measuring the protective factors that were most likely to lead the women to being resilient (Simpson, 2010). High levels of resiliency were found in the participants which differed from previous studies. The age at which a woman first experienced sexual abuse was not correlated to resilience. However, a higher frequency and duration of physical abuse correlated with lower resilience levels. Protective factors had a significant correlation to resilience (McClure et al., 2008). Self-control, ability to work in groups, and feelings of acceptance and belonging to a family were protective factors that were significantly correlated to resilience (McClure et al., 2008). This study also found that the

age of which the abuse began and the level of physical abuse did not deter participants from displaying resilience as the correct pairing of protective factors was present in their lives (McClure et al., 2008).

These findings are pertinent to the present study as it focuses on another form of complex trauma. The findings highlight the fact that resilience is attainable for all no matter where in childhood the trauma began or how intense. Therefore, knowing this, the present study can focus on what actually leads to resilience. This study did provide evidence that family is a protective factor that may lead to resilience (McClure et al., 2008). The present study will look into this deeper, with a focus on family cohesion, while broadening the lens to all complex trauma.

Family Environment and Mental Health

Herrenkohl, Herrenkohl, and Egolf (1994) found children and adolescents who were thriving and resilient despite experiencing maltreatment. It has been acknowledged in the research that family environment could be the cause for this. Family cohesion is a force in mental illness prevention, and has been found to lead to positive mental wellness (Uruk, Sayger, & Cogdal, 2007). Delving deeper into the family as a gateway to resilience, family environment has been found to lead to protective factors which build one's resilience (Huffman, Matthews, & Irving, 2017). These factors consist of "resources, and supportive relationships, such as family coherence, stable caregiving, parental relationships, and spousal support" (Huffman, Matthews, & Irving, p. 268, 2017). Of the protective factors leading to resilience was one caregiver's presence (Herrenkohl, Herrenkohl, & Egolf, 1994) and emotional support from the parent (Huffman, Matthews & Irving, 2017; Herrenkohl, Herrenkohl, & Egolf, 1994). Adults who recalled positive care from parents as well as no history of mental health disorders were found to

be resilient, providing more evidence for a positive family environment (Collishaw, Pickles, & Messer, 2007).

There is a strong correlation between supportive relationships during childhood and adolescence and resilience during young adulthood (Huffman, Matthews, & Irving, 2017). Life satisfaction and positive ability to cope are also significantly correlated to resilience in young adulthood (Huffman, Matthews, & Irving, 2017), "warm and effective parenting" led to resilience as well (Huffman, Matthews, & Irving, 2017). all of which can be achieved in a family system where the cohesion is strong (Shanahan, Mchale, Crouter, & Osgood, 2007).

Focusing specifically on the complex trauma of sexual abuse during childhood, longitudinal effects of adults who displayed resilience had positive family environments in which the family was considered stable (Hyman & Williams, 2001). Non-family related resilience predictors consisted of graduating high school, no arrest record during childhood and adolescence, and not being sexually abused a second time as adolescence (Hyman & Williams, 2001). The present study hypothesizes family environment can have a role in preventing these things from occurring in those who experienced complex trauma, providing more rationale for the importance of family environment in resilience and trauma research.

Looking at family environment in children who experienced sexual abuse, the abused child's perception of their family environment is typically different than those in the household not experiencing sexual abuse (Hulsey & Sexton, 1992; Stokes, Mccord, & Aydlett, 2013). Specifically focusing on the cohesion component of family environment, these children reported, isolation, inability to be independent, disarray, and a disconnect among individual family members (Stokes, Mccord, & Aydlett). Family cohesion was correlated to more positive mental wellbeing of adults who experienced childhood sexual abuse, providing more support for family

environment as a factor for greater mental health outcomes (Stokes, Mccord, & Aydlett, 2013; Hulsey & Sexton, 1992).

Delving into family environment and its impact on psychological wellbeing, it has been found that a positive view of one's family environment is correlated to adolescent's ability to adjust to their environments, leads to positive mental health and behaviors, and self-esteem (Uruk, Sayger, & Cogdal, 2007). Others have also found a connection between low family cohesion and lower amount of psychological well-being (Rutledge, Davies, & Davies, 1994). For college students, family cohesion experienced in childhood and throughout development can impact their psychological well-being, showing support for why this is so important for the present study (Uruk, Sayger, & Cogdal, 2007; Robitschek & Kashubeck, 1999). Furthermore, it has been found that adolescents who experience less family cohesion report higher levels of depression (Greendberger & Chen, 1996; Rice et al., 2006; Moos, 2009).

Forty eight percent of children who experienced abuse and neglect were resilient during adolescence (DuMont, Spatz Widom, & Czaja, 2007). However, more than half of the participants who were resilient during adolescence were unable to maintain resilience in young adulthood (DuMont, Spatz Widom, & Czaja, 2007). Those who are resilient in adulthood had mothers who were somewhat attentive to them, and able to respond emotionally (DuMont, Spatz, Widom, & Czaja, 2007). Children who were sexually abused were able to become resilient if the non-abusive parent or sibling had a strong relationship with them that was positive and supportive (Conte & Schuerman, 1988).

Masten and Reed (2002) found positive family environments are positively correlated to resilience in children. These positive environments consist of closeness among family members, positive parental relationship, warm parenting style, structured parents, and clear boundaries

(Masten & Reed, 2002). From a more broad, socioeconomic lens, parent involvement in their child's academics is associated with resilience as well (Masten & Reed, 2002), which can most likely occur when family cohesion is high. Family environment is of high importance in response to child maltreatment specifically, as it consists of supportive relationships (Afifi & MacMillan, 2011; Egeland, Carlson, & Sroufe, 1993) a time that may not always feel supportive or stable. It has been concluded that a family's strong impact on resilience is necessary as resources alone such as, coping skills, money, genetics, and food, are not enough to build resilience in a child (Jaffee, Caspi, Moffitt, Polo-Toma, & Taylor, 2007).

With a military adult sample, complex trauma was associated with a higher likelihood for suicidal ideation (Skopp, Luxton, Bush, & Sirotin, 2011). This study concluded family environment has the ability to decrease suicidal behaviors. It can also increase one's likelihood to experience suicidal ideation if the family environment is negative (Skopp, Luxton, Bush, & Sirotin, 2011). The latter is seen when a parent who is experiencing mental health issues or abusing substances is unable to form a strong relationship with their child (Skopp, Luxton, Bush, & Sirotin, 2011) or cultivate a positive family environment. When family support was lacking, participants reported feelings of isolation and loneliness which then leads to mental health complications and suicidal ideation (Skopp, Luxton, Bush, & Sirotin, 2011). Another study with an adolescent sample focused on feelings of loneliness as a result of family environment (Alvarez & Juang, 2010). It should be noted, these adolescents were actively experiencing racial discrimination (Alvarez & Juang, 2010). Strong family cohesion was significantly correlated to less loneliness in adolescence. Meanwhile, households with significant conflict led to high levels of loneliness in adolescents. Strong family cohesion was able to prevent adolescence experience of depression and anxiety (Alvarez & Juang, 2010).

A child's attachment to their family was a prominent protective factor for those who experienced complex trauma (Chandy, Blum, & Resnick, 1996). This study analyzed outcomes based on gender. For those with weaker family systems, it was found that females were more likely to frequently use alcohol, experience suicidal ideation, obtain an eating disorder, or partake in disordered eating. Males partook in even more extreme use of alcohol, and had higher likelihood of using marijuana (Chandy, Blum, & Resnick, 1996).

Resilience

Physical abuse throughout childhood and beyond is considered complex trauma. Current literature focused on child maltreatment displays the negative impact it can have on a child such as, depression, substance abuse, and violent behavior (Lee, et al., 2012). However, there are also findings that suggest resilience is possible with this population (Collishaw, et al., 2007). Family environment and secure family relationships have been found to be one of the factors that can lead to resilience (Affifi & Macmillan, 2011; Collishaw, et al., 2007).

Psychological resilience is an important protective mechanism for people as they experience stressors throughout the course of their life (Gooding, Hurst, Johnson, & Tarrier, 2011). Despite this fact, minimal research has been done on resilience (Gooding, et al., 2011). An inclusive definition of resilience can be defined as, advocating for the proper resources to be utilized in a way that is significant in regards to the specific person's culture (Ungar, Ghazinour, & Richter, 2013). Resilience can also be defined as the ability to effectively persevere and recover after traumatic experiences (Werner & Smith, 2001). Emmy Werner (1992) set the original factors for resilience to be cultivated in children and adolescents as they age into adulthood which are (1) positive interactions with parent(s)/caregiver(s), teachers, mentors, friends, spouses, significant others (2) positive outlook on life, faith, developmentally

appropriate responsibilities, realistic future goals pertaining to education and career (3) parent(s)/caregiver(s) encouraging high self-esteem, modeling pro-social behaviors (4) Adults/parent(s)/caregiver(s) child/adolescent can trust and lead children/adolescents to success despite risk factors they experience (Werner, 1992). Furthermore, if an adverse event occurs, resilience will be dependent upon how a person is able to personally respond while also utilizing the resources available within their community. Resilience is also defined as "a class of phenomena characterized by good outcomes in spite of serious threats to adaptation of development" (Ledesma, p.1-2, 2014; Masten, 2005). In some scenarios, the resources may be other people with which a strong relationship was formed as a result of assistance (Chandler, Roberts, & Chiodo, 2015). In many cases, this can be seen as adults are a positive influence and strong support for a child or adolescent during a time of adversity. Another definition of resilience is quite simply, being able to spring back to normalcy after an adverse event or experience (Smith, Dalen, Wiggins, Tooley, & Bernard, 2008).

Those who are resilient are able to move forward despite negative barriers they faced in their lives, and finding positive resources that will help them to be successful, which is dependent on a person's culture (Ungar, Ghazinour, & Richter, 2013). A person who is resilient has experienced negative life events, however, they did not allow those events to impact their success. For example, a resilient person may have experienced domestic violence in their household, however, they were still able to do well in school as a child, and grow into a calm person with strong social skills. Another example of a resilient person is someone who experienced a traumatic event such as being held at gun point during college, yet they were still able to thrive in school and complete their degree. The proper resources to continue to do well despite an event such as this, would be seeking out counseling services or family members for

support, or meeting with professors.

Resilience is an important protective mechanism for people as they experience stressors throughout the course of their life (Gooding, Hurst, Johnson, & Tarrier, 2012). Another definition of resilience is, being able to spring back to normalcy after an adverse event or experience (Smith, Dalen, Wiggins, Tooley, & Bernard, 2008). Utilizing wave 2 of Richardson's (2002) theory of resilience, resilience can be defined as, "the process of coping with adversity, change, or opportunity in a manner that results in the identification, fortification, and enrichment of resilient qualities or protective factors" (Richardson, 2002, p. 308). The American Psychological Association defines resilience as, "the process of adapting well in the face of adversity, trauma, threats, or significant sources of stress such as serious health problems" (American Psychological Association, 2010; Fletcher & Sarkar, 2013).

Many of these definitions were inspired by the resiliency model in which resiliency is viewed as the way people cope with distressing, troublesome, worrying life events via positive coping skills before the negative event can cause further damage to a person (Richardson, 1990). It is acknowledged that resilient people may experience a temporary sense of doubt and disorganization, however, over time they will utilize and develop more coping skills and ways to positively handle negative life events (Richardson, 1990). As a person experiences more negative life events, it is expected that they will be able to handle future negative events more strongly (Richardson, 1990).

There is a wide array of operational definitions to describe resilience. The commonality in each of these definitions is the use of the word adversity followed by the word adaptation. However, debates occur as researchers define what adversity truly means. Luthar and Cicchetti (2000) define adversity as any negative life event which follows by difficulties with adjustment.

Meanwhile, other researchers define adversity as any difficult experience or suffering that is correlated to trauma, hardship, or stress (Fletcher & Sarkar, 2013). Daydov, Stewart, Ritchie, and Chaudieu (2010) state resilience can occur as a result of a wide range of adversity from daily typical stress to extreme stress such as grief and loss. Therefore, it is important for researchers to clearly state what forms of adversity followed by resilience are being measured in their research (Fletcher & Sarkar, 2013). In regards to the positive adaptation portion of the resilience definition, it is dependent upon the population being studied. For example, children's positive adaptation may be measured as academic achievement (Fletcher & Sarkar, 2013) Meanwhile, war veteran's positive adaptation may be measured in the absence of psychological symptoms (Fletcher & Sarkar, 2013). Leading to more discrepancies across the research.

Some researchers conceptualize resilience as a personality trait. However, many others conceptualize resilience as something that can change overtime. This conceptualization acknowledges the impact protective factors and the particular adverse experience can have on a person over time. This view has been supported in a study in which agitation levels of athletes impacted their resilience negatively at first, and many of their ability to positively adapt was increased overtime (Egeland, Carlson, & Sroufe, 1993; Fletcher & Sarkar, 2013). The present study follows the idea that resilience may change over time in either a positive or negative direction (Fletcher & Sarkar, 2013).

Resilience, the ability to adapt after some form of adversity (Daydov, Stewert, Ritchie, & Chaudieu, 2010; Fletcher & Sarkar, 2013), will be operationalized via scores on the Connor-Davidson Resilience Scale (Connor & Davidson, 2003) which provides numbers as to how resilient each participant is. Participants will get a resilience score ranging from 0 (no resilience) to 100 (most resilience).

Areas of Resilience in Children Experiencing Complex Trauma

Upon experiencing complex trauma, there are many factors correlated to resilience in children (Cook, et al., 2005). First, strong, positive attachment with an adult, whether it be an adult in the community or a family member (Cook, et al., 2005). The ability to regulate emotions independently (Cook, et al., 2005), developmentally appropriate cognitive development (Cook, et al., 2005), strong self-concept (Cook, et al., 2005), ability to control behaviors dependent upon environment they are in (Cook, et al., 2005), even-tempered, social, "internal locus of control", and the tendency to not self-blame, rather understand the broader picture (Cook, et al., 2005).

A study sought to gage levels of resilience in adolescents and young adults who had been physically abused as children. The study also sought to understand which factors lead a person to being resilient or not (Collishaw, et al., 2007). The data of this study came from the "The Isle of Wight study" (Collishaw, et. al., p. 214, 2007), a longitudinal study based in England which was considered *"*one of the first systematic epidemiological investigations in child psychiatry" (Collishaw, et. al., p. 214, 2007). The study assessed mental illness, interpersonal relationships, family functioning, child abuse, perceptions of their parent's parenting, health, personality, romantic relationships, and quality of relationships.

It was found that many adults who experienced physical abuse did have an elevated risk for mental illness such as depression, suicidal ideation, post-traumatic stress disorder, and substance abuse (Collishaw, et al., 2007). However, some of the participants did not present with mental illness. It was also found that participants positively adapted post physical abuse as they demonstrated good health, strong relationships with others, did not partake in criminal behavior which supports the statement that people can be resilient despite past abuse. Another predictor of

resilience was the perceptions participants had of their family, friend, or romantic relationships. If the perceptions were positive, the participants were more likely to be resilient (Collishaw, et al., 2007).

Following the DSM IV, this study is not as relevant to today's work with populations who experience trauma, which is also seen via the use of the "Schedule for Affective Disorders and Schizophrenia—Lifetime version (SADS-L; Harrington et al., 1988)" (217) which is DSM IV based. Another critique of this study is that the number of participants who were physically abused as children is not high (N=44), which means the power of the study is not sufficient. The study was also conducted in England which may not be generalizable to the United States (US) population. Childhood abuse was also not specifically defined in the article which leads to questions regarding if culturally, these results are generalizable to the US population. Contrastingly, the results come from a community sample, which is a strength of this study, especially in regards to resilience research. However, the study's ability to exemplify that resilience if possible when relationship perceptions are strong is important, as the present study seeks to understand how family environment can lead to resilience.

A positive family environment can lead to protective factors, cohesion, and learning coping skills. Each of these factors are strongly associated with resilience in those who were sexually abused as children (McClure, Chaves, Agars, Peacock, & Matosian, 2008; Simpson, 2010).

Delving Deeper into Resilience

Beasley, Thompson, and Davidson (2003) identified resilience as positive coping skills in an adult sample, ages 25-59. The research found adverse life events had an impact on mental health, as it led to impairments to mental health, while traumatic events did not significantly

impact participants. Skillful use of coping skills led to resilience in participants (Beasley, Thompson, & Davidson, 2003). Via the CD-RISC 10, another study found those had higher levels of resilience were less likely to have a psychiatric diagnosis (Scali, Gandubert, Ritchie, Soulier, Ancelin, & Chaudieu, 2012). It was also found that higher resilience was correlated to less likelihood of having generalized anxiety disorder (Scali, et al., 2012). Meanwhile, past diagnosis and current resilience had no correlations (Scali, et al., 2012). Comparing low resilience with moderate resilience, the moderate group showed significant differences as they were more likely of breast cancer exposure or a previous traumatic event (Scali, et al., 2012). Comparing low resilience with high resilience, the women were more likely to experience a major traumatic event in their life (Scali, et al., 2012). A negative association was found between resilience and current mental health diagnosis, and a positive association with past trauma (Scali, et al., 2012). However, higher levels of mental health challenges predicted higher resilience levels (Scali, et al., 2012). This finding can lead researchers to believe there is more to resilience than mental health status, and many constructs should be assessed (Scali, et al., 2012).

Resilience Impact on Mental Health

Daydov, Stewart, Ritchie, and Chaudieu (2010) describe a portion of resilience as something that is cultivated through one's environment. A positive family environment is considered protective, leading to lower levels of anxiety symptomatology in adolescents, 11-16 in this case (Daydov, Stewart, Ritchie, & Chaudieu, 2010).

In 1992, Werner and Smith assessed the impact of complex trauma. It was found that complex trauma experienced in childhood led to problems during adolescence, however, change was able to be made in young adulthood. A main factor which increased resilience overtime was family (Werner & Smith, 1992). When children were able to have strong relationships in their

family, stability was added to otherwise disorganized lives, which led to the conclusion that some stability is able to be present in one's life, with a parent/or caregiver sensitive to what they need, they are more likely to become resilient (Werner & Smith, 1992).

Counseling programs for children and adolescents are also seeking to fortify resilience. Therefore, the main premise of the treatment is for children to experience a secure environment where clients feel valued (Mccalister, Allen Knight, Withyman, & Dawkins, 2018). This leads to present study's interest in investigating strong family environments as a protective factor to build resilience in those who experienced complex trauma.

Looking more into mental health outcomes, young adults may experience multiple adversities prior to young adulthood (Masten & Tellegen, 2012). In one study, effects of adversities were negative emotions, and symptoms of psychosis (Masten & Tellegen, 2012). Participants with these symptoms also displayed less resilience in comparison to their peers. (Masten & Tellegen, 2012). It was found that the group that displayed negative symptoms as a result of past adversities, were missing parental support and resources for more support, in comparison to those who experienced adversity, yet displayed resiliency (Masten & Tellegen, 2012). Therefore, resilience can impede the amount of depression a person experiences, specifically family support and general social support can increase ones' resilience, which in turn reduces depression symptomatology (Siriwardhana, Ali, Roberts, & Stewart, 2014). Low levels of anxiety was correlated to higher levels of resilience, and high levels of anxiety was correlated to lower resilience levels (Scali, et al., 2013). With a sample of older adults, it was found that an increase in resilience can lead to a reduction in depression, which can lead to greater experiences with aging, which leads to reduction in physical disabilities associated with aging (Jeste, Savla, Thompson, Vahia, Glorioso, Martin, Palmer, Rock, Golshan, Kraemer, & Depp, 2013). The most

significant multivariate model of this study presented higher levels of resilience led to lower depression levels, and better physical health (Jeste, et al., 2013). Min, Lee, & Chae (2015) found resilience had interaction effects on symptoms of anxiety and depression yet it did not have effects with child maltreatment. Therefore, they believe resilience may be a moderator or buffer for some risk factors or forms of trauma yet not others (Min, Lee, & Chae, 2015). Resilience had a direct effect on levels of depression in participants who had schizophrenia (Rossi, et al., 2011). It was found that those who experienced emotional neglect eventually displayed low resilience and high symptoms of depression despite the identified gender (Lee, Bae, Rim, Lee, Chang, Kim, & Won, 2018). It was also found that resilience has the potential to be a mediator between the experience of trauma and the experience of depressive symptoms (Lee, et al., 2018).

Parent-Child Subsystem as a Defender

A common factor amongst all literature reviewed is the importance of the parent-child subsystem. Complex trauma can impact attachment in this subsystem. As complex trauma occurs, the attachment between parent and child is constantly disrupted. In one circumstance, a parent may overstimulate their child via a traumatic behavior or under stimulate a child if neglect is occurring (Kliethermes, Schacht, & Drewry, 2014). Many times, a parent and/or caregiver will be unable to fix the disorganization between their relationship with child as stress is high, leaving the child unable to be protected from the stressful environment and unable to regulate their emotions as they are continuously over and under stimulated (Kliethermes, Schacht, & Drewery, 2014). If a disorganized attachment is formed, negative outcomes for a child can be externalizing behavior, being aggressive, or obtaining oppositional defiant disorder (Kliethermes, Schacht, & Drewry, 2014). Other effects of a disorganized attachment style with a parent consist of inability to cope with stress, hence the externalizing behaviors. This inability

then leads to deficits in one's social skills such as rigidity in interpersonal interactions or inconsistencies (Kliethermes, Schacht, & Drewry, 2014).

Further Understanding of How Complex Trauma Impacts Development

The impact of complex trauma can be both long-term or immediate impact (Cook, et al., 2005). "Results in a loss of core capacities for self-regulation and interpersonal relatedness" (Cook, et al., p. 390, 2005). Areas in which impairment is possible for those who experience complex trauma are, attachment, biology, affect regulation, dissociation, behavioral control, cognition, and self-concept (Cook, et al., 2005).

Attachment is an area where impact can occur in those who experience complex trauma. It can lead to issues with boundaries, inability to trust others, isolating oneself socially, struggling interpersonally, struggling to understand the emotional state of others, and taking on other perspectives (Cook, et al., 2005). This occurs as a person's relationships with caregivers provide them with "relational context in which children develop the earliest psychological representations of self, other, and self in relation to others" (Cook, et al., p. 392, 2005). Which leads to a child's development in how they tolerate distress, curiosity, communication skills, and ability to make their own decisions (Cook, et al., 2005). Therefore, when the relationship between child and caregiver is where the trauma is occurring, such as maltreatment, attachment is severely impacted (Cook et al., 2005). 80% of children who were maltreated acquire insecure patterns of attachment (Cook, et al., 2005). In many circumstances, the primary parent/caregiver is unable to be responsive to their children due to distress, punitive ways, distance, and preoccupation (Cook, et al., 2005). This leads to children becoming easily distraught and unable to cooperate with others (Cook, et al., 2005). For those with disorganized attachment, children display unpredictable behaviors towards parents such as being aggressive one day, and clingy the

following (Cook, et al., 2005). All of which lead to issues with being overwhelmed by emotions or inability to feel emotions (Cook, et al., 2005) or isolating oneself or being too dependent on others (Cook, et al., 2005).

Biological impact consists of issues with equilibrium, body weight, coordination (Cook, et al., 2005), physical manifestation of symptoms, issues during sensorimotor development, inability to feel pain, medical problems such as "pelvic pain, asthma, skin problems, autoimmune disorders, and pseudo-seizures" (Cook, et al., p. 393, 2005). Therefore, 2-4 year olds are at risk of not developing the appropriate brain capacities to controlling emotional responses to stress. Children who are not experiencing complex trauma are able to more easily respond to stressful stimuli as they do not live with a constant stress response. During middle childhood and adolescence, executive functioning can be impacted, which means the prefrontal cortex is unable to lead to self-awareness, and ones' ability to be involved with others socially (Cook, et al., 2005).

Affect regulation consists of issues with self-regulation of the emotions (Cook, et al., 2005). Therefore, individuals may struggle with feelings identification and expression of (Cook, et al., 2005). They may also struggle with communicating their needs (Cook, et al., 2005). Children should be able to identify feelings, followed by regulating the experiences they have internally (Cook, et al., 2005). Without this ability, a child's likelihood of having depression increases (Cook, et al., 2005).

Dissociation consists of becoming attached from what is presently occurring (Cook, et al., 2005). Those who experience complex trauma may experience dissociation as their judgments and emotions are not connected, physical sensations are not within their conscious awareness, they partake in repetitive behaviors without consciously realizing (Cook, et al.,

2005). Complex trauma can lead to one utilizing dissociation as a coping mechanism, leading to further issues with "behavioral management, affect regulation, and self-concept" (Cook, et al, p. 394, 2005).

Behavioral control impacts consist of the inability to control impulses such as aggressive, impulsive, and "pathological self-soothing" behaviors (Cook, et al., p. 392, 2005). This can lead to further issues with sleep, eating, substance abuse, defiant behavior, inability to follow rules, reenacting trauma in play, and extreme compliance (Cook, et al., 2005). This can lead to inability to be flexible, rigid bathroom rituals, and extreme compliance to requests from adults (Cook, et al., 2005).

Cognitive impacts consist of difficulties with attention, executive functioning, processing important information, focus and completion of task, struggles with planning or anticipating events, inability to understand and be responsible, difficulties with learning, delays with language development (Cook, et al., 2005), and "sensory and emotional deprivation" (Cook, et al., p. 395, 2005) which is damaging to a child's cognitive development. This is seen via delays in a child's ability to express themselves through language, poor IQ, lack of flexibility and creativity with problem solving, poor executive functioning, problems with attention (Cook, et al., 2005), and "abstract reasoning" (Cook, et al., p. 395, 2005). These difficulties can impact academic achievement, leading to placement in special education classes (Cook, et al., 2005). Children experiencing maltreatment are three times more likely to drop out of school than those who do not experience maltreatment (Cook, et al., 2005).

Self-concept impacts consist of issues with self-esteem, sense of identity, increased shame and guilt (Cook, et al., 2005). Responsive parents are able to assist children with forming

a self-concept, meanwhile those in chronic trauma environments do not get this, rather they continuously experience rejection and harm leading to feelings of being disempowered and incompetent, only expecting rejection (Cook, et al., 2005).

The Health Impact of Complex Trauma

Delving into the impact of complex trauma, Chapman, Wheaton, Anda, Croft, Edwards, Liu, Sturgis & Perry (2011) utilized the adverse childhood experiences questionnaire (Felitti, et al., 1998) and considered longitudinal effects from a biological perspective, specifically sleep disturbances. In regards to sleep, 33% of the participants struggled with falling asleep or staying asleep. Meanwhile, 24% reported tiredness despite sleeping. All forms of complex trauma were associated with sleep disturbances in adulthood. Comparing participants with 0 ACE score and those with a P5 score, those who experienced the ACEs were "2.1 times more likely to report trouble falling or staying asleep and 2.0 times more likely to report feeling tired even after a good night's sleep" (Chapman, et al., p.773, 2011). Considering these complex traumas have repeatedly been associated with anxiety, depression, and other mental health symptomatology (Chapman, et al., 2011), these findings on sleep disturbance are helpful to understand as they tend to be comorbid with mental health disorders and symptoms (Chapman, et al. 2011). It has also been found that complex trauma is associated with higher likelihood of early first time using alcohol, more likely to abuse substances, smoke, or psychotropic drugs, which can impact one's sleep patterns (Chapman, et al., 2011).

Via data from the Chicago Longitudinal Study, Mersky, Topitzes, & Reynolds (2013) assessed longitudinal outcomes as a result of experiencing complex trauma. Complex trauma was correlated with low self-rating of health satisfaction with life, anxiety, symptoms of depression, use of alcohol, marijuana, and tobacco. Comparing those who did not experience

complex trauma with those who did, complex trauma survivors were more likely to have 3 or 4 poor life outcomes (Merksy, Topitzes, & Reynolds, 2013). It should be noted that 4 out of 5 every 5 participants experienced complex trauma, and 48.9% experienced multiple forms of complex trauma (Merksy, Topitzes, & Reynolds, 2013). It was found that complex trauma, especially when multiple are being experienced can lead to low educational achievement during child, adolescence, and young adulthood, which then leads to financial instability in adulthood (Nurius, Green, Logan-Greene, & Borja, 2015). Financial troubles can then lead to housing instability, conflict in marriage, and unemployment (Nurius, Green, Logan-Greene, & Borja, 2015). For those who experience a variety of traumas or adversity throughout their life, they are less likely to have strong social support, do not seek mental or physical healthcare, and may have difficulties maintaining a healthy lifestyle, all of which can lead to poor mental wellbeing and wellness (Nurius, Green, Logan-Greene, & Borja, 2015). Stress that comes along after the complex trauma developmental period can amplify the effect already had on people, leading to more problems with mental health (Nurius, Green, Logan-Greene, & Borja, 2015).

Breaking Down Complex Trauma and its Impact

Various forms of complex trauma. As stated previously, complex trauma comes in many forms, one of which is substance abuse in a household. Easley & Epstein (1991) found no significant differences between COAS and NACOAs in regards to needing counseling services for their mental health. The study found that the use of positive reframes regarding parental alcohol abuse, in which a parent assured the child that their parent's AUD is not the child's fault, led to positive outcomes in adulthood. However, it was found that families with individuals who abused alcohol particularly coped by avoiding the person with the AUD. Similar to the Drapkin, et al. (2015) who also found coping skills cannot always be utilized in the way a typical family

would utilize the coping skills, as a family with an AUD member may see the continuous negative effects of the drinking on their family as something they simply cannot control (Easley & Epstein, 1991). Another study found a potential protective factor to be hope, as students with low hope who experienced trauma reported the highest levels of both depressive and anxious symptoms in comparison to those who did not experience trauma (Chang, Yu, Chang, & Hirsch, 2016). This finding ties into the theory for the present study where hope is seen as the driving force for a person to become organized and attain their goals despite the trauma they experienced (Snyder, 2002).

Other research has compared ACOAs and NACOAs leading to further evidence of the relevance of the present study. Schroeder & Kelley (2008) sought to find how the executive functioning, the ability to control "behavior, thought, and emotion" (Schroeder & Kelly, p. 404, 2008) of young adults was influenced based upon their status as an ACOA or NACOA. Family environment was also assessed so a better understanding as to how the family environment could influence executive functioning (Schroeder & Kelley, 2008). It was found that ACOAs were more likely to have struggles with behavior regulation, which authors believed to be a reflection of growing up in a household where one has alcoholism. However, for both ACOAs and non-COAs, family environment was correlated "to higher order processes, suggesting the need for interventions aimed at improving executive functioning for vulnerable students" (Schroeder & Kelly, 2008, p. 404). This study is important to note as it highlights the importance of family environment in regards to children developing to be their optimal self. This study leaves researchers wondering why substance abusing households do not always have to lead to negative effects in children as there are other factors, such as household environment that may counter the

negative effects previous literature has found. Also, being an ACOA is one of the salient complex traumas.

Similarly, Drapkin, Eddie, Buffington, and McCrady (2015) also acknowledged that some ACOAs may experience poor outcomes as a result of this complex trauma, however others may not. Therefore, this study sought to delve further into coping skills, and measuring depression differences between ACOAs and NACOAs. It was found that ACOAs had less contact with their parents in comparison to NACOAs. ACOAs were also found to have a of alcohol problems. However, ACOAs were not found to have significant differences in comparison to NACOAs in regards to likelihood of having depression. ACOAs also reported similar amounts of positive life events, yet they reported more negative events in comparison to NACOAs. In regards to coping behaviors ACOAs reported less engaged and total coping, and more withdrawal coping on the CW measure (Drapkin, et al., 2015).

These results are relevant to the present study as ACOAs did not differ in likelihood for depression when compared to NACOAs which provides evidence that something is attributing to ACOAs likelihood to not experience psychopathology as a result of this complex trauma. ACOAs selected a similar amount of positive life events in comparison to NACOAs as well which is further support for complex trauma to not be the end all be all in a person's life.

Delving into the different forms of complex trauma, child abuse, neglect, and dysfunction in the household lead to a heightened risk for developing depression (Poole, Dobson, & Pusch, 2016). When participants experienced complex trauma and had low levels of resilience they had stronger symptomatology of depression, in comparison to those who experienced complex trauma yet had high levels of resilience (Poole, Dobson, & Pusch, 2016). The higher the ACE score, the more severe the symptoms of depression (Poole, Dobson, & Pusch, 2016). Higher

resilience was found to buffer depression levels (Poole, Dobson, & Pusch, 2016). For the present study, we want to delve into this further by introducing the construct, family environment as there must be other factors.

Young adult women who experienced complex trauma in childhood were found more likely to experience symptoms of depression versus those who did not experience complex trauma (Chapman, et al., 2004). Dube, et al. (2001) found higher ACE scores led to a higher risk of attempting suicide. Therefore, the present study intends to assess for multiple ACEs rather than honing in on one.

Depression

Studies show depression is linked to complex trauma (Collishaw, Pickles, Messer, Rutter, Shearer, & Maughan, 2007; Lee, Cronley & White, 2012). However, there are some studies that counter this statement (Drapkin, Eddie, Buffington, & McCrady, 2015). Therefore, it is of interest for the present study to delve into symptoms of depression in participants and analyze which ways it is linked to family environment, resilience, and complex trauma (Affifi & Macmillan, 2011; Collishaw, et al., 2007). Cohen, Brown, & Smailes (2001) found adults who experienced various forms of child maltreatment reported anxiety during early adolescence, however, during adulthood, they did not report experiencing much anxiety, and in some cases no anxiety was experienced. Meanwhile, depression was prevalent for these adults. Therefore, for the present study, it is of interest to see how depression is impacted by resiliency. Depression is when a person holds destructive thoughts towards themselves, holds a bleak idea of the future and their life in general, persistently experiences the feeling of sadness, and feels it physically (Blackmon, Liptak, & Recklitis, 2015). Furthermore, those who have depression have a lacking interest in activities they originally found joy in, their sleep is impacted, they can be observably

slower or more restless than usual, can experience fatigue, feel unworthy, have difficulty concentrating, can display indecisiveness, and can experience frequent thoughts of death or suicidal ideation (American Psychiatric Association, 2013). Those who experience depression have reported a large amount of medical services, counseling or social services, are socially impaired, and struggle to complete occupational tasks, which results in a decline in productivity (Poole, Dobson, & Pusch, 2016, Kessler, et al., 2003; Wang, Simon, & Kessler, 2006). As seen throughout the paper, depression is a possible outcome dependent on resilience and family environment.

Summary and Conclusions

Considering these findings, further investigation of the constructs; complex trauma, family environment, resilience, and mental wellness and their correlations between each other. It is of high importance to emphasize the complex trauma as a whole, rather than the traumas separately as it is important for researchers to understand the impact complex trauma may have depending on the number of traumas experienced as well as comparisons among the different types of complex trauma, which was not done in the studies mentioned. A huge emphasis of this study was the investigation of how young adults were able to move forward with their development as children and adolescents despite complex trauma experienced. A major component of moving forward in development successfully is via the family environment as a disorganized household can lead to children being unable to learn proper coping skills, build strong attachments, or have support that leads to hopeful thinking and resilience (Drapkin, et al., 2015, Snyder, 2002). Poor family environments may also teach children the negative ways to handle social situations or other life events, keeping them behind in comparison to their peers. Positive family environments most likely cultivate hope which will assist those families

experiencing complex trauma. As previously mentioned, studies found family is a major protective factor for families experiencing complex trauma, and can lead to resilience (Hulsey & Sexton, 1992; Stokes, Mccord, & Aydlett, 2013). Future research should continue to focus on resilience as this is an area where more research is needed, especially when assessing family factors as the family environment can be assisted via future interventions (McClure, et al., 2008). This study provides evidence as to why the present study is necessary as understanding what leads to positive life outcomes in young adults who experienced complex traumas will lead the research toward supporting new preventative methods for children and adolescents who experience complex trauma. Family and resilience is also positively associated with positive mental health outcomes (Herrenkohl, Herrenkohl, & Egolf, 1994; Huffman, Matthews & Irving, 2017; Uruk, Sayger, & Cogdal, 2007). Therefore, a study linking all of these constructs can assist the research in obtaining a more descriptive picture of the process of experiencing complex trauma yet still having success in young adulthood. As of 2016, Poole, Dobson, & Pusch (2016) found there were only three studies focused on understanding the relationships between complex trauma, depression, and resilience. Furthermore, the studies focused on complex trauma do not typically measure for all forms of complex trauma, rather they tend to hone in on one such as, child maltreatment (Poole, Dobson, & Pusch, 2016). Therefore, it is necessary for the present study to assess for a wide range of complex trauma while also assessing the relationships between depression and resiliency, while also introducing a fourth construct, family environment.

The present study will shine a light on the positive outcomes of those who experience(ed) complex trauma, leading to more research focused on preventative methods. Regarding college mental health services, the sample from this study may provide a snapshot of how many students

have actually experienced complex trauma, which can lead to research focused on college counseling and how to address complex trauma in adulthood. This can lead to further research focused on trauma informed care within university settings. Further research can also be focused on group and individual counseling with college students who experienced trauma. Present study may find students are unaware that they experienced trauma, which can lead to efforts of mental health practitioners to inform college students as to what trauma is and how they may have been impacted, which can also lead to a decrease in mental health stigma. Results can be shared with community mental health agencies. Results shared with counselors working with families and children can inform them of the importance of family environment. Future research will delve into ways counselors can partake in preventative methods for families who experience(d) complex trauma. Results shared with the general public in the form of parenting workshops or counseling groups can lead to parents being informed of ways they can assist their children who experience complex trauma.

CHAPTER THREE: METHODOLOGY

Study methodology is presented in this chapter, which consists of the purpose of the study, research design, and the procedure for collecting data. The study sample is introduced in this chapter. The variables are discussed in depth regarding the way they were measured and the descriptive statistics of each, followed by a description of the Survey scales used in the study are also described, followed by the identification of statistical methods for data analysis.

The purpose of this quantitative research study was to understand the impact of complex trauma, family environment, family cohesion and resilience has on young adults including undergraduate and graduate students. Participants consisted of young adults who were members of social media groups for survivors of childhood trauma. Positive outcomes were generally defined as positive family environment resulting in resilience despite an individual's experience of complex trauma (Schroeder & Kelly, 2008). Another positive outcome consisted of low levels of depression to no depression as a result of strong family cohesion and high levels of resilience (Collishaw, et. al., 2007). The study also briefly delved into individuals' understanding as to what constitutes as trauma.

Research Questions

The research questions for the present study are as follows:

1.

    a. Does family environment predict level of resilience after controlling for level of complex trauma?
    b. Does family cohesion predict level of resilience after controlling for level of complex trauma?

c. Does family environment moderate the relationship between level of complex trauma and resilience?

d. Does family cohesion moderate the relationship between complex trauma and resilience?

2.

a. Does family environment and resilience predict levels of depression in young adulthood after controlling for level of complex trauma?

b. Does resilience mediate the relationship between family environment and depression?

c. Does family cohesion and resilience predict levels of depression in young adulthood after controlling for level of complex trauma?

d. Does resilience mediate the relationship between family cohesion and depression?

Research Design

The study utilized a quantitative correlational research design to find the relationships between (1) Family environment and resilience (2) Comparison between those who experienced complex trauma vs those who have not in regards to family environment, resilience, and levels of depression or lack thereof (3) Family environment and resilience as predictors of mental health, specifically depression (4) Family environment, resilience, and depression (5) Family cohesion, resilience, and depression (6) perceived trauma and actual trauma (7) complex trauma and depression.

The methodological approach was correlational as I sought to understand how the various constructs are related to each other (Balkin & Kleist, 2017). In the case of the present research, variables were unable to be manipulated ethically (Creswell, 2013). Therefore, correlational

research was the best option. Delving deeper into the specific type of correlational research, in part, this is was an ex post facto study (Cohen, Manion, & Morrison, 2003) as I was analyzing responses of young adults who are retrospectively reporting complex trauma, and family environment. Meanwhile, the resilience and depression variables were measured as present day experiences. This provided the researcher with a better idea of what variables are related to resilience or mental wellness, which cannot be manipulated via a study at this stage in their development (Cohen, et. al., 2003). This correlational design research is helpful to the counseling field, and counselor educators, as I sought to find relationships between variables that counselors see every day in a counseling room, especially those working child children, adolescents, and families or those seeing the longitudinal impact on college students. The majority of the data analysis was regression methods, which also fit the methodology of correlational research (Balkin & Kleist, 2017).

Hierarchical multiple regression was utilized to answer all research questions to find out if two or more independent variables have an effect on a single dependent variable (Creswell, 2013). Two moderations were conducted via hierarchical multiple regression, and findings from the hierarchical multiple regressions were utilized to find if resilience was a mediator.

Participants

The participants consisted of young adults aged 18-35. A portion of the participants consisted of undergraduate students at Penn State University, which has a population of 40,742 undergraduate students of which 46% are female and 54% are male. About 6.0% of the student body is African American, 6.1% are Asian American, 6.2% are Hispanic/Latino, 8.2% are International, >.01% are Native American/Alaskan Native, >.01% are Native Hawaiian/Pacific Islander, 68.5% are White, 2.4% are multiple races, and 2.3% are listed as unknown (Penn State

University Admissions, 2015). This set of participants were recruited via an in-class presentation of the research in Rehabilitation and Human Services courses, and an e-mail recruiting participants from Penn State World campus from particular courses in a variety of majors such as Sociology, Biology, Nursing, Bio Behavioral Health, History, Human Development and Family Services, and Anthropology to seek out interested participants. Participants were also recruited via Facebook groups, Instagram, Reddit, Craigslist, and Linkedin in order to gain a more diverse range of young adults.

The only inclusion or exclusion criteria for this study is individuals between the ages of 18-35 as this is the young adulthood development age range. It should be noted that the18-35 age range has been cited as the age period for young adulthood by various scholars and previous studies within the social sciences and outside (Logan, Fowler, Nimeshkumar, Patel, & Holland, 2016; Pritchard, Cotton, Godson, Cox, & Weeks, 1991; Jackson, Deary, Reay, Scholey, & Kennedy, 2012; Petry, 2002).

The final dataset consisted of 485 participants aged 18-35. Of these participants, 84.7% (n = 410) were female, 14.3% (n = 69) were male, and 2% (n = 5) selected the 'fill in the blank' option and identified as non-binary (n = 3) and agender (n = 2). Participants reported various levels of education such as high school diploma, GED, associate's degree, bachelor's degree, master's degree, Juris Doctorate, PhD, and a variety of doctoral degrees. Current undergraduate students consisted of 50% (n = 247) of the participants. Of the undergraduate students 14.3% (n = 35) were first year students, 21.6% (n = 53) were second years, 30.2% (n = 74) were third years, 21.2% (n = 52) were fourth years, 3.7% (n = 9) were fifth years, 2% (n = 5) were sixth year and beyond. Those who stated they were current graduate students consisted of 21.6% (n = 106). 29.2% (n = 31) of these participants reported being first year students, 28.3% (n =30) were

second years, 16% (*n* = 17) were third years, fourth years 7.5% (*n* =8), fifth years 4.7% (*n* = 5), sixth year and beyond, 4.7% (*n* = 5). Regarding race and ethnicity identities consisted of; 8% (*n* =32) Asian, 4.2%(*n* = 17) Black/African American, 78.4% (*n* = 315) White, 7.0%(*n* = 28) Hispanic/Latina/o, Native American .5% (*n* = 2), Pacific Islander .2% (*n* = 1), *n*= 35 reported being two or more race/ethnicities which is included in these demographics.

Variables

Independent Variables

Family Environment. Family Environment was a self-reported independent variable in the study measured by the Family Environment Scale (FES; Moos & Moos, 2009). Family Environment was utilized as an independent variable, and a moderator in research question one. Family environment was an independent variable in research question two as well.

Family Cohesion. Family Environment was a self-reported independent variable in the study measured by the FES (Moos & Moos, 2009). For the FES, see Appendix A. Family Cohesion was utilized as a dependent variable, and a moderator in research question one. Family Cohesion was a dependent variable in research question two as well.

Complex Trauma. Complex Trauma was a self-reported independent variable in the study measured by the ACE Questionnaire (Felitti, et al., 1998). For the ACE questionnaire, see Appendix A. Complex Trauma was utilized as a dependent variable, and a moderator in research question one. It was also used as a control variable throughout the research questions. For the purposes of data analysis and acknowledgement that higher scores are associated with higher levels of symptomatology (Felitti, et al., 2019), the variable complex trauma was split into three categories (a score of 1-3, 4-10, and the reference category were those who had a score of 0).

Trauma Perceived. Trauma perceived was a self-reported categorical variable in the study. Participants answered the question 'Do you believe you experienced trauma prior to 18?' with 'yes' 'no' 'prefer not to say.' This item is found on the demographics questionnaire in Appendix A) This variable was used in preliminary descriptive analyses, to examine a correlation between participants' perceived trauma to their actual experiences of complex trauma to compare their perceptions of their trauma experience to their scores on the ACE (Felitti, et al., 1998) questionnaire.

Dependent Variables

Resilience. Resilience was a self-reported dependent variable in research question one and an independent variable in research question two. Resilience was measured by the Connor-Davidson Resilience Scale (CDRISC; Connor & Davidson, 2003). See Appendix A for the CDRISC. Resilience was also a mediator variable in research questions 2b and 2d.

Depression. Depression was a self-reported dependent variable in the study measured by the Patient Health Questionnaire 9 (PHQ-9; Spitzer, et al., 1999) found in Appendix A. The variable Depression was a dependent variable in research question two.

Instruments

Below is a description of each portion of the survey, the psychometric properties, and how the constructs were measured. All instruments from the survey can be found in Appendix A.

Demographics Questionnaire

The author developed demographic items which were used to collect participant information regarding their age, year in school, race/ethnicity, and to guage participant's knowledge of the definition of complex trauma. I compared participant's perceived knowledge

of complex trauma to the actual amount of complex trauma the participants experienced. Perceived trauma was measured via the question, "Do you believe you experienced trauma prior to eighteen?" Participants had a few questions regarding family structure, which asked about the amount of people in the family, how many caregivers the participants had, and how many siblings participants had. The aim of the question is to gain a better understanding as to how many primary parent(s)/caregiver(s) they lived with as a child and adolescent.

Patient Health Questionnaire 9 (PHQ-9; Spitzer, Kroenke, & Williams, 1999)

The PHQ-9 was used to collect information on the participant's mental wellness in regards to depression. The PHQ 9 (Spitzer, et al., 1999) is beneficial for this study as it is brief, and was originally created for self-report. It was the first self-report measure for depression (Lowe, Kroenke, Herzog, & Grafe, 2003), which means it has been under more criticism in comparison to other assessments. The PHQ-9 (Spitzer, et al., 1999) has 10 questions in Likert scale format of (1) Not at all (2) Several days (3) More than half the days (4) Nearly every day to which depression is measured from based on the points accumulated; 0-4 none, 5-9 mild, 10-14 moderate, 15-19 moderately severe, 20-27 severe. The PHQ-9 is specifically assessing for the past two weeks. For example, a sample question asks *Over the last 2 weeks, how often have you been bothered by any of the following problems?* Feeling bad about yourself or that you are a failure or have let yourself or your family down. With the response, (1) Not at all (2) Several days (3) More than half the days (4) Nearly every day. For the present study, participants had a third option of 'prefer not to say.'

The PHQ-9 measures the symptoms of depression as per the DSM-5 (American Psychiatric Association, 2013). Impaired ability to function due to depression is also assessed as the last question delves into how depression has led to difficulties with work, personal responsibilities at

home, and one's social life (Poole, Dobson, & Pusch, 2016). Responses that met the DSM-5's diagnostic criteria for major depressive disorder consisted of, "little interest or pleasure in doing things or "feeling down, depressed or hopeless" (PHQ-9, Poole, Dobson, & Pusch, 2016), which was quantified as more than half of the days in a week, or practically every day (Poole, Dobson, & Pusch, 2011). Additionally, participants are asked to rate feelings of impairment in their everyday activities as a result of their Depression, is another question which meets the DSM-5 criteria (Poole, Dobson, & Pusch, 2016; American Psychiatric Association, 2013). With a norming sample of 5000, the PHQ-9 was found to be a reliable and valid measure for depression in both healthcare settings and for the general population to take as a self-report measure (Kocalevent, Hinz, & Brahler, 2013). The criterion validity is very high (Lowe, et. al., 2003). Kocalevent, et. al. (2013) found correlations between the PHQ-9 and the Quality of Life Scale provide further evidence of the high construct validity of the PHQ-9 (Kocalevent, et al., 2013). Scoring is either continuous or binary (Poole, Dobson, & Pusch, 2016). Both scoring methods are psychometrically strong, with a Cronbach alpha of 0.89, test-retest reliability (r=.084), and strong construct validity.

Adverse Childhood Experience (ACE) Questionnaire (Centers for Disease Control and Prevention; Felitti et al., 1998)

This questionnaire listed specific adverse experiences (which in present day is also called, complex trauma) one may have endured in childhood. Participants marked yes or no for having experienced at 18 or younger. Each "yes" leads to one point. The higher the score, the more complex trauma one has experienced in their lifetime. A sample question is, 'Was your mother or stepmother: Often pushed, grabbed, slapped, or had something thrown at her? or Sometimes or often kicked, bitten, hit with a fist, or hit with something hard? or Ever repeatedly hit over at

least a few minutes or threatened with a gun or knife? with the response options 'yes' or 'no'. For the present study, participants had a third option of 'prefer not to say.'

The ACE score reflects the amount adverse childhood experiences (1 point per experience). This survey was an effective measure as it asked specifically about complex trauma in a short 10 question survey. A shortcoming of the questionnaire is that researchers can only collect yes or a no responses to these questions. It would be helpful to gain a better picture as to how long these experiences occurred in one's household, understanding which parent or adult partook in some of the events, or understanding how heavily impacted a person was emotionally by the event(s).

Regarding reliability, Dube, Williamson, Thompson, Felitti, & Anda (2004) found adults using the questionnaire to recall past traumas had high reliability. More specifically, test-retest reliability was found to be excellent (Dube, et. al., 2004). The EmbrACE study assessed the psychometrics of the ACE Questionnaire and was able to find strong internal consistency with a Cronbach alpha of 0.95, construct validity was strong as well as it was significantly correlated with the Child Abuse and Trauma Scale (r = .94) and the Childhood Trauma Questionnaire (r = .95). Poole, Dobson, & Pusch were also able to verify strong test-retest (2016).

The Connor-Davidson Resilience Scale (CD-RISC) (Connor & Davidson, 2003)

The CDRISC (Connor & Davidson, 2003) was a Likert-scale format and gains a better understanding of one's adaptability after adverse experiences. It measured participants' reaction to stressful situations, and their ability to cope with stress. The CDRISC (Connor & Davidson, 2003) utilizes a Likert-scale format to help researchers gain a better understanding of one's adaptability after adverse experiences. It measured participant's reaction to stressful situations, and ability to cope with stress. Consisting of 25 items, this scale allowed participants to be more engaged and willing to respond to the questions provided accurately. The scale did not lead to

bigger picture results as the questions are general and not too intense. However, the lack of intensity prevented participants from being harmed by the study. The CD-RISC (Connor & Davidson, 2003) was created as a response to other scales' inability to measure a wide range of adult populations, as well as adult populations who experienced a wide range of adversity in the past, which was a large methodological concern. Therefore, the CD-RISC (Connor & Davidson, 2003) was created with the intention to measure resilience as a result of all forms of adversity (Goldstein, Faulkner, & Wekerle, 2013). The CD-RISC (Connor & Davidson, 2003) focused on the following qualities that lead to resilience, "strong sense of purpose, the ability to cope with negative emotions, as sense of humor, and the ability to facilitate support for oneself" (Goldstein, Faulkner, & Wekerle, 2013, p. 23). The CD-RISC utilized a 5-point Likert scale ranging from "(0), rarely true (1), sometimes true (2), often true (3), and true nearly all of the time (4)" (Connor & Davidson, 2003). High scores reflected higher levels of resilience. The sample utilized to develop the scale were majority female (65%), with 35% male, a majority white (77%) sample. Despite utilizing a sample that cannot be generalizable to the general population, Connor and Davidson state the CD-RISC has been utilized in this way (2003).

Connor and Davidson (2003) reported high internal consistency and test-retest reliability (mean time 1 [52.7(17.9)] mean time 2 [52.8(19.9)], and validity (Cronbach alpha=0.89). It was found that the CD-RISC (Connor & Davidson, 2003), which was originally created for adult usage, can be used for anyone with a reading level similar to a person in fifth grade (Connor & Davidson, 2003). In an adult population who experienced high levels of stress, the test-retest reliability was .68, and the Cronbach alpha was .75 (Wu, Tan & Lu, 2018). The CD-RISC also provides participants with a time frame to base their responses on, which is "Statements as they apply to you over the last month," which is helpful in comparison to other surveys that do not

provide this time frame, leading to varying results (Connor & Davidson, 2003). The CD-RISC also covers a more broad scope of the topic of resilience and is the most updated of the scales in regards to what they include in the components of resilience, which are, "View change or stress as a challenge/opportunity, commitment, recognition of limits to control, engaging the support of others, close, secure attachment to others, self-efficacy, strengthening effect of stress, past successes, realistic sense of control/having choices, sense of humor, action oriented approach, patience, tolerance of negative affect, adaptability to change, optimism, and faith" (Connor & Davidson, p.77, 2003). The CD-RISC (Connor & Davidson, 2003) incorporated faith as a component of resilience which was a unique advantage in comparison to other resilience scales.

A sample question from the CD-RISC (Connor & Davidson, 2003) is, 'Even when things look hopeless, I don't give up'. The response options for each question are on a 5-point likert scale ranging from "(0), rarely true (1), sometimes true (2), often true (3), and true nearly all of the time (4)'. For the present study, participants had a third option of 'prefer not to say'.

The Family Environment Scale (Moos & Moos, 2009)

This scale has been used to gain an understanding of individuals' family environment. The FES is focused on violence in the home, religion, rules, and how the family handles disagreements. The FES was a straightforward survey that does not have many triggering statements. However, as a true or false survey which is being used retrospectively, one limitation is that it may not yield in depth information regarding family environment (Griffin & Amodeo, 2010). An example of a question on the FES (Moos & Moos, 2009) was, "Family members often keep their feelings to themselves". On the original FES (Moos & Moos, 2009), the response options consist of 'true' and 'false'. For the present study, participants had an additional option

of ‘prefer not to say.’ The FES (Moos & Moos, 2009) consists of three dimensions: relationship, personal growth, and system maintenance (Moos & Moos, 2009).

Convergent validity tends to be inconsistent as many early attempts were unable to find good levels of convergent validity of the FES scale (Busch-Rossnagel, 1985; J. R. Caldwell, 1985). Sanford, Bingham, & Zucker (1999) compared the (six of the FES scales fit a confirmatory factor analysis model, which demonstrated good convergent validity in the FES scale for their study on families with someone who had alcoholism, which was relevant to the present study as complex trauma partially consisted of a household in which a parent and/or caregiver has alcoholism (Arnold & Fisch, 2011). Internal consistency of the scale ranges from .61-.78, and test-retest reliability ranges from .68-.86 (Lucy & Lam, 2012; Moos & Moos, 1994). When assessed separately, the cohesion scale had stronger validity than the FES on its own (Sanford, Bingham, & Zucker, 1999). With samples of African American, and Latino high-risk youth, Cronbach alpha consistently less than .70 (Greoenenberg, Sharma, Green, & Fleming, 2012). However, in a sample of Mexican American adults, Cronbach alphas for the subscales ranging from .61-.78. It should be noted, that Cohesion was the subscale with the Cronbach alpha of .78 (Negy & Snyder, 2006). Table 4 summarizes the psychometric properties of the instruments used to measure the constructs for this study.

Table 4

Psychometric Properties of Scales

Instrument	Source	Psychometric Tests/Results
The Connor-Davidson Resilience (CDRISC)	Connor & Davidson (2003)	**Reliability:** Connor & Davidson (2003) report high internal consistency and test-retest reliability (mean time 1 [52.7(17.9)] mean time 2 [52.8(19.9)], and validity (Cronbach alpha = 0.89). It was found that the CD-RISC (Connor & Davidson, 2003) In an adult population who experienced high levels of stress, the test-retest reliability was .68 (Wu, Tan, & Lu, 2018) **Validity:** With an adult population vulnerable to high levels of stress, Cronbach alpha was .75 (Wu, Tan, & Lu, 2018).
The ACE Questionnaire	Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, & Marks (1998) Center for Disease Control and Prevention	**Reliability:** Regarding reliability, Dube, Williamson, Thompson, Felitti, & Anda (2004) found adults using the questionnaire to recall past traumas had high reliability. More specifically, test-retest reliability was found to be excellent (Dube, et. al., 2004). **Validity:** strong internal consistency with a Cronbach alpha of 0.95, construct validity was strong as well, they were also able to verify strong test-retest (Poole, Dobson, & Pusch, 2016).
The PHQ-9	Spitzer, Kroenke & Williams, 1999	**Reliability:** Cronbach alpha of 0.89, test-retest reliability (r=.084), Kocalevent, et al., 2013) **Validity:** Kocalevent, et. al. (2013) found correlations between the PHQ-9 and the quality of life scale provide further evidence of the high construct validity of the PHQ-9 (Kocalevent, et al., 2013). Scoring can be either continuous or binary (Poole, Dobson, & Pusch, 2016). Both scoring methods are psychometrically strong, with a Cronbach alpha of 0.89, test-retest reliability (r=.084), and strong construct validity. The criterion validity is very high (Lowe, et. al., 2003).
The Family Environment Scale	Moos & Moos (2009)	**Reliability:** Internal consistency of the scale ranges .61-.78, and test-retest reliability ranges .68-.86 (Lucy & Lam, 2012; Moos & Moos, 1994). **Validity:**

		Sanford, Bingham & Zucker (1999) found strong convergent validity in the FES scale for their study on families with someone who had alcoholism. In a sample of African American, and Latino high-risk youth, Cronbach alpha consistently less than .70 (Greoenenberg, Sharma, Green, & Fleming, 2012). In a sample of Mexican American adults, Cronbach alphas for the subscales ranging from .61-.78. It should be noted, that Cohesion was the subscale with the Cronbach alpha of .78 (Negy & Snyder, 2006).

Internal Consistency of Present Study

Cronbach alphas were calculated for the present study to see what the internal consistency of the scales was with this sample. The ACE questionnaire had a Cronbach alpha of .74, the PHQ-9 had a Cronbach alpha of .89. The CDRISC had a Cronbach alpha of .92. The FES had a Cronbach alpha of .40, meaning, at least 40% or more of the variance in each of the scales score on the FES is considered internally consistent reliable variance. The family cohesion scale had a high Cronbach alpha of .80. There are mixed views on what is considered an acceptable Cronbach alpha, however plenty of literature supports a Cronbach alpha of .70 or more represents high internal consistency (Taber, 2018).

Procedures

Participants were recruited for the study via in class announcements followed by an e-mail that included a Qualtrics link to the potential participants. Other participants were recruited via Facebook, Reddit, Instagram, LinkedIn, Twitter, Craigslist, and Study finder, a Penn State University website. Two e-mail listservs were also utilized, a Penn State counseling department listserv and counseling graduate student listserv. All social media and website recruitment was

done via research announcement posts which contained a brief statement about the purpose of the study, a notice that the study was approved by Penn State's Institutional Review Board, and a blurb about the chance to win one of two ten-dollar Amazon gift cards. Those who chose to partake in the study used the link to complete the survey. Participants were provided with an overview of what the study is about. Following this, a warning regarding the sensitive nature and crisis resources were provided, along with a reminder that participants could drop out of the study at any given point was on this page Next, participants completed a demographics questionnaire, PHQ-9 (Spitzer, et al., 1999), the ACE questionnaire (Centers for Disease Control and Prevention; Felitti et al., 1998), the CD-RISC (Connor & Davidson, 2003), and the FES (Moos & Moos, 1974). Participants then read a debriefing form. The survey took approximately 20 minutes to complete.

Role of the investigator

The primary investigator's role in the data collection process began with recruitment. The primary investigator also created an electronic version of the survey via Qualtrics, and assured all participants received a link they could only use once to complete the survey. Since this survey was distributed via the internet, the process consisted of participants opening the e-mail, and completing the survey wherever they were at that moment. The researcher provided her e-mail in case participants have questions or concerns.

Trustworthiness, Verifiability, Rigor

As stated previously, the Qualtrics link was only able to be used once, which verified participants were not completing the survey more than once. To verify age, participants selected which developmental age group they belong to, as well as providing their actual age.

Regarding trustworthiness and rigor, all data analyses were conducted properly and ethically such as partaking in outlier detection before running a regression (Cohen, Cohen, West, & Aiken, 2003), and taking the proper precautions with informed consent before participants take the survey. Another trustworthiness was ensured via internal validity (Balkin & Kleist, 2017), which is reported later in this chapter.

Internal validity threats are any participant experiences, treatments or procedures that may prevent a researcher's capacity to form correct conclusions regarding the data (Creswell, 2013). Acknowledging the threats to internal validity; history can threaten internal validity as someone may be feeling well mentally, however, a rapid shift could occur due to something situational in their life before taking the survey, which could provide responses that are not accurate. Another history-based threat could be an issue arising in the family, which taints their view of family cohesion, also impacting the data in an inaccurate way. Since there are no experimental or control groups, the traditional sense of the research term, history will not be threatened. Maturation or regression was not a threat to internal validity of this study as there are not two periods in which data are collected and maturation or regression of participants would occur (Creswell, 2013). Selection was not violated either as all participants will be take the same survey (Creswell, 2013), therefore, diffusion of treatment was not a threat to internal validity either. Testing was not a threat as participants did not take the survey a second time, which could have helped them to remember certain items and falsely respond the second time around (Creswell, 2013). Instrumentation cannot happen the researcher will be the only one to direct the study, therefore, different styles did not lead to different answers, and there was not be a post-test. Compensatory rivalry (Creswell, 2013) will not occur either as participants will not receive any form of treatment.

However, internal validity could be affected if there is a variable that is not being measured that leads to resilience or mental wellness in participants. The primary investigator made sure the survey had good content validity, which is assuring the survey is measuring what it is intended to measure (Gladding, 2018), which can be accomplished by searching the literature on each individual scale. The primary investigator also made sure the survey had strong construct validity, which is understanding what the survey is actually measuring. Therefore, the primary investigator assured the survey was truly measuring for all four constructs. This can also be found via the current literature which critiques each scale, and covers its psychometric properties.

Data Analysis

The data were collected via Qualtrics, the software that all participants used to complete the survey. Collected data was then transferred to an Excel spreadsheet and then was transferred to Statistical Package for the Social Sciences (SPSS) for data analysis.

Preliminary Analysis

Data Cleaning. Survey data were solicited through a number of sources: in class recruitment, craigslist, Facebook, Instagram, Reddit, email listervs, and Penn State University's study finder. Approximately 700 people completed the survey. Multiple participants were removed for not meeting the inclusion criteria of being in the age range of 18-35.

Missing Data. Other participants who were removed either did not answer any of the questions, answered only the demographics questions, or did not complete enough items needed for a score on the study's scales. Without data for all of the constructs, it was impossible to analyze the data in the way they were intended for the present study. Therefore, those data were not utilized. As per the standards of Graham (2012), all data that were missing were carefully

reviewed prior to data remediation. As stated previously, participants who did not complete at least one section of the survey were removed from the final dataset. All participants needed to respond with enough questions to have a score for each of the subscales. As per Dillman, Smyth, and Christian (2014) standards of survey research, each question provided a 'prefer not to answer' section, to which some participants responded. For the ACE (Centers for Disease Control and Prevention; Felitti, et al., 1998), CDRISC (Connor & Davidson, 2003), and PHQ-9 (Spitzer, et al., 1999) it was possible to have 0 as the final score, therefore, any skipped questions or 'prefer not so answer' were added to the final score as a 0.

Outliers. With SPSS, histogram distributions were created for all variables of the present study. Boxplots were also created. Some outliers were found with FES score results, one was removed from the final dataset as a result. The second outlier remained, as these data did not appear to be entered in error. This follows Tabachnick and Fidell's (2007) advice for how to resolve issues with outliers, which is to remove extreme outliers from the dataset, which was done as one of the outliers had a result of 0. The other outlier was not as extreme, and made sense to remain in the dataset.

Methods. Hierarchical multiple regression was used for all research questions. Interaction terms were added for questions 1b and 1d, and a mediation analysis was conducted for 2b and 2d. The final analytic sample consisted of 485 participants, which was sufficient to undergo hierarchical multiple regression analyses with the main variables.

The dataset was assessed for outliers, missing values, equal distributions, and accuracy. Next, demographics were analyzed via the means, standard deviation, ranges, and frequencies. A correlation matrix (see Table 3) was then created to understand which variables had significant relationships. More specifically, the correlation matrix was able to show the relationship

between perceived trauma versus the experience of complex trauma. Pearson coefficients were calculated in order to understand the strength and direction of each correlation. Descriptives of the variables for the study are seen in Table 1.

Table 1

Descriptive Statistics for Main Variables

	Minimum	Maximum	Mean	Std. Deviation
Complex Trauma	0.00	10.00	2.15	2.24
Depression	0.00	24.00	7.39	5.70
Resilience	15.00	100.00	66.58	15.94
Family Environment	6.00	72.00	49.80	10.19
Family Cohesion	0.00	9.00	5.69	2.67
Perceived Trauma	1.00	2.00	1.44	.497

It should be noted that the variable, complex trauma was re-coded into three categories of complex trauma in order to gain a better understanding of the potential impact of complex trauma. The variable comprised 3 categories of complex trauma based on their ACES score: (1) Complex Trauma score 0, which was coded as 0; (2) Complex Trauma score 1-3, coded as 1, and (3) Complex Trauma score 4-10, coded as 2 The reference group were participants with a Complex Trauma score of 0. This categorization was important, as Felitti et al. (1998) found Complex Trauma has a stronger impact and likelihood of leading to symptomatology when individuals experience four or more ACEs.

Hierarchical multiple regression was utilized for all research questions to gain an understanding of the relationship between family environment and resilience (Tabachnick & Fidell, 2007). Hierarchical multiple regression was utilized in research question one to investigate if family environment and family cohesion were predictors for resilience when using complex trauma as a control variable. It should be noted, there were four parts to question one, in which family environment and family cohesion were used in separate models to answer different portions of question one. In research question two, hierarchical multiple regression was utilized to investigate if resilience, family environment, and family cohesion were predictors of depression level when complex trauma was a control variable. Similar to research question one, research question two consisted of four parts in which family environment and family cohesion were used in separate models to answer different portions of question two.

The recommendations of Tabachnick & Fidell (2007) were followed to employ hierarchical multiple regression. When completing hierarchical multiple regression, these steps were followed in research question one:

First, Complex Trauma was added in Model 1 as a grouping variable. Second, family environment or family cohesion were added to Model 2. In order to verify significance, the f-test and R^2 were assessed.

To answer research question two, model one consisted of Complex Trauma as a grouping variable. The second model included family environment or family cohesion. The third model included Resilience. In order to verify significance, the f-test and R^2were assessed.

A moderation analysis was utilized to understand how family environment interacts with or influence the relationship between complex trauma and resilience. A second moderation was conducted to understand how family cohesion interacts with or influences the relationship

between complex trauma and resilience. Prior to running the model, the following assumptions were checked; causality, linearity, homogeneity of variance and no measurement error (Fiske, Gilbert & Lindzey, 2010). In order to run this analysis, interaction terms were created, and entered in model three.

For the present study, previous analyses aimed to see if there was a moderator amongst the main variables, specifically family environment and family cohesion, to find out if family environment has an effect on the ways in which trauma impacts a person's resilience. As stated previously, family environment and family cohesion were not moderators. Therefore, further investigation occurred to see if one of the variables, specifically resilience was the mediator, as this would assist in answering how family environment and family cohesion are making an impact. The mediation was conducted via hierarchical multiple regression. The four steps to understand if resilience was a mediator as suggested by, Frazier, Tix, and Barron (2004) were establishing that:

1. A significant relationship exists between all independent variables (Family Environment, Complex Trauma), and the dependent variable (Depression).
2. The independent variable (Family Environment) is related to the mediator (Resilience).
3. The mediator (Resilience) is related to the dependent variable (Depression). Which was also found.
4. There is a significant reduction or elimination of the relationship between family environment and depression when resilience is added to the model.

Summary

This study was a quantitative correlational study in which correlational analyses, hierarchical multiple regression was employed as well as moderation and mediation analyses. The purpose of this quantitative research study was to understand the impact of Complex Trauma, Family Environment, Family Cohesion and Resilience has on young adults including undergraduate and graduate students. The sample of young adults, aged 18-35 consisted of undergraduate and graduate students as well as non-students with a variety of educational and professional backgrounds. All instruments which supported the main variables were carefully selected, and supported in this chapter. Internal consistency of the present study was also reported in this chapter, and Cronbach Alpha for family cohesion, depression, complex trauma, and resilience are considered high. The Cronbach Alpha for family environment was considered low, however, this was consistent with literature which shows instability of the FES ability to maintain high internal consistency across samples. All data was analyzed in SPSS and was carefully inspected prior to analyses regarding, outliers, missing values, equal distributions, and accuracy. All analyses were carefully conducted following recommendations found in the literature.

CHAPTER FOUR: RESULTS

Results described in this chapter are preliminary analyses, hierarchical multiple regression, moderation, and mediation for the study's two research questions. Data came from a sample of 485 young adults age 18-35. Participants shared a range of trauma histories from none to multiple, therefore, with such a large sample the analyses needed to understand the research questions was able to be employed. Further description of the sample occurs in this chapter. A brief description of the research methods are described in this chapter. Next, statistical findings are described in depth.

Correlational Research

This study is a quantitative correlational research study which allowed the variables to be evaluated as to how they relate to each other (Balkin & Kleist, 2017). Correlational research is utilized for variables that cannot be manipulated (Balkin & Kleist, 2017), in which depression, resilience, complex trauma, family environment, perceived trauma, and family cohesion are all variables in which manipulation is nearly impossible or unethical.

Demographics

The final dataset consisted of 485 participants aged 18-35. Of these participants, 84.7% (n = 410) were female, 14.3% (n = 69) were male, and 2% (n = 5) selected the 'fill in the blank' option and identified as non-binary (n = 3) and agender (n = 2). Participants reported various levels of education such as high school diploma, GED, associate's degree, bachelor's degree, master's degree, Juris Doctorate, PhD, and a variety of doctoral degrees. Current undergraduate students consisted of 50% (n = 247) of the participants. Of the undergraduate students 14.3% (n = 35) were first year students, 21.6% (n = 53) were second years, 30.2% (n = 74) were third years, 21.2% (n = 52) were fourth years, 3.7% (n = 9) were fifth years, 2% (n = 5) were sixth

year and beyond. Those who stated they were current graduate students consisted of 21.6% (*n* = 106). 29.2% (*n* = 31) of these participants reported being first year students, 28.3% (*n* =30) were second years, 16% (*n* = 17) were third years, fourth years 7.5% (*n* =8), fifth years 4.7% (*n* = 5), sixth year and beyond, 4.7% (*n* = 5). Regarding race and ethnicity identities consisted of; 8% (*n* =32) Asian, 4.2%(*n* = 17) Black/African American, 78.4% (*n* = 315) White, 7.0%(*n* = 28) Hispanic/Latina/o, Native American .5% (*n* = 2), Pacific Islander .2% (*n* = 1), *n*= 35 reported being two or more race/ethnicities which is included in these demographics.

Table 2

Profile of study participants for selected variables. (N = 485)

Characteristic/Variable	Number	Valid percent
Gender		
Female	408	84.8
Male	68	14.1
Fill in the blank	5	1.0
Non-binary	3	
Agender	2	
Current Year in Undergraduate Studies		
First-year	35	14.3
Second-year	53	21.7
Third-year	73	29.9
Fourth-year	52	21.3
Fifth-year	9	3.7
Sixth-year and beyond	5	2.0
Current Year in Graduate Studies		
First-year	31	29.8
Second-year	30	28.8
Third-year	17	16.3
Fourth-year	8	7.7
Fifth-year	5	4.8
Sixth-year and beyond	5	4.8
Race/Ethnicity		
Asian	32	8.0
Black/African American	16	4.0

White	313	78.4
Hispanic/Latino/a	28	7.0
Native American	2	.5
Pacific Islander	1	.3
Age		
18	13	2.8
19	20	6.5
20	64	13.8
21	51	11.0
22	33	7.1
23	21	4.5
24	23	5.0
25	31	6.7
26	33	7.1
27	37	8.0
28	16	3.4
29	23	5.0
30	25	5.4
31	18	3.9
32	13	2.8
33	6	1.3
34	14	3.0
35	13	2.8

Correlations between all variables ranged from -.016 to .358. Most correlations were significant. See table 3 for the correlations between the variables in the study. Since the correlations range from -.016 to .358, there was no threat to multicollinearity since correlations do not reach or exceed .70 (Tabachnick & Fidell, 2001). One notable finding was that a significant negative correlation exists between trauma perceived and complex trauma, which suggest participants are unaware as to what trauma is. Participants would say “no” when asked “Have you experienced trauma?” yet, they scored a four or above on the ACE questionnaire (Felitti et al., 1998). This means, when the participants completed the demographics questionnaire, they reported ‘no’ to the question ‘Do you believe you experienced trauma prior

to eighteen?'; yet, when completing the ACE questionnaire, they reported one or more forms of complex trauma, which measures trauma experiences prior to 18 years. Another finding, when Complex Trauma/ACE score was 4-10 there was a significantly positive correlation to depression. This means a score of 4 and above for Complex trauma is correlated with higher levels of depression It was also found that Family Environment was correlated to Resilience, and Resilience was correlated to Depression. Later in this chapter, the discussion of Resilience as a mediator as a result of these correlations is described.

Table 3

Intercorrelations for Main Variables

Variable	*N*	1	2	3	4	5	6	7	8
1. Resilience	480	-							
2. CT score 1-3	480	-.016	-						
3. CT score 4-10	480	-.120*	-.505*	-					
4. CT score 0	480	.127*	-.604*	-.367*	-				
5. Family Environment	480	.378*	-.008*	-.259*	.253*	-			
6. Family Cohesion	480	.352*	-.054	-.419*	.454*	665*	-		
7. Depression	480	-.426*	.087	.284*	-.343*	-.199*	-.308*	-	
8. Trauma Perceived	479	.123*	-.025	-.356*	.358*	.158*	.276*	-.319*	-

*p<.01

Note. CT score means, Complex Trauma score

Hierarchical Multiple Regression Results

Hierarchical Multiple Regression was utilized for all research questions to gain an understanding of the cause and effect relationship between family environment and resilience. As per the recommendations of Tabachnick & Fidell (2007), I made sure the first model consisted of a significant relationship, and then interpreted the relationships between the following blocks to answer the present study's research questions. Assessing for this initial significant relationship allowed me to gain a better understanding of complex trauma's relationship with resilience on its own without the addition of family environment right away. Prior to conducting analyses assumptions were investigated which are, linearity, homoscedasticity, independence, normality, and checking for a normal distribution of residuals (Tabachnick & Fidell, 2007). Statistics used to determine significance were beta, r-squared, change in r-squared, f-tests, and p. The level of statistical significance was anything less than .05, and the change in r-squared was also assessed in each block (Gelman, Hill, Alvarez, Beck & Wu, 2006).

Table 4

Hierarchical Multiple Regression Showing the Relationship of Complex Trauma and Family Environment to Resilience 1a (N = 479)

Step and predictor variable	*B*	*SEB*	*β*	R^2	ΔR^2	*F*
Step 1				.020	.025**	6.00
Complex Trauma score 1-3	-3.483	1.677	-.109*			
Complex Trauma score 4-10	-6.776	1.968	-.181**			
Step 2				.169	.150**	33.58
Complex Trauma score 1-3	-1.303	1.562	-.041			
Complex Trauma score 4-10	-1.447	1.900	-.039			

Family Environment	.651	.070	.406***

*** $p < .000$ ** $p < .001$ * $p < .05$

Note. Reference group for Complex Trauma was a score of 0

Research Question 1a. Does family environment predict level of resilience after controlling for level of complex trauma? Table 4 consists of the results of the hierarchical multiple regression analysis. The dependent variable was resilience and independent variables were family environment and level of complex trauma (Complex Trauma score 1-3, Complex Trauma score 4-10; the reference category was a Complex Trauma score of 0). Model one consisted of the variable Complex Trauma. Model two consisted of the variables Complex Trauma and Family environment.

In model one, the variables complex trauma score 4-10 trauma and complex trauma score 1-3 accounted for 2% of the variance *($R^2 = .020$, $\Delta R^2 = .025$, $F(2,479) = 6.00$, $p < .001$)*. The entire model was significant showing trauma had a direct relationship with resilience; as trauma increased resilience decreased in comparison to the reference group that did not experience complex trauma. Participants in the groups where complex trauma score was between 1 and 3, as well as participants in groups where complex trauma score was between 4 and 10 had significantly lower levels of resilience in comparison to participants who scored a 0 for complex trauma. In Model two, the variable, family environment was added. This model accounted for an additional 15% of variance in resilience *($R^2 = .169$, $\Delta R^2 = .150$, $F(2,479) = 33.577$, $p < .000$)*. Once the variable family environment was added to the model, the relationship between complex trauma and resilience disappeared and only family environment had a significant relationship to resilience ($\beta = .406$, $t = 9.3$, $p < .000$); therefore, higher levels of family environment are

associated with higher levels of resilience. In model two, family environment changed the relationship between complex trauma and resilience (i.e., complex trauma was no longer significantly related to resilience), which suggests family environment may impact one's resilience positively despite the level of complex trauma experienced.

Table 5

Hierarchical Multiple Regression: Complex Trauma and Family Cohesion Relationship to Resilience 1c (N = 479)

Step and predictor variable	*B*	*SEB*	*β*	R^2	ΔR^2	*F*
Step 1				.020	.025**	6.004
Complex Trauma score 4-10	-6.776	1.968	-.181***			
Complex Trauma score 1-3	3.483	1.677	-.109*			
Step 2				.131	.111***	24.975
Complex Trauma score 4-10	2.171	2.177	.058			
Complex Trauma score 1-3	651	1.666	.020			
Family cohesion	2.348	.300	.392***			

*** $p < .000$ ** $p < .001$ * $p < .05$

Note. Reference group for Complex Trauma was a score of 0

Research question 1b. Does family cohesion predict level of resilience after controlling for level of complex trauma? Table 5 consists of the results of the hierarchical multiple regression analysis. With the purpose of examining family cohesion's impact on level of resilience, a hierarchical multiple regression analysis with two models was conducted. Model one consisted of complex trauma. Model two consisted of complex trauma and family cohesion.

In model one, complex trauma accounted for 2% of the variance in resilience ($R^2 = .020$, $\Delta R^2 = .035$, $F(2,479) = 24.975$, $p < .000$). In Model two, the variable family cohesion was added accounted for an additional 11% of variance in resilience ($R^2 = .131$, $\Delta R^2 = .111$, $F(2,479) = 6.00$, $p < .001$). Family cohesion was significantly positively related to resilience ($\beta = .392$, $t = 7.8$, $p < .000$). Entering the variable in model two, family cohesion changed the relationship between trauma and resilience which was no longer significant, which suggests, family cohesion may impact one's resilience positively despite complex trauma experienced.

Table 6

Hierarchical Multiple Regression Showing the Relationship of Complex Trauma, Family Environment and their Interaction to Resilience 1b (N =477)

Step and predictor variable	*B*	*SEB*	*β*	R^2	ΔR^2	*F*
Step 1				.020	.025**	5.971
Complex Trauma score 1-3	-3.500	1.687	-.109*			
Complex Trauma score 4-10	-6.793	1.978	-.181**			
Step 2				.170	.151***	33.575
Complex Trauma score 1-3	-1.300	1.571	-.041			
Complex Trauma score 4-10	-1.418	1.910	-.038			
Family Environment	.656	.071	.407***			
Step 3				.171	.003	25.675
Complex Trauma score 1-3	5.463	5.271	.171			
Complex Trauma score 4-10	11.064	9.481	.295			
Family Environment	.906	.199	.563***			
Family Environment*Trauma	-.127	.094	-.290			

*** $p < .000$ ** $p < .001$ * $p < .05$

Note. Reference group for Complex Trauma was a score of 0

Research Question 1c. Does family environment moderate the relationship between trauma and resilience? Table 6 consists of the results of the moderation analysis.

With the purpose of examining if family environment is a moderator between complex trauma and resilience, a moderation via hierarchical multiple regression analysis with three models was conducted. Model one consisted of the complex trauma variable with two categories entered: Complex trauma score 1-3 and complex trauma score 4-10; The reference category was complex trauma score 0. Model two consisted complex trauma and family environment. Model three consisted of complex trauma, family environment, and the interaction between family environment and complex trauma.

In model one, the variables accounted for 2% of the variance *($R^2 = .020$, $\Delta R^2 = .025$, $F(2,477) = 5.971$, $p < .001$)*. In this model both high and moderate levels of complex trauma are associated with lower levels of resilience in comparison to the group that did not experience complex trauma. In Model two the variable family environment was added. The model accounted for an additional 15% of variance in resilience *($R^2 = .170$, $\Delta R^2 = .151$, $F(2,477) = 33.575$, $p < .000$)*. With the variable family environment added to the model, it is found that only family environment has a significant relationship to resilience, as higher family environment is associated with higher level of resilience.

Mode three accounted for an additional .003% of variance in resilience *($R^2 = .171$, $\Delta R^2 = .003$, $F(2,477) = 25.675$, $p < .001$)*. In this model, only family environment had a significant relationship with resilience. The interaction between family environment and complex trauma does not impact resilience, therefore family environment is not a moderator.

Table 7

Hierarchical Multiple Regression Showing the Relationship of Complex Trauma, Family Cohesion, and their Interaction to Resilience 1d (N = 478)

Step and predictor variable	*B*	*SEB*	*β*	R^2	ΔR^2	*F*
Step 1				.020	.025**	5.971
Complex Trauma score 4-10	-6.793	1.978	-.181**			
Complex Trauma score score 1-3	-3.500	1.687	-.109*			
Step 2				.131	.112***	24.953
Complex Trauma score 4-10	2.317	2.196	.062			
Complex Trauma score 1-3	.760	1.679	.024			
Family Cohesion	2.367	.302	.394***			
Step 3				.135	.006	19.571
Complex Trauma score 4-10	11.399	5.608	.304*			
Complex Trauma score 1-3	6.817	3.829	.213			
Family Cohesion	4.039	.997	.673***			
Family Cohesion*Trauma	-.793	.451	-.262			

*** $p < .000$ ** $p < .001$ * $p < .05$

Note. Reference group for Complex Trauma was a score of 0

Research Question 1d. Does family cohesion moderate the relationship between trauma and resilience? Table 7 consists of the results. With the purpose of examining if family cohesion is a moderator between complex trauma and resilience, a moderation via hierarchical multiple regression analysis with three models was conducted. Model one consisted of the complex trauma variable with two categories entered: Complex trauma score 1-3 and complex

trauma score 4-10; The reference category was complex trauma score 0. Model two consisted of complex trauma and family cohesion. Model three consisted of complex trauma, family cohesion, and the interaction between family cohesion and trauma.

In model one, the variables accounted for 2% of the variance in resilience *(R^2 = . 020, Δ R^2= .025, F (2,478) = 5.971, p < .001)*. In model two, the variable family cohesion was added and this model accounted for an additional 11% of variance in resilience *(R^2 = .131, Δ R^2= .112, F (2,478) = 24.953, p < .000)*. In model three, the interaction was added and the model accounted for an additional .006% of variance in resilience *(R^2 = .135, Δ R^2= .006, F (2,478) = 19.571, p < .001)*. In this model, only family cohesion had a significant relationship with resilience. The interaction between family cohesion and complex trauma does not impact resilience, therefore family cohesion is not a moderator.

Table 8

Hierarchical Multiple Regression Showing the Relationship of Complex Trauma, Family Environment and Resilience to Depression 2a (N = 479)

Step and predictor variable	*B*	*SEB*	*β*	R^2	Δ R^2	*F*
Step 1				.155	.159***	45.051
Complex Trauma score 4-10	6.127	.652	.458***			
Complex Trauma score 1-3	3.278	.556	.287***			
Step 2				.170	.016**	33.737
Complex Trauma score 4-10	5.498	.678	.411***			
Complex Trauma score 1-3	3.021	.557	.265***			
Family Environment	-.077	.025	-.135**			
Step 3				.312	.142***	55.306
Complex Trauma score 4-10	5.283	.617	.395***			

Complex Trauma score 1-3	2.828	.507	.248***
Family Environment	.020	.025	.034
Resilience	-.148	.015	-.415***

*** $p < .000$ ** $p < .001$ * $p < .05$

Note. Reference group for Complex Trauma was a score of 0

Research question 2a. Does family environment and resilience predict levels of depression in young adulthood after controlling for level of complex trauma? Table 8 presents the results of the analysis. With the purpose of examining if family environment and resilience predict depression levels in young adulthood, a hierarchical multiple regression analysis was conducted with three models. Model one consisted of the complex trauma variable with two categories entered: Complex trauma score 1-3 and complex trauma score 4-10; The reference category was complex trauma score 0. Model two consisted of complex trauma and family environment. Model three consisted of complex trauma, family environment, and resilience.

In model one, the variables accounted for 16% of the variance in depression levels *(R^2 = .155, ΔR^2= .159, $F(2,479) = 45.051$, $p < .000$)*. In model two, the variable, family environment, was added. This model accounted for an additional .02% of variance in depression levels *(R^2 = .170, ΔR^2= .016, $F(2,479) = 33.737$, $p < .001$)*. In model three, the variable, resilience, was added, which accounted for an additional 14% of variance in levels of depression *(R^2 = .312, ΔR^2= .142, $F(2,479) = 55.306$, $p < .000$)*. In this model, the addition of resilience removed the significance of the variable, family environment. This suggests, family environment has a direct relationship with resilience, thus, as family environment increases, resilience increases. Then, resilience has a direct relationship with depression, as resilience increases depression levels

decrease. Therefore, a positive family environment may lead to high levels of resilience and high levels of resilience lead to lower to no levels of depression.

Research question 2b. Does resilience mediate the relationship between family environment and depression?

Table 8 presents the results. In Step 1 of the mediation model, the regression of Complex Trauma score on Depression, ignoring the mediator, Resilience, was significant *(R^2 = .155, Δ R^2= .159, F (2,479) = 45.051, p < .000)*. In Step 2, once Family Environment was regressed on Depression, Family environment was significant *(R^2 = .170, Δ R^2= .016, F (2,479) = 33.737, p < .001)*. In Step 3, when the mediator, Resilience, was added to the model, Family Environment was no longer a significant predictor of level of Depression *(β = .034, t(479)= .792, p = .429)*. This means, Resilience is a mediator of the relationship between Family Environment and Depression.

Table 9

Hierarchical Multiple Regression Showing the Relationship of Complex Trauma, Family Cohesion and Resilience to Depression 2c (N = 479)

Step and predictor variable	*B*	*SEB*	*β*	R^2	ΔR^2	*F*
Step 1				.155	.159***	45.051
Complex Trauma score 4-10	6.12	.652	.458***			
Complex Trauma score 1-3	3.278	,556	.287***			
Step 2				.179	.025	35.794
Complex Trauma score 4-10	4.610	.755	.344***			
Complex Trauma score 1-3	2.577	.577	.226***			
Family Cohesion	-.398	.104	-.186***			
Step 3				.312	.133	55.247
Complex Trauma score 4-10	4.914	.692	367***			
Complex Trauma score 1-3	2.668	.529	.234***			
Family Cohesion	-.069	.101	-.032			
Resilience	-.140	.015	-.393***			

*** $p < .000$ ** $p < .001$ * $p < .05$

Note. Reference group for Complex Trauma was a score of 0

Research question 2c. Does family cohesion and resilience predict levels of depression in young adulthood? Table 9 consists of the results. With the purpose of examining family cohesion and resilience on level of depression, a hierarchical multiple regression analysis with three models. Model one consisted of the complex trauma variable with two categories entered: Complex trauma score 1-3 and Complex Trauma score 4-10; The reference category was complex trauma score 0. Model two consisted of complex trauma and family cohesion.

Model three consisted of complex trauma, family cohesion, and resilience. In model one, the variables accounted for an additional 16% of the variance *(R^2 = .155, ΔR^2= .159, F (2,479) = 45.051, p < .000)*. In Model two the variable family cohesion was added, and the model accounted for an additional .03% of variance for level of depression *(R^2 = .170, ΔR^2= .025, F (2,479) = 35.794, p < .001)*. Model three accounted for an additional 13% of variance for level of depression *(R^2 = .312, ΔR^2= .133, F (2,479) = 55.247, p < .001)*. This model consisted of similar findings to those found in research question 2b. The addition of resilience removed the significance of the variable, family cohesion. This suggests family cohesion has a direct relationship with resilience, which is seen as family cohesion increases, resilience increases. Then, resilience has a direct relationship with depression, as resilience increases depression levels decrease. Therefore, a positive family cohesion can lead to high levels of resilience and high levels of resilience lead to lower to no levels of depression.

Research question 2d. Does resilience mediate the relationship between family cohesion and depression?

In Step 1 of the mediation model, the regression of the complex trauma score on depression, disregarding the mediator, Resilience, was significant *(R^2 = .155, ΔR^2= .159, F (2,479) = 45.051, p < .000)*. In Step 2, the regression of family cohesion on Depression was also significant *(R^2 = .170, ΔR^2= .025, F (2,479) = 35.794, p < .001)*. Family cohesion was a significant predictor of Depression (β = -.186, t(479) = -3.833, p = .000). In Step 3, when the mediator, resilience was added to the model, Family cohesion was no longer a significant predictor of level of Depression *(β = -.069, t(479)= -.683 , p = .495)*. This means, resilience is a mediator for the relationship between family environment and depression.

Summary of Results

A majority of the models were highly significant. First, it was found that higher levels of complex trauma lead to lower levels of resilience. Higher levels of complex trauma can also predict higher levels of depression. For the first set of research questions, it was found that when family environment and family cohesion are added to models containing complex trauma, there is no longer a significant relationship between complex trauma and resilience. This suggests, family environment and family cohesion have a greater impact on resilience despite complex trauma experienced. Further investigation of family cohesion and family environment as moderators was found to be insignificant.

For the second set of research questions, it was found that the experience of complex trauma was related to depression. Therefore, higher scores on the ACE questionnaire were related to higher levels of depression. When the variable resilience was added to the model, higher levels of resilience were significantly related to lower levels of depression, despite the experience of complex trauma. In these models, resilience was found to be a mediator between (1) family environment and depression (2) family cohesion and depression.

CHAPTER FIVE: DISCUSSION

This dissertation aimed to understand the ways in which the main variables influence change in resilience and depression in a sample of young adults ages 18-35. In the present study, correlations between complex trauma, family environment, family cohesion, resilience, and depression are assessed. In this chapter, results are summarized, implications of the results for counselors and higher education professionals are reviewed, followed by the strengths and limitations, and areas of need for future research.

Discussion of the Results

The present study was implemented to fill in current gaps in the complex trauma, resilience, and counseling literature and has done so in a few ways. One of these gaps was the simultaneous examination of the variables, complex trauma, family environment, depression, and resilience in one study. complex trauma was also assessed, rather than solely focusing on one type of complex trauma, which is not typical in the complex trauma literature (Poole, Dobson, & Pusch, 2016). The present study also placed an emphasis on resilience, which is also needed to gain further understanding as to how people become resilient young adults (McClure, et al., 2008). The constructs, family environment and family cohesion were utilized to gain more understanding of how resilience is achieved in young adulthood despite the experience of complex trauma. It was also of interest to understand the affect complex trauma, family environment, family cohesion, and resilience have on levels of depression in young adulthood.

The theoretical framework was utilized to investigate ways in which resilience can be built or depression can be avoided via a theoretical framework which combines, Structural Family Therapy (Minuchin, 1974) and Masten's systemic view of resilience which ties in with Structural Family Therapy (Masten, 2009; Masten, 2016; Masten, 2018), alongside wave one of

the metatheory of resilience and resiliency (Richardson, 2002). The family system is an important part of resilience, which is found via the family structures which lead to resilience building in children and adolescents such as, parent-child attachment relationship, systems which regulate emotions, behavior, and arousal, education systems, religion, spirituality, and systems focused on cultural beliefs (Masten, 2009). When adverse experiences occur, it can be extremely difficult for a parent(s)/caregiver(s) to provide socialization, however, many parents have been able to do so despite facing financial issues, war, being without a home, and other trying situations (Masten, 2018). Therefore, this study investigated the specific parts of a family which lead to resilience and low to no levels of depression present in young adulthood.

Complex Trauma and Family Environment as Predictors of Resilience

The results of this study suggest the family is an important component of resilience building despite one's experience of complex trauma. However, different from previous studies, more is understood about the ways in which a family is important in building resilience.

Through hierarchical multiple regression, in comparison to the reference group where complex trauma score was 0, the experience of complex trauma was significantly negatively correlated with resilience, meaning, higher levels of complex trauma are associated with lower levels of resilience. In model two of the hierarchical multiple regression, family environment was added, which took away significance from complex trauma. This suggests, despite complex trauma experienced, a positive family environment can lead to resilience. A similar model was conducted via hierarchical multiple regression except with family cohesion taking the place of family environment in step 2. In this step, the same effect occurred, despite complex trauma experienced, the presence of positive family cohesion can lead to resilience.

These findings differ from past findings in which complex trauma in the form of physical and sexual abuse led to more in-home conflict, leading to lower resilience (McClure et al., 2008). The findings of the present study provide more of an idea as to how people can become resilient despite the negative experiences they had in childhood and adolescence, which is helpful for further resilience and trauma research. The results of the present study do however align with those of Simpson (2010) who found family as a protective factor which leads to high levels of resilience, as well as another study (Martinez-Torteya, Bogat, Von Eye, & Levendosky, 2009) where 54% of children exposed to domestic violence were found to be resilient, which they claimed was due to children being able to normally develop despite complex trauma occurring in the home.

Interactions were added to the models, one with family environment and the other with family cohesion as the moderator. However, the use of family environment and family cohesion as a moderator was not significant. Therefore, family environment or family cohesion do not moderate the relationship between complex trauma and resilience.

Complex Trauma, Family Environment, Family Cohesion, and Resilience as they Relate to Depression

The next aim of the study was to assess the ways depression may be affected by the experience of complex trauma, family environment, family cohesion, and resilience. This is important as, child maltreatment, a form of complex trauma, has been positively significantly correlated to depression (Dennison, Sheridan, Busso, Jenness, Peverill, Rosen, & McLaughlin, 2016). In the first model, complex trauma was significantly correlated to depression, as the experience of complex trauma was correlated with a higher level of depression. However, when adding the variable, family environment, there was a significantly positive relationship with

resilience, which was seen as family environment scores increased, resilience levels also increased despite the experience of complex trauma. In the next model, resilience had a direct relationship with depression, in which resilience levels increased which led to the decrease in level of depression. Therefore, a positive family environment appears to cultivate resilience in young adults, which then allows them to be less likely to experience depression. The same effect occurred when family cohesion was in the model in place of family environment. This suggests family cohesion also has a direct relationship with resilience, which is seen as family cohesion increases, resilience increases, which lessens the likelihood for young adults to experience depression. This can be explained as a lack of family support is correlated to feelings of isolation and loneliness, which results in mental health challenges alongside suicidal ideation (Skopp, et al., 2011). Also, high family cohesion is correlated to lower levels of loneliness in adolescencewhile children in families with high conflict experience more feelings of loneliness in adolescence (Skopp, et al., 2011), and loneliness in turn is a symptom of depression (American Psychiatric Association, 2013).

Overall, these findings align with the those of Eisman, Stoddard, Heinze, Caldwell, and Zimmerman (2015), in which high levels of conflict in the family led to depressive symptoms in adolescence. In the present study, those with strong family environment and family cohesion are assumed to not present with major conflict despite the experience of complex trauma, which lessened young adults' likelihood to experience depression. The present results also coincide with past findings in which positive family environment was positively correlated to childhood resilience (Masten & Reed, 2002). Furthermore, it has been found that a strong parent, which in the case of a study by Miller, Degnan, Hance, Fox, and Chronis-Tuscano (2019), the mother is seen as the driver of development, and resilience begins with mother's care for child during

infancy, leading to less issues with temperament, ADHD symptomatology (Miller, Degnan, Hane, Fox, & Chronis-Tuscano, 2019), which in the case of the present study, parents who maintained a high level of care for their children despite the complex trauma experienced were able to enforce resilience building in their children.

Resilience as a mediator. Resilience was also found to be a mediator in two models. First, resilience was a mediator between family environment and depression. This was found as family environment was significantly related to depression, however, when resilience was added to the model, this significant relationship no longer existed. The same occurred in a model in which resilience was a mediator between family cohesion and depression. These findings align with those from Lee et al. (2018), It was also found that resilience has the potential to be a mediator between the experience of trauma and the experience of depressive symptoms (Lee, et al., 2018), which they found maltreatment led to low resilience which led to depressive symptoms. The present study results oppose those of Lee et al. (2018) due to the variables family environment and family cohesion, which are able to change the negative path one may be headed developmentally and psychologically after the experience of complex trauma.

Perceived Trauma versus Actual Experience of Complex Trauma

In the demographics section, participants were asked, 'Do you believe you experienced trauma prior to eighteen?' This variable was utilized to understand participants' perception of trauma. Later in the survey, participants completed the ACE questionnaire (Felitti, et al., 1998), for an objective response as to whether or not complex trauma was experienced. It was found that more participants reported 'no experience of trauma' in comparison to the actual number of participants who reported experiences of trauma. This suggests, people may not understand what constitutes trauma. Considering the vast amounts of mental health stigma, people are more

likely to be unaware about what trauma is and that it can have a lasting effect on them. Mental health stigma and the fear it brings to individuals can also lead to the hiding of behaviors, feelings, and actions (Bharadwaj, Pai, & Suziedelyte, 2017), which in the case of trauma and mental health stigma, is problematic as people are never able to resolve or confront the traumatic experience that led to current mental health challenges (van Hoof, van Lang, Speekenbrink, van Ijzendoom, & Vermeiren, 2015). From the perspective of children and families, stigma can lead to a decline in access to mental health care (Rogers, Bobich, & Heppell, 2016). This tends to occur in families in which intergenerational trauma is experienced, leading to a lack of awareness that trauma can negatively affect the mental health of family members and increase mental health symptoms in families across generations, while not seeking out counseling services (Rogers, Bobich, & Heppell, 2016). Regarding complex trauma, it is typically passed down through generations, and normalized or kept a secret due to stigma.

Implications

Mental Health Counselors, School counselors, Counselor Educators, and Higher Education Professionals will benefit from these results in the quest to provide more strength based interventions with clients and students. Results also assist in breaking down stigma, and advocate for clients.

For all counselors, the study demonstrates how resilience leads to lower levels of depression. Therefore, mental health and school counselors should be interested in incorporating more strength based, resilience building approaches to their services. Acknowledgement of family systems is imperative as well, as complex trauma and struggles in family environment and cohesion were found. Therefore, it will be of interest for counselors and clients to delve into these less than ideal relationships.

Implications for Practice

Mental Health Counselors.

Mental Health Counselors have many opportunities in which they can utilize the findings from this study. Particularly those working with children, adolescents, and families can be sure to place an emphasis on the parent and the parent-child subsystem. Mental Health Counselors can lead parenting workshops and parenting groups which focus on teaching parents, self-care, how to bond with children, promote family cohesion, teach parents how to empower children, and how to build their child's resilience. Mental Health Counselors can also seek to have individual sessions with parents to provide psychoeducation on these topics, as well as the psychological and development impact of complex trauma. Filial play therapy is also encouraged as it consists of teaching parents and other family members how to partake in child-centered play therapy, leading to more fortified relationships between child, parent(s), and family member (Kress, Paylo, & Stargell, 2018). In general, Mental Health Counselors who specialize in child and adolescent clientele should make a priority to have parents present in the counseling sessions, considering how important family environment and cohesion are to achieving higher levels of resilience and lower levels of depression. Families experiencing complex trauma are in need of this parent-child interaction in counseling sessions even more considering the findings show it is less likely for these families to have the strong family environment and cohesion. Mental Health Counselors can also provide psychoeducation on coping skills education and practice them with clientele, as this assists in resilience building. This would be optimal if parents are a part of the psychoeducation, and enforce the coping skills at home.

School Counselors.

School Counselors can also utilize these findings in practice. School Counselors can lead groups in schools for children experiencing a variety of complex trauma with a strengths-based, resilience building approach. School Counselors can also involve parents via parent workshops or parent-child workshops after school. These afterschool events can assist in breaking down mental health stigma, and teach parents about complex trauma and how it can lead to mental and physical health challenges. After-school fun parent-child activities can also promote strengthening of the parent-child subsystem or cohesion within the entire family. This is also helpful for School Counselors to build rapport with parents and families so their services are sought after or taken seriously by parents. Within the school, the utilization of trauma-informed care practices should occur such as bulletin boards promoting feelings identification. School Counselors can also lead workshops with new teachers, administrators, and staff about how to be trauma-informed, and incorporate models such as the sanctuary model which focus on the culture of the organization from mentalities surrounding trauma and mental health to the aesthetic of the building, as this approach stops continued traumatic experiences and re-traumatization and provides a space to heal (Esaki, Benamati, Yanosy, Middleton, Hopson, Hummer, & Bloom, 2012). School Counselors can take on a leadership role of informing and collaborating school social workers and psychologists about trauma-informed care.

Higher Education.

Considering the prevalence of trauma experiences in the young adult population, it is imperative that higher education settings place importance on trauma-informed practices at colleges and universities. This could be implemented via safe spaces on campus, vibrant décor, bulletin boards, and groups on campus open to discussing trauma and crises as they arise in

student's lives or past experiences. Programming focused on trauma, healing, and resilience would also be helpful in higher education settings. Furthermore, mental health and wellness programming is needed considering there is a direct correlation between complex trauma and depression in young adulthood. Housing and Residence Life can promote this type of programming as part of their on-campus involvement initiatives for credit to remain on campus housing the following year. Counseling and Psychological Services and Multicultural Centers on campus can provide groups surrounding depression, self-care, recovering from past trauma. Trainings for incoming staff and faculty will assist in the utilization of trauma-informed care as to how to ask students the right questions when students are struggling, and the resources available to students. These trainings can also focus on complex trauma and the high likelihood that students have experienced it. This would prevent the typical disarray that is seen in higher education as most college students feel unable to seek support on their college campuses, as more work toward preventing stigma is needed (Gaddis, Ramirez, & Hernandez, 2018).

Implications for Training

Counselor Education.

Results of this study have many implications for Counselor Educators as well. The topic of trauma and trauma-informed care is important considering the effect on a person's mental health, as seen in the present study as complex trauma was positively correlated to depression. Therefore, more discussion of trauma, complex trauma, resilience, and how to provide trauma-informed care is needed in all courses. When possible, courses focused on Families and Trauma should be offered as electives in counseling programs. Other options are the development of trauma-informed care or trauma and crisis counseling certificates alongside student's graduate studies to provide incentives for being informed in this needed area of knowledge. Counselor

Educators who are new to the topic of trauma, can become informed through continuing education via webinars and conference presentations.

Limitations of the Study

There are multiple limitations of the present study that must be addressed. Despite attempts to diversify sample which led to only 50% college students, the sample's majority population was white and female. Considering the study was self-report partially retroactive study, some limitations follow as participants may have difficulty recalling past family environment and complex trauma. Participants may also want to refrain from sharing past trauma due to shame or fear of delving into a topic they have not yet resolved. Mental Health stigma may have led to under reporting of mental health struggles such as depression, anxiety, and stress. The source of which participants were recruited may also have an impact on the results. Those recruited from classrooms were majors in the Human Services profession, therefore, they may have personal experiences with Complex Trauma which persuaded their decision for a major, as well as their knowledge about the topic. Those who were recruited from groups on Facebook are also more likely to have experienced trauma as well as mental health symptoms. With those who are college students, it can also be implied that they are a resilient group of individuals considering they made it to that level of education. Lastly, considering the data was collected at the same time point, this study does not imply causation.

Recommendations for Future Research

Further investigation as to how many people went to counseling both during and after complex trauma experiences is needed, as this will assist Counselor Educators in understanding the impact counseling has on one's resilience, as well as what techniques work best with clients experiencing complex trauma. A mixed methods study would be helpful to gain more insight

about participant's experiences with complex trauma and what or who assisted them during the trauma, will assist in the creation of future theories for other research. Understanding other factors that could influence depression and resilience in young adulthood despite complex trauma should be assessed, as it will lead to the development of strong interventions for children and adolescents. Comparison of each of the various complex traumas is also essential in understanding how that impacts family cohesion, resilience and depression. Future research should also consist of other constructs that may lead to resilience in young adulthood after the experience of complex trauma. As more variables are uncovered, more clinical studies can be conducted to assess which interventions are best for those experiencing complex trauma, as well as the development of new interventions.

Conclusions

In conclusion, the present study assists in building the literature surrounding resilience despite experiences of complex trauma. Typically, the focus has been on the negative affects complex trauma can have on an individual. However, it must be highlighted that young adults are able to be resilient, and display low to no levels of depression symptomatology despite complex trauma experiences. Family environment and cohesion appear to be predictors of a person's ability to be resilient. This highlights the importance of family, and opens the lens of how resilience is cultivated. The findings also shed light on the process of how resilience then increases the likelihood for lower levels of depression in young adulthood. These findings can assist Counselors in goal setting with families who experience complex trauma, these findings can be implemented as counselors can first assist in building the family system, which then leads to the building of resilience. Lastly, the continuation of educating individuals about trauma and

its lasting impact must occur as it was found in the present study that individuals are not fully aware as to what constitutes trauma.

References

Afifi, T. O., & MacMillan, H. L. (2011). Resilience following child maltreatment: A review of protective factors. *Canadian Journal of Psychiatry, 56*, 266–272.

Alvarez, A. N., & Juang, L. P. (2010). Filipino americans and racism: A multiple mediation model of coping. *Journal of Counseling Psychology, 57*(2), 167-178.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental Disorders, 5.* Arlington, VA: American Psychiatric Publishing.

Arnold, C., Fisch, R. (2011). *The impact of complex trauma on development*. Lanham, Maryland: Jason Aronson.

Balkin, R. S., & Kleist, D. M. (2017). *Counseling research: A scholar-practitioner approach*. Alexandria, VA: American Counseling Association.

Barber, B. K., & Buehler, C. (1996). Family cohesion and enmeshment: Different constructs, different effects. *Journal of Marriage and Family, 58*(2), 433-441.

Beasley, M., Thompson, T., & Davidson, J. (2003). Resilience in response to life stress: The effects of coping style and cognitive hardiness. *Personality and Individual Differences, 34*(1), 77-95.

Bharadwaj, P., Pai, M. M., & Suziedelyte, A. (2017). Mental health stigma. *Economics Letters, 159*, 57-60.

Blackmon, J. E., Liptak, C., & Recklitis, C. J. (2015). Development and preliminary validation of a short form of the beck depression inventory for youth (BDI-Y) in a sample of adolescent cancer survivors. *Journal of Cancer Survivorship, 9*(1), 107-114.

Busch-Rossnagel, N. A. (1985). Review of Family Environment Scale. In J. V. Mitchell (Ed.), *The ninth mental measurements yearbook* (Vol. 1, pp. 573-574). Lincoln: University of Nebraska Press.

Caldwell, J. R. (1985). Family Environment Scale. In D. J. Keyser & R. C. Sweetland (Eds.), *Test critiques* (Vol.2, pp. 263-274). Kansas City, MO: Test Corporation of America.

Chandler, G. E., Roberts, S. J., & Chiodo, L. (2015). Resilience intervention for young adults with adverse childhood experiences. *Journal of the American Psychiatric Nurses Association, 21*(6), 406-416.

Chandy, J. M., Blum, R. W., & Resnick, M. D. (1996). Gender-specific outcomes for sexually abused adolescents. *Child Abuse & Neglect, 20*(12), 1219-1231.

Chang, E. C., Chang, O. D., Yu, T., & Hirsch, J. K. (2016). Hope and trauma: Examining a diathesis-stress model in predicting depressive and anxious symptoms in college students. *Personality and Individual Differences, 96*, 52-54.

Chapman, D. P., Wheaton, A. G., Anda, R. F., Croft, J. B., Edwards, V. J., Liu, Y., . . . Perry, G. S. (2011). Adverse childhood experiences and sleep disturbances in adults. *Sleep Medicine, 12*(8), 773-779.

Chassin, L., Pitts, S. C., DeLucia, C., & Todd, M. (1999). A longitudinal study of children of alcoholics: Predicting young adult substance use disorders, anxiety, and depression. *Journal of Abnormal Psychology*, *108*(1), 106-119.

Cho, A., & Lee, S. (2019;2018;). Exploring effects of childhood parentification on adult depressive symptoms in korean college students. *Journal of Clinical Psychology, 75*(4), 801-813.

Cohen, P., Brown, J., & Smailes, E. (2001). Child abuse and neglect and the development of mental disorders in the general population. *Development and Psychopathology, 13*(4), 981-999.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2014). *Applied multiple Regression/Correlation analysis for the behavioral sciences* (2nd ed.). Mahwah: Lawrence

Erlbaum Associates.

Cohen L, Manion L, Morrison, K. (2003). *Research Methods in Education. (*5th ed.) London;New York;: RoutledgeFalmer

Collishaw, S., Pickles, A., Messer, J., Rutter, M., Shearer, C., & Maughan, B. (2007). Resilience to adult psychopathology following childhood maltreatment: Evidence from a community sample. *Child Abuse & Neglect, 31*(3), 211-229.

Connor, K. M., & Davidson, J. R. T. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety, 18,* 76 – 82.

Conte, J. R., & Schuerman, J. R. (1988). The effects of sexual abuse on children: A multidimensional view. *Journal of Interpersonal Violence, 2*, 380–390.

Cook, A., Spinazzola, J., Ford, J., Lanktree, C, Blaustein, M., Cloitre, M., DeRosa, R., Hubbard, R., Kagan, R., Liautaud, J., Mallah, K., Olafson, E., van der Kolk, B. (2005). Complex trauma in children and adolescents. *Psychiatric Annals, 35*(5), 390-398.

Courtois, C. A., & Ford, J. D. (2013). *Treatment of complex trauma: A sequenced, relationship-based approach*. New York: The Guilford Press.

Cox, M.J., Paley, B. (1997). Families as systems. *Annual Review of Psychology, 48*, 243-267

Crea, T. M., Chan, K., & Barth, R. P. (2014). Family environment and attention-deficit/hyperactivity disorder in adopted children: Associations with family cohesion and adaptability. *Child: Care, Health and Development, 40*(6), 853-862.

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, California: SAGE Publications.

Daniels, D. & Moos, R. (1990). Assessing life stressors and social resources among adolescents: Applications to de- pressed youth. *Journal of Adolescent Research, 5,* 268–289.

Davydov, D. M., Stewart, R., Ritchie, K., & Chaudieu, I. (2012). Depressed mood and blood

pressure: The moderating effect of situation-specific arousal levels. *International Journal of Psychophysiology, 85*(2), 212-223.

Davydov, D. M., Stewart, R., Ritchie, K., & Chaudieu, I. (2010). Resilience and mental health. *Clinical Psychology Review, 30*(5), 479-495.

DiClemente, C. M., Rice, C. M., Quimby, D., Richards, M. H., Grimes, C. T., Morency, M. M., Pica, J. A. (2016). Resilience in urban african american adolescents: The protective enhancing effects of neighborhood, family, and school cohesion following violence exposure. *The Journal of Early Adolescence*

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). Internet, phone, mail, and mixed -mode surveys: the tailored design method. John Wiley & Sons.

Drapkin, M. L., Eddie, D., Buffington, A. J., & McCrady, B. S. (2015). Alcohol-specific coping styles of adult children of individuals with alcohol use disorders and associations with psychosocial functioning. *Alcohol and Alcoholism*, *50*(4), 463-469.

Domhardt, M., Münzer, A., Fegert, J. M., & Goldbeck, L. (2014). Resilience in Survivors of Child Sexual Abuse A Systematic Review of the Literature. *Trauma, Violence, & Abuse*, *16,* 476-493.

Dube, S. R., Williamson, D. F., Thompson, T., Felitti, V. J., & Anda, R. F. (2004). Assessing the reliability of retrospective reports of adverse childhood experiences among adult HMO members attending a primary care clinic. *Child Abuse & Neglect, 28*(7), 729-737.

DuMont, K. A., Widom, C. S., & Czaja, S. J. (2007). Predictors of resilience in abused and neglected children grown-up: The role of individual and neighborhood characteristics. *Child Abuse & Neglect, 31*(3), 255-274.

Easley, M. J., & Epstein, N. (1991). Coping with stress in a family with an alcoholic parent. *Family Relations, 40*(2), 218-224.

Esaki, N., Benamati, J., Yanosy, S., Middleton, J. S., Hopson, L. M., Hummer, V. L., & Bloom, S. L. (2013). The sanctuary model: Theoretical framework. *Families in Society, 94*(2), 87-95.

Eisman, A. B., Stoddard, S. A., Heinze, J., Caldwell, C. H., & Zimmerman, M. A. (2015). Depressive symptoms, social support, and violence exposure among urban youth: A longitudinal study of resilience. *Developmental Psychology, 51*(9), 1307-1316.

Egeland, B., Carlson, E., & Sroufe, L. A. (1993). Resilience as process. *Development and Psychopathology, 5*(4), 517-528.

Ellis, B. H., Lhewa, D., Charney, M., & Cabral, H. (2006). Screening for PTSD among somali adolescent refugees: Psychometric properties of the UCLA PTSD index. *Journal of Traumatic Stress, 19*(4), 547-551.

Erikson, E.H. (1963). *Childhood and society* (2nd. ed.) New York: Norton. (original work published 1950).

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine, 14*(4), 245-258.

Fiske, D. T. Gilbert, & G. Lindzey (2010), *Handbook of social psychology* (pp. 115-139). Hoboken, NJ, US: John Wiley & Sons Inc.

Fletcher, D., & Sarkar, M. (2013). Psychological resilience: A review and critique of definitions, concepts, and theory. *European Psychologist, 18*(1), 12-23.

Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology, 51*(1), 115-134.

Gaddis, S. M., Ramirez, D., & Hernandez, E. L. (2018). Contextualizing public stigma: Endorsed mental health treatment stigma on college and university campuses. *Social Science & Medicine, 197*, 183-191.

Gelman, A., & Hill, J. (2006). *Data analysis using regression and multilevel/hierarchical models*.

Green, S. B., & Salkind, N. J. (2011). *Using SPSS for Windows and Macintosh: Analyzing and understanding data*. Boston, MA: Pearson/Prentice Hall.

Gladding, S. T. (2018). *Counseling: A comprehensive profession* (Eighth ed.). N.Y. N.Y;Boston;: Pearson Education.

Goldstein, A. L., Faulkner, B., & Wekerle, C. (2012;2013;). The relationship among internal resilience, smoking, alcohol use, and depression symptoms in emerging adults transitioning out of child welfare. *Child Abuse & Neglect, 37*(1), 22-32.

Gooding, P. A., Hurst, A., Johnson, J., & Tarrier, N. (2012). Psychological resilience in young and older adults. *International Journal of Geriatric Psychiatry, 27*(3), 262-270.

Graham, J. W. (2012). *Missing data: Analysis and Design*. New York: Springer.

Griffin, M. L., & Amodeo, M. (2010). Predicting long-term outcomes for women physically abused in childhood: Contribution of abuse severity versus family environment. *Child Abuse & Neglect, 34*(10), 724-733.

Groenenberg, I., Sharma, S., Green, B. S., & Fleming, S. E. (2013). Family environment in inner-city african-american and latino Parents/Caregivers: A comparison of the reliability of instruments. *Journal of Child and Family Studies, 22*(2), 288-296.

Guerra, C., Farkas, C., & Moncada, L. (2018). Depression, anxiety and PTSD in sexually abused adolescents: Association with self-efficacy, coping and family support. *Child Abuse & Neglect, 76*, 310-320.

Herrenkohl, T. I., Hong, S., Klika, J. B., Herrenkohl, R. C., & Russo, M. J. (2013). Developmental impacts of child abuse and neglect related to adult mental health, substance use, and physical health. *Journal of Family Violence, 28*(2), 191-199.

Huffman, A. H., Matthews, R. A., & Irving, L. H. (2017). Family fairness and cohesion in marital dyads: Mediating processes between work–family conflict and couple psychological distress. *Journal of Occupational and Organizational Psychology, 90*(1), 95-116.

Hulsey, T. L., Sexton, M. C., & Nash, M. R. (1992). Perceptions of family functioning and the occurrence of childhood sexual abuse. *Bulletin of the Menninger Clinic, 56*(4), 438-450.

Hussong, A. M., & Chassin, L. (2004). Stress and Coping amoung children of alcoholic parents through the young adult transition. *Developmental Psychopathology*, *16*(4), 985–1006.

Hyman, B., & Williams, L. (2001). Resilience among women survivors of child sexual abuse. *Affilia, 16*(2), 198-219.

Jaffee, S. R., Caspi, A., Moffitt, T. E., Polo-Tomás, M., & Taylor, A. (2007). Individual, family, and neighborhood factors distinguish resilient from non-resilient maltreated children: A cumulative stressors model. *Child Abuse & Neglect, 31*(3), 231-253.

Jackson, P. A., Deary, M. E., Reay, J. L., Scholey, A. B., & Kennedy, D. O. (2012). No effect of 12 weeks' supplementation with 1 g DHA-rich or EPA-rich fish oil on cognitive function or mood in healthy young adults aged 18–35 years. *British Journal of Nutrition, 107*(8), 1-12.

Jaycox, L. H., & Repetti, R. L. (1993). Conflict in families and the psychological adjustment of preadolescent children. *Journal of Family Psychology, 7*(3), 344-355.

Jeste, D. V., Savla, G. N., Thompson, W. K., Vahia, I. V., Glorioso, D. K., Martin, A. S., Depp, C. A. (2013). Association between older age and more successful aging: Critical role of resilience and depression. *American Journal of Psychiatry, 170*(2), 188-196.

Jennings, A. (2004). Models for Developing Trauma-Informed Behavioral Health Systems and Trauma-Specific Services.

Kleinman, S. L., Handal, P. J., Enos, D., Searight, H. R., & Ross, M. J. (1989). Relationship between perceived family climate and adolescent adjustment. *Journal of Clinical Child Psychology, 18*(4), 351-359.

Kliethermes, M., PhD, Schacht, M., PhD, & Drewry, Kate, MSW, LCSW. (2014). Complex trauma. *Child and Adolescent Psychiatric Clinics of North America, 23*(2), 339-361.

Kocalevent, Rüya-Daniela, Ph.D., M.P.H., Hinz, A., Ph.D., & Brähler, E., Ph.D. (2013). Standardization of the depression screener patient health questionnaire (PHQ-9) in the general population. *General Hospital Psychiatry, 35*(5), 551-555.

Kress, V. E., Paylo, M. J., & Stargell, N. A. (2019). *Counseling children and adolescents*. NY, NY: Pearson.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Koretz, D., Merikangas (2003). National Comorbidity Survey Replication. The epidemiology of major depressive disorder: Results from the national comorbidity survey replication (NCS-R). *Jama, 289*(23), 3095-3105.

Langevin, R., Cossette, L., & Hébert, M. (2016). Emotion regulation in sexually abused preschoolers. *Child Psychiatry & Human Development, 47*(1), 1-12.

Ledesma, J. (2014). Conceptual frameworks and research models on resilience in leadership. *SAGE Open, 4*(3), 1-8

Lee, S. W., Bae, G. Y., Rim, H., Lee, S. J., Chang, S. M., Kim, B., & Won, S. (2018). Mediating

effect of resilience on the association between emotional neglect and depressive symptoms. *Psychiatry Investigation, 15*(1), 62-69.

Lee, C., Cronley, C., White, H. R., Mun, E., Stouthamer-Loeber, M., & Loeber, R. (2012). Racial differences in the consequences of childhood maltreatment for adolescent and young adult depression, heavy drinking, and violence. *Journal of Adolescent Health, 50*(5), 443-449.

Lindblad-Goldberg, M., & Northey Jr, W. F. (2013). Ecosystemic structural family therapy: Theoretical and clinical foundations. *Contemporary Family Therapy, 35*(1), 147-160.

Logan, J. E., PhD, Fowler, K. A., PhD, Patel, N. P., MA, & Holland, Kristin M., PhD, MPH. (2016). Suicide among military personnel and veterans aged 18–35 years by County—16 states. *American Journal of Preventive Medicine, 51*(5)

Löwe, B., Kroenke, K., Herzog, W., & Gräfe, K. (2004). Measuring depression outcome with a brief self-report instrument: Sensitivity to change of the patient health questionnaire (PHQ-9). *Journal of Affective Disorders, 81*(1), 61-66.

Lucey, C. F., & Lam, S. K. Y. (2012). Predicting suicide risks among outpatient adolescents using the family environment scale: Implications for practice and research. *International Journal for the Advancement of Counselling, 34*(2), 107-117.

Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development, 71*(3), 543-562.

Martinez-Torteya, C., Bogat, G., Von Eye, A., & Levendosky, A. (2009). Resilience among children exposed to domestic violence: the role of risk and protective factors. *Child Development, 80*(2), 562-577.

Masten, A. S., & Reed, M.-G. J. (2002). Resilience in development. In C. R. Snyder & S. J.

Lopez (Eds.), *Handbook of positive psychology*. 74-88. New York, NY, US: Oxford University Press.

Masten, A. S. (2005). Ordinary magic: Resilience processes in development. *Annual Progress in Child Psychiatry and Child Development, 56*, 227-238.

Masten, A. S., & Tellegen, A. (2012). Resilience in developmental psychopathology: Contributions of the project competence longitudinal study. *Development and Psychopathology, 24*(2), 345-361.

Masten, A. S., & Cicchetti, D. (2016). Resilience in development: Progress and transformation. In D. Cicchetti (Ed.), *Developmental psychopathology: Risk, resilience, and intervention*. 271-333. Hoboken, NJ, US: John Wiley & Sons Inc.

Masten, A. S. (2018). Resilience theory and research on children and families: Past, present, and promise: Resilience theory and research. *Journal of Family Theory & Review, 10*(1), 12-31.

McAllister, M., Knight, B. A., Hasking, P., Withyman, C., & Dawkins, J. (2018). Building resilience in regional youth: Impacts of a universal mental health promotion programme. *International Journal of Mental Health Nursing, 27*(3), 1044-1054.

McClure, F. H., Chavez, D. V., Agars, M. D., Peacock, M. J., & Matosian, A. (2008). Resilience in sexually abused women: Risk and protective factors. *Journal of Family Violence, 23*(2), 81-88.

McCrea, K. T., Guthrie, D., & Bulanda, J. J. (2016). When traumatic stressors are not past, but now: Psychosocial treatment to develop resilience with children and youth enduring concurrent, complex trauma. *Journal of Child & Adolescent Trauma, 9*(1), 5-16.

Mcgloin, J. M., & Widom, C. S. (2001). Resilience among abused and neglected children

grown up. *Development and Psychopathology, 13*(4), 1021-1038.

McGuinness, T.M., Ryan, R., & Robinson, C.B. (2005). Protective influences of families for children adopted from the former Soviet Union. *Journal of Nursing Scholarship, 37*(3), 216-221.

Meltzer, H., Doos, L., Vostanis, P., Ford, T., & Goodman, R. (2009). The mental health of children who witness domestic violence. *Child & Family Social Work, 14*(4), 491-501.

Mersky, J. P., Topitzes, J., & Reynolds, A. J. (2013). Impacts of adverse childhood experiences on health, mental health, and substance use in early adulthood: A cohort study of an urban, minority sample in the U.S. *Child Abuse & Neglect, 37*(11), 917-925.

Minuchin, P. (1985). Families and individual development: provocations from the field of family therapy. *Child Developmen*t, *56*(2), 289-302.

Minuchin, S. (1974). *Families & family therapy*. Cambridge, MA: Harvard University Press.

Min, J., Lee, C., & Chae, J. (2014). Resilience moderates the risk of depression and anxiety symptoms on suicidal ideation in patients with depression and/or anxiety disorders. *Comprehensive Psychiatry, 56*, 103-111.

Mirksy, L. (2010) The Sanctuary Model: A Restorative Approach for Human Services Organizations, March. EForum. International Institute for Restorative Practice

Moos, B.S., Moos, R. H. (1974). *The Family Environment Scale.* Palo Alto, CA: Consulting Psychologists Press.

Moos, R. H., & Moos, B. S. (1994). *Family Environment Scale manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.

Moos, R. and Moos, B. (1986) *Family Environment Scale - Manual* (2nd ed). Palo Alto, CA: Consulting Psychologists Press.

Moos, R., & Moos, B. (2009). *Family Environment Scale Manual and Sampler Set: Development, Applications and Research (Fourth Edition)*. Palo Alto, CA: Mind Garden, Inc.

Morgan, P. T., Desai, R. A., & Potenza, M. N. (2010). Gender-related influences of parental alcoholism on the prevalence of psychiatric illnesses: Analysis of the National Epidemiologic Survey on Alcohol and Related Conditions. *Alcoholism, Clinical and Experimental Research, 34*, 1759–1767

Morrow, J. A., Clayman, S., & McDonagh, B. (2012). In their own voices: Trauma survivors' experiences in overcoming childhood trauma. *SAGE Open, 2*(1), 1-10.

Negy, C., & Snyder, D. K. (2006). Assessing family-of-origin functioning in mexican american adults: Retrospective application of the family environment scale. *Assessment, 13*(4), 396-405.

Newman, B. M., & Newman, P. R. (2007). *Theories of human development.* Psychology Press: New York, NY.

Newman, B. M., & Newman, P. R. (2009). *Development through life: A psychosocial approach* (10th ed.). Australia; Belmont, CA: Wadsworth/Cengage Learning.

Nurius, P. S., Green, S., Logan-Greene, P., & Borja, S. (2015). Life course pathways of adverse childhood experiences toward adult psychological well-being: A stress process analysis. *Child Abuse & Neglect, 45*, 143-153.

Petry, N. M. (2002). A comparison of young, middle-aged, and older adult treatment-seeking pathological gamblers. *The Gerontologist, 42*(1), 92-99.

Poole, J. C., Dobson, K. S., & Pusch, D. (2016;2017;). Childhood adversity and adult

depression: The protective role of psychological resilience. *Child Abuse & Neglect, 64*, 89-100.

Pritchard, C., Cotton, A., Godson, D., Cox, M., & Weeks, S. (1991). Mental illness, drug and alcohol misuse and HIV risk behaviour in 214 young adult (18-35 year) probation clients: Implications for policy, practice and training. *Social Work & Social Sciences Review, 3*(3), 227-242.

Pynoos, R. S., & Steinberg, A. M. (2002). *UCLA Trauma History Profile*. Unpublished manuscript, National Child Traumatic Stress Network, Los Angeles, CA.

Raucher-Chéné, D., Gierski, F., Hübsch, B., Cuervo-Lombard, C., Bera-Potelle, C., Cohen, R., et al. (2012). Depression, anxiety and personality dimensions in female first-degree relatives of alcohol-dependent probands. *Archives of Women's Mental Health, 15*, 229–232

Recognize trauma change a child's future. *Mental Health Connection of Tarrant County*. Retrieved from http://www.recognizetrauma.org/statistics.php

Rich, A. R., & Bonner, R. L. (1987). Interpersonal moderators of depression among college students. *Journal of College Student Personnel*, *28*, 337-342.

Richardson, G. E. (2002). The metatheory of resilience and resiliency. *Journal of Clinical Psychology*, *58*(3), 307-321.

Richardson & Waite (2002). Mental health promotion through resilience and resiliency education. *Journal of Emergency Mental Health. 4*(1), 65-79

Richardson, G. E., Neiger, B. L., Jensen, S., & Kumpfer, K. L. (1990). the resiliency model. *Health Education, 21*(6), 33.

Robitschek, C., & Kashubeck, S. (1999). A structural model of parental alcoholism, family

functioning, and psychological health: The mediating effects of hardiness and personal growth orientation. *Journal of Counseling Psychology, 46*(2), 159-172.

Rogers, K. C., Bobich, M., Heppell, P. (2016). Further consideration of systems, stigma, trauma, and access to care. *PCSP: Pragmatic Case Studies in Psychotherapy, 12*(2), 139-157

Rossi, A., Galderisi, S., Rocca, P., Bertolino, A., Rucci, P., Gibertoni, D., Stratta, P., Bucci, P., Mucci, A., Aguglia, E., Amodeo, G., Amore, M., Bellomo, A., Brugnoli, R., Caforio, G., Carpiniello, B., Dell'Osso, L., di Fabio, F., Giannantonio, M., Marchesi, C., Monteleone, P., Montemagni, C., Oldani, L., Roncone, R., Sacchetti, E., Santonastaso, P., Siracusano, A., Zeppegno, P., Maj, M. Italian Network for Research on Psychoses. (2017). Personal resources and depression in schizophrenia: The role of self-esteem, resilience and internalized stigma. *Psychiatry Research, 256*, 359-364.

Rousseau, C., Mekki-Berrada, A., & Moreau, S. (2001). Trauma and extended separation from family among latin america and african refugees in montreal. *Psychiatry, 64*(1), 40.

Rutledge, C. M., Davies, S. M., & Davies, T. C. (1994). Family dysfunction and the well-being of medical students. *Family Systems Medicine, 12*(2), 197-204.

Sanford, K., Bingham, C. R., & Zucker, R. A. (1999). Validity issues with the family environment scale: Psychometric resolution and research application with alcoholic families. *Psychological Assessment, 11*(3), 315-325.

Scali, J., Gandubert, C., Ritchie, K., Soulier, M., Ancelin, M., & Chaudieu, I. (2012). Measuring resilience in adult women using the 10-items connor-davidson resilience scale (CD-RISC). role of trauma exposure and anxiety disorders. *PLoS One, 7*(6)

Schroeder, V. M., & Kelley, M. L. (2008). The influence of family factors on the executive

functioning of adult children of alcoholics in college. *Family Relations*, *57*(3), 404-414.

Searight, H. R., & Openlander, P. (1986). Family environments of continuing and non-continuing college students. *Psychological Reports*, *59*, 299-302.

Seligman, M. E. P. (2013). Flourish: A visionary new understanding of happiness and well-being. New York;Toronto: Atria.

Shanahan, L., McHale, S. M., Crouter, A. C., & Osgood, D. W. (2008). Linkages between parents' differential treatment, youth depressive symptoms, and sibling relationships. *Journal of Marriage and Family, 70*(2), 480-494.

Simpson, C. L. (2010). Resilience in women sexually abused as children. *Families in Society, 91*(3), 241-247.

Siriwardhana, C., Ali, S. S., Roberts, B., & Stewart, R. (2014). A systematic review of resilience and mental health outcomes of conflict-driven adult forced migrants. *Conflict and Health, 8,* 13.

Skopp, N. A., Luxton, D. D., Bush, N., & Sirotin, A. (2011). Childhood adversity and suicidal ideation in a clinical military sample: Military unit cohesion and intimate relationships as protective factors. *Journal of Social and Clinical Psychology, 30*(4), 361-377.

Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine, 15*(3), 194-200.

Snyder, C. R. (1994). The psychology of hope: You can get there from here. New York: Free Press.

Snyder, C.R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry*, *13*(4), 249-275.

Spinazzola, J., Ford, J. D., Zucker, M., van der Kolk, B. A., Silva, S., Smith, S. F., & Blaustein,

M. (2005). Survey evaluates complex trauma exposure, outcome, and intervention among children and adolescents. *Psychiatric Annals, 35*, 433–439.

Spinhoven, P., Elzinga, B. M., Hovens, J. G. F. M., Roelofs, K., Zitman, F. G., Van Oppen, P., & Penninx, B. W. J. H. (2010). The specificity of childhood adversities and negative life events across the life span to anxiety and depressive disorders. *Journal of Affective Disorders*, *126*(1–2), 103–112.

Spitzer, R. L., Kroenke, K., Williams, J. B. W., & and the Patient Health Questionnaire Primary Care Study Group. (1999). Validation and utility of a self-report version of PRIME-MD: The PHQ primary care study. *Jama, 282*(18), 1737-1744.

Steele, F., Rasbash, J., & Jenkins, J. (2013). A multilevel simultaneous equations model for within-cluster dynamic effects, with an application to reciprocal parent–child and sibling effects. *Psychological Methods, 18*(1), 87-100.

Stokes, L. D., McCord, D., & Aydlett, L. (2013). Family environment, personality, and psychological symptoms in adults sexually abused as children. *Journal of Child Sexual Abuse, 22*(6), 658-676.

Tabachnick, L. S. & Fidell, B. G. (2007). *Using multivariate statistics* (6th ed.). Montreal: Pearson.

Taber, K. S. (2018). The use of cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education, 48*(6), 1273.

Takada, S., Kameoka, S., Okuyama, M., Fujiwara, T., Yagi, J., Iwadare, Y., . . . Kato, H. (2018). Feasibility and psychometric properties of the UCLA PTSD reaction index for DSM-5 in japanese youth: A multi-site study. *Asian Journal of Psychiatry, 33*, 93-98.

Ungar, M., Ghazinour, M., Richter, J. (2013). Annual research review: what is resilience within

the social ecology of human development? *Journal of Child Psychology and Psychiatry. 54*(4). P. 348-366.

Uruk, A. Ç., Sayger, T. V., & Cogdal, P. A. (2007). Examining the influence of family cohesion and adaptability on trauma symptoms and psychological well-being. *Journal of College Student Psychotherapy, 22*(2), 51-63.

van der Kolk, B.A. (2005). Developmental trauma disorder. *Psychiatric Annals, 35*(5), 401.

van Hoof, M.-J., van Lang, N. D. J., Speekenbrink, S., van IJzendoorn, M. H., & Vermeiren, R. R. J. M. (2015). Adult Attachment Interview differentiates adolescents with Childhood Sexual Abuse from those with clinical depression and non-clinical controls. *Attachment & Human Development*, *17*(4), 354–375.

Vergano, C. M., Speranza, A. M., & Lauriola, M. (2015). The complex trauma questionnaire (ComplexTQ): Development and preliminary psychometric properties of an instrument for measuring early relational trauma. *Frontiers in Psychology, 6.*

Vostanis, P., & Nicholls, J. (1995). The family environment scale: Comparison with the construct of expressed emotion. *Journal of Family Therapy, 17*(3), 299-315.

Wade, R., Cronholm, P. F., Fein, J. A., Forke, C. M., Davis, M. B., Harkins-Schwarz, M., Bair-Merritt, M. H. (2016). Household and community-level adverse childhood experiences and adult health outcomes in a diverse urban population. *Child Abuse & Neglect, 52*, 135-145.

Watts, J., O'Sullivan, D., Panlilio, C., Daniels, A. D. (in press.). Childhood emotional abuse and maladaptive coping in adults seeking treatment for substance use disorders. *Journal of Addictions and Offender Counseling, 40*(2).

Walsh, F. (2016). Applying a family resilience framework in training, practice, and research:

Mastering the art of the possible. *Family Process, 55,* 616–632.

Wang, P. S., Simon, G., & Kessler, R. C. (2003). The economic burden of depression and the cost-effectiveness of treatment. *International Journal of Methods in Psychiatric Research, 12*(1), 22-33.

Werner, E. E., & Smith, R. S. (1992). Overcoming the Odds: High Risk Children from Birth to Adulthood. Ithaca, NY: Cornell University Press.

Werner, E. E. (1992). The children of kauai: Resiliency and recovery in adolescence and adulthood. *Journal of Adolescent Health, 13*(4), 262-268.

White, J., Shelton, K. H., & Elgar, F. J. (2014). Prospective associations between the family environment, family cohesion, and psychiatric symptoms among adolescent girls. *Child Psychiatry & Human Development, 45*(5), 544-554.

Wu, L., Tan, Y., & Liu, Y. (2017). Factor structure and psychometric evaluation of the connor-davidson resilience scale in a new employee population of china. *BMC Psychiatry, 17*(1), 49.

Zhao, J., Liu, X., & Wang, M. (2015). Parent–child cohesion, friend companionship and left-behind children's emotional adaptation in rural china. *Child Abuse & Neglect, 48*, 190-199.

APPENDIX A: Qualtrics Survey

Childhood Adverse Experiences into Adulthood

Start of Block: Default Question Block

Hello! Thank you for your participation in this study!
The purpose of the study is to examine how individuals develop over time and what impacts their development. In particular, we are interested in mental health outcomes in young adulthood. We will provide more details about the specific goals of the study at the end of your participation. At that point, you will have an opportunity to ask additional questions about the survey so that we can be assure that your responses during your participation are authentic and not influenced by initial information you've read. Your responses are confidential. If you consent to participate, we will be asking you to complete a survey. There is only one part to this study, which can be completed in one sitting. Your data, together with those from many other participants, will be used to understand how different experiences can impact development overtime. In participating in this research, you should experience no more discomfort than you normally would experience when performing academic tasks that are either pleasant or unpleasant. Possible risks include remembering past experiences that you did not enjoy. You may stop completing the survey at point. You may also experience negative emotions when completing questions regarding your current mental health status. You may choose not to answer any questions that you do not want to and you can stop your participation at any time. In the unlikely event that you become emotional as a result of your participation in this study, care is available:

- The National Suicide Hotline: 1-800-273-8255
- Counseling and Psychological Services at your University (Penn State University, University Park campus has drop-in hours from 9:00AM-5:00PM and their phone number is (814) 863-0395)
- Centre County CAN HELP line: 1-800-643-5432

Please email the head of the research study (principal investigator), Aubrey Daniels at aubreyd@psu.edu if you have questions, complaints or concerns about the research. The survey will last for one session of approximately 10-15 minutes.
Please take the time to answer as many questions as possible in order for this research to truly be helpful to those it will serve!

End of Block: Default Question Block

Start of Block: Demographics Questions

Q134 Please respond to as many questions as possible in order for this research to truly be helpful to those it will serve! Finishing the survey (to the last page when you receive

confirmation that survey is completed & response is recorded) will also be extremely helpful towards the pursuit of effectively providing strong mental health services to future clients. The following questions are asking for demographic information.

Q5 What gender do you identify as?

- ○ Male (1)
- ○ Female (2)
- ○ _____ (fill in the blank) (3)
- ○ Prefer not to answer (4)

Skip To: Q6 If What gender do you identify as? != _____ (fill in the blank)

Skip To: Q128 If What gender do you identify as? = _____ (fill in the blank)

Q128 What gender do you identify as?

_____

Q6 If you are an undergraduate student, what year of school are you in? Please skip if this does not apply to you.

- ○ First year (1)
- ○ Second year (2)
- ○ Third year (3)
- ○ Fourth year (4)
- ○ Fifth year (5)
- ○ Sixth year and beyond (6)
- ○ Prefer not to answer (7)

Q7 If you are a graduate student, what year of school are you in? Please skip if this does not apply to you.

- First year (1)
- Second year (2)
- Third year (3)
- Fourth year (4)
- Fifth year (5)
- Sixth year and beyond (6)
- Prefer not to answer (7)

Q8 What is your highest level of education?

- High School Diploma (1)
- GED (2)
- Bachelor's Degree (3)
- Master's Degree (4)
- PhD (5)
- EdD (6)
- MD (7)
- JD (8)
- _____ (Fill in the blank) (9)
- Prefer not to answer (10)

Skip To: Q9 If What is your highest level of education? != _____ (Fill in the blank)

Q135 What is your highest level of education?

_____

Q9 I identify my ethnicity as (select all that apply)

- ☐ Asian (1)
- ☐ Black/African American (2)
- ☐ White (3)
- ☐ Hispanic/Latina/o (4)
- ☐ Native American (5)
- ☐ Pacific Islander (6)
- ☐ _____ (fill in the blank) (7)
- ☐ Prefer not to answer (8)

Skip To: Q10 If I identify my ethnicity as (select all that apply) != _____ (fill in the blank)
Skip To: Q130 If I identify my ethnicity as (select all that apply) = _____ (fill in the blank)

Q130 I identify my ethnicity as

_____

Q10 Which age group are you in?

- ○ 17 and under (1)
- ○ 18-35 (2)
- ○ 35-45 (3)
- ○ 45-65 (4)
- ○ 65+ (5)

Skip To: Q11 If Which age group are you in? != 17 and under

Skip To: End of Survey If Which age group are you in? = 17 and under

Q11 What age are you?

_____

Q12 Do you believe you experienced trauma prior to the age of 18?

- ○ Yes (1)
- ○ No (2)

Q13 Growing up, how many people were in your household?

- ○ 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ 7 (7)
- ○ 8 (8)
- ○ 9 (9)
- ○ 10+ (10)

Q14 How many primary parent(s)/caregiver(s) did you have growing up?

- ○ 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ 4 (4)
- ○ 5 (5)
- ○ 6+ (6)

Q15 Did this change over time? (i.e. death of a parent/caregiver, divorce, etc.)

- ○ Yes (1)
- ○ No (2)

Q16 How many siblings did you have growing up?

_____

End of Block: Demographics Questions

Start of Block: Family Environment Scale Part I

Q15 The next set of true or false questions consist statements about families. You are to decide which of these statements are true of your family and which are false. If you think the statement is True or mostly True of your family, select "true". If you think the statement is False or mostly False of your family, select "false".

You may feel that some of the statements are true for some family members and false for others. Mark true if the statement is true for most members. Mark false if the statement is false for most members. If the members are evenly divided, decide what is the stronger overall impression and answer accordingly. Remember, we would like to know what your family seems like to you. So, do not try to figure out how other members see your family, but do give us your general impression of your family for each statement.
NOTE: this is regarding the family you were raised in Please take the time to answer as many questions as possible in order for this research to truly be helpful to those it will serve!

Q131 Family members really help and support one another.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q16

Family members often keep their feelings to themselves.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q17

We fight a lot in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q19

We don't do things on our own very often in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q20

We feel it is important to be the best at whatever you do.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q21

We often talk about political and social problems.

- True (1)
- False (2)
- Prefer not to answer (3)

Q22

We spend most weekends and evenings at home.

- True (1)
- False (2)
- Prefer not to answer (3)

Q23

Family members attend church, synagogue, or Sunday School fairly often.

- True (1)
- False (2)
- Prefer not to answer (3)

Q24

Activities in our family are pretty carefully planned.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q25

Family members are rarely ordered around.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q26

We often seem to be killing time at home.

- True (1)
- False (2)
- Prefer not to answer (3)

Q27

We say anything we want to around home.

- True (1)
- False (2)
- Prefer not to answer (3)

Q28

Family members rarely become openly angry.

- True (1)
- False (2)
- Prefer not to answer (3)

Q29

In our family, we are strongly encouraged to be independent.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q60

We always strive to do things just a little better the next time.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q61

We rarely have intellectual discussions.

- True (1)
- False (2)
- Prefer not to answer (3)

Q62

Everyone in our family has a hobby or two.

- True (1)
- False (2)
- Prefer not to answer (3)

Q63

Family members have strict ideas about what is right and wrong.

- True (1)
- False (2)
- Prefer not to answer (3)

Q64

People change their minds often in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q65

There is a strong emphasis on following rules in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q66

Family members really back each other up.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q67

Someone usually gets upset if you complain in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q68

Family members sometimes hit each other.

- True (1)
- False (2)
- Prefer not to answer (3)

Q69

Family members almost always rely on themselves when a problem comes up.

- True (1)
- False (2)
- Prefer not to answer (3)

Q70

Family members rarely worry about job promotions, school grades, etc.

- True (1)
- False (2)
- Prefer not to answer (3)

Q71

Someone in our family plays a musical instrument.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q72

Family members are not very involved in recreational activities outside work or school.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q73

We believe there are some things you just have to take on faith.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q74

Family members make sure their rooms are neat.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

End of Block: Family Environment Scale Part I

Start of Block: PHQ-9

Q106 The following questions ask you how much you agree with each statement listed. Please choose whichever describes you best.

Over the last 2 weeks, how often have you been bothered by any of the following problems?

	Not at all (1)	Several days (2)	More than half the days (3)	Nearly every day (4)
Little interest or pleasure in doing things (1)	○	○	○	○
Feeling down, depressed, or hopeless (2)	○	○	○	○
Trouble falling or staying asleep, or sleeping too much (3)	○	○	○	○
Feeling tired or having little energy (4)	○	○	○	○
Poor appetite or overeating (5)	○	○	○	○
. Feeling bad about yourself — or that you are a failure or have let yourself or your family down (6)	○	○	○	○
Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual (7)	○	○	○	○
Thoughts that you would be better off dead or of hurting yourself in some way (8)	○	○	○	○

Q111 If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

- ○ Not difficult (1)
- ○ Somewhat difficult (2)
- ○ Very difficult (3)
- ○ Extremely difficult (4)

End of Block: PHQ-9

Start of Block: ACE

Q112 The next set of questions will ask about events that may have happened during your first 18 years of life. Some of these questions may lead to recollection of past negative events. The end of the survey has some resources if you feel you need further care after completing the survey.

Q113 *During the first 18 years of your life,*
Did a parent or other adult in the household **often** ... Swear at you, insult you, put you down, or humiliate you? **or** Act in a way that made you afraid that you might be physically hurt?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to answer (3)

Q115 Did a parent or other adult in the household **often** ... Push, grab, slap, or throw something at you? **or** **Ever** hit you so hard that you had marks or were injured?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to answer (3)

Q114 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** Try to or actually have oral, anal, or vaginal sex with you?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to answer (3)

Q116 Did you **often** feel that ... No one in your family loved you or thought you were important or special? **or** Your family didn't look out for each other, feel close to each other, or support each other?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to answer (3)

Q117 Did you **often** feel that ... You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? **or** Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to answer (3)

Q118 Were your parents **ever** separated or divorced?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to answer (3)

Q119 Was your mother or stepmother: **Often** pushed, grabbed, slapped, or had something thrown at her? **or** **Sometimes or often** kicked, bitten, hit with a fist, or hit with something hard? **or** **Ever** repeatedly hit over at least a few minutes or threatened with a gun or knife?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to answer (3)

Q120 Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?

- Yes (1)
- No (2)
- Prefer not to answer (3)

Q121 Was a household member depressed or mentally ill or did a household member attempt suicide?

- Yes (1)
- No (2)
- Prefer not to answer (3)

Q122 Did a household member go to prison?

- Yes (1)
- No (2)
- Prefer not to answer (3)

End of Block: ACE

Start of Block: FES 2

Q132 The next set of true or false questions consist statements about families. You are to decide which of these statements are true of your family and which are false. If you think the statement is True or mostly True of your family, select "true". If you think the statement is False or mostly False of your family, select "false".

You may feel that some of the statements are true for some family members and false for others. Mark true if the statement is true for most members. Mark false if the statement is false for most members. If the members are evenly divided, decide what is the stronger overall impression and answer accordingly.

Remember, we would like to know what your family seems like to you. So, do not try to figure out how other members see your family, but do give us your general impression of your family for each statement.
NOTE: this is regarding the family you were raised in Please take the time to answer as many questions as possible in order for this research to truly be helpful to those it will serve!

Q30

Getting ahead in life is very important in our family.

- True (1)
- False (2)
- Prefer not to answer (3)

Q31

We rarely go to lectures, plays or concerts.

- True (1)
- False (2)
- Prefer not to answer (3)

Q32

Friends often come over for dinner or to visit.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q33

We don’t say prayers in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q34

We are generally very neat and orderly.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q35

There are very few rules to follow in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q36

We put a lot of energy into what we do at home.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q37

It's hard to "blow off steam" at home without upsetting somebody.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q38

Family members sometimes get so angry they throw things.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q39

We think things out for ourselves in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q40

How much money a person makes is not very important to us.

- True (1)
- False (2)
- Prefer not to answer (3)

Q41

Learning about new and different things is very important in our family.

- True (1)
- False (2)
- Prefer not to answer (3)

Q42

Nobody in our family is active in sports, Little League, bowling, etc.

- True (1)
- False (2)
- Prefer not to answer (3)

Q43

We often talk about the religious meaning of Christmas, Passover, or other holidays.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q44

It's often hard to find things when you need them in our household.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q45

There is one family member who makes most of the decisions.

- True (1)
- False (2)
- Prefer not to answer (3)

Q46

There is a feeling of togetherness in our family.

- True (1)
- False (2)
- Prefer not to answer (3)

Q47 We tell each other about our personal problems.

- True (1)
- False (2)
- Prefer not to answer (3)

Q48

Family members hardly ever lose their tempers

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q49

We come and go as we want to in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q50

We believe in competition and “may the best man win.”

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q51

We are not that interested in cultural activities.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q52

We often go to the movies, sports events, camping, etc.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q53

We don’t believe in heaven or hell.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q54

Being on time is very important in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q55

There are set ways of doing things at home.

- True (1)
- False (2)
- Prefer not to answer (3)

Q56

We rarely volunteer when something has to be done at home.

- True (1)
- False (2)
- Prefer not to answer (3)

Q57

If we feel like doing something on the spur of the moment we often just pick up and go.

- True (1)
- False (2)
- Prefer not to answer (3)

Q58

Family members often criticize each other.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q59

There is very little privacy in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

End of Block: FES 2

Start of Block: CDRISC

Q123 For the next set of questions, please select the response that best indicates how much you agree with the following statements as they apply to you over the last **month.** If a particular situation has not occurred recently, answer according to how you think you would have felt.

Please take the time to answer as many questions as possible in order for this research to truly be helpful to those it will serve!

	Not true at all (1)	Rarely true (2)	Sometimes true (3)	Often true (4)	True nearly all the time (5)
I am able to adapt when changes occur. (1)	○	○	○	○	○
I have at least one close and secure relationship that helps me when I am stressed. (2)	○	○	○	○	○
When there are no clear solutions to my problems, sometimes fate or God can help. (3)	○	○	○	○	○
I can deal with whatever comes my way. (4)	○	○	○	○	○
Past successes give me confidence in dealing with new challenges and difficulties. (5)	○	○	○	○	○
I try to see the humorous side of things when I am faced with problems. (6)	○	○	○	○	○
Having to cope with stress can make me stronger. (7)	○	○	○	○	○

I tend to bounce back after illness, injury, or other hardships. (8)	○	○	○	○	○
Good or bad, I believe that most things happen for a reason. (9)	○	○	○	○	○
I give my best effort no matter what the outcome may be. (10)	○	○	○	○	○
I believe I can achieve my goals, even if there are obstacles. (11)	○	○	○	○	○
Even when things look hopeless, I don't give up. (12)	○	○	○	○	○
During times of stress/crisis, I know where to turn for help. (13)	○	○	○	○	○
Under pressure, I stay focused and think clearly. (14)	○	○	○	○	○
I prefer to take the lead in solving problems rather than letting others make all the decisions. (15)	○	○	○	○	○

I am not easily discouraged by failure. (16)	○	○	○	○	○
I think of myself as a strong person when dealing with life's challenges and difficulties. (17)	○	○	○	○	○
I can make unpopular or difficult decisions that affect other people, if it is necessary. (18)	○	○	○	○	○
I am able to handle unpleasant or painful feelings like sadness, fear, and anger. (19)	○	○	○	○	○
In dealing with life's problems, sometimes you have to act on a hunch without knowing why. (20)	○	○	○	○	○
I have a strong sense of purpose in life. (21)	○	○	○	○	○
I feel in control of my life. (22)	○	○	○	○	○
I like challenges. (23)	○	○	○	○	○

I work to attain my goals no matter what roadblocks I encounter along the way. (24)	○	○	○	○	○
I take pride in my achievements. (25)	○	○	○	○	○

End of Block: CDRISC

Start of Block: FES 3

Q133
The next set of true or false questions consist statements about families. You are to decide which of these statements are true of your family and which are false. If you think the statement is True or mostly True of your family, select "true". If you think the statement is False or mostly False of your family, select "false".

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Remember, we would like to know what your family seems like to you. So, do not try to figure out how other members see your family, but do give us your general impression of your family for each statement. ***NOTE: this is regarding the family you were raised in***
Please take the time to answer as many questions as possible in order for this research to truly be helpful to those it will serve!

Q75

Everyone has an equal say in family decisions.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q76

There is very little group spirit in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q77

Money and paying bills is openly talked about in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q78

If there's a disagreement in our family, we try hard to smooth things over and keep the peace.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q79

Family members strongly encourage each other to stand up for their rights.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q80

In our family, we don't try that hard to succeed.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q81

Family members often go to the library.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q82

Family members sometimes attend courses or take lessons for some hobby or interest (outside of school).

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q83

In our family each person has different ideas about what is right and wrong.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q84

Each person's duties are clearly defined in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q85

We can do whatever we want to in our family.

- True (1)
- False (2)
- Prefer not answer (4)

Q86

We really get along well with each other.

- True (1)
- False (2)
- Prefer not to answer (3)

Q87

We are usually careful about what we say to each other.

- True (1)
- False (2)
- Prefer not to answer (3)

Q88

Family members often try to one-up or out-do each other.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q89

It's hard to be by yourself without hurting someone's feelings in our household.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q90

"Work before play" is the rule in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q91

Watching TV is more important than reading in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q92

Family members go out a lot.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q93

The Bible is a very important book in our home.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q94

Money is not handled very carefully in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q95

Rules are pretty inflexible in our household.

- True (1)
- False (2)
- Prefer not to answer (3)

Q96

There is plenty of time and attention for everyone in our family.

- True (1)
- False (2)
- Prefer not to answer (3)

Q97

There are a lot of spontaneous discussions in our family.

- True (1)
- False (2)
- Prefer not to answer (3)

Q98

In our family, we believe you don't ever get anywhere by raising your voice.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q99

We are not really encouraged to speak up for ourselves in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Page Break

Q100

Family members are often compared with others as to how well they are doing at work or school.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q101

Family members really like music, art and literature.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q102

Our main form of entertainment is watching TV or listening to the radio.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q103

Family members believe that if you sin you will be punished.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q104

Dishes are usually done immediately after eating.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

Q105

You can’t get away with much in our family.

- ○ True (1)
- ○ False (2)
- ○ Prefer not to answer (3)

APPENDIX B: IRB Approval

PennState

Office for Research Protections
Vice President for Research
The Pennsylvania State University
205 The 330 Building
University Park, PA 16802

814-865-1775
Fax: 814-865-8699
orp@psu.edu
research.psu.edu/orp

EXEMPTION DETERMINATION

Date: February 10, 2019

From: Jodi Mathieu, IRB Analyst

To: Aubrey Daniels

Type of Submission:	Initial Study
Title of Study:	Childhood Adverse Experiences: Impacts in Young Adulthood
Principal Investigator:	Aubrey Daniels
Study ID:	STUDY00011332
Submission ID:	STUDY00011332
Funding:	Not Applicable
Documents Approved:	• Separate Survey Prompt & Survey #2 for raffle (0.01), Category: Data Collection Instrument • Updated Survey Questions (2), Category: Data Collection Instrument • v2 Debriefing Form.docx (0.02), Category: Other • v2 HRP-591 - Protocol for Human Subject Research Daniels .pdf (2.01), Category: IRB Protocol

The Office for Research Protections determined that the proposed activity, as described in the above-referenced submission, does not require formal IRB review because the research met the criteria for exempt research according to the policies of this institution and the provisions of applicable federal regulations.

Continuing Progress Reports are **not** required for exempt research. Record of this research determined to be exempt will be maintained for five years from the date of this notification. If your research will continue beyond five years, please contact the Office for Research Protections closer to the determination end date.

Changes to exempt research only need to be submitted to the Office for Research Protections in limited circumstances described in the below-referenced Investigator Manual. If changes are being considered and there are questions about whether IRB review is needed, please contact the Office for Research Protections.

APPENDIX C: DEBRIEFING FORM

Debriefing Form

The study and procedure will be explained in detail to the participant when the study is finished. The participant will read the following:

The overall purpose of this study is to understand how individuals develop overtime and how various experiences may impact this. The main focus of this study views levels of resilience and how these levels relate to mental health and family life despite any negative life experience one has experienced.

Research shows adverse life events can lead to confusion and irritation within families, which disrupts family functioning (Steele, Rabash & Jenkins, 2013). This then has a ripple effect on a child's development in a negative way (Drapkin, Eddie, Buffington & Mcgrady, 2015). However, some findings show adverse life events do not have the same negative impact on child development into adolescence and young adulthood. Therefore, the present study seeks to understand what specific influences during childhood and adolescence lead to positive outcomes in the life of young adults.

To investigate this, questions regarding family structure and communication were asked for an understanding of your family life. Questions regarding your reactions to life situations was to measure how you react under pressure were also asked. Questions asking about adverse life experiences provides us with the data necessary to understand how adverse life experiences have impacted subjects in adulthood. Questions asking about mood and physical wellness assist us in understanding levels of depression. It is anticipated that positive family experiences will lead to higher levels of resilience. In turn, both of these variables will impact mental health.

If you feel a need to speak to a professional concerning any uncomfortable feelings from their participation in this research, they may contact the Counseling & Psychological Services (CAPS) at 814.863.0395; or the Centre County CAN HELP line at 800.643.5432 or the National Suicide Hotline 1-800-273-8255

If you want to be in the raffle for an amazon gift card, more information is on the next page

If you have any questions, you are may contact me at aubreyd@psu.edu

Thank you for your participation, and have a great day

CURRICULUM VITAE

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The Pennsylvania State University
Department of Psychology, Counseling, and Special Education
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University Park, PA 16801
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EDUCATION

2016-present **Ph.D. Counselor Education & Supervision**
The Pennsylvania State University

2015-2016 **M.Phil.Ed Professional Counseling**
University of Pennsylvania

2014-2015 **M.S.Ed Counseling and Mental Health Services**
University of Pennsylvania

2010-2014 **B.A Psychology Honors**
Seton Hall University
Minor: Spanish
Honors Thesis: The Stigma Associated with Being a Child of an Alcoholic

PUBLICATIONS

Refereed Journals

Watts, J.W., O'Sullivan, D., Panlilio, C., **Daniels, A.D.** (in press.). Childhood emotional abuse and maladaptive coping in adults seeking treatment for substance use disorder. *The Journal of Addictions and Offender Counseling*,

PROFESSIONAL PRESENTATIONS

Fullmer, L., **Daniels, A.D.,** Forziat Pytel, K., Kim, S., Galvan, A. (September, 2018). Confronting Dual Roles Head On: Implications for Doctoral Students in Dual Relationships. Poster Presentation at the annual meeting of the North Atlantic Region Association for Counselor Education and Supervision Conference. Burlington, VT.

Daniels, A.D. (November, 2017). Counselors as Advocates: The First Line of Defense. Presentation at the annual meeting of the Pennsylvania Counseling Association Regional Conference. King of Prussia, PA.

Daniels, A.D., Kim, S. (November, 2017). Resiliency Theory & Strengths Based Approach with College Students: Collaboration, Conceptualization and Intervention. Presentation at the annual meeting of the Pennsylvania Counseling Association Regional Conference. King of Prussia, PA.

Kostorhyz, K., Benoist, L., **Daniels, A.D.** (October, 2017). Multicultural and Accessibility Considerations in a Training Clinic Counselor Education Training at a Distance. Presentation at the pre-conference for the annual meeting of the Association for Counselor Education and Supervision National Conference. Chicago, IL.