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## Childhood Abuse, Invalidation, and Personality in a College Population

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Childhood Abuse, Invalidation, and Personality in a College Population

An Honors Thesis submitted in partial fulfillment of the requirements for Honors in

Psychology

By

Kayleigh Heard

Under the mentorship of Dr. C. Thresa Yancey

ABSTRACT

Studies show the detrimental effects of childhood maltreatment (i.e., childhood physical abuse, childhood sexual abuse, invalidation, and multiple forms of maltreatment; Afifi et al., 2016). Research demonstrates individuals with a history of childhood maltreatment have distinct patterns of personality characteristics (Allen & Lauterbach, 2007). Specifically, individuals with history of childhood maltreatment typically report high neuroticism, high openness, and low agreeableness compared to those with no history of maltreatment (Distel et al., 2009; Huang et al., 2012). Less is known about personality differences among individuals with different forms of childhood maltreatment (e.g., physical abuse vs. sexual abuse vs. invalidation vs. multiple forms of abuse). This study examined the relationships among childhood maltreatment and personality characteristics within a college population. Specifically, the aim was to replicate previous findings demonstrating personality differences between those with and without histories of childhood maltreatment and to extend the research by examining potential personality differences related to type of childhood maltreatment.

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### **Childhood Maltreatment, Invalidation, and Personality in a College Population**

Childhood maltreatment is described by the United States federal government as “any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation” (CAPTA Reauthorization Act, 2010, p. 124). The term childhood maltreatment includes physical abuse, sexual abuse, emotional abuse, and neglect (Vachon, Krueger, Rogosch, & Cicchetti, 2015). The Children’s Bureau estimates 1,553,800 minors in the United States were abused or neglected in 2017. Specifically, there were 122,674 documented cases of childhood physical abuse (CPA), 44,951 cases of childhood sexual abuse (CSA), and 2,500 cases showed a combination of CPA and CSA during 2017 (Children’s Bureau, 2017). For the current study, physical and sexual abuse, as well as a form of emotional abuse, invalidation by caregivers, were studied. While other forms of childhood maltreatment exist and may have overlapping characteristics, those were beyond the scope of the current project.

#### **Childhood Physical Abuse (CPA)**

CPA is defined as the “non-accidental use of physical force against a child that results in harm.” Examples of this behavior include hitting, throwing, biting, poisoning, burning, and other means of harm directed to a child (Al-Shail, Hassan, Aldowaish, & Kattan, 2012). Children who experience CPA are at risk of long-lasting consequences such as reduced hippocampus activity, obesity, and drug/alcohol dependency (Carrion, Haas, Garrett, Song, & Reiss, 2010; Clark, Thatcher, & Martin, 2010; Knutson, Taber, Murray, Valles, & Koepl, 2010; Topitzes, Mersky, & Reynolds, 2010). A study by Norman, Byambaa, De, Butchart, Scott, and Vos (2012) found a strong relationship

between a history of CPA and risky sexual behavior, drug use, sexually transmitted infections, suicide attempts, and psychopathology.

Research shows children in divorced homes, certain ethnocultural groups, and the child psychiatric population are more likely to experience CPA (Lamela & Figueiredo, 2017; Santa-Sosa & Runyon, 2015; Van Looveren, Glazemakers, Van Grootel, Fransen, & Van West, 2017). However, there are gender differences as well. Boys are more likely to experience CPA compared to girls, and they are more likely to commit crime after the abuse (Finkelhor, 1984; Morales & Singh, 2015). Girls appear to have a stronger and more negative reaction to CPA, and they are more likely to experience depressive moods following the abuse (Sweeney et al., 2015; Thompson, Kingree, & Desai, 2004).

While all types of maltreatment are associated with an increased chance of adverse physical conditions, CPA is associated with greater incidences of high blood pressure, stroke, back problems, and migraine headaches than are other forms of child maltreatment (Afifi et al., 2016). In terms of psychopathology, individuals exposed to CPA experience elevated rates of post-traumatic stress disorder (PTSD) and are at a heightened risk for comorbid mental illness compared to their non-physically abused peers (De Bellis & Thomas, 2003).

### **Childhood Sexual Abuse (CSA)**

CSA is defined by The World Health Organization (WHO) as:

*“...the involvement of a child in sexual activity that he or she does not fully comprehend, is unable to give informed consent to, or for which the child is not developmentally prepared and cannot give consent, or that violates the laws or social taboos of society...”* (WHO, 2003, p. 75).

Official incidence estimates predict 1 in 250 children experience CSA (Collin-Vézina, Daigneault, & Hébert, 2013) which means approximately 7.9% of boys and 19.7% of girls will experience CSA (Pereda, Guilera, Forns, & Gomez-Benito, 2009). Examples of CSA include non-contact abuse (exposure, sexual suggestions), contact abuse (sexual touching), and penetration (Collin-Vezina et al., 2013). Those who experienced a longer duration of CSA were more likely to experience contact abuse and penetration than those who experienced shorter durations of CSA (Shevlin, Murphy, Elklit, Murphy, & Hyland, 2018). In a study by Adams, Mrug, and Knight (2018), the age at which CSA started was not related to psychopathology among survivors; however, duration and severity of the CSA correlated with participants' rates of depression, anxiety, and PTSD. CSA severity was associated with higher rates of later interpartner violence, lower relationship satisfaction, and earlier parenthood (Friesen, Woodward, Horwood, & Fergusson, 2009).

Individuals with a history of CSA are more likely to experience physical ailments such as chronic bronchitis, emphysema, COPD, and/or diabetes than those with a history of other forms of maltreatment (Afifi et al., 2016). A study by Dargan, Daigneault, Ovetchkine, Jud, and Frappier (2019) found that individuals who experienced CSA were more likely to be diagnosed with infectious diseases than the general population. While some research points to risky sexual behavior as the cause for frequent infection (Tyler, 2002), other researchers believe early trauma compromises the immune system (Bielas, Jud, Lips, Reichenbach, & Landolt, 2012; Miller & Chen, 2010; Shirtcliff, Coe, & Pollak, 2009).

**Invalidation and its Effects**

Validation is the sense being understood. A validating person is high in supportive behaviors and low in conflict-inducing actions while an invalidating individual is unlikely to support others and seeks out conflict (Fruzzetti & Shenk, 2008; Yap, Allen, & Ladouceur, 2008). A study by Buckholdt, Parra, and Jobe-Shields (2013) found invalidating individuals often have difficulty with emotional regulation, and their invalidating nature compromises the emotional integrity of those around them. Other studies have recognized validation's association with emotional regulation and have found it to be useful in the treatment of borderline personality disorder (Benitez, Southward, Altenburger, Howard, & Cheavens, 2019).

When an individual is invalidated, their thoughts, experiences, or ideas are rejected or misunderstood. This rejection leads to a litany of negative responses from the individual (Linehan, 1997). Invalidation increases aggression (Herr, Jones, Cohn, & Weber, 2015), emotional dysregulation (Yap et al., 2008) and overall negative affect (Edmond & Keefe, 2015). This emotional dysregulation is associated with the invalidation of others, compromising the individual's ability to form relationships (Buckholdt et al., 2013; Zhang & Zhong, 2013). Invalidation is a cycle of observing how others punish emotions and reflecting that behavior.

Perceived childhood invalidation interferes with social skills (Bray, Barrowclough, & Lobban, 2007), cognitive development (Graham & Clark, 2006), and self-esteem (Zeigler-Hill & Abraham, 2006). A study by Sturrock, Francis, and Carr (2009) found that maternal invalidation was more likely to negatively affect children than

paternal invalidation. Nonetheless, caregiver invalidation has negative consequences no matter who is invalidating the child (Krause, Mendelson, & Lynch, 2003).

### **The OCEAN Model of Personality**

Personality is considered a constant and unique unit influencing human behavior, feeling, and thought (Roberts, 2009). In the OCEAN Model, a common theory of personality, it is measured within five categories: openness, conscientiousness, extraversion, agreeableness, and neuroticism (McCrae & Costa, 2003). Each facet of the OCEAN Model pertains to a specific characteristic of personality. Openness relates to how willing an individual is to engage with a new concept. It includes the ability to fantasize, artistic appreciation, and curiosity (Fayn, Silvia, Dejonckheere, Verdonck, & Kuppens, 2019). Conscientiousness relates to organization, goal-orientation, and self-discipline (Allen et al., 2018). Extraversion is sociability, optimism, and friendliness (Ensari, Riggio, Christian, & Carslaw, 2011). Agreeableness is trust, helpfulness, kindness, and cooperation (Crowe, Lynam, & Miller, 2017). Neuroticism describes an individual's tendency to react to negative emotions with even greater negative emotions (Lahey, 2009).

The Ocean Model's measurement of personality can reveal an individual's likelihood to accept or reject new experiences, their chances of setting and achieving goals, or how well they may handle stress (Costa & McCrae, 1989, 1992; Whitelock, Lamb, & Rentfrow, 2013). For example, those who are high in agreeableness, extraversion, openness, or conscientiousness are less likely to ruminate on their anger while those who are high in neuroticism are more likely to focus on their indignation (Zeng & Xia, 2019).



### **Childhood Abuse and Invalidation Related to Adulthood Personality**

Research suggests personality is formed not only by genetics but also by childhood experiences (Allen & Lauterbach, 2007; Carver & Scheier, 2000; Caspi et al., 2003; Vukasović & Bratko, 2015). These childhood experiences include adverse childhood events such as CPA, CSA, and invalidation (Tucknott, 2014). A study by Allen and Lauterbach (2007) found individuals who experience traumatic childhood events report higher levels of neuroticism and openness than those with no history of childhood trauma. Specifically, survivors of CPA and CSA show higher levels of openness and neuroticism compared to those with no childhood abuse history (Li, Wang, Hou, Liu, & Wang, 2014; Rademaker, Vermetten, Geuze, Mulwijk, & Kleber, 2008).

CPA and CSA are correlated with borderline personality disorder (Huang et al., 2012; Li et al., 2014), a disorder marked for its high neuroticism and low agreeableness (DeShong, Grant, & Milluns-Sweatt, 2019; Grzegorzewski, Kulesza, Pluta, Iqbal, & Kucharska, 2019). Similarly, childhood invalidation is a predictor for borderline personality symptomatology (Distel et al., 2009). Extreme cases of childhood invalidation are linked to neurotic anxiety and depression (Krause et al., 2003; Tucker et al., 2016) and post-traumatic stress disorder (Hong & Lishner, 2016).

The personality attributes linked to CPA, CSA, and invalidation are related to other detrimental issues in adulthood. High neuroticism is positively related to poor mental and physical health (Ormel et al., 2013), inversely related to subjective well-being (Steel, Smith, & Shultz, 2008), and predisposes individuals to addictive behaviors (Gao, Xiang, Zhang, Zhang, & Mei, 2017). High openness allows individuals to experience both positive and negative events (McCrae & Costa, 1996), and those with low

agreeableness are more likely to be socially rejected (Hales, Kassner, Williams, & Graziano, 2016), suffer from psychological ailments (Farnam, Farhang, Bakhshipour, & Niknam, 2011), and die prematurely (Ozer & Benet-Martínez, 2006).

### **Current Study**

CPA, CSA, and invalidation are adverse childhood events that are related to the OCEAN traits of personality (Allen & Lauterbach, 2007), particularly neuroticism, agreeableness, and openness (Distel et al., 2009; Li et al., 2014; Rademaker et al., 2008). These three personality traits are key in forming an individual's emotional stability (Miranda, 2019), social health (Sukenic, Reizer, & Koslovsky, 2018), and willingness to try new things (Fayn et al., 2009). The current study examined the relationship between a history of CPA, CSA, and invalidation (collectively termed "childhood maltreatment" for the purposes of the current study) and the OCEAN traits of personality within a college population.

### **Hypotheses**

1. Based on previous research, it was expected that compared to those with no history of childhood maltreatment (as defined above), participants who have a history of childhood maltreatment would report higher neuroticism and openness (Allen & Latuerbach, 2007; Li et al., 2014; Rademaker et al., 2008).
2. Further, it was expected that participants with a history of childhood maltreatment would report lower agreeableness than participants who do not have a history of childhood maltreatment (Distel et al., 2009; Grzegorzewski et al., 2019).

### **Study Aim**

In addition, while less is known about differences among those who experience only one form of childhood maltreatment, we explored potential differences in current personality traits by type of childhood maltreatment (i.e., history of CPA, CSA, multiple forms of abuse).

### **Method**

#### **Participants**

To ensure data collection from participants with histories of CPA, CSA, and invalidating homes, a large sample was collected. Originally, 537 participants began the survey and answered at least one question. The final sample, following the removal of participants who did not complete at least two measures, included 456 undergraduate students at a southeastern university who were 18 years of age or older. Participants were enrolled in a psychology course offered by the university. There were no other restrictions or exclusionary criteria. No other demographic data were collected to ensure anonymity. Students received course credit as outlined in their course syllabus for participation, regardless of level of completion.

#### **Procedure**

This study consisted of the online collection of three questionnaires that were free from experimental manipulation. Participants registered for the study via SONA, an online registration software, and completed the tasks on Qualtrics, a global survey-hosting software. Hosting the study online reduced experimenter bias since there was no contact between the participants and the experimenter (Rodriguez & Berry, 2019). Before the study began, participants read an informed consent document ensuring they understood their rights. If they agreed to participate, they chose “I have read the Informed

Consent and agree to participate.” If a participant did not wish to participate, they chose, “I decline to participate,” and the debriefing information appeared on their screen.

Participants who did not complete the entire study still received credit for participation.

### **Measures**

This study consisted of three surveys separately examining childhood abuse history, childhood invalidation, and adult personality. Included was a measure of trauma designed by the experimenter to measure the participants’ childhood experiences of CPA and CSA, the Invalidating Childhood Environment Scale (Mountford, Corstorphine, Tomlinson, & Waller, 2007), and the OCEAN.20 (O’Keefe, Darr, Kelloway, Pye-Strowbridge, & Hall, 2016).

**Trauma questionnaire.** The trauma questionnaire was created for this study to determine if the participant experienced CPA or CSA. This questionnaire contained 16 “yes” or “no” questions regarding CPA and CSA experiences before the age of 18. While the CPA questions were limited to parent, guardian, or caregiver abuse, the CSA questions had no limitations related to perpetrator. A sample CPA question is, “Did a parent, stepparent, or guardian ever injure you on purpose?” If a participant answered “yes” to any of the CPA questions, they were considered to have experienced CPA. A sample CSA question is, “Prior to the age of 18, did anyone ever touch private parts of your body or make you touch theirs under **force or threat**?” If they answered yes to any of the CSA questions, they were considered to have experienced CSA. Please see Appendix.

**The Invalidating Childhood Environment Scale (ICES;** Mountford et al., 2007). Though it was originally applied to disordered eating research, the ICES measure

of childhood invalidating environments is useful in measuring participants' perception of their childhood environments, regardless of any other presenting psychopathology. The first section of ICES includes fourteen statements based on behaviors defining invalidating and validating environments (Linehan, 1993). The participants rated these statements on a five-point Likert scale ranging from 1 (*never*) to 5 (*all of the time*) for both parents (if applicable). Higher scores in this section indicated greater perception of childhood invalidation. A sample statement is, "If I said I couldn't do something, parents would say things like: "You're being difficult on purpose."

Next, the participant read descriptions of four different family archetypes: chaotic, perfect, typical, and validating (Linehan, 1993). A "chaotic" family was described as unavailable, either mentally and/or physically. A "perfect" family displayed a perfect facade on the exterior yet disapproves if the child expresses negative emotions. A "typical" family was focused on controlling emotions and reaching for success. A "validating" family supported and responded to emotions appropriately. As the participant ranked their family on a scale from 1 (*not like my family*) to 5 (*like my family all of the time*), they were able to classify their family structure as more than one archetype. Depending on the rankings given by the participant, higher mean scores signaled a perceived validating (for the "validating" archetype) or invalidating family environment (for the other three archetypes). Mountford et al. (2007) found that ICES has psychometric and clinical validity.

**The OCEAN.20 Occupational Personality Questionnaire (OCEAN.20;** O'Keefe et al., 2016). The OCEAN.20 is a brief questionnaire measuring the five traits of personality, according to the OCEAN Model: openness, conscientiousness, extraversion,

agreeableness, and neuroticism. This measure was developed by forming 20 statements to reflect each of the five facets found within the NEO-PI: Ideas, Order, Gregariousness, Altruism, and Anxiety (Costa & McCrae, 2006; O’Keefe et al., 2016). The OCEAN.20 consists of 20 words and statements that participants rated along a Likert scale from 1 (*extremely uncharacteristic*) to 7 (*extremely characteristic*) to describe themselves. Those who scored higher in each subscale (i.e., openness, conscientiousness, extraversion, agreeableness, and neuroticism) are considered to have higher levels of that particular personality trait. O’Keefe et al. (2016) found the OCEAN.20 demonstrates high convergent validity with the NEO-PI.

## Results

### Preliminary Findings

Prior to hypothesis testing, correlations among study variables were conducted. OCEAN.20 Openness and Neuroticism subscale scores were significantly positively correlated with ICES scores (section 1 and section 2 scores). Further, home type (ICES section 2) was significantly positively correlated with ICES section 1 scores. Please see Table 1 for all correlation results.

### Hypothesis Testing and Study Aim Results

*Hypotheses 1 and 2.* To examine the differences on personality traits between participants with and without histories of childhood maltreatment, a MANOVA was conducted with childhood maltreatment (yes or no) as the IV and Openness and Neuroticism (Hypothesis 1) and Agreeableness (Hypothesis 2) scores as the DV. As predicted, the model was significant. Participants with a history of childhood maltreatment ( $n = 174$ ) scored significantly differently on personality traits compared to

participants with no history of childhood maltreatment ( $n = 265$ );  $F(3, 435) = 10.21, p < .001$ ; Wilk's  $\Lambda = 0.93$ . Follow up ANOVAs reveal mixed findings. In support of Hypothesis 1, participants with a history of child maltreatment scored higher on the Openness ( $F(1, 437) = 10.11, p = .002$ ) and Neuroticism subscales ( $F(1, 437) = 16.38, p < .001$ ) compared to participants with no history of childhood maltreatment. This corresponds with current literature (Allen & Latuerbach, 2007; Li et al., 2014; Rademaker et al., 2008) and the proposed hypothesis. For Hypothesis 2, findings were inconsistent with previous research (Distel et al., 2009; Grzegorzewski et al., 2019), with current participants reporting a history of childhood maltreatment scoring significantly higher in Agreeableness ( $F(1, 437) = 9.58, p = .002$ ) compared to participants with no history of childhood maltreatment. Please see Table 2 for mean scores.

**Study Aim.** A second MANOVA to investigate relationships among differing types of abuse histories and current personality traits found there were significant differences among childhood maltreatment types (i.e., sexual abuse, physical abuse, or multiple forms of abuse) and personality. This analysis did not include participants with no history of child maltreatment; only those who reported histories of CSA ( $n = 67$ ), CPA ( $n = 62$ ), or both CSA and CPA ( $n = 45$ ) were included in this analysis. The overall model was significant,  $F(6, 338) = 4.25, p < .001$ ; Wilk's  $\Lambda = 0.93$ . Follow up ANOVAs revealed differences of Agreeableness traits only for those with differing child maltreatment histories ( $F(2, 171) = 11.18, p < .001$ ). Specifically, those participants with a history of CSA scored significantly higher in Agreeableness than both those with CPA and with multiple abuse histories. Further, those with CPA scored significantly lower in Agreeableness than both those with CSA and with multiple abuse histories. Finally, those

with multiple abuse histories scored significantly lower in Agreeableness than those with CSA and significantly higher in Agreeableness than those with CPA. Please see Table 3 for mean scores.

### **Discussion**

Childhood maltreatment is prevalent in our society and associated with outcomes such as health difficulties, deviant behavior, and psychopathology (Adams, Mrug, & Knight, 2018; Afifi et al., 2016; Children's Bureau, 2017; Morales & Singh, 2015). Previous research shows a correlation between childhood maltreatment and adulthood personality traits. Specifically, those with a history of childhood maltreatment score higher on measures of neuroticism and openness compared to their peers with no history of childhood maltreatment (Allen & Latuerbach, 2007; Li et al., 2014; Rademaker et al., 2008). Additionally, survivors of childhood maltreatment score lower in agreeableness compared to non-survivors (Distel et al., 2009; Grzegorzewski et al., 2019). The current study investigated these relationships in a college student sample.

The hypothesis that those who experienced childhood maltreatment would report higher scores on neuroticism and openness subscales of the OCEAN.20 (O'Keefe et al., 2016) was supported, consistent with previous research (Allen & Latuerbach, 2007; Li et al., 2014; Rademaker et al., 2008). These findings suggest that victims of childhood maltreatment are more likely to self-report neurotic personality traits such as anxiety, moodiness, and depression when compared to those with no history of childhood maltreatment (Miranda, 2020). Those with a history of child maltreatment are also more likely to display traits related to openness such as individuality and curiosity compared with their non-maltreated peers (Matz, 2021). While not part of the current study, the



combination of higher neuroticism and openness traits among those participants with a history of child maltreatment is consistent with borderline personality features which are associated with abusive childhoods (DeShong et al., 2019; Distel et al., 2009; Huang et al., 2012; Li et al., 2014).

This study found participants with a history of childhood maltreatment scored higher in agreeableness when compared to participants who reported no history of childhood maltreatment, contrary to previous literature. While previous studies show those with borderline traits, such as high neuroticism and openness, typically score lower on measures of agreeableness (Distel et al., 2009; Grzegorzewski et al., 2019), it is possible abusive childhoods may influence a higher score in agreeableness in an attempt to avoid abandonment and conflict (Hoveidafar et al., 2017; Huang et al., 2012).

Borderline personality traits such as neuroticism and openness are displayed by individuals with maladaptive schemas relating to abandonment and mistrust/abuse (Esmaeilian, Dehghani, Koster, & Hoorelbeke, 2019). While a maladaptive schema that results in low trust in others may result in lower scores in agreeableness, a maladaptive schema related to a fear of abandonment may result in more altruistic behavior to prevent abandonment and relate to higher agreeableness.

This study aimed to explore personality differences among participants with a history of childhood maltreatment, specifically examining comparisons among those with a history of childhood sexual abuse, a history of childhood physical abuse, and a history of multiple types of child maltreatment. Participants with a history of childhood physical abuse and multiple types of childhood abuse scored significantly higher in openness compared to participants with a history of childhood sexual abuse. This finding supports

previous research by Hengartner, Cohen, Rodgers, Müller, and Rössler (2015) which found both physical and emotional childhood abuse are associated with higher rates of openness compared to other forms of childhood maltreatment.

Additionally, participants with a history of childhood sexual abuse and multiple types of abuse scored higher in agreeableness and neuroticism when compared to those with a history of childhood physical abuse. Recent research identifies a phenomenon known as “altruism born of suffering,” or ABS (Gibson, 2020). This theory posits that some individuals adapt to trauma and develop sociability in the forms of “empathy, awareness, victim affinity, self-efficacy, and motivation to help,” explaining the higher scores in agreeableness (Gibson, 2020, p. 2). Other studies show childhood sexual abuse is positively correlated with neuroticism which is consistent with research showing individuals with a history of childhood sexual abuse are more likely to have post-traumatic stress symptomatology (Boillat, Schwab, Stutz, Pflueger, Graf, & Rosburg, 2017; Elklit, Christiansen, Karsberg, & Eriksen, 2014).

Results from the current study also show a significant positive relationship between parental invalidation scores and scores on openness and neuroticism. Unhealthy home environments, such as those with invalidation, are linked to higher rates of runaway youths (Benoit-Bryan, 2011). According to a study by Jeanis, Fox, and Muniz (2019), 38% of runaway youths had a history of parental neglect, a type of chaotic parental invalidation (Mountford et al., 2007).

### **Limitations**

Though this study found interesting results, there are a few limitations worth mentioning. One limitation is found in the pool of participants. Because this is a

university-affiliated study, all participants were college students. This may limit the personality variations that appear with age and life experiences (Harris, Brett, Johnson, & Deary, 2016). Additionally, limiting the participant pool to college students may exclude individuals from a lower socio-economic status which may affect reported rates of childhood maltreatment (Pelton, 2014; Tesfagiorgis, Tsegai, Mengesha, Craft, & Tessema, 2020).

Considering the measures used, a more dichotomous scale for parental validation may be more useful for categorizing invalidation groups to offer a comparison based on invalidation. While our findings show a positive correlation between parental invalidation and scores in openness and neuroticism, a two-group measure may provide more insight on group differences.

Finally, the current study is cross-sectional. By definition, no causal inferences can be made from the current study. There are many other possible contributing variables that were not included in the current study. While this is a limitation, the study design did lend itself to capturing the participants' current self-report with no interference by the researcher (anonymous, online data collection), which likely allowed participants to answer in an honest manner.

### **Future Research**

The relationship between childhood maltreatment, the OCEAN personality traits, and parental invalidation is a topic that lacks adequate research. Based on our findings, both childhood maltreatment and parental invalidation may be associated with differences in OCEAN personality traits. Because our results deviated from previous literature in some areas, further research is necessary to understand the relationships between

childhood maltreatment, such as childhood sexual abuse, physical abuse, multiple forms of abuse, and invalidating homes, on OCEAN personality traits, especially agreeableness.

### **Conclusion**

The results of this study highlight the importance of the effects of childhood maltreatment on adulthood personality characteristics. With the lack of research that considers all types of childhood maltreatment, especially parental invalidation, more exploration is needed to fully understand their effect on OCEAN personality characteristics.

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## Appendix

## Trauma Questionnaire

1. Prior to the age of 18, did a parent, stepparent, or guardian ever injure you on purpose?

YES NO

2. Prior to the age 18, were you treated in a cold, unemotional way or did you feel rejected by your parent, stepparent, or guardian?

YES NO

3. Prior to the age of 18, were you ever slapped or hit in a way that left marks or bruises by your parent, stepparent, or guardian?

YES NO

4. Prior to the age of 18, were you ever thrown, punched, or kicked by your parent, stepparent, or guardian?

YES NO

5. Prior to the age of 18, have you ever been tied up or locked in a closet or other place by your parent, stepparent, or guardian?

YES NO

6. Prior to the age of 18, were you ever burned on purpose with a cigarette, hot water, or something else by your parent, stepparent, or guardian?

YES NO

7. Prior to the age of 18, did your parent, stepparent, or guardian ever try to seriously harm you (including drowning, choking, etc.)?

YES NO

8. Prior to the age of 18, were you ever seriously injured by your parent, stepparent, or guardian (by accident, fight, beating, etc.)?

YES NO

9. Prior to the age of 18, did your parent, stepparent, or guardian ever force you to participate in a violent act (such as a beating, sexual assault)?

YES NO

10. Prior to the age of 18, did anyone ever make you have intercourse, oral, or anal sex against your will?

YES NO

11. Prior to the age of 18, did anyone ever force or use threat of force to make you have intercourse or perform other sexual acts?

YES NO

12. Prior to the age of 18, did anyone ever touch private parts of your body or make you touch theirs under **force or threat**?

YES NO

13. Prior to the age of 18, did anyone ever touch private parts of your body or make you touch theirs through other means (coercion, pressure, or because you were young)?

YES            NO

14. Other than the incidents mentioned above, have there been any situations in which another person tried to force you to have unwanted sexual contact prior to the age of 18?

YES            NO

15. Prior to the age of 18, were you ever in any other situation in which you feared you might be killed or seriously injured?

YES            NO

16. Prior to the age of 18, did you experience any other event that was not already asked about which was extraordinarily stressful?

YES            NO

Table 1

*Correlation of Outcome Variables*

	Neuroticism	Agreeableness	ICES Section 1	ICES Section 2
Openness	.078	-.049	.171**	.235**
Neuroticism	--	.279**	.171**	.150**
Agreeableness	--	--	-.047	.051
ICES Section 1	--	--	--	.656**

*Note.* \*\* Correlation is significant at the  $p < 0.01$  level (two-tailed).

Table 2

*MANOVA: Child maltreatment history and OCEAN traits (Hypotheses 1 & 2)*

	df	F	$p$	$M$	$SD$
Full Model	3; 435	10.21	< .001	--	--
Openness	1; 437	10.11	.002	--	--
No Abuse ( $n = 265$ )	--	--	--	3.74	1.42
Abuse ( $n = 174$ )	--	--	--	4.18	1.42
Neuroticism	1; 437	16.38	< .001	--	--
No Abuse ( $n = 265$ )	--	--	--	4.30	1.41
Abuse ( $n = 174$ )	--	--	--	4.89	1.56
Agreeableness*	1; 437	9.58	.002	--	--
No Abuse ( $n = 265$ )	--	--	--	5.87	0.86
Abuse ( $n = 174$ )	--	--	--	6.11	0.69

*Note.* \*Results were significant in the opposite direction from predictions.

Table 3

*MANOVA: Child maltreatment type and OCEAN traits (Study Aim)*

	df	F	<i>p</i>	<i>M</i>	<i>SD</i>
Full Model	6; 338	4.25	< .001	--	--
Openness	2; 171	1.57	.210	--	--
CSA ( <i>n</i> = 67)	--	--	--	3.96	1.31
CPA ( <i>n</i> = 62)	--	--	--	4.22	1.40
Multiple Abuse ( <i>n</i> = 45)	--	--	--	4.44	1.57
Neuroticism	2; 171	2.61	.076	--	--
CSA ( <i>n</i> = 67)	--	--	--	5.13 <sup>a</sup>	1.47
CPA ( <i>n</i> = 62)	--	--	--	4.53 <sup>b</sup>	1.53
Multiple Abuse ( <i>n</i> = 45)	--	--	--	5.01 <sup>a,b</sup>	1.66
Agreeableness	2; 171	11.18	< .001	--	--
CSA ( <i>n</i> = 67)	--	--	--	6.37 <sup>a</sup>	0.53
CPA ( <i>n</i> = 62)	--	--	--	5.82 <sup>b</sup>	0.78
Multiple Abuse ( <i>n</i> = 45)	--	--	--	6.11 <sup>c</sup>	0.69

*Note.* Mean scores with differing superscripts within each section are significantly different at the  $p < .05$  level.