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Overcoming the Odds: The Effects of the Relationship between Childhood Adversity, Lifetime Trauma, and Resiliency on Empathy and Conscientiousness

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OVERCOMING THE ODDS: THE EFFECTS OF THE RELATIONSHIP BETWEEN

CHILDHOOD ADVERSITY, LIFETIME TRAUMA, AND RESILIENCY ON

EMPATHY AND CONSCIENTIOUSNESS

A Master's Thesis

Presented to

The Graduate College of

Missouri State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science, Clinical Psychology

By

Victoria West Staples

May 2022

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ABSTRACT

This research sought to understand the connection between trauma and the development of resiliency while examining the effects of that relationship on empathy and conscientiousness. Specifically, this study was created to answer four main questions: (1) Does early childhood adversity predict later life trauma? (2) Does childhood adversity and cumulative lifetime traumatic experiences impact the development of resiliency and its subconstructs (i.e., interpersonal resiliency and intrapersonal resiliency)? (3) Is empathy impacted by the presence of resiliency, specifically examining its effect on cognitive and affective empathy (using questionnaires and galvanic skin response)? (4) And is conscientiousness related to resiliency subconstructs? There is a debate in the literature regarding if resilience is developed and strengthened after trauma exposure (Folke et al., 2010; Masten et al., 1990). Using the Life Stressor Checklist-Revised (LSC-R) and the Adverse Childhood Experiences (ACE), participants' cumulative lifetime trauma and adverse childhood experiences were compared to their subsequent total resiliency scores and resiliency subconstructs (measured via Resiliency Scale for Adults-RSA) to determine if traumatic backgrounds are related to the presence of resiliency and/or its subconstructs. Additionally, empathetic response (measured via galvanic skin response and the Questionnaire of Cognitive and Affective Empathy-QCAE) and conscientiousness scores (measured via the International Personality Item Pool 50-IPIP 50) were used to determine how different traits are impacted by resiliency.

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INTRODUCTION

Childhood adversity and lifetime trauma are experiences people encounter that are thought to impact the way one develops traits and characteristics. Studies suggest experiencing adversity in childhood increases the likelihood for trauma to occur in adulthood (Zlotnick et al., 2008). There is currently a debate in the literature regarding if resiliency is strengthened after being exposed to childhood adversity and/or later lifetime trauma (Folke et al., 2010; Masten et al., 1990). To examine this relationship, the current study quantified childhood adversity and adulthood trauma scores through self-report measures to correlate them with their total resiliency scores and resiliency subconstruct scores (i.e., interpersonal resiliency and intrapersonal resiliency). Further, once the connection between trauma and resiliency was determined, the current study examined how other characteristics develop from the presence of resiliency and its subconstructs, specifically empathy and conscientiousness. These characteristics are both tied into the ability to adapt to the surrounding environment, which is also used to define an individual's resiliency (Folke et al., 2010). Specifically, empathy is the ability to adapt and respond to another individual's emotions effectively (Leontopoulou, 2010). The current study is also interested in whether the trauma an individual has experienced impacts their empathy towards another individual experiencing similar trauma. Empathy was also broken into cognitive and affective empathy to determine which form of empathy is impacted by the presence of resiliency. Finally, conscientiousness relies on the ability to adapt to changing environments to achieve goals and success (Arora & Rangnekar, 2016). Conscientiousness scores were compared to resiliency scores with the expectation that high levels of conscientiousness would result in

decreased adaptability due to extreme fixation on goals preventing individuals from being

adaptable, especially when examining interpersonal resiliency.

LITERATURE REVIEW

Resiliency

Although factors on the development of resiliency have been studied in past literature, especially regarding societal factors and childhood upbringing, the impact trauma has on resiliency is not clear (Harms, 2015; Miller-Karas, 2015). For example, the authors of *The Link Between Childhood Trauma and Mental Illness* explain that two-thirds of patients in psychiatric settings have a history of childhood adversity and abuse. The book goes onto list factors that could decrease the chance of mental illness occurring from trauma, including resiliency. They defined resiliency as "the notion that some individuals can withstand greater levels of psychological or physiological assault than others can" (Carter, 2005). Although this perspective supports the protective effect resiliency has against trauma related mental illnesses due to a person's adaptability in a traumatic event, the initial study did not examine the effect trauma had on resiliency directly. Further, the idea that adaptability is essential for resilience is supported by an individual's ability to handle environmental changes and internal processes associated with trauma to continue through their daily life (Folke et al., 2010). Through this, adaptability and, in turn, resiliency require practice, which traumatic experiences may provide. Masten et al. (1990) continue to support this in a literature review on the factors for resiliency. They found three measurements for resiliency outcomes: "good outcomes for high-risk children, sustained competence in children under stress, and recovery from trauma." Using these measures, the article determined that children in chronic adversity can recover better and quicker when they have a stable and competent support system through the trauma. Two separate studies also examined lower class, minority families to further support this and found that adverse societal

factors (i.e., poverty, racial tension, parental status) are tied to higher resiliency levels in parents, which result in similar high resiliency levels and better outcomes from trauma in their children due to their upbringing (Bershad & Ross, 2019; Brodsky & DeVet, 2000). It appears, children in high stress environments learn coping skills and protective strategies from their parents to suggest if their support system is resilient, then they are more likely to be resilient also. Additionally, resiliency can be defined through two subconstructs, interpersonal resiliency, and intrapersonal resiliency. Interpersonal resiliency focuses on the connections with external resources the individual has access to, including social resources and family cohesion; Intrapersonal resiliency is defined through an individual's internal resources by evaluating their ability to maintain structure for themselves, planned future, self-perception, and social competence (Morote et al., 2017). The previous studies focus on the positive impact external factors have on individuals that endure trauma, so interpersonal resiliency may be impacted more. It is unclear the role trauma and other factors might play in differentiating intrapersonal and interpersonal resiliency.

The previous studies support trauma facilitating resiliency development, but some literature suggests that people can be resilient without experiencing trauma. According to Bell and Suggs (1998), children who participate in sports have higher resiliency levels than children who do not. This study concluded that sports or other activities that require determination to succeed facilitates resiliency development in childhood. Adverse backgrounds in the children were not examined in the study because researchers believed resiliency is created from positive experiences. Additionally, spirituality has been shown to support resiliency in older adults. Many articles cite spirituality and religiosity to be a source of strength for people later in life, including as a possible protective factor against suicide attempts (Lawrence et al., 2015). Although these

articles include adverse experiences in their study (i.e., cancer, aging, doctor burnout), the

researchers believe that spirituality is the primary factor for resiliency development to overcome

those experiences (Gray, 2017; Sytsma, 2018; Washburn, 2013). In the prior articles, external

factors are the focus for resiliency development, but genetic factors may instill resiliency in a

person before they are born. In a landmark study, twins and their parents took an ego-resiliency

questionnaire. Genetic factors explained 77% of resilience factors in boys and 70% in girls,

while the remaining 23% to 30% were explained by environmental factors (Waaktaar &

Torgersen, 2012). This presents an alternative idea that resiliency is already present in a person

due to their genetic makeup and adversity, or other external factors are not necessary for

someone to be resilient.

 One important note is trauma occurs throughout life separately from familial experience

and childhood upbringing, which proposes resiliency may need to be learned and practiced

through those negative experiences to aid in an individual's adaptability through future trauma,

even if first developed through early life experiences or genetics. Research is needed to

determine the relationship between cumulative lifetime trauma and resiliency.

Empathy

Given a possible link between resiliency and traumatic experiences, it is important to

examine if other aspects are present in this relationship. There is a lack of literature regarding

the development of empathy from trauma and resiliency. The current study's interest on the

relationship stems from defining empathy as the capacity to understand and adapt to experiences

of another person, which may relate to adaptability needed for resilience (Feddes et al., 2015).

Feddes et al. (2015) used empathy and perspective taking questionnaires to measure if there was

a change in participants' thought processes towards other individuals after they received resiliency training. The study found that there was a slight increase in empathy and perspective taking after the training was completed to support a relationship between resiliency and empathy, but that relationship was not explicitly stated in the article. By referring to empathy as the capacity to understand another person, the participants were able to see how violence would negatively impact others rather than focusing on the positive outcomes they may receive from violent acts. A second study defined resilience as the ability to adapt one's self-control in different situations. They created this definition to explain resiliency and empathy as positive predictors for altruism in children (Leontopoulou, 2010). Further, studies occasionally separate empathy into cognitive empathy and affective empathy to better understand the two empathetic reactions individuals can experience. Cognitive empathy helps individuals understand and perceive the emotions of others (Gladstein, 1983), while affective empathy elicits emotions within the perceiver (Davis, 1983; Davis et al., 1994). This separation is important to note when discussing the impact subconstructs of resiliency could have on empathy although they have not been studied. Interpersonal resiliency requires individuals to interact with others emotionally therefore it appears to align with affective empathy, while intrapersonal resiliency requires us to rely on our own experiences and skills similarly to cognitive empathy. Although there is a commonality regarding adaptability for the two traits, their findings tend to lose focus in most studies due to their marginal significance or the study's main purpose did not include the relationship, so their overall relationship remains vague.

Conscientiousness

The final trait the current study examined the Big Five personality trait of conscientiousness, which is defined by high levels of self-discipline, follow-through, and goal directed behavior (Goldberg, 1992). Two studies previously used three types of resiliencies to predict conscientiousness scores: ego-resiliency, psychological resiliency, and career resiliency. In both studies, conscientiousness was positively predicted through resiliency levels in each category to suggest may be adaptability necessary to be successful (Arora & Rangnekar, 2016; Oshio et al., 2018). The defined resiliencies this study used focus on an individual's ability to succeed and achieve their goals rather than the external resources they used to be successful suggesting a need for intrapersonal resiliency for conscientiousness rather than interpersonal resiliency although this was not specifically tested. Using the general concept of resiliency, additional studies have look at the Five Factor model's definition of resiliency with conscientiousness, which have supported a positive relationship between the two concepts (Campbell-Sills et al., 2006; Fayombo, 2010; Friborg et al., 2005). One study explains that task-oriented coping skills are necessary for resiliency and conscientious to exist separately for individuals to be adaptable in any situation. Conscientiousness supports the ability to accomplish goals, while resiliency supports us through rapidly changing situations. Both concepts require us to be adaptable and these studies highlight their possible overlap (Campbell-Sills et al., 2006). However, extreme high levels of conscientiousness may be related to fixation and the lack of adaptability. In a subsequent study, individuals with high levels of conscientiousness negatively impacted their well-being when they experience failure, such as long-term unemployment showing a drop in life satisfaction scores, suggesting those with high levels of conscientiousness may be less adaptable in negative situations (Boyce et al., 2010). Even though this study may

suggest trauma negatively impacts conscientiousness, the relationship of trauma impacted resiliency on conscientiousness has not been studied.

Preliminary Study

A preliminary study was conducted to examine the connection between adverse backgrounds and the development of resiliency while examining the effects of that relationship on the development of trait conscientiousness and empathy. Specifically, the study was created to answer two main questions: (1) Do adverse experiences in childhood impact the development of resiliency? (2) Is trait level conscientiousness and/or empathy effected by the relationship between adverse backgrounds and resiliency? Using the ACE questionnaire, participants' levels of adverse backgrounds were compared to their subsequent resiliency scores to determine if adverse backgrounds are related to the development of resiliency (measured via the RSA). Additionally, personality trait scores for conscientiousness (measured via the IPIP 50) and empathy levels (measured via skin conductance response to videos depicting traumatic stimuli and the EQ) were used to determine how different traits develop out of adversity. Overall, levels of adversity were positively correlated with resiliency scores to suggest they are related. The adversity/resiliency relationship had a positive impact on empathy scores from the EQ but empathy scores from the skin conductance were insignificant. Resiliency had the opposite effect on conscientiousness than previously expected because resiliency scores had a negative impact on conscientiousness ratings.

Current Study

The current study examines if trauma is necessary for resiliency by comparing adverse childhood experiences and cumulative life trauma to resiliency scores. Further, the current study recognizes the impact different factors have on the development of resiliency and defines those factors of an individual's resiliency through the RSA subconstructs: interpersonal resiliency and intrapersonal resiliency. These subconstructs of resiliency provides a better understanding of whether internal or external resiliency factors are impacted more by trauma and how they impact other characteristics. The current study examines how cumulative lifetime trauma impacts resiliency development by using the total score from the RSA against trauma scores from the ACE and the LSC-R. This assesses both adverse childhood experiences and cumulative lifetime trauma to determine if both support the development of resiliency. Further, RSA subconstructs were examined against LSC-R and ACE scores to determine if interpersonal or intrapersonal resiliency impacted it the most.

A preliminary study also supported a significant positive correlation between the adversity/resiliency relationship and empathy scores from the Empathy Quotient (EQ), but physiological empathy scores measured via skin conductance (using adverse imagery) were inconclusive. The current study will divide empathy into two categories: cognitive empathy and affective empathy, rather than defining empathy as a single construct to determine if one form of empathy is impacted by trauma and resiliency more than the other. Cognitive empathy helps individuals understand and perceive the emotions of others (Gladstein, 1983), while affective empathy elicits emotions within the perceiver (Davis, 1983; Davis et al., 1994). Empathy will be measured through galvanic skin response (or skin conductance) paired with the Questionnaire of Cognitive and Affective Empathy (QCAE) to determine if a relationship between resiliency and

empathy exists and if cognitive or affective empathy is impacted more by the presence of resiliency. Adding a physiological measure for empathy may remove social desirability bias created in self-report measures. Previous research shows that high/low levels of self-report empathy correlate with high/low changes in skin conductance, and an individual may self-report greater levels of empathy without physiologically showing it as a sign of social desirability bias (Eisenberg et al., 1991; Massey-Abernathy & Byrd-Craven, 2016; Tamborini et al., 1990). To provide a more accurate skin conductance response, the current study used physiological empathetic responses from videos rather than images. The skin conductance was paired with self-reported empathy scores from the Questionnaire of Cognitive and Affective Empathy (QCAE) instead of the EQ to determine if cognitive or affective empathy are impacted by the trauma/resiliency relationship differently and to determine which construct of empathy is being measured by the skin conductance.

Finally, the preliminary study found a negative correlation with adversity, resiliency, and conscientiousness, which was believed to be a result of high conscientiousness scores having low adaptability due to their goal directed behaviors. For the current study, once the trauma and resiliency relationship are defined, the IPIP 50 was implemented to determine scores based on the big five personality traits, which are agreeableness, extraversion, openness to experiences, conscientiousness, and neuroticism. The conscientiousness scores obtained from the IPIP 50 were examined in relationship to intrapersonal and interpersonal resiliency to see if conscientiousness impacts a specific aspect of resiliency.

METHODS

Hypotheses

The current study's purpose is to examine six concepts based on the literature.

Hypothesis 1. Using the ACE and LSC-R results, it is predicted that adverse childhood experiences are related to later life trauma.

Hypothesis 2. It is predicted that a positive correlation between cumulative lifetime trauma and resiliency scores will be present. Specifically, when both adverse childhood experiences and lifetime trauma are present, resiliency will be the highest. It is also predicted an increase in cumulative lifetime trauma will result in an increase of interpersonal resiliency and decrease in intrapersonal resiliency.

Hypothesis 3. Once the trauma/resiliency relationship is defined, cognitive and affective empathy scores will be measured through self-report to determine how empathy subconstructs is impacted by the presence of resiliency subconstructs. Using a multiple linear regression, the relationship will be examined between resiliency, trauma, and cognitive and affective empathy. It is predicted that cognitive empathy is not impacted by the relationship, while affective empathy is.

Hypothesis 4. Additionally, skin conductance response will provide a physiological measure of empathy to determine if Galvanic skin response measures affective empathy as the researchers believe.

Hypothesis 5. It is predicted that higher intrapersonal resiliency will result in lower skin conductance response, which suggest lower levels of total empathy scores.

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Hypothesis 6. Finally, the conscientiousness scores obtained from the IPIP 50 were examined in relationship to intrapersonal and interpersonal resiliency to see if conscientiousness impacts a specific aspect of resiliency. It is predicted to be positively correlated with intrapersonal resiliency.

Participants

This study was submitted to the university's Institutional Review Board (See Appendix A or copy of IRB study approval, IRB-FY2022-86, granted on September 28, 2021). The SONA recruiting system was used to schedule participants for their time to arrive in the lab and to grant partial course credit for participating. An apriori power analysis was conducted at a medium effect size and moderate level. The sample size needed to run statistical analysis was 159 participants. One hundred and sixty-three volunteered to participate in the study. As the study was running, the Qualtrics survey link displayed incorrect surveys to 1 participant and the skin conductance did not record correctly for the other two participants. In total, three participants were excluded, and the final sample included one hundred and sixty participants ranging in age from 17 to 43 years ($M = 19.52$; 49 males, 110 females, 1 nonbinary).

Measures

Demographic Questionnaire. This questionnaire assesses age, sex, gender identity, ethnicity, socioeconomic status, and year in school. Information gained from this questionnaire will be used to evaluate general patterns in the participant pool.

CDC-Kaiser Permanente Adverse Childhood Experiences (ACE). This questionnaire assessed the presence of adverse childhood backgrounds in the participants life. Through

answering "yes/no" questions relating to "psychological, physical, or sexual abuse; violence against mother; or living with household members that were substance abusers, mentally ill or suicidal, or ever imprisoned" (Felitti et at., 1998), we can evaluate participants' levels of adversity. The ACE has test-retest reliability of .52 to .72 and a Cronbach alpha of .88 for a high internal consistency (Murphy et al., 2014).

Life Stressor Checklist-Revised (LSC-R). This questionnaire assessed the presence of traumatic experiences in the participants life and was designed to screen for criterion A in the DSM-IV for PTSD. Through answering "yes/no" questions relating to 30 stressful or traumatic events, we can evaluate participants' level of traumatic experiences. The LSC-R has test-retest reliability of 0.65 and a Cronbach alpha of .72 for a high internal consistency. Validity for the LSC-R was compared to other anxiety, depression, and PTSD scales for a concurrent validity of 0.32 to 0.51 (Choi et al., 2017; Norris & Hamblen, 2004; Wolfe & Kimerling, 1997).

Resiliency Scale for Adults (RSA). This scale evaluates personal competence, social competence, family coherence, social support, and personal structure to score the number of protective resources each participant has to determine levels of resiliency development. The five RSA scales have a Cronbach alpha of .70 and total score Cronbach alpha of .90. These scores will be compared to traumatic experience score from the LSC-R to determine if there is a relationship between trauma and resiliency (Friborg et al., 2003). The 2-factor structure involving both interpersonal and intrapersonal resiliency was shown to most fit the data. Interpersonal resiliency was defined through family cohesion (α = .80) and social resources (α = .76) questions, while intrapersonal resiliency was defined from structured style (α = .48), planned future (α = .71), and self-perception (α = .78) questions (Morote et al., 2017).

Questionnaire of Cognitive and Affective Empathy (the QCAE). To better measure empathy, this questionnaire underwent a principal component analysis which yielded a 2-factor structure involving both cognitive and affective empathy was shown to most fit the data. The final resulting scale has 6 items from the Interpersonal Reactivity Index (cognitive empathy – 5 items, affective empathy – 1 item), 8 items from the Impulsiveness and Venturesomeness Questionnaire (affective empathy – 8 items), 15 items from the Empathy Quotient (cognitive empathy – 12, affective empathy – 3), and 2 items from the Hogan Empathy Scale (cognitive empathy – 2). The QCAE showed strong positive correlations between cognitive and affective empathy (.31) and for convergent validity with the Basic Empathy Scale for cognitive empathy (.62) and affective empathy (.76) (Reniers et al., 2011).

International Personality Inventory Pool (IPIP-50). The Big Five Personality Inventory is an assessment of 50 items containing 10 statements for each of the big five dimensions of personality (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism). Overall Cronbach's alpha: .90, overall Mean Item Intercorrelation: .31 (Goldberg, 1992; Goldberg et al., 2006).

Skin Conductance. 9 mm electrodes will be attached to the participants' non-dominant pointer and middle finger are connected to a BIOPAC Student Lab system to measure phasic skin conductance during each video. In the current study, phasic skin conductance will be measured instead of tonic skin conductance because phasic skin conductance measures create a baseline for the participant by analyzing patterns in the six readings (1 three-minute baseline session without stimuli, 3 three-minute videos, and 2 two-minute baseline sessions without stimuli between videos). Tonic skin conductance measure GSR through raw scores, which would require an initial baseline to be taken for the researcher to find difference scores. Phasic

skin conductance allows for the researcher to detect a change in GSR during the stimulus event, which illustrates physiological empathy changes to determine if the participant is empathetic during each trial (Massey-Abernathy & Byrd-Craven, 2016; Wagner & Wagner, 2013).

Videos. Participants will view a blank screen for three minutes to gather a baseline neutral response. Then they will view three different videos in a random order to detect empathetic response from the skin conductance with a 2-minute break for the participant to return to a baseline between the first and second, the second and third trials. The three videos are as follows: a clip of babies crying that was supported to evoke a baseline empathetic response (labeled "generally empathetic"), a clip from "Amelia" a short film depicting child abuse and neglect (labeled "emotionally traumatic"), a clip from the movie "Legends of the Falls" to depict physically traumatic events (labeled "physically traumatic"), such as death, injury, and military trauma that were supported to evoke empathetic responses in a previous study (Massey-Abernathy & Byrd-Craven, 2016).

Design and Procedure

All procedures occurred in a psychophysiology laboratory with one research assistant and the participant present. After consenting to the study, skin conductance (9 mm) electrodes were attached to the middle and ring finger of the non-dominant hand. A layer of an isotonic electrolyte gel was placed on the electrodes to increase conduction. Skin conductance were registered and digitized using a BIOPAC Student Lab system that were controlled by a Windows computer that contains data acquisition hardware. All procedures for recording skin conductance levels were obtained from the BIOPAC manual (BIOPAC Systems Inc., 2010). Participants watched three video clips in a randomly assigned order. The four sets included videos related to

each category: generally empathetic, emotionally traumatic, and physically traumatic. Participants were instructed to sit quietly and relax for three minutes at the start to gather a baseline neutral response, and again for two minutes in between the first and second, and the second and third videos to allow the skin conductance to return to a baseline. Upon completion of all videos, the participants completed a series of questionnaires using Qualtrics online software to randomize the ACE, LSC-R, RSA, QCAE, IPIP 50, and concluded with a demographic survey (See Appendix B). Once they finished the questionnaires, the electrodes were removed from the participant's fingers and all participants were debriefed.

RESULTS

Hypothesis were investigated using Pearson correlations and a multiple linear regression equation through IBM SPSS Statistics Software 22. Alpha was set as .05 for all inferential tests in this paper.

To test the first hypothesis, self-reported adversity scores would be associated with self-reported later lifetime trauma scores, a correlation was conducted using the ACE and LSC-R scores. Results revealed scores from the ACE positively correlated to scores from the LSC-R, $r(157) = .659$, $p = .000$. This analysis suggests that participants with higher childhood adversity scores on the ACE also scored higher on the LSC-R to show increased later lifetime trauma.

To test the second hypothesis, self-reported adversity and later lifetime trauma scores were combined into a total cumulative lifetime trauma score to correlate it with the total self-reported resiliency score and subconstruct scores (interpersonal and intrapersonal resiliency) from the RSA. Results revealed the total cumulative lifetime trauma scores were positively correlated with the interpersonal resiliency subconstruct, $r(156) = .215$, $p = .007$, and did not correlate with intrapersonal resiliency subconstruct, $r(153) = -.016$, $p = .840$, and the total resiliency scores, $r(152) = .108$, $p = .187$. This analysis suggests that participants with higher total cumulative lifetime trauma also scored higher interpersonal resiliency scores on the RSA. Since the second hypothesis supported the relationship between the interpersonal resiliency subconstruct and total cumulative lifetime trauma and not the total resiliency score or intrapersonal resiliency, the interpersonal resiliency subconstruct will be used for the third hypothesis analysis.

To test the third hypothesis to analyze the impact interpersonal resiliency has on cumulative lifetime trauma, and self-reported cognitive and affective empathy scores, a multiple linear regression analysis was conducted. The results of the regression indicated that the model explained 9.8% of the variance and that the model was a significant predictor of interpersonal resiliency $F(3,145) = 5.24$, $p = .002$. Upon further analysis, it appears only cumulative lifetime trauma ($\beta = .22$, $p = .006$) and affective empathy ($\beta = .18$, $p = .03$) contributed significant to the model, while cognitive empathy ($\beta = .15$, $p = .06$) did not.

To test the fourth hypothesis, self-reported affective empathy scores from the QCAE would be associated with Galvanic skin response measures. The three measures from each video were combined into a total skin conductance measure to be correlated with cognitive and affective empathy scores. Results revealed scores from the QCAE affective empathy subconstruct, $r(154) = .075$, $p = .358$, and cognitive empathy subconstruct, $r(157) = .086$, $p = .286$, were not significantly correlated with total skin conductance measures. These results suggest higher scores on empathy subconstructs did not predict total skin conductance scores.

The three measures were correlated first to determine the fifth hypothesis. Generally empathetic was positively correlated with emotionally traumatic, $r(160) = .895$, $p = .00$, and physically traumatic, $r(160) = .892$, $p = .00$, and emotionally traumatic and physically traumatic were positively correlated with each other, $r(160) = .923$, $p = .00$. Since the three videos were positively correlated, a composite score was created for the following statistics. The total skin conductance measure was used to correlate with the interpersonal, intrapersonal, and total resiliency scores. The total skin conductance measure was not significantly correlated with intrapersonal resiliency, $r(156) = .079$, $p = .325$, interpersonal, $r(158) = -.052$, $p = .513$, and total

resiliency scores $r(154) = .068$, $p = .405$. These results suggest higher scores on the RSA did not significantly predict total skin conductance scores.

Finally, the last hypothesis was conducted by correlating self-reported conscientiousness scores on the IPIP 50 with interpersonal, intrapersonal, and total resiliency scores from the RSA. Conscientiousness was significantly positively correlated with intrapersonal resiliency, $r(158) = .177$, $p = .026$ and significantly negatively correlated with interpersonal resiliency, $r(159) = -.162$, $p = .041$. Conscientiousness was not significantly correlated with total resiliency scores, $r(156) = .074$, $p = .357$. These results suggest high interpersonal resiliency scores and low intrapersonal resiliency scores significantly predict high conscientiousness scores.

DISCUSSION

The result of the first hypothesis predicts higher encounters with childhood adversity increase the number of later life traumatic events. This was expected because literature suggests a similar relationship between trauma and other negative life stressors, such as the development of mental illness and substance use (Garami et al., 2018; Zlotnick et al., 2008). It is also predicted cumulative lifetime trauma and resiliency are related because experiencing trauma allows for adaptation in turbulent environments, which facilitates the development of resiliency. It may also be the case that resiliency was instilled early in the individual's personality through parental upbringing before the adversity took place, but those trauma experiences would allow for their resiliency to be strengthened. Both scenarios suggest that adversity facilitates resiliency to be practiced through negative experiences. Despite this expected relationship between trauma and resiliency, the current study found only interpersonal resiliency and trauma are related instead of overall resiliency. This may be explained by the way different generations approach solving problems, specifically younger generations may ask for help more often than older generations. One study analyzed different characteristics between a generation X cohort and a millennial cohort in medical school. The generation X cohort scored higher on self-reliance, while the millennial cohort scored higher in emotional stability (Borges et al., 2006). This finding aligns with the current study's mean sample age of 19 years old suggesting the sample collected are more likely to reach out to others for help, which would align with interpersonal resiliency.

The third hypothesis's results support an increase in affective empathy when the trauma/resiliency relationship increases. This trend is supported through the idea that affective

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empathy occurs when emotions are elicited within the perceiver and cognitive empathy allows an individual to understand and perceive the emotions of others (Davis, 1983; Davis et al., 1994; Gladstein, 1983). The current study predicted higher levels of trauma and resiliency would cause an individual to emotionally attend allowing them to understand someone that has experienced a similar trauma, which may prevent them from cognitively reacting to the situation (Feddes et al., 2015). Similarly, it was expected that affective empathy would be measured via skin conductance rather than cognitive empathy due to the emotional response evoked from increases in affective empathy. Due to positive relationship between resiliency and affective empathy and skin conductance shown to measure affective empathy, the study was also believed to result in an increase in skin conductance response when resiliency increases. Despite the lack of statistical evidence to support self-reported empathy scores and total skin conductance response connection, this may be due social desirability bias in self-reporting empathy, or the videos portrayed during the skin conductance measures were not proficiently inducing emotions in enough participants.

Finally, hypothesis five is predicted to provide an explanation for the negative correlation between resiliency and conscientiousness in the preliminary study. The researchers expected that by dividing resiliency into interpersonal and intrapersonal resiliency, conscientiousness would be better correlated with intrapersonal resiliency due to the need to be self-reliant for personal success. This further is supported by possible differences in the way generations seek out help, specifically younger generations asking for help from others and older generations seeking internal resources to succeed (Borges et al., 2006). Conscientiousness is defined by the individuals' ability to succeed (Goldberg, 1992), so the concept may rely more on intrapersonal resiliency rather than interpersonal resiliency. The sample collected scored higher in

interpersonal resiliency, so they rely on others to solve their problems instead of relying on themselves.

Limitations and Future Directions

One limitation in the current study is the use of a convenient sample of college students, so the age range prevents the study's findings from being generalizable. Similarly, a majority of the participants were female, and responded as "White" for race. Future studies would benefit from a more diverse sample. The results of the relationship between childhood adversity, later life trauma, and resiliency indicate the impact parenting and the household environment have on a child's development and could explain how mental illness develops from childhood adversity to determine if trauma therapy should also be conducted as preventative rather than corrective.

Conclusion

Overall, the current study demonstrates childhood adversity is related to later lifetime trauma suggesting those with more instances of traumatic experiences in childhood are more likely to experience trauma in adulthood. Similarly, cumulative lifetime trauma supports interpersonal resiliency allowing individuals to seek help from others and adapt more successfully in changing situations. Interpersonal resiliency also was related to affective empathy, which allows individuals to relate to others emotionally thereby further facilitating their willingness to reach out. It also appears that as individual's interpersonal resiliency increases, their conscientiousness decreases showing that this sample might be resilient by relying on others, displaying emotional affect, and not relying on intrapersonal aspects, such as conscientiousness.

REFERENCES

Arora, R., & Rangnekar, S. (2016). Moderating mentoring relationships and career resilience: Role of conscientiousness personality disposition. *Journal of Workplace Behavioral Health, 31*, 19–36.

Bell, C. C., & Suggs, H. (1998). *Using Sports to Strengthen Resiliency in Children: Training Heart. Child and Adolescent Psychiatric Clinics of North America, 7(4), 859 865.* doi:10.1016/s1056-4993(18)30216-5

Bershad, A. K., & Ross, D. A. (2019). Beyond bootstraps: Pulling children up with evidence Based interventions. *Biological Psychiatry, 86*, e9–e10.

BIOPAC Systems Inc. (2010). *Setup guide - BIOPAC*. BIOPAC Science Lab. Retrieved April 30, 2022, from https://www.biopac.com/wp-content/uploads/bscl_setupguide.pdf

Borges, N. J., Manuel, R. S., Elam, C. L., & Jones, B. J. (2006). Comparing Millennial and Generation X Medical Students at One Medical School. *Academic Medicine, 81(6),* 571–576. doi:10.1097/01.acm.0000225222.3

Boyce, C. J., Wood, A. M., & Brown, G. D. A. (2010). The dark side of conscientiousness: Conscientious people experience greater drops in life satisfaction following unemployment. *Journal of Research in Personality, 44(4)*, 535–539. doi:10.1016/j.jrp.2010.05.001

Brodsky, A. E., & DeVet, K. A. (2000). "You have to be real strong": Parenting goals and strategies of resilient, urban, African American, single mothers. *Journal of Prevention & Intervention in the Community, 20*, 159–178.

Carter, L. (2005). The Link Between Childhood Trauma and Mental Illness: Effective Interventions for Mental Health Professionals by Barbara Everett and Ruth Gallop. Journal of Child & Adolescent Mental Health, 17(1), 45–46. doi:10.2989/17280580509486595

Campbell-Sills, L., Cohan, S. L., & Stein, M. B. (2006). Relationship of resilience to personality, coping, and psychiatric symptoms in young adults. *Behaviour Research and Therapy, 44(4)*, 585–599. doi:10.1016/j.brat.2005.05.001

Choi, K. R., Kim, D., Jang, E. Y., Bae, H., & Kim, S. H. (2017). Reliability and Validity of the Korean Version of the Lifetime Stressor Checklist-Revised in Psychiatric Outpatients with Anxiety or Depressive Disorders. *Yonsei Medical Journal, 58(1),* 226.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a Multidimensional approach. *Journal of Personality and Social Psychology*, *44*(1), 113–126. https://doi.org/10.1037/0022-3514.44.1.113

Davis, M. H., Luce, C., & Kraus, S. J. (1994). The heritability of characteristics associated with dispositional empathy. *Journal of Personality*, *62*(3), 369–391. https://doi.org/10.1111/j.1467-6494.1994.tb00302.x

Eisenberg, N., Fabes, R. A., Schaller, M., Miller, P., Carlo, G., Poulin, R., Shea, C., & Shell, R. (1991). Personality and socialization correlates of vicarious emotional responding. *Journal of Personality and Social Psychology, 61*(3), 459–470. https://doi.org/10.1037/0022-3514.61.3.459

Fayombo, G. A. (2010). The Relationship between Personality Traits and Psychological Resilience among the Caribbean Adolescents. *International Journal of Psychological Studies, 2(2).* doi:10.5539/ijps.v2n2p105

Feddes, A. R., Mann, L., & Doosje, B. (2015). Increasing self-esteem and empathy to prevent violent radicalization: A longitudinal quantitative evaluation of a resilience training focused on adolescents with a dual identity. *Journal of Applied Social Psychology, 45*, 400–411.

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, 245–258.

Folke, C., Carpenter, S. R., Walker, B., Scheffer, M., Chapin, T., & Rockström, J. (2010). Resilience Thinking: Integrating Resilience, Adaptability and Transformability. *Ecology and Society*, *15*.

Friborg, O., Barlaug, D., Martinussen, M., Rosenvinge, J. H., & Hjemdal, O. (2005). Resilience in relation to personality and intelligence. *International Journal of Methods in Psychiatric Research, 14(1)*, 29–42. doi:10.1002/mpr.15

Friborg, O., Hjemdal, O., Rosenvinge, J. H., & Martinussen, M. (2003). A new rating scale for adult resilience: What are the central protective resources behind healthy adjustment? *International Journal of Methods in Psychiatric Research*, *12*, 65–76.

Garami, J., Valikhani, A., Parkes, D., Haber, P., Mahlberg, J., Misiak, B., … Moustafa, A. A. (2018). Examining Perceived Stress, Childhood Trauma, and Interpersonal Trauma in Individuals with Drug Addiction. *Psychological Reports, 0,* 1-18.

Gladstein, G. A. (1983). Understanding empathy: Integrating counseling, developmental, and social psychology perspectives. *Journal of Counseling Psychology*, *30*(4), 467–482. https://doi.org/10.1037/0022-0167.30.4.467

Gray, A. J. (2017). Resilience, spirituality, and health. *Psyche En Geloof, 28*, 31–39.

Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment*, *4*, 26-42.

Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., & Gough, H. G. (2006). The international personality item pool and the future of public-domain personality measures. *Journal of Research in Personality, 40(1)*, 84–96. doi:10.1016/j.jrp.2005.08.007

Harms, L. (2015). *Understanding trauma and resilience*. London: Palgrave.

Lawrence, R. E., Oquendo, M. A., & Stanley, B. (2015). Religion and Suicide Risk: A Systematic Review. Archives of Suicide Research, 20(1), 1–21.

Leontopoulou, S. (2010). An exploratory study of altruism in Greek children: Relations with empathy, resilience, and classroom climate. *Psychology, 1*, 377–385.

Massey-Abernathy, A., & Byrd-Craven, J. (2016). Seeing but Not Feeling: Machiavellian Traits in Relation to Physiological Empathetic Responding and Life Experiences. *Adaptive Human Behavior and Physiology*, *2,* 252–266.

Masten, A. S., Best, K. M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology, 2*, 425–444.

Miller-Karas, E. (2015). *Building resilience to trauma: The trauma and community resiliency models.* New York: Routledge, Taylor & Francis Group.

Morote R, Hjemdal O, Martinez Uribe P, & Corveleyn, J. (2017) Psychometric properties of the Resilience Scale for Adults (RSA) and its relationship with life-stress, anxiety, and depression in a Hispanic Latin-American community sample. *PLoS ONE 12(11):* e0187954. https://doi.org/10.1371/journal.pone.0187954

Murphy, A., Steele, M., Dube, S. R., Bate, J., Bonuck, K., Meissner, P., … Steele, H. (2014). Adverse childhood experiences (ACEs) questionnaire and adult attachment interview (AAI): Implications for parent child relationships. Child Abuse & Neglect, 38, 224–233.

Norris, F. & Hamblen, J. L. (2004). Standardized self-report measures of civilian trauma and PTSD. In J.P. Wilson, T.M. Keane & T. Martin (Eds.), *Assessing psychological trauma and PTSD*, *3*, 63-102.

Oshio, A., Taku, K., Hirano, M., & Saeed, G. (2018). Resilience and Big Five personality traits: A meta-analysis. *Personality and Individual Differences, 127*, 54–60.

Reniers, R. L. E. P., Corcoran, R., Drake, R., Shryane, N. M., & Völlm, B. A. (2011). The QCAE: A Questionnaire of Cognitive and Affective Empathy. Journal of Personality Assessment, 93(1), 84–95.

Sytsma, T. (2018) '"Keep the faith": Spirituality as a contributor to resiliency in five elderly people', *Journal of Religion, Spirituality & Aging, 30*, pp. 314–324.

Tamborini, R., Stiff, J., & Heidel, C. (1990). Reacting to graphic horror: A model of empathy and emotional behavior. *Communication Research*, *17*(5), 616–640. https://doi.org/10.1177/009365090017005003

Waaktaar, T., & Torgersen, S. (2012). Genetic and environmental causes of variation in trait resilience in young people. *Behavior Genetics, 42*, 366–377.

Wagner, P., & Wagner, T., (2013). Galvanic Skin Response (GSR) and Investigation into 'Cheating.' *Human Psychophysiology, 8*, 1-25.

Washburn, C. R. (2013). Resiliency and spirituality in cancer patients. *Dissertation Abstracts International: Section B: The Sciences and Engineering. ProQuest Information & Learning, 73*.

Wolfe, J., & Kimerling, R. (1997). Gender issues in the assessment of posttraumatic stress disorder (PDF). In J. Wilson & T.M. Keane (Eds.), *Assessing psychological trauma and PTSD* (pp. 192-238). New York: Guilford. PTSDpubs ID: 13558

Zlotnick, C., Johnson, J., Kohn, R., Vicente, B., Rioseco, P., & Saldivia, S. (2008). Childhood trauma, trauma in adulthood, and psychiatric diagnoses: results from a community sample. *Comprehensive Psychiatry, 49(2),* 163–169.

APPENDICES

Appendix A. Human Subjects IRB Approval

Appendix B. Qualtrics Surveys

ACE While you were growing up, during your first 18 years of life:

	Yes (1)	No (2)
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? (1)	○	○
Did your 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? (2)	○	○
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 have oral, anal, or vaginal sex with you? (3)	○	○
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? (4)	○	○
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 you parents were too drunk or high to take care of you or take you to the doctor if you needed it? (5)	○	○

	Yes (1)	No (2)
Were your parents ever separated or divorced? (6)	○	○
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? (7)	○	○
Did you live with anyone who was a problem drinker or alcoholic or who used street drugs? (8)	○	○
Was a household member depressed or mentally ill or did a household member attempt suicide? (9)	○	○
Did a household member go to prison? (10)	○	○

Page Break ———

LSC-R Please think back over your whole life when you answer these questions.

	Yes (1)	No (2)
Have you ever been in a serious disaster (for example, an earthquake, hurricane, large fire, explosion)? (1)	○	○
Have you ever seen a serious accident (for example, a bad car wreck or an on-the-job accident)? (11)	○	○

Have you ever had a very serious accident or accident-related injury (for example, a bad car wreck or an on-the-job accident)? (12)

○ ○

Was a close family member ever sent to jail? (13)

○ ○

Have you ever been sent to jail? (14)

○ ○

Were you ever put in foster care or put up for adoption? (15)

○ ○

Did your parent ever separate or divorce while you were living with them? (16)

○ ○

Have you ever been separated or divorced? (17)

○ ○

Have you ever had serious money problems (for example, not enough money for food or place to live)? (18)

○ ○

Have you ever had a very serious physical or mental illness (for example, cancer, heart attack, serious operation, felt like killing yourself, hospitalized because of nerve problems)? (19)

○ ○

Have you ever been emotionally abused or neglected (for example, being frequently shamed, embarrassed, ignored, or repeatedly told that you were "no good")? (20)

○ ○

Have you ever been physically neglected (for example, not fed, not properly clothed, or left to take care of

○ ○

yourself when you were too young or ill)? (21)

Have you ever been separated from your child against your will (for example, loss of custody or visitation or kidnapping)? (22) ○ ○

Has a baby or child of yours ever had a severe physical or mental handicap (for example, birth defects, can't hear, see, walk)? (23) ○ ○

Have you ever been responsible for taking care of someone close to you (not your child) who had a severe physical or mental handicap (for example, cancer, stroke, AIDS, nerve problems, can't hear, see, walk)? (24) ○ ○

Has someone close to you died suddenly or unexpectedly (for example, sudden heart attack, murder, or suicide)? (25) ○ ○

Has someone close to you died (do NOT include those who died suddenly or unexpectedly)? (26) ○ ○

When you were young (before 16), did you ever see violence between family members (for example, hitting, kicking, slapping, punching)? (27) ○ ○

Have you ever seen a robbery, mugging, or attack take place? (28) ○ ○

Have you ever been robbed, mugged, or physically attacked (not sexually) by ○ ○

someone you did not know? (29)

Before age 16, were you ever abused or physically attacked (not sexually) by someone you knew (for example, a parent, boyfriend, or husband hit, slapped, choked, burned, or beat you up? (30)

○   ○

After age 16, were you ever abused or physically attacked (not sexually) by someone you knew (for example, a parent, boyfriend, or husband hit, slapped, choked, burned, or beat you up? (31)

○   ○

Have you ever been bothered or harassed by sexual remarks, jokes, or demands for sexual favors by someone at work or school (for example, a coworker, boss, a customer, another student, a teacher)? (32)

○   ○

Before age 16, were you ever touched or made to touch someone else in a sexual way because they forced you in some way or threatened to harm you if you didn't? (33)

○   ○

After age 16, were you ever touched or made to touch someone else in a sexual way because they forced you in some way or threatened to harm you if you didn't? (34)

○   ○

Before age 16, did you ever have sex (oral, anal, genital) when you didn't want to because someone forced you in some way or threatened to hurt you if you didn't? (35)

○   ○

After age 16, did you ever have sex (oral, anal, genital) when you didn't want to because someone forced you in some way or threatened to hurt you if you didn't? (36)	○	○

QCAE Read each characteristic and indicate how much you agree or disagree with the item by ticking the appropriate box. Answer quickly and honestly.

	Strongly Agree (1)	Slightly Agree (2)	Slightly Disagree (3)	Strongly Disagree (4)
I sometimes find it difficult to see things from the "other person's" point of view. (1)	○	○	○	○
I am usually objective when I watch a film or play, and I don't often get completely caught up in it. (2)	○	○	○	○
I try to look at everyone's side of a disagreement before I decide. (3)	○	○	○	○
I sometimes try to understand my friends better by imagining how things look from	○	○	○	○

their perspective. (4)			
When I am upset at somebody, I try to imagine how I would feel if I was in their place. (5)	○	○	○	○
Before criticizing somebody, I try to imagine how I would feel if I was in their place. (6)	○	○	○	○
I often get emotionally involved with my friends' problems. (7)	○	○	○	○
I am inclined to get nervous when others around me seem to be nervous. (8)	○	○	○	○
People I am with have a strong influence on my mood. (9)	○	○	○	○
It affects me very much when one of my friends seems upset. (10)	○	○	○	○
I often get deeply involved with the feelings of a character in a film, play, or novel. (11)	○	○	○	○

I get very upset when I see someone cry. (12) ○ ○ ○ ○

I am happy when I am with a cheerful group and sad when the others are glum. (13) ○ ○ ○ ○

It worries me when others are worrying and panicky. (14) ○ ○ ○ ○

I can easily tell if someone else wants to enter a conversation. (21) ○ ○ ○ ○

I can pick up quickly if someone says one thing but means another. (15) ○ ○ ○ ○

It is hard for me to see why something upset people so much. (16) ○ ○ ○ ○

I find it easy to put myself in somebody else's shoes. (17) ○ ○ ○ ○

I am good at predicting how someone will feel. (18) ○ ○ ○ ○

I am quick to spot when someone in a ○ ○ ○ ○

group is feeling awkward or uncomfortable. (19)				
Other people tell me I am good at understanding how they are feeling and what they are thinking. (20)	○	○	○	○
I can easily tell if someone else is interested or bored with what I am saying. (22)	○	○	○	○
Friends talk to me about their problems as they say that I am very understanding. (23)	○	○	○	○
I can sense if I am intruding, even if the other person does not tell me. (24)	○	○	○	○
I can easily work out what another person might want to talk about. (25)	○	○	○	○
I can tell if someone is masking their true emotion. (26)	○	○	○	○
I am good at predicting what someone will do. (27)	○	○	○	○

I can usually appreciate the other person's viewpoint, even if I do not agree with it. (28)	○	○	○	○
I usually stay emotionally detached when watching a film. (29)	○	○	○	○
I always try to consider the other person's feelings before I do something. (30)	○	○	○	○
Before I do something, I try to consider how my friends will react to it. (31)	○	○	○	○

IPIP 50 How accurately can you describe yourself?

	Very Inaccurate (1)	Moderately Inaccurate (2)	Neither Accurate nor Inaccurate (3)	Moderately Accurate (4)	Very Accurate (5)
Am the life of the party. (1)	○	○	○	○	○
Feel little concern for others. (2)	○	○	○	○	○
Am always prepared. (3)	○	○	○	○	○

Get stressed out easily. (4)	○	○	○	○	○
Have a rich vocabulary. (5)	○	○	○	○	○
Don't talk a lot. (6)	○	○	○	○	○
Am interested in people. (7)	○	○	○	○	○
Leave my belongings around. (8)	○	○	○	○	○
Am relaxed most of the time. (9)	○	○	○	○	○
Have difficulty understanding abstract ideas. (10)	○	○	○	○	○
Feel comfortable around people. (11)	○	○	○	○	○
Insult people. (12)	○	○	○	○	○
Pay attention to details.	○	○	○	○	○

(13)

Worry about things.

○   ○   ○   ○   ○

(14)

Have a vivid imagination.

○   ○   ○   ○   ○

(15)

Keep in the background.

○   ○   ○   ○   ○

(16)

Sympathize with others' feelings.

○   ○   ○   ○   ○

(17)

Make a mess of things.

○ ○ ○ ○ ○

(18)

Seldom feel blue.

○ ○ ○ ○ ○

(19)

Am not interested in abstract ideas.
(20)

○ ○ ○ ○ ○

Start conversations.

○ ○ ○ ○ ○

(21)

Am not interested in other people's problems.

○ ○ ○ ○ ○

(22)

Get chores done right

○ ○ ○ ○ ○

away.

(23)

Am easily disturbed.

○　　　○　　　○　　　○　　　○

(24)

Have excellent ideas.

○　　　○　　　○　　　○　　　○

(25)

Have little to say.

○　　　○　　　○　　　○　　　○

(26)

Have a soft heart.

○　　　○　　　○　　　○　　　○

(27)

Often forget to put things

○　　　○　　　○　　　○　　　○

back in their proper place.

(28)

Get upset easily.

○　　　○　　　○　　　○　　　○

(29)

Do not have a good imagination. (30)

Talk to a lot of different people at parties.

○　　　○　　　○　　　○　　　○

(31)

Am not really interested in others.

○　　　○　　　○　　　○　　　○

(32)

Like order.

○　　　○　　　○　　　○　　　○

(33)

Change my mood a lot.

○   ○   ○   ○   ○

(34)

Am quick to understand things.

○   ○   ○   ○   ○

(35)

Don't like to draw attention to myself.

○   ○   ○   ○   ○

(36)

Take time out for others.

○   ○   ○   ○   ○

(37)

Shirk my duties.

○ ○ ○ ○ ○

(38)

Have frequent mood swings.

○ ○ ○ ○ ○

(39)

Use difficult words. (40)

○ ○ ○ ○ ○

Don't mind being the center of attention.

○ ○ ○ ○ ○

(41)

Feel others' emotions.

○ ○ ○ ○ ○

(42)

Follow a schedule.

○ ○ ○ ○ ○

(43)

Get irritated easily.

○   ○   ○   ○   ○

(44)

Spend time reflecting on things.

○   ○   ○   ○   ○

(45)

Am quiet around strangers.

○   ○   ○   ○   ○

(46)

Make people feel at ease.

○   ○   ○   ○   ○

(47)

Am exacting in my work.

○   ○   ○   ○   ○

(48)

Often feel
blue.

　　○　　　　　○　　　　　○　　　　　○　　　　　○

(49)

Am full of
ideas. (50)

　　○　　　　　○　　　　　○　　　　　○　　　　　○

Q5.1 When something unforeseen happens

○ I always find a solution (1)

○　　(3)

○　　(4)

○　　(6)

○ I often feel bewildered (5)

Q5.2 My personal problems

○ are unsolvable (1)

○ (2)

○ (3)

○ (4)

○ I know how to solve (5)

Q5.3 My abilities

○ I strongly believe in (1)

○ (2)

○ (3)

○ (4)

○ I am uncertain about (5)

Q5.4 My judgements and decisions

○ I often doubt (1)

○ (2)

○ (3)

○ (4)

○ I trust completely (5)

Q5.5 In difficult periods I tend to

○ view everything gloomy (1)

○   (2)

○   (3)

○   (4)

○ find something good that helps me thrive (5)

Q5.6 Events in my life that I cannot influence

○ I manage to come to terms with (1)

○   (2)

○   (3)

○   (4)

○ are a constant source of worry/concern (5)

Q5.7 My plans are

○ difficult to accomplish (1)

○   (2)

○   (3)

○   (4)

○ possible to accomplish (5)

Q5.8 My future goals

○ I know how to accomplish (1)

○   (2)

○   (3)

○   (4)

○ I am unsure how to accomplish (5)

Q5.9 I feel that my future looks

○ very promising (1)

○   (2)

○   (3)

○   (4)

○ uncertain (5)

Q5.10 My goals for the future are

○ unclear (1)

○   (2)

○   (3)

○   (4)

○ well thought through (5)

Q5.11 I am at my best when I

    ○ have a clear goal to strive for (1)

    ○ (2)

    ○ (3)

    ○ (4)

    ○ can take one day at a time (5)

Q5.12 When I start on new things/projects

    ○ I rarely plan, just get on with it (1)

    ○ (2)

    ○ (3)

    ○ (4)

    ○ I prefer to have a thorough plan (5)

Q5.13 I am good at

    ○ organizing my time (1)

    ○ (2)

    ○ (3)

    ○ (4)

    ○ wasting my time (5)

Q5.14 Rules and regular routines

    ○ are absent in my everyday life (1)

    ○   (2)

    ○   (3)

    ○   (4)

    ○ simplify my everyday life (5)

Q5.15 I enjoy being

    ○ together with other people (1)

    ○   (2)

    ○   (3)

    ○   (4)

    ○ by myself (5)

Q5.16 To be flexible in social settings

    ○ is not important to me (1)

    ○   (2)

    ○   (3)

    ○   (4)

    ○ is important to me (5)

Q5.17 New friendships are something

     ○ I make easily (1)

     ○   (2)

     ○   (3)

     ○   (4)

     ○ I have difficulty making (5)

Q5.18 Meeting new people is

     ○ difficult for me (1)

     ○   (2)

     ○   (3)

     ○   (4)

     ○ something I am good at (5)

Q5.19 When I am with others

     ○ I easily laugh (1)

     ○   (2)

     ○   (3)

     ○   (4)

     ○ I seldom laugh (5)

Q5.20 For me, thinking of good topics for conversation is

○ difficult (1)

○ (2)

○ (3)

○ (4)

○ easy (5)

Q5.21 My family's understanding of what is important in life is

○ quite different than mine (1)

○ (2)

○ (3)

○ (4)

○ very similar to mine (5)

Q5.22 I feel
very happy with my family (1)

○ (2)

○ (3)

○ (4)

○ very unhappy with my family (5)

Q5.23 My family is characterized by

- ○ disconnection (1)

- ○   (2)

- ○   (3)

- ○   (4)

- ○ healthy coherence (5)

Q5.24 In difficult periods, my family

- ○ keeps a positive outlook on the future (1)

- ○   (2)

- ○   (3)

- ○   (4)

- ○ views the future as gloomy (5)

Q5.25 Facing other people, my family acts

- ○ unsupportive of one another (1)

- ○   (2)

- ○   (3)

- ○ 4 (4)

- ○ loyal towards one another (5)

Q5.26 In my family, we like to

○ do things on our own (1)

○   (2)

○   (3)

○   (4)

○ do things together (5)

Q5.27 I can discuss personal issues with

○ no one (1)

○   (2)

○   (3)

○   (4)

○ friend/family members (5)

Q5.28 Those who are good at encouraging me are

○ some close friends/family members (1)

○   (2)

○   (3)

○   (4)

○ nowhere (5)

Q5.29 The bond among my friends is

○ weak (1)

○   (2)

○   (3)

○   (4)

○ strong (5)

Q5.30 When a family member experiences a crisis/emergency

○ I am informed right away (1)

○   (2)

○   (3)

○   (4)

○ it takes quite a while before I am told (5)

Q5.31 I get support from

○ friends/family members (1)

○   (2)

○   (3)

○   (4)

○ no one (5)

Q5.32 When needed, I have

    ○ no one who can help me (1)

    ○   (2)

    ○   (3)

    ○   (4)

    ○ always someone who can help me (5)

Q5.33 My close friends/family members

    ○ appreciate my qualities (1)

    ○   (2)

    ○   (3)

    ○   (4)

    ○ dislike my qualities (5)

End of Block: Resiliency Scale for Adults (RSA)

Start of Block: Demographics

Q6.1 What is your biological sex?

    ○ Male (1)

    ○ Female (2)

Q6.2 What gender do you identify with?

○ Male (1)

○ Female (2)

○ Prefer not to answer (3)

○ Prefer to self-identify (4) _____

Q6.3 What age are you in years?

_____

Q6.4 Do you consider yourself...?

○ Impoverished (1)

○ Working low class (2)

○ Middle class (3)

○ High middle class (4)

○ High class (5)

Q6.5 What is your ethnicity?

    ◯ White (1)

    ◯ Black or African American (2)

    ◯ Hispanic or Latino (3)

    ◯ Native American (4)

    ◯ Asian (5)

    ◯ Native Hawaiian or Pacific Islander (6)

    ◯ Other (7)

    ◯ More than one ethnicity (8)

Q6.6 What is your college classification?

    ◯ Freshman (1)

    ◯ Sophomore (2)

    ◯ Junior (3)

    ◯ Senior or higher (4)

    ◯ Not a college student (5)

End of Block: Demographics