

Proposal for Senior Honors Thesis

HONS 497 Senior Honors Thesis Credits 2 (2 minimum required)

Directions: Please return signed proposal to the Honors Office **at least one week prior to your scheduled meeting with the Honors Council**. This proposal must be accepted by Honors Council the semester before presentation.

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Thesis Title: The Effects of Adverse Childhood Experiences on Parenting Practices

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- I. Provide goals and brief description of your project or research.

Goals

This research project seeks to examine the predicting relationship between subjects' adverse childhood experiences (ACEs) and the quality of subjects' current parenting practices among a national population (i.e. using a specific ACEs score, we can approximate whether or not the subject will demonstrate positive parenting practices). In addition, I will examine the role of resilience as a protective factor within this relationship. Specifically, I will be examining the following hypotheses:

1. At least half of the subjects will report experiencing at least one adverse childhood experience reflecting the data involved in the original ACEs study (Felitti et al., 1998).
2. A moderate positive relationship between the total number of ACEs and negative parenting practices will exist.
3. Resilience will act as a moderator in this relationship with higher levels of resilience resulting in decreased negative parenting practices as compared to individuals with the same ACEs score but lower levels of resilience.
4. These relationships will hold when controlling for the manner in which subjects were parented, specifically the degree to which they experienced parental autonomy support.

Background and Rationale

Developmental Stress

While the early years of life are often a time of significant growth, they are also a time of vulnerability. This characteristic of early childhood has inspired researchers to highlight the unique opportunity that early childhood has to lay the foundation for healthy development in the future (Cooper, Masi, & Vick, 2009). Adversities experienced in early

childhood disrupt normative brain development, structure, and functioning, potentially more than any other stage of childhood development (Enlow et al., 2012; Pechtel & Pizzagalli, 2011). These damaging neurological effects lead to behavioral, emotional, and cognitive deficits (Cooper et al., 2009; De Bellis, Woolley, & Hooper, 2013; Landsford et al., 2002). For example, Middlebrooks and Audage (2008) found that formation of the hippocampus, an area imperative for memory formation and learning, is constricted due to early adverse exposure. The neurological implications resulting from early exposure to adversities as well as extensive toxic stress caused by sustained adverse experiences eventually lead to a decrease in a child's stress threshold (Middlebrooks & Audage, 2008). This makes children even more susceptible to the negative effects of early traumatic experiences. Beyond emotional and cognitive impairments, a child's physical health can also be greatly impacted. Due to the high levels of stress hormones (cortisol) that are released when the body undergoes traumatic experiences, the body's immune response weakens, leaving the child more vulnerable to a variety of infections and chronic health issues (National Scientific Council on the Developing Child, 2005).

Adverse Childhood Experiences (ACEs)

The earliest examinations of adverse childhood experiences were conducted by a cohort of medical doctors at Kaiser Permanente's San Diego Health Appraisal Clinic (Felitti et al., 1998). It was this group of researchers who coined the well-known term "adverse childhood experiences", or ACEs. In this original study, the researchers noticed that the dropout rate for participants in a weight loss program was over 50% even though they were consistently losing weight. However, one common factor amongst many of the drop out participants was their experience of childhood sexual abuse. To further investigate this predicament, Felitti and his colleagues teamed up with the Center for Disease Control and Prevention to launch the Adverse Childhood Experiences Study. Their study focused on seven categories of childhood adversities: **psychological, physical, and sexual abuse; violence against mother; living with household members who suffered from substance abuse, mental illnesses/suicidal thoughts or actions; or living with household members who had been imprisoned.** Their study revealed groundbreaking discoveries. Over two thirds of their 17,000 participants had experienced at least one ACEs, with 87% of individuals with at least one ACE having experienced more than one. They also discovered that there was a direct link between childhood trauma and adult onset diseases. This included a higher risk for depression, alcoholism, physical inactivity, severe obesity, and poor self-reported overall health (Felitti et al., 1998). In addition to this, the results revealed that there was a positive correlation between the number of ACEs endured and the amount of risk for these various adult health issues: the more trauma experienced, the higher the risk for physical, social, and mental problems in adulthood. Finally, the study revealed that ACEs comorbidity (i.e. co-occurring physical and/or mental health conditions) was prominent. Rarely did individuals experience only one adverse childhood experience.

Since these earliest findings, subsequent researchers have invested in further defining adverse childhood experiences and examining their effects. Although it is agreed upon that adverse childhood experiences occur before the age of 18, there has been a variety of attempts to define the theoretical framework. Kalmakis and Chandler (2014) operationally defines adverse childhood experiences as childhood events varying in severity and often chronic that "occur in a child's family or social environment to cause harm or distress, thereby disrupting a child's physical or psychological health and development" (p. 1495). Over time, the original seven ACEs categories (Felitti et al., 1998) have expanded to also include **physical neglect, emotional neglect, and losing a parent to separation or divorce** (Anda, et al., 2002; Resier, McMillian, Wright, & Asmundson, 2014). Recent studies

continue to support and strengthen the original claims made by Felitti and colleagues (1998) that the repercussion of ACEs can persist into adulthood. They demonstrate the association between ACEs and an increased risk for physical health problems (Chartier, Walker, & Naimark, 2010); depressive disorders and adulthood anxiety (Chapman, et al., 2004; Resier et al., 2014); and alcohol abuse (Anda et al., 2002; Kestila, et al., 2008). ACEs have even been shown to increase the likelihood of females becoming victims of intimate partner violence and males becoming perpetrators of intimate partner violence (Whitfield, Anda, & Dube, 2003).

Parenting Practices and Developmental Stress

One mechanism for transmitting ACEs across generations may be parenting practices. Studies revealed that environmental stress within female rodents can alter maternal care by decreasing licking and grooming; a sign of positive nurturing behavior (Champagne & Meaney, 2001; Champagne & Meaney, 2006). Although this research was not directly conducted on human subjects, a study by Randell, O'Malley, and Dowd (2015) supports the generalization of this theory to humans by suggesting that ACEs occur across successive generations. They found that the number of ACEs experienced by parents are positively correlated with the number of ACEs that their children experience. This suggests that parent-child interactions are vulnerable to developmental stress experienced by the parents themselves and that environmental adversity, such as ACEs, can be transmitted across generations.

There is additional reason to believe that ACEs may be linked to parenting practices. Research has revealed the intergenerational continuity of parenting which occurs when an earlier generation purposefully or unintentionally influences the parenting attitudes and behavior of the next generation (Van Ijzendoorn, 1992). This relationship was demonstrated by observing that current parents use very similar parenting styles and strategies that they themselves experienced during their own childhood (Putallaz et al., 1998). For example, Belsky (1984) discovered that there was an association between early experiences of child abuse and individuals' later abusive parenting of their own children. These findings indicate that parenting practices may be passed down, leading to a continuation of ACEs throughout multiple generations.

Resilience and Protective Factors

Despite the negative effects of childhood trauma on both the individuals who directly experience them and potentially the offspring of those individuals, resilience plays an imperative role in mitigating these effects (Burnett & Wahl, 2015). Resilience is defined as an individual's ability to cope with adversity (Everly, Welzant, & Jacobson, 2008; Wagnild & Young, 1993). Various studies have shown that social and emotional support, especially in the form of a single trusted adult in childhood, can build resilience which substantially mitigates many of the harmful consequences of ACEs (Bellis, Hardcastle, Ford, Hughes, & Ashton, 2017; Logan-Greene, Green, Nurius, & Longhi, 2013). Other protective factors were positive personal coping skills (Poole, Dobson, & Pusch, 2017), resilience building interventions like yoga and meditation (Whitaker, Dearth-Wesley, Gooze, et al., 2014); attending a safe school (Hawkins et al., 2005); residing in a safe neighborhood (Moore & Ramirez, 2015); and trauma-focused cognitive-behavioral therapy (Soleimanpour, Geierstanger, & Brindis, 2017; Wethington et al., 2008).

The current study seeks to examine the predictive relationship between adverse childhood experiences (ACEs) and parenting practices. In doing so, I will also examine the

protective role that resilience plays in moderating this relationship, resulting in more positive parenting practices despite experiencing childhood trauma.

- I. Outline your methodology. **Please be specific.** How does this achieve your goals and how reliable is it?

Procedures

This study will utilize a non-experimental, exploratory survey design. After obtaining IRB approval, the MTurk survey link for the study will be activated. Once the study has been selected, participants will be given an informed consent form. This form will notify subjects about the nature of the study; the number of questionnaires to be completed; the time required to complete them; any known risks involved and the consequences of failing to complete the study once started; that responses will be kept confidential; and that all participants included in this study must be 18 years or older and have at least one child, biological or adopted, currently under the age of 18. After reading the informed consent form, participants will give their informed consent through an electronic signature. Participants will then complete the demographic questionnaire as well as five questionnaires through Limesurvey. Once participants have completed all measures, they will submit a randomly generated survey code to MTurk to indicate that the study has been completed to receive compensation. The study will take approximately 45 minutes to complete. An a priori power analysis indicated a minimum of 102 subjects are needed for the study to have 90% power for detecting a moderate sized effect ($p < .05$).

Measurements

Adverse Childhood Experiences (ACEs) Questionnaire

The Adverse Childhood Experience Questionnaire will be used to assess adverse childhood experiences and family/household dysfunction. This survey will examine 10 different adverse childhood experiences: emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect, losing a parent to separation or divorce, violence against mother, living with household members that suffered from substance abuse, were mentally ill/suicidal, or living with household members who have been imprisoned.

Perceptions of Parents Scale (POPS)

The Perceptions of Parents Scale will be used to assess parental environment. This scale examines the degree to which parents provide an optimal parenting context by examining perception of parental autonomy support, parental involvement, and warmth for each parent.

Alabama Parenting Questionnaire (APQ)

The Alabama Parenting Questionnaire will be used to assess the quality of subjects' current parenting practices. This scale measures 5 different parenting dimensions: positive involvement with children, supervision and monitoring, use of positive discipline techniques, consistency in the use of such discipline, and the use of corporal punishment.

Parenting Stress Index-Short Form (PSI-SF)

The Parenting Stress Index-Short Form will be used to measure the quality of parenting practices. There are three aspect that this scale will examine: parental distress (extent to which a parent feels competent, restricted, conflicted, supported, and/or depressed in their role as a parent), parent-child dysfunctional interaction (extent to which a

parent feels satisfied with their child and their interactions with them), and difficult child (how a parent perceives their child to be, whether the child is easy or difficult to take care of).

Connor-Davidson Resilience Scale (CD-RISC)

The Connor-Davidson Resilience Scale will be used to measure resilience, or how well subjects are able to cope with adversities. It includes items such as “I am able to adapt when changes occur”, “Having to cope with stress can make me stronger”, and “I am able to handle unpleasant or painful feelings like sadness, fear, and anger.”

Measures will be presented in the order indicated in the following table:

Measure	Variable	Source	Number of Items
Demographics	---	---	10
Adverse Childhood Experience (ACEs) Questionnaire	Adverse childhood experiences	Murphy, Steele, Dube, Bate, Bonuck, Meissner, Goldman, & Steele, 2014	10
Perceptions of Parents Scale (POPS)	Parental environment	Robbins, 1994	21 items for each parent (mother and father)
Alabama Parenting Questionnaire (APQ)	Quality of parenting practices	Essau, Sasagawa, & Frick, 2006	42
Parenting Stress-Index Short Form (PSI-SF)	Parental stress	Abidin, 1995	36
Connor-Davidson Resilience Scale (CD-RISC)	Resilience	Campbell-Sills & Stein, 2007; Davidson & Connor, 2018	10

Reliability & Validity

All of the included surveys have strong to excellent reliability ($\alpha > .8$ for all surveys). In addition, each of the surveys have been extensively validated by the studies cited in the table above.

Planned Analysis

We will conduct a linear regression in order to examine the relationship between ACEs and the quality of parenting practices while controlling for demographic variables (e.g. age, gender, socioeconomic status, education, religious conviction) and retrospective parental autonomy support. A linear regression will allow us to determine whether specific ACEs scores can be used to predict the quality of a subject’s parenting practices (see *Figure 1*). We will begin testing with the simplest possible model (demographics), adding variables one set at a time. During this process, we will be examining whether each additional set of variables contributes significantly to explaining the outcome variable (parenting practices). We will also report the variance in the outcome accounted for by each model and whether each model accounts for a significant amount of overall variance. As we add each set of variables, we will compare the new model to the previous model using analysis of variance with the

probability of type I error (α) set to .05. A moderation analysis will be conducted as the last stage of this model to explore the role that resilience plays in buffering the negative consequences of adverse childhood experiences on parenting practices (see *Figure 2*). Within each set of variables, we will test for the unique effects of that variable using a t-test.

Predictor Variables	Model 1	Model 2	Model 3	Model 4
Demographics (control)	*	*	*	*
Parental environment (control)		*	*	*
ACEs			*	
Resilience * ACE (moderator)				*
Compare to	--	Model 1	Model 2	Model 2

Implications

Establishing a relationship between adverse childhood experiences and parenting practices will broaden the present knowledge regarding the negative effects of childhood trauma. It will investigate adverse childhood experiences using a framework of an intergenerational trauma cycle that incorporates the parent-child relationship rather than focusing primarily on ACEs as being correlated with individual outcomes. Hopefully, this examination of such a trauma cycle will result in a better understanding of how to break this cycle by highlighting the crucial role that positive parenting can play in buffering the negative outcomes that are so inherently associated with ACEs. Lastly, this project will lay the foundation for future research to examine and establish resiliency-building measures that can allow victims of adverse childhood experiences to thrive rather than having a future dictated by their early negative experiences.

- II. Explain in what sense your project is original, unique, or beyond normal senior expectations. How does it relate to current knowledge in the discipline?

This honors research project allows me to go beyond the normal coursework that is typically expected of senior psychology students. I will be applying data collection strategies and statistical analyses that go above and beyond what is taught to general education Behavioral Science students in the required Research Methods course sequence. Although adverse childhood experiences and their effects on adult well-being have been thoroughly studied in current research, there is very little research that examines the relationship between adverse childhood experiences and parenting practices. Results from this research could potentially reveal a cycle of inter-generational trauma while also providing potential protective factors that may break this cycle. Beyond the opportunity to grow my analytical and statistical skills as a researcher, I believe this research project will add new and insightful information on the well-studied theoretical framework of childhood trauma.

- III. Include a substantive annotated bibliography of similar or related work.

Abidin, R. R. (1995). Parenting Stress index: Manual (3rd ed.). Odessa, FL: Psychological Assessment Resources.

The Parenting Stress Index has been widely used to measure parenting stress. It was created to be used in a variety of primary health care settings as well as in schools and mental health clinics. A shortened version of this scale will be used for the current study in order to measure parenting stress and parenting practices.

Anda, R. F., Whitfield, C. L., Felitti, V. J., Chapman, D., Edwards, V. J., Dube, S. R., & Williamson, D. F. (2002). Adverse childhood experiences, alcoholic parents, and later risk of alcoholism and depression. *Psychiatric Services, 53*(8), 1001-1009. Doi: 10.1176/appi.ps.53.8.1001

In this study, researchers examine how growing up with alcoholic parents and having adverse childhood experiences are related to the risk of alcoholism and depression in adulthood. Their findings show that as the number of adverse experiences increased, so did an individual's susceptibility to developing alcoholism and depression in adulthood. When the subject reported parental alcohol abuse, the prevalence of alcoholism in adulthood was even higher regardless of the number of adverse experiences reported. This study provides additional support to the earlier findings regarding ACEs negative impact on adulthood while also providing rationale that could support my hypothesis regarding the effects of parental behavior on child outcomes.

Bellis, M. A., Hardcastle, K., Ford, K., Hughes, K., & Ashton, K. (2017). Does continuous trusted adult support in childhood impart life-course resilience against adverse childhood experiences—a retrospective study on adult health-harming behaviours and mental well-being. *BMC Psychiatry, 17*(1), 1-12. Doi: 10.1186/s12888-017-1260-z

The researchers for this study examine the relationship between adverse childhood experiences and negative outcomes later on in life. In conducting this examination, they focus on the mitigating factors such as resilience and what specific types of resilience are the more influential factors. Their results indicate that one of the most beneficial protective factors is always having support from at least one adult you trust in childhood. I will use this article to justify my examination of resilience within this ACEs-parenting practices relationship. In addition, I believe this article contains information that could potentially help me suggest possible resilience building techniques and treatments as part of my discussion later on in the research process.

Belsky, J. (1984). The determinants of parenting: A process model. *Child Development, 5*(1), 83-96. Doi: 10.2307/1129836

This study examined dysfunctional parenting, specifically looking at child abuse, in order to reveal intergenerational transmissions of parenting. It found that early experiences of parental abuse lead abused individuals to treat their own children in the same manner. This research adds to other research (Puttallaz et al., 2001; Van Ijzendoorn, 1992) that notes the general relationship between experiences of parenting and an individual's own parenting practices by focusing on the negative implications of such a relationship. This research supports my hypothesis that negative experiences in childhood may lead to abusive tendencies when parenting one's own child.

Burnett, H. & Wahl, K. (2015). The compassion fatigue and resilience connection: A survey of resilience, compassion fatigue, burnout, and compassion satisfaction among trauma responders. *International Journal of Emergency Mental Health and Human Resilience*, 17(1), 318-326. Doi: 10.4172/1522-4821.1000

This study examined the role that resilience plays in mitigating the negative effects of trauma by analyzing a group of disaster behavioral health and emergency preparedness responders. They explain how trauma responders experience compassion fatigue (stress resulting from helping traumatized individuals) and burnout (physical, emotional, and mental exhaustion caused by involvement in emotionally demanding situations). Unfortunately, these negative effects of secondary trauma exposure prevent trauma responders from effectively doing their job. However, the authors discovered that resilience, or one's ability to successfully cope with adversity, acts as a protective factor against these experiences of trauma. I will use this research as a basis for my understanding of potential protective factors that may buffer the effects of other types of trauma, such as childhood trauma.

Campbell-Sills, L., Forde, D. R., & Stein, M. B. (2009). Demographic and childhood environmental predictors of resilience in a community sample. *Journal of Psychiatric Research*, 43, 1007-1012. Doi: 10.1016/j.jpsychires.2009.01.013

This study investigates the various kinds of resilient responses to stress and trauma. The authors examine various factors such as demographic characteristics and childhood maltreatment. This study utilizes the Connor-Davidson Resilience Scale to measure subjects' perceptions of their resilience to see how well individuals are able to thrive in the face of adversity. Their findings reveal that individuals with histories of childhood maltreatment reported diminished overall resilience. The Connor-Davidson Resilience Scale from this article will be used in the current study to measure subjects' overall resilience.

Champagne, F. A. & Meaney, M. J. (2006). Stress during gestation alters postpartum maternal care and the development of the offspring in a rodent model. *Biological Psychiatry*, 59(12), 1227-1235. Doi: 10.1016/j.biopsych.2005.10.016

This study investigates how stress effects parental behavior in a sample of mother and pup rats. One group of mother rats underwent intermittent stress while another control group did not. The authors found that the mother rats who experienced high levels of stress demonstrated less nurturing maternal behavior in the form of licking and grooming of their pups. This research reveals that environmental adversity can manifest itself in parenting behavior and provides rationale for my hypothesis that childhood adversity can affect parenting behavior in humans.

Cooper, J. L., Masi, R., & Vick, J. (2009). *Social-emotional development in early childhood: What every policymaker should know*. Retrieved from *National Center for Children in Poverty, Mailman School of Public Health, Columbia University* from <https://academiccommons.columbia.edu/catalog/ac:126269>.

This source discusses the importance and fragility of the early years of life. The authors argue that within the first five years of life, both positive and negative experiences shape a child's cognition, behavior, social functioning, and emotional development. The authors also explain how caregivers play an important role in supporting a child's healthy development. When a child undergoes negative, stressful experiences, early childhood problems such as impairments in school success and deviant adolescent behavior and mental health can result.

I will use this information regarding the negative impact of adversities in early childhood to build support for the breadth of functioning that can be impaired when a child undergoes traumatic stress.

Essau, C. A., Sasagawa, S., & Frick, P. J. (2006). Psychometric properties of the Alabama Parenting Questionnaire. *Journal of Child and Family Studies, 15*(5), 595-614. Doi: 10.1007/s10826-006-9036-y

This article describes the Alabama Parenting Questionnaire which is a survey used to analyze various aspect of parenting. These aspects include parental involvement, positive parenting, poor monitoring/supervision, inconsistent discipline, and corporal punishment. This survey will be used in the current study to examine the quality of parenting practices.

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & 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*, 245–258. Doi: 10.1016/S0749-3797(98)00017-8

The researchers in this study examine a cohort of patients from Kaiser Permanente. Their study identifies seven categories of childhood adversities: psychological, physical, or sexual abuse; violence against mother; living with household members who suffered from substance abuse, mental illnesses/suicidal thoughts or actions; or living with household members who had been imprisoned. The authors discovered that individuals who had experiences these kinds of childhood trauma experienced detrimental long-term effects that carried on into adulthood. These effects range from a higher susceptibility to experience depression to severe obesity. Before this study, no one ever thought that childhood experiences could have such negative effects. This study has become the basis for adverse childhood experience research. The findings from this study operate as support for my hypothesis that childhood trauma could potentially affect behavioral outcomes in adulthood, such as parenting practices.

Kalmakis, K.A. & Chandler, G. E. (2014). Adverse childhood experiences: towards a clear conceptual meaning. *Journal of Advanced Nursing, 70*(7), 1489-1501. Doi: 10.1111/jan.12329

This study seeks to provide a more clear and concise conceptual meaning of adverse childhood experiences. By searching the term “adverse childhood experiences”, the study examines other articles that utilized this theoretical framework and examines various definitions to refine and operationally define the concept. They discover that adverse childhood experiences contain six primary characteristics. They are harmful, chronic or recurring, distressing, cumulative, varying in severity, and resulted in detrimental consequences. As a result of their investigation, the authors operationally define adverse childhood experiences as “childhood events, varying in severity and often chronic, occurring within a child’s family or social environment that cause harm or distress, thereby disrupting the child’s physical or psychological health and development”. I will use this operationally definition of adverse childhood experiences as the basis for my research on this topic.

Middlebrooks, J. S., & Audage, N. C. (2008). *The effects of childhood stress on health across the lifespan*. Retrieved from Centers for Disease Control and

**Prevention, National Center for Injury Prevention and Control
from http://health-equity.lib.umd.edu/932/1/Childhood_Stress.pdf.**

This review focuses on empirical research that looked at associations between early childhood exposure to at least two or more adverse childhood experiences and social, behavioral, emotional, and physical wellbeing. In addition to finding a dose-response association in which the more ACEs resulted in more behavioral issues and poor physical health outcomes, the researchers note that exposure to such traumatic experiences in childhood decrease a child's stress threshold. This research supports my assertion that developmental stress breaks down a child's cognitive and emotional functioning, making them more susceptible to other adversities they may experience during this crucial developmental period.

Murphy, A., Steele, M., Dube, S. R., Bate, J., Bonuck, K., Meissner, P., Goldman, H., & Steele, H. (2014). Adverse childhood experiences (ACEs) questionnaire and adult attachment interview (AAI): Implications for parent child relationships. *Child Abuse and Neglect*, 38(2), 224-233. Doi: 10.1016/j.chiabu.2013.09.004

This article analyzes the association between ACEs and adult's states of mind regarding their early childhood attachments, loss, and traumatic experiences. In order to examine this association, the authors use an ACEs questionnaire that included the same childhood adversities as the study conducted by Felitti and colleagues (1998) but add physical neglect, emotional neglect, and losing a parent to separation or divorce. Their results reveal that a greater number of ACEs exhibited a significant dose-response relationship with unresolved and discordant states of mind. The ACEs questions included in their survey will be used to operationally define the categories of ACEs that will be studied in my research.

Robbins, R. J. (1994). An Assessment of Perceived Parental Autonomy-Support and Control: Child and Parent Correlates.

This study examines the link between parental autonomy-support and control to autonomy-related child outcomes such as self-esteem, mental health, and self-regulation. The parental-autonomy measure created by Robbins was developed to assess the constructs of perceived parental autonomy-support and control. The measure used in this article will be used to examine perceptions of parenting for the current study. The information gathered from this measure can provide information that potentially adds another moderating factor within the relationship between ACEs and parenting practices.

Puttallaz, M., Costanzo, P. R., Grimes, C. L., & Sherman, D. M. (2001). Intergenerational continuities and their influences on children's social development. *Social Development*, 7(3), 389-427. Doi: 10.1111/1467-9507.00074

This comprehensive review of intergenerational continuities and how they influence social development provided insightful information regarding parenting practices. It provides further support for the association between the way in which an individual is parented and how they parent their own children, once again indicating that the models of behavior they are shown when they are young will influence how they behave in those roles later on in life. I will use this article to support my notion that parental practices influence how individuals treat their own children.

Randell, O'Malley, & Dowd, M. D. (2015). Association of parental adverse childhood experiences and current child adversity. *JAMA Pediatrics*, 169(8), 786-787. Doi: 10.1001/jamapediatrics.2015.0269

This article notes that parental history of ACE may serve as a marker of risk for child adversity and seeks to examine this association. The researchers examine individuals who have experienced various kinds of childhood adversity from prolonged separation from parents to family violence and household substance abuse. Their results indicated that as parental ACEs increased, experiences of child adversity by the subjects' offspring also increased. This revealed a dose-response relationship and highlighted the importance of early intervention to ameliorate the negative outcomes associated with ACEs. I will use this study in my research to support my hypothesis regarding parental experiences of ACEs and the effect that may have on the parents' children.

Soleimanpour, S., Geierstanger, S., & Brindis, C. D. (2017). Adverse childhood experiences and resilience: addressing the unique needs of adolescents. *Academic Pediatrics*, 17(7), 108-114. Doi: 10.1016/j.acap.2017.01.008

This article provides further support that although the effects of adverse childhood experiences may be detrimental, there are things that can be done to mitigate these effects. They focus on clinical and community systems that play a key role in assisting individuals affected by ACEs. In their research, they highlight the need for effective trauma-informed interventions, such as trauma-informed cognitive-behavioral therapy. With approaches such as this, the special needs of traumatized individuals can be targeted and met, allowing them to more effectively cope with their experiences. This study will bolster my investigation of potential ways to reduce the negative effects of ACEs.

Van Ijzendoorn, M. H. (1992). Intergenerational transmission of parenting: A review of studies in nonclinical populations. *Developmental Review*, 12, 76-99.

This review established a model of intergenerational transmission of parenting in which genetic or contextual continuity is considered. The researchers developed a view of parenting that suggests that current parents use similar parenting techniques that they received when they were children. This article highlights the influential role that parents have on their children's parenting later on in life and provides rationale for my belief that parenting practices may be intergenerational.

Additional References

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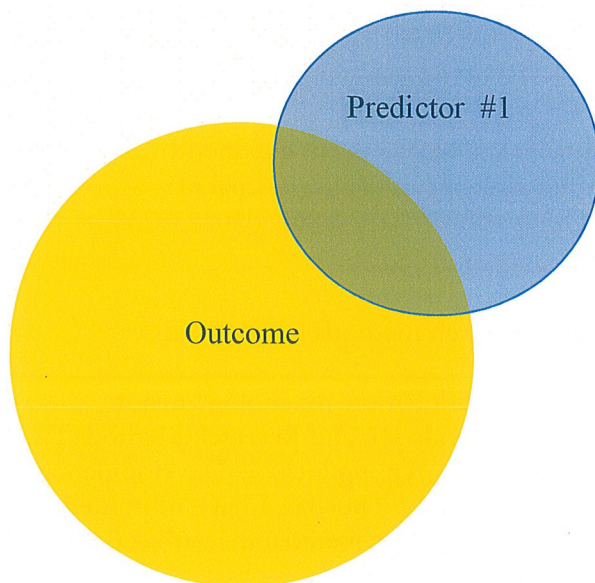
IV. Provide a statement of progress to date and list the research methods coursework completed.

I have completed the following required coursework for my psychology major: Research Methods I, Research Methods II, Research Methods III, and Research Methods IV. Coursework that has assessed the topic of trauma and/or parenting include: Developmental Psychology, Dealing with Your Mind, and Disaster Psychology. Thus far, I have submitted a proposal to the IRB and have begun preparing the MTurk survey material that subjects will be completing online.

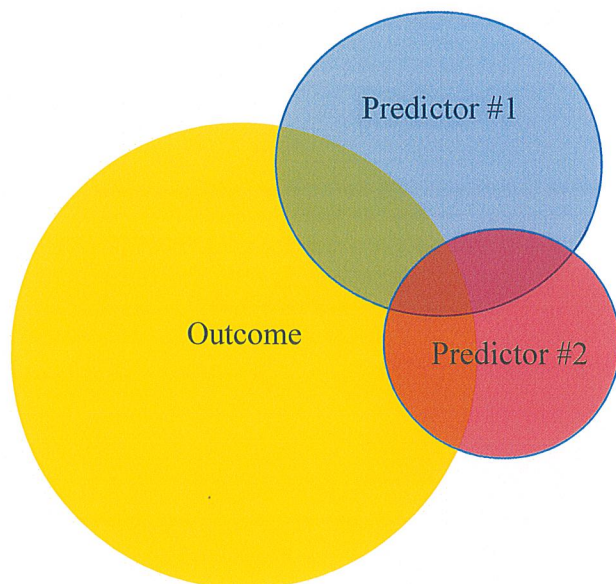
Figure 1. Steps in a linear regression.



1. Yellow circle = amount of variance between scores for outcome variable
 - a. The bigger the circle, the more variance between the scores.



2. Model 1: Blue circle = amount of variance between predictor variable #1
 - a. The overlap between the yellow and blue circle represents the shared variance, or how much these scores vary together.



3. Model 2: Red circle = amount of variance between scores for predictor variable #2
 - a. The overlap between red and yellow alone (i.e. not red, yellow, and blue) represents the additional variance accounted for in the second model.

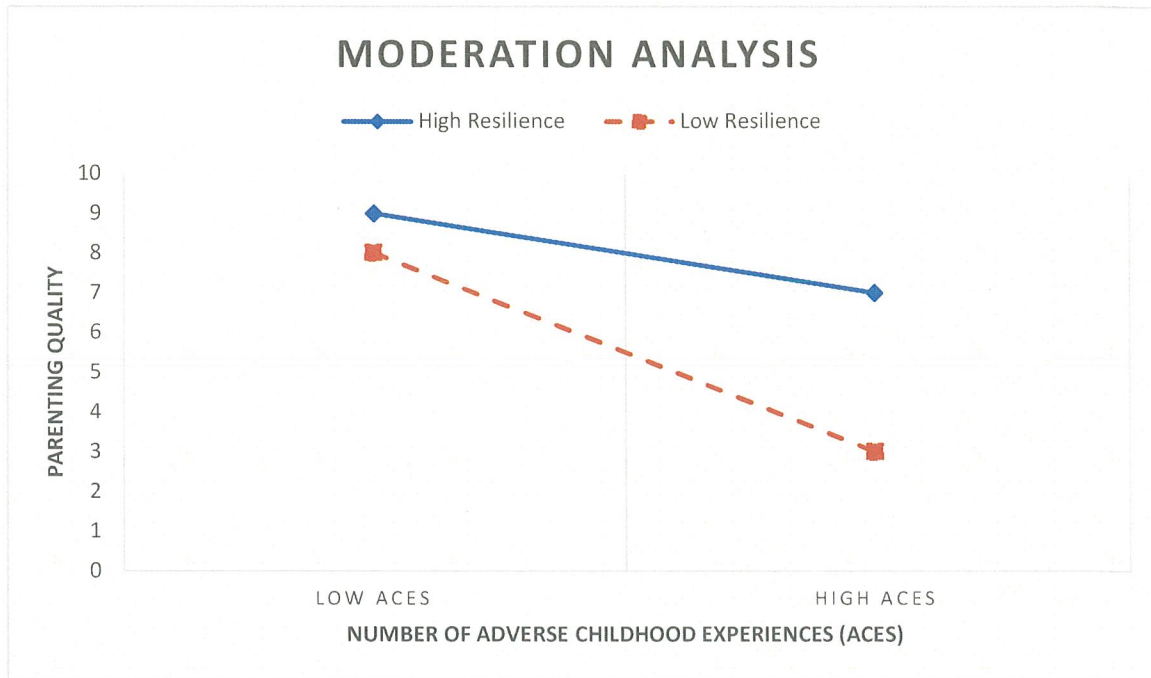
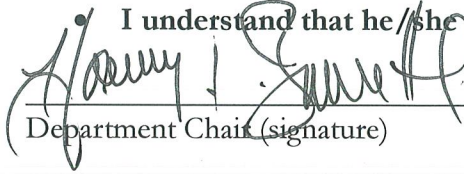


Figure 2. The moderation analysis will reveal the role that resilience plays in the relationship between ACEs and parenting quality. For example, those that have high ACEs and low resilience will demonstrate lower parenting quality than those that have high ACEs and high resilience.

Department Chair Approval

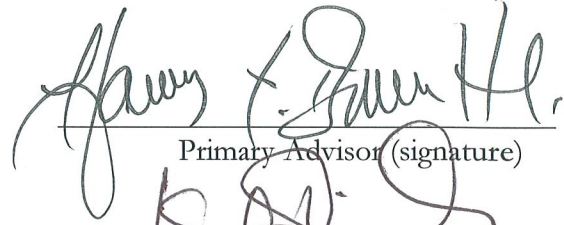
- This student's performance in his/her major field is acceptable.
- He/she has completed the requisite research methods coursework for the research to be pursued.
- I understand that he/she plans to graduate with Honors.



Department Chair (signature)

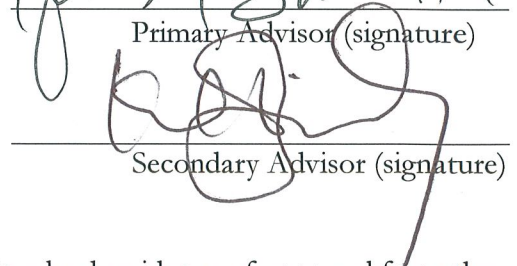
Research Advisor Approval

I have read and support this proposal:



Primary Advisor (signature)

I have read and support this proposal:



Secondary Advisor (signature)

If human subjects or if live vertebrate animals are involved, evidence of approval from the Institutional Review Board or an Animal Use Committee is needed through the campus scholarly research offices (Ext. 6361).