

OBJECTIVE MEASURES OF CHILDHOOD EMOTIONAL NEGLECT

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ABSTRACT

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Research has shown that maltreatment in childhood can have serious effects on mental health outcomes in adulthood. While physical maltreatment has been well studied, the effects of childhood emotional maltreatment are less researched. This may be because emotional maltreatment does not leave visible signs or injuries, making it harder to identify and study (Kumari, 2020). Emotional maltreatment can take the form of either childhood emotional abuse or childhood emotional neglect. Emotional abuse is defined by behaviors such as yelling and swearing at the child and belittling them. Emotional neglect is the omission of behaviors that are required to meet the emotional needs of a child and may include lack of affection, ‘coldness’ toward the child, and not listening to their needs (Li et al., 2019). Childhood emotional neglect has often been overlooked or combined with childhood emotional abuse. When it has been studied independently, it is often measured with subjective questions, such as “I felt loved.” This is in contrast to all other forms of physical and emotional abuse, which are measured based on objective life events, rather than on the respondents’ subjective feelings as they reflect on their childhoods. The current study inquired if an objective measure of childhood emotional neglect would be more highly correlated with the expected adverse outcomes of depression, anxiety, and suicidality than subjective questions. This study used Steiger Z tests to determine if questions

focused on objective historical events of emotional neglect would be more correlated with outcomes than questions focused on subjective feelings. It also used hierarchical linear regression to determine if objective measures of childhood emotional neglect had greater predictive power, over and above those of physical abuse, physical neglect, sexual abuse, emotional abuse, and subjective measures of emotional neglect in the prediction of depression, anxiety, and suicidality outcomes. Results indicated that objective measures of childhood emotional neglect were not more highly correlated with outcomes than subjective measures and did not have greater predictive power over and above those of physical abuse, physical neglect, sexual abuse, emotional abuse, and subjective measures of emotional neglect. This indicates that objectively worded questions do not add specificity and, therefore, currently used measures that use more subjectively worded questions may be appropriate to use in both clinical and research settings.

INTRODUCTION

Research has shown that maltreatment in childhood can have serious effects on mental health outcomes in adulthood. While physical maltreatment has been well studied, the effects of childhood emotional maltreatment are less researched. This may be because emotional maltreatment is ‘silent,’ not leaving visible signs or injuries, and, in many jurisdictions, Child Protective Services does not consider or track these types of maltreatment, making it harder to identify and study (Kumari, 2020). Recently, researchers have begun to explore how emotional maltreatment impacts individuals’ long-term mental health (Li et al., 2019).

Every year in the United States, around 600,000 children suffer from some sort of abuse, while nearly 2,000 die due to the maltreatment they suffer (U.S. Department of Health & Human Services, 2024). These children are more likely to face unique challenges, such as increased risk of high blood pressure, heart attack, and diabetes, as well as decreased executive functioning, low cognitive abilities, and PTSD. In addition, the troubles do not end with the victims themselves. Due to their maltreatment, these individuals are more likely to act out in antisocial ways, showing high levels of criminal activity, conduct disorder, increased substance use disorder, risky sexual behavior, and perhaps most importantly, continuing the cycle of abuse by maltreating their own children. (U.S. Department of Health & Human Services, 2024; Werner et al., 2016). These children often also have trouble maintaining stable relationships in later life and are at an increased risk of being involved in inter-partner violence as adults (McCleod et al., 2014).

When people think of childhood maltreatment, what often comes to mind first are physical and sexual abuse. These types of abuse are perhaps the most visible because of the physical wounds they leave on the victim. Broken bones and bruises are hard to hide and often require medical treatment. Sexual abuse can be more easily hidden, but the shocking and heinous nature of this abuse makes it hard to ignore. However, statistics show that physical abuse only accounts for 16% of childhood physical maltreatment, while sexual abuse makes up about 9%. Physical neglect is the most common form of physical abuse, making up 74.3% of maltreatment cases, while physical abuse accounts for 17%, sexual abuse for 10.6%, and psychological abuse 6.8% (U.S. Department of Health & Human Services, 2024).

Although by far the most common form of maltreatment, neglect is less studied and less understood, a situation that is often called “neglect of neglect” (Widom, 2017, p. 188). Until it reaches an extreme level, children may continue to function and participate in their classes at school and seem like normal kids. Dickerson and colleagues (2020) found that individuals often confound poverty and neglect, with higher socioeconomic individuals more likely to perceive and report neglect in poor children, while others of low socioeconomic status were less likely to perceive neglect and less likely to think neglect should be reported. This gap in perception and reporting may lead to underreporting of neglect in children of low socioeconomic status due to their social environment. This is concerning since the outcomes of physical neglect can be just as negative as other forms of physical abuse, such as increased risks of eating disorders (Minnich et al., 2017), criminal activity, and generational perpetration (Widom, 2017).

Emotional Maltreatment

While physical maltreatment is well-studied, emotional maltreatment has not received the same amount of attention. This is largely due to the fact that emotional maltreatment is harder to

observe, especially after the fact. While a child of physical maltreatment may present with bruises, lacerations, dirty clothes, or other easily recognized markers of abuse, children who are emotionally maltreated have no physical scars to share (Kumari, 2020). Emotional maltreatment is defined by ongoing omissions (emotional neglect) or intrusions (emotional abuse) of the child's need for care (Musetti et al., 2023). It can be characterized by a caretaker constantly belittling, criticizing, and ignoring a child.

Emotional maltreatment often occurs in such isolation that it is underreported, and it is for this same reason that emotional maltreatment may be more pervasive than its physical counterparts (Cao et al., 2022). This is a serious problem since research has shown that childhood emotional maltreatment can have negative long-term outcomes for its victims that are at least as severe as physical and sexual abuse (Musetti et al., 2023). This may, in part, be due to the fact that early interventions to help victims of emotional maltreatment are difficult to implement because it is hard to identify and intercede while the abuse is occurring (Cao et al., 2022). In addition, emotional maltreatment is often the starting point and core component of other types of abuse, co-occurring with physical and sexual abuse throughout the abuse cycle (Musetti et al., 2023).

Like physical maltreatment, childhood emotional maltreatment can take several forms. Primarily, it can be either intrusive in the form of childhood emotional abuse (CEA) or omissive in the form of childhood emotional neglect (CEN) (Li et al., 2019). CEA is defined by behaviors such as yelling and swearing at the child, belittling, criticizing, and dominating them (Li et al., 2019). CEN is defined as not meeting the emotional needs of a child and may include lack of affection, 'coldness' toward the child, and not listening to their needs. Both types of emotional

maltreatment are damaging to children and can lead to long-term negative outcomes and are linked to more adverse outcomes than physical or sexual abuse (Strathearn et al., 2020).

Measurement of Emotional Neglect

Until recently, most research has focused on either CEA on its own or combined CEA and CEN into a single construct (Yates & Wekerle, 2009). This is problematic because these two types of emotional maltreatment are different in nature (intrusive versus omissive) and potentially different in outcomes. In addition, there are differences in the demographics of those who report having experienced various types of emotional maltreatment, such as men reporting higher incidents of CEN than women (Brown et al., 2018). More recent studies have begun to look at the differences in outcomes for CEA and CEN to see if these two constructs are different enough to need separate bodies of literature or if the combination of them in a single measure of childhood emotional maltreatment is enough (Yates & Wekerle, 2009).

As researchers have delved more deeply into this question, results indicate that while CEA and CEN often co-occur in the life of a child suffering from emotional and physical maltreatment, the two have distinct outcomes, such as the loss of different intrapersonal core capacities (Puetz et al., 2020). Furthermore, for adults in the US who report childhood emotional maltreatment, 43.4% reported emotional neglect only, while 33.7% reported emotional abuse only, and 22.9% reported both (Cao et al., 2022). In addition, 83.5% of children who experienced CEA experienced some other type of abuse, such as sexual or physical abuse, while 73.6% of those who experienced CEN also suffered from another type of abuse (Strathearn et al., 2020).

Treating CEN and CEA as a single construct will limit both our ability to understand nuanced differences in the experiences and outcomes of individuals who suffer from emotional maltreatment, and the development of targeted and effective interventions that may better help

those who have suffered from CEN or CEA (Cao et al., 2022). In addition, there is evidence that the severity of psychopathological outcomes increases when other forms of childhood trauma and abuse are coupled with maternal emotional neglect, indicating that children who suffer from CEN may be at greater risk for more severe long-term outcomes than those who suffer from trauma without CEN (Wildschut et al., 2019).

Currently, the scales used to measure CEN are often focused on a person's internalized perceptions and feelings at the time of responding regarding their parental relationship, rather than on measurable aspects of the parents' behavioral history. This makes CEN research very different from what is usually recommended for research, which is to strive for questions that are brief, relevant, unambiguous, specific, and objective (Price, et al., 2015). Subjective questions, such as are found in many CEN measures lack objectivity and are, therefore, more ambiguous. In contrast, measures of other types of adverse childhood experiences, such as physical or sexual abuse, physical neglect, and CEA, all do a better job focusing on measuring objective experiences in the individual's childhood history. This may, in part, explain why CEN seems to have a lower correlation to adverse outcomes when compared to other types of abuse and neglect. For example, in a meta-analysis looking at the differences in outcome of CEA and CEN by Humphreys and colleagues (2020), CEA was found to be more strongly related to depression than CEN. This may, in part, be due to the subjective way that CEN has been measured, confounding other personal feelings with a history of emotional neglect. While such negative feelings may relate to neglect or other traumatic experiences, they may also have other causes, leading to different outcomes and suppressing the expected effects of CEN in the data.

One example of other interpersonal factors that may confound a subjective measure of CEN is natural developmental processes. When measures of CEN, which asked if an individual

was given enough attention, rather than an objective measure of parental behavior, are administered to late adolescents, such as college students, natural feelings of conflict with their parents may skew the result. Late adolescence is a period in which individuals are developmentally in conflict with their parents as part of a process to establish independence and renegotiate relationship dynamics (Branje, 2018). Simply asking a young adult if they feel like they received enough attention may not accurately reflect CEN experiences.

In addition, measures such as the Childhood Trauma Questionnaire (CTQ), which use subjective criteria for measuring CEN (e.g., “Felt loved”), have a higher prevalence of reported emotional neglect than other measures, such as the Childhood Trauma Interview, that use more objectively based items (e.g., “Your problems were ignored”; Spinhoven et al., 2014). This supports the idea that direct measures of objective experiences will lead to a lower rate of endorsement and increased specificity, leading to more accurate measurement of outcomes.

Current Study

Historically, most types of child maltreatment are measured by asking respondents to report on the occurrence of specific caregiver or other behavior. For example, a child physical abuse measure may ask a person how often their caregiver ever spanked them and left a mark. Conversely, CEN is more often measured by asking a respondent’s personal subjective feeling of being loved or unloved by caregivers. This study seeks to determine if other ways of measuring CEN that are based on objective historical occurrences (i.e., caregiver behavior) are better predictors of expected outcomes than the more common subjective measures (i.e., how the respondent currently feels). Specifically, this study will develop and test pilot a set of CEN items intended to be more objective than previous measures and compare the performance of those items to more subjective CEN items in predicting key outcomes. In particular, it seeks to see if

the more objective measure of CEN is more highly correlated with expected outcomes (depression, anxiety, and suicidality) than are subjective measures and whether objective measures account for more of the variance in outcomes, above and beyond other measures of childhood maltreatment. While there will still remain subjectivity in the manner that participants recall and report their experiences, the use of behaviorally based questions focused on the types and frequency of parental interactions experienced in childhood will help make the measure more objective than ones that focus on the participants feelings about childhood.

Hypotheses and Analyses

Based on these questions, the following hypotheses will be tested:

Hypothesis I: Subjective measures of CEN (sCEN) are less related to expected depression outcomes than objective measures of CEN (oCEN). Hypothesis I will be tested using Steiger's Z test for dependent correlation. Specifically, it is hypothesized that the correlation between the sCEN measures and depression outcomes will be weaker than the correlation between the oCEN measure and depression outcomes.

Hypothesis II: sCEN are less predictive of expected anxiety outcomes than oCEN. Hypothesis II will be tested using Steiger's Z test for dependent correlation. Specifically, it is hypothesized that the correlation between the sCEN measures and anxiety outcomes will be weaker than the correlation between the oCEN measure and anxiety outcomes.

Hypothesis III: sCEN are less predictive of expected suicidality outcomes than oCEN. Hypothesis III will be tested using Steiger's Z test for dependent correlation. Specifically, it is

hypothesized that the correlation between the sCEN measures and suicidality outcomes will be weaker than the correlation between the oCEN measure and suicidality outcomes.

Hypothesis IV: It is hypothesized that oCEN will account for more variance in depression, over and above that of physical abuse, physical neglect, sexual abuse, emotional abuse, and sCEN. Hypothesis IV will be tested using a hierarchical regression predicting depression scores in which all other predictors are entered in Step 1, and oCEN is entered in Step 2.

Hypothesis V: It is hypothesized that oCEN will account for more variance in anxiety, over and above that of physical abuse, physical neglect, sexual abuse, emotional abuse, and sCEN. Hypothesis V will be tested using a hierarchical regression predicting anxiety scores in which all other predictors are entered in Step 1, and oCEN is entered in Step 2.

Hypothesis VI: It is hypothesized that oCEN will account for more variance in suicidality, over and above that of physical abuse, physical neglect, sexual abuse, emotional abuse, and sCEN. Hypothesis VI will be tested using a hierarchical regression predicting suicidality scores in which all other predictors are entered in Step 1, and oCEN is entered in Step 2.

METHODS

Participants

An a priori power analysis for two dependent Pearson's r 's, with an assumed moderate correlation of .30 between oCEN and sCEN, an assumed low correlation of .10 between sCEN and predicted outcomes, and an assumed strong correlation of .70 between oCEN and predicted outcomes suggested a minimum sample size of 154. However, since these were merely estimates, the sample size goal was increased to a goal sample of 200 participants. Due to the likelihood of high dropouts and non-completers, over sampling was sought and a total initial sample of 458 was obtained, which included anyone who at least started the survey and completed the informed consent page. There were 20 participants removed who were under the required age of 18 years or who did not report their ages. In addition, 126 were removed for lacking most or all answers on the survey.

When individual items were skipped on a measure, the series mean was used for unit imputation. This method of imputation takes the mean value for all other responses provided for an item and replaces all missing values for that item with this mean. This imputation allowed for the retention of an additional 38 respondents to the survey. While mean imputation is a useful technique for retaining participants who may have missed some individual items, it can also introduce problems of its own, including reducing the variation in a data set (Austin et al., 2021), potentially leading to smaller standard errors, which are used to calculate the significance and size of effects. Therefore, a further eight participants were removed for leaving at least one full measure blank. This left a final sample size of 304.

The participants came from a wide variety of backgrounds. However, the majority of respondents were White (87.5%), straight (44.41%), identified as women (69.74%), and had completed some level of college (69.74%). For a full breakdown of demographics, see Appendix J Tables 1-3.

Materials and Procedure

Participants were given a survey of 55 items. It was made of several inventories used to measure their history of CEN and relative outcomes. The survey the included the following inventories:

Behavioral History of Emotional Neglect (BHEN)

To test the hypotheses, a new measure of oCEN, the Behavioral History of Emotional Neglect (BHEN), was developed to utilize questions designed to capture more objective, behaviorally based historical events in the life of the respondent. In order to evaluate the reliability and internal consistency of the new BHEN scale, a classical analysis was conducted examining Cronbach's alpha and the corrected-item total correlations, with an expected $\alpha \geq .70$. Items with a corrected-item total correlation below .30 would be removed from the measure. Six items were reverse scored (e.g. "A caregiver showed physical affection by hugging or cuddling me"), after which Cronbach's $\alpha = .86$. No items had a corrected-item total correlation below .30 and all were retained.

This BHEN measure was included with the Maltreatment History and Impact Questionnaire (MHIQ). The MHIQ has subscales that measure physical abuse, physical neglect, sexual abuse, emotional abuse, and an emotional neglect subscale that served as the sCEN score, in order to compare the responses from sCEN and oCEN based questions. In addition, the

following outcome measures were administered at the same time: the Public Health Questionnaire (PHQ-9), a measure of depressive symptoms; the General Anxiety Disorder -8 (GAD-8), a measure of anxiety; and the Suicide Behaviors Questionnaire-Revised (SBQ-R), a measure of suicidality and suicidal ideation.

The BHEN measure of oCEN is made up of questions designed to measure objective historical events in the life of the individual that indicate experiences of emotional neglect. It is made of 10 questions and was shown to have good internal consistency, with Cronbach's $\alpha = .86$. Participants are instructed to rate how often they experienced what is described in each item before they were 18 years old on a scale of 0 (never) to 3 (often). Examples of questions included are, "A caregiver showed physical affection by hugging or cuddling me," and "A caregiver checked on me when I was upset." Scores on this measure served as the test oCEN group for the study. The BHEN can be found in Appendix B.

Maltreatment History and Impact Questionnaire (MHIQ)

This questionnaire measures a history of childhood maltreatment, including subscales for CEN, CEA, physical abuse, physical neglect, and sexual abuse. It is made up of 25 questions, of which, four are related to CEN, four to CEA, four to physical abuse, four to physical neglect, and four to sexual abuse (Solomon et al., 2022). An additional five questions related to positive parenting, corporal punishment, and parental fighting were removed from the analysis for not directly relating to the research question. The MHIQ has been shown to have good internal consistency, with Cronbach's α for the different subscales ranging from .73 for Physical Neglect to .87 (Solomon et al., 2022). The current study found similar levels of internal consistency with Cronbach's α for the subscales as follows: CEN $\alpha = .84$; CEA $\alpha = .80$; Physical Abuse $\alpha = .81$; Physical Neglect $\alpha = .71$; Sexual Abuse $\alpha = .87$. Respondents are instructed to rate how often

they experienced what is described in each item before they were 18 years old on a scale of 0 (never) to 3 (often). The CEN questions utilize traditional wording of a subjective nature (e.g., “I didn’t feel supported by a caregiver”). Scores on this measure served as the comparison sCEN group for the study. The MHIQ can be found in Appendix C.

Public Health Questionnaire – 9 (PHQ-9)

The PHQ-9 is a nine-item instrument for screening, diagnosing, monitoring, and measuring symptoms of depression. It was developed from the previously validated PRIME-MD measure to exclusively focus on the nine diagnostic criteria for depression in the DSM-IV (O’Conner et al., 2016). It is a self-report measure that is often used as a screening tool in medical settings and asks respondents to rate how much they have experienced the described items over the past two weeks. Individuals rate each item from 0 (Not at all) to 3 (Nearly every day). An example of the type of question on this measure is, “Feeling tired or having low energy.” Scores are added to create a severity score between 0 and 27. Scores on this nine-item measure were used to determine long-term depression-related outcomes for those in the sample. Previous studies have found that the PHQ-9 has excellent internal reliability, with a Cronbach’s α of .89 in a primary care study, as well as a sensitivity of 88% and specificity of 88% (Kroenke, 2001). The current study found a Cronbach’s α of .89 as well. The PHQ-9 can be found in Appendix D.

General Anxiety Disorder – 7 (GAD-7)

The GAD-7 was originally developed as a diagnostic tool for generalized anxiety disorder. Validated on a sample of 2149 individuals, it was found to have a sensitivity of 89% and specificity of 82%, as well as a test-retest reliability of .83 (Spitzer et al., 2006). It was later

shown to be valid for social phobia, panic disorder, PTSD, and other anxiety disorders (cutoff score 8, sensitivity 77%, specificity 82%) (Kroenke et al., 2007). It has also been shown to have good internal consistency with Cronbach's α between .86 and .91 (Dear et al., 2011). In the current study, Cronbach's α was .90. It is a self-report measure that asks respondents to rate how much they have experienced the described items over the past two weeks. Individuals rate each item from 0 (Not at all) to 3 (Nearly every day). An example of the type of question on this measure is, "Feeling nervous, anxious, or on edge." Scores are added to create a severity score between 0 and 27. This seven-item measure was used to determine long-term anxiety-related outcomes for those in the sample. The GAD-7 can be found in Appendix E.

Suicide Behaviors Questionnaire – Revised (SBQ-R).

The SBQ-R is a four-item self-report measure of suicidality, with each of the four items designed to tap into a different dimension of suicidality, including lifetime attempts and suicidality, frequency of suicidality over the past 12 months, threat of suicide attempt, and likelihood of suicidal behavior in the future (Osman et al., 2001). It has a sensitivity of 93% and a specificity of 95% in the adult general population, and an internal consistency of .89 (Osman et al., 2001). In the current study Cronbach's α was slightly lower at .81. Respondents are asked to mark the box next to the statement that best describes them. Each response has a number assigned to it which represents the number of points that are applied to the total score if it is endorsed. An example of the types of questions on this measure is, "How often have you thought of killing yourself in the past year?" with answers ranging from 1- never, to 5- very often (5 or more times). A total score is calculated by adding the item scores together. A score of 7 or more in the adult populations indicates serious suicidal ideation. This measure was used to see if the

risk of suicidality is elevated in those who have experienced CEN. The SBQ-R can be found in Appendix F.

Procedure

Using an online survey, a convenience sample was collected from respondents 18 years and older, who had a wide range of personal experience with CEN, by posting the survey on various social media platforms, including Facebook groups, Reddit threads, and other similar sites such as “Survivors of Mother-Daughter Sexual Abuse,” “People with Abusive Parents,” “Abuse Survivors,” and “People Affected by Prolonged Trauma/CPTSD.” In addition to the questionnaires, demographic questions were also asked in order to gain a better understanding of the backgrounds of the respondents. See Appendix A for the full list of demographic questions.

RESULTS

Table 1.

Descriptive Statistics and Correlations for Study Variables

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1.BHEN	304	2.61	0.65	-								
2.sCEN	304	2.26	0.78	.69**	-							
3.CEA	304	1.64	0.84	.62**	.65**	-						
4.Physical Neglect	304	0.84	0.75	.47**	.48**	.53**	-					
5.Physical Abuse	304	0.89	0.79	.51**	.43**	.63**	.42**	-				
6.Sexual Abuse	304	0.76	0.86	.19**	.17**	.26**	.36**	.29**	-			
7.PHQ-9	304	1.57	0.77	.35**	.37**	.41**	.31**	.20**	.27**	-		
8.GAD-7	304	2.67	0.84	.31**	.37**	.43**	.31**	.22**	.24**	.74**	-	
9.SBQ-R	304	3.04	1.26	.18**	.25**	.24**	.26**	.15**	.21**	.54**	.44**	-

* $p < .05$. ** $p < .01$

Hypothesis I

Steiger's Z was used to test Hypothesis I that objective questions regarding CEN would be more strongly correlated with depression outcomes, as measured by the PHQ-9, than subjective questions. When reviewing the two-tailed correlation between oCEN and sCEN, results indicate that there is no statistical difference between these measures in depression outcomes ($Z = -0.41, p = .68$). Based on the results, Hypothesis I was not supported.

Hypothesis II

Steiger's Z was used to test Hypothesis II that objective questions regarding CEN would be more strongly correlated with anxiety outcomes, as measured by the GAD-7, than subjective questions. When reviewing the two-tailed correlation between oCEN and sCEN, results indicate that sCEN is more strongly correlated to depression outcomes ($Z = -3.7, p < .001$) than oCEN.

Although results demonstrate a significant finding, the finding was in the opposite direction of what was predicted. Based on the results, Hypothesis II was not supported.

Hypothesis III

Steiger's Z was used to test Hypothesis III that objective questions regarding CEN would be more strongly correlated with suicidality outcomes, as measured by the SBQ-R, than subjective questions. When reviewing the two-tailed correlation between oCEN and sCEN, results indicate that there is no statistical difference between these measures in suicidality outcomes ($Z = -1.63, p = .10$). Based on the results, Hypothesis III was not supported.

Since the original power analysis was performed using a priori estimates, and this result approached significance, but did not reach it, a post hoc power analysis was performed to determine the probability that the test of significance would pick up on an effect had one been present. Based on this pos hoc analysis, the observed power for suicidality was .99, giving a low probability that an effect would have been missed.

Hypothesis IV

A hierarchical linear regression was performed to test Hypothesis IV and determine if oCEN would explain additional variance with regards to outcomes of depression (see Appendix G). Results of the PHQ-9 were regressed on to oCEN, while controlling for physical abuse, physical neglect, sexual abuse, emotional abuse, and sCEN. The results of the relevant subscales of the MHIQ, which included sCEN and other forms of abuse, along with depression outcomes were entered into the first step of the model, while the results of the BHEN measure of oCEN were entered into the second step. The first step of the model accounted for 23% of the variance in depression outcomes, $R^2 = .23, F(5, 298) = 17.82, p < .001$. In this first step, sCEN

was positively and significantly associated with depression, $B = 0.17$, $\beta = 0.17$, $t(298) = 2.47$, $p = .01$, 95% CI [0.03, 0.30], $r_{sp} = .55$. Childhood emotional abuse was positively and significantly associated with depression, $B = 0.30$, $\beta = 0.32$, $t(298) = 4.05$, $p < .001$, 95% CI [0.15, 0.45], $r_{sp} = .41$. Physical abuse was negatively and significantly associated with depression, $B = -0.14$, $\beta = -0.15$, $t(298) = -2.23$, $p = .03$, 95% CI [-0.27, -0.02], $r_{sp} = .58$. Sexual abuse was positively and significantly associated with depression, $B = 0.16$, $\beta = 0.18$, $t(298) = 3.26$, $p = .001$, 95% CI [0.64, 0.26], $r_{sp} = .84$. Physical neglect was not significantly associated with depression, $B = 0.06$, $\beta = 0.05$, $t(298) = 0.83$, $p = .41$, 95% CI [-0.08, 0.19], $r_{sp} = .63$. Adding oCEN to the second step of the model did not account for any significant additional variance, $\Delta R = .01$, $F(6, 297) = 15.33$, $p < .001$. In this second step, oCEN was not significantly associated with depression. In sum, after controlling for sCEN, physical abuse, physical neglect, sexual abuse, and emotional abuse, results indicated that oCEN does not explain additional variance in depression outcomes. Based on the results, Hypothesis IV is not supported.

Hypothesis V

A hierarchical linear regression was performed to test Hypothesis V and determine if oCEN would explain additional variance with regards to outcomes of anxiety (see Appendix H). Results of the GAD-7 were regressed on to oCEN, while controlling for physical abuse, physical neglect, sexual abuse, emotional abuse, and sCEN. The results of the relevant subscales of the MHIQ, which included sCEN and other forms of abuse, along with anxiety outcomes were entered into the first step of the model, while the results of BHEN measure of oCEN were entered into the second step. The first step of the model accounted for 23% of the variance in anxiety outcomes, $R^2 = .23$, $F(5, 298) = 17.60$, $p < .001$. In this first step, sCEN was positively

and significantly associated with anxiety, $B = 0.17$, $\beta = 0.16$, $t(298) = 2.27$, $p = .02$, 95% CI [0.02, 0.31], $r_{sp} = .55$. Childhood emotional abuse was positively and significantly associated with anxiety, $B = 0.35$, $\beta = 0.34$, $t(298) = 4.32$, $p < .001$, 95% CI [0.19, 0.51], $r_{sp} = .41$. Physical abuse was not significantly associated with anxiety, $B = -0.14$, $\beta = -0.13$, $t(298) = -1.96$, $p = .051$, 95% CI [-0.28, -0.001], $r_{sp} = .58$. Sexual abuse was positively and significantly associated with anxiety, $B = 0.14$, $\beta = 0.14$, $t(298) = 2.58$, $p = .01$, 95% CI [0.33, 0.25], $r_{sp} = .84$. Physical neglect was not significantly associated with anxiety, $B = 0.06$, $\beta = 0.06$, $t(298) = 0.87$, $p = .39$, 95% CI [-0.08, 0.20], $r_{sp} = .63$. Adding oCEN to the second step of the model did not account for any significant additional variance, $\Delta R = .00$, $F(6, 297) = 14.63$, $p < .001$. In this second step, oCEN was not significantly associated with anxiety, $B = 0.22$, $\beta = 0.02$, $t(297) = 0.22$, $p = .83$, 95% CI [-0.17, 0.22], $r_{sp} = .45$. In sum, after controlling for sCEN, physical abuse, physical neglect, sexual abuse, and emotional abuse, results indicated that oCEN does not explain additional variance in anxiety outcomes. Based on the results, Hypothesis V is not supported.

Hypothesis VI

A hierarchical linear regression was performed to test Hypothesis VI and determine if oCEN would explain additional variance with regards to outcomes of suicidality (see Appendix I). Results of the SBQ-R were regressed onto oCEN, while controlling for physical abuse, physical neglect, sexual abuse, emotional abuse, and sCEN. The results of the relevant subscales of the MHIQ, which included sCEN and other forms of abuse, along with suicidality outcomes were entered into the first step of the model, while the results of the BHEN measure of oCEN were entered into the second step. The first step of the model accounted for 9% of the variance in depression outcomes, $R^2 = .09$, $F(5, 298) = 7.23$, $p < .001$. In this first step, sCEN was not significantly associated with suicidality, $B = 0.22$, $\beta = 0.13$, $t(298) = 1.81$, $p = .07$, 95%

CI [-0.02, 0.45], $r_{sp} = .55$. Childhood emotional abuse was not significantly associated with suicidality, $B = 0.14$, $\beta = 0.10$, $t(298) = 1.12$, $p = .27$, 95% CI [-0.11, 0.40], $r_{sp} = .41$. Physical abuse was not significantly associated with suicidality, $B = -0.09$, $\beta = -0.06$, $t(298) = -0.81$, $p = .42$, 95% CI [-0.32, 0.13], $r_{sp} = .58$. Sexual abuse was positively and significantly associated with suicidality, $B = 0.20$, $\beta = 0.14$, $t(298) = 2.34$, $p = .02$, 95% CI [0.03, 0.28], $r_{sp} = .84$. Physical neglect was not significantly associated with suicidality, $B = 0.20$, $\beta = 0.12$, $t(298) = 0.172$, $p = .09$, 95% CI [-0.03, 0.43], $r_{sp} = .63$. Adding oCEN to the second step of the model did not account for any significant additional variance, $\Delta R = .001$, $F(6, 297) = 6.09$, $p < .001$. In this second step, oCEN was not significantly associated with suicidality, $B = -0.11$, $\beta = -0.06$, $t(297) = -0.67$, $p = .50$, 95% CI [-0.42, 0.21], $r_{sp} = .45$. In sum, after controlling for sCEN, physical abuse, physical neglect, sexual abuse, and emotional abuse, results indicated that oCEN does not explain additional variance in suicidality outcomes. Based on the results, Hypothesis VI is not supported.

DISCUSSION

This study sought to investigate how childhood emotional neglect is currently being assessed and determine if more objective measures of CEN would increase specificity and be better at predicting mental health outcomes than the more common subjective questions currently in use. It was predicted that objectively based questions would be more highly correlated with depressive, anxious, and suicidal outcomes than subjectively worded questions. It was also predicted that objectively worded questions would account for more of the variance in depression, anxiety, and suicidality over and above that of physical abuse, physical neglect, sexual abuse, emotional abuse, and subjectively worded questions of emotional neglect.

While these hypotheses were not supported, the study confirmed that current subjectively worded measures of childhood emotional neglect are able to explain significant amounts of the variance for depression and anxiety outcomes. It also showed that subjective and objective questions were not statistically different in their correlations with depression and suicidality outcomes. Perhaps more interestingly, it was discovered that the subjectively worded questions are more strongly correlated with anxiety outcomes than objectively worded questions. Since correlational studies are limited by their inability to identify the cause of a relationship, it is impossible to state with certainty the reason for this association (Gershman & Ullman, 2023). There could be independent factors that are influencing both experiences of emotional neglect and anxiety. It could suggest that emotional neglect in childhood could lead to higher anxiety outcomes in adulthood. It may also indicate that high levels of current anxiety contribute to a more negative perception of past childhood emotional experiences. This latter interpretation is

supported by recent research into mood-congruent memory which shows that an individual's negative mood can negatively affect the way that they remember past events and even manifest as false memories when properly primed (Faul & LaBar, 2023).

Overall, the findings of this study suggest that objectively worded questions about childhood emotional neglect do not provide greater specificity on their own or explain more variance in outcomes than subjectively worded questions. In fact, when it comes to measures of anxiety, subjectively worded questions are more strongly correlated with negative outcomes. This suggests that, at least when it comes to measuring anxiety outcomes, subjectively and objectively worded questions are separate concepts. There is, however, no evidence that creating more objective measures of childhood emotional neglect will help to better screen for or study potential mental health outcomes related to depression, anxiety, or suicidality.

These findings should be considered in the context of the study's limitations. First, due to the method of recruitment, which sought volunteers from online platforms with no remuneration, a self-selection bias may have occurred. Individuals who chose to participate may have had a stronger interest in the topic or unique life experiences and may not be representative of the general population. While an attempt was made to recruit individuals with a wide background of childhood trauma, from no history of trauma to severe childhood trauma, most of those who responded were from sub-Reddit support groups which allowed or encouraged research participation. The participants may not, therefore, be representative of the wider population. Based on the fact that participants were recruited from mental health and trauma focused support boards, such as "Survivors of Mother-Daughter Sexual Abuse," "People with Abusive Parents," "Abuse Survivors," and "People Affected by Prolonged Trauma/CPTSD," it is likely that the majority were individuals with a significant trauma background and current mental

health struggles, for which they sought support in an online forum. They were also subscribed to pages that encouraged research participation, and their desire to participate may have influenced their responses. It has been shown that participants often want to give the “right” answers to questions and that social pressures can play a role in this (Manohar et al., 2018). The sub-cultural environment of Reddit boards may have, therefore, influenced their responses.

One limitation faced by many researchers in the social sciences who rely on self-reported survey responses, is the problem of common method variance (CMV) (Malhotra et al., 2017). CMV occurs when the common variance found between variables may be attributed to the fact that the same tool was used to collect data for both the predictor and outcome variables (Kaltsonoudi et al., 2022). This can lead to errors in the calculations of scale reliability and validity, and lead to false results (Kaltsonoudi et al., 2022). Since this study utilized a self-report survey method in which the predictors and outcomes were measured using the same survey, CMV may have affected its findings. In addition, the use of reverse scoring of some items could decrease the scale reliability, since reverse scored items tend to be less correlated with the non-reverse scored items on the measure (Vigil-Colet et al., 2020).

The sample was also demographically limited. While a wide range of individuals was sought, the final sample consisted mostly of white (N=266, 87.5%) women (N=212, 69.74%) with a college degree (N=171, 56.25%). This places limits on whether the findings in this study can be generalized to a wider population.

Future research may seek to explore how experiences of childhood emotional neglect may affect some demographics differently. For example, previous studies have shown that men report higher incidents of CEN than women (Brown et al., 2018). Future research may look to see if men are at greater risk for negative outcomes. Other studies have shown the children from

low socio-economic families are at higher risk for maltreatment (Walsh et al., 2019). Future research might seek to understand how CEN may affect those of different socio-economic backgrounds and whether any group is at an increased risk for CEN and its negative outcomes.

In addition, future research may focus on understanding why subjectively worded questions are more strongly associated with anxiety outcomes than questions designed to identify events and behaviors in the individual's past. This could be due to mood-congruent memory influencing the way that a person with elevated levels of anxiety is remembering their childhood (Faul & LaBar, 2023), or it could indicate the more perceived emotional neglect in childhood leads to higher levels of anxiety in adulthood, or there may be another factor not yet considered.

One key limitation to this study is the operationalization of objectivity when it comes to assessing participants' personal history. While this study strove to create objective questions that were based on behaviors and events rather than on the individual's feelings about their childhood, the BHEN is still a largely subjective measure. This is due, in part, to the use of a limited Likert scale, chosen to reflect other similar rating measures and the MHIQ, which required participants to choose between wide categories to describe their childhood experiences. At the ends of the four-point scale were the categories, "always" and "never." At such extremes, there were likely few responses, since one single incident would disqualify "never" and "always" would require the behavior to be constantly present. That left "sometimes" and "often" as choices. Distinguishing between these two terms was left to the subjective understanding of the individual, since no parameters were provided. In addition, some of the questions had ambiguous wording, such as question seven, "A caregiver ignored me when I needed them to focus on their smartphone or television." While this question is loaded with the other questions psychometrically, the wording may have confused some participants. Likewise, the use of

colloquialisms, such as question two, “A caregiver gave me the cold shoulder,” may not have been clear to all participants and led to less objectivity in responses. Taken together, these limitations of the BHEN likely reduced variability in responses and reduced how objective the measure truly is.

Future research may seek to improve upon the BHEN by providing a wider range of responses that are defined by prevalence of the particular behavior. For example, instead of “Never,” “Sometimes,” “Often,” and “Always” it might provide options such as “Every day,” “Once per week,” “Once per month,” “Less than once per year,” etc. While this will still lead to subjectivity in their responses, it may help to better describe the behavioral experiences of their childhoods and provide greater variability in responses.

One thing that this study highlights is that the subjective feelings a person has about their childhood experiences has real clinical implications on their mental health in adulthood. This is particularly true in the area of anxiety. On the other side of the coin, the fact that a child experiences or doesn’t experience certain behaviors from their parents does not mean they are guaranteed to experience negative outcomes later in life. Future research might look at what mediators and moderators are involved in the development of depression, anxiety, and suicidality outcomes related to CEN.

The current study has several clinical implications. The first is that seeking to more objectively word questions about childhood emotional neglect does not add specificity or account for more variance over and above current measures. Therefore, current measures are appropriate for use in clinical settings to help screen and identify individuals at increased risk of anxiety, depression, and suicidality. In addition, since the behaviorally based questions do not add specificity, current measures are also appropriate for use in research settings where it is

important to identify those who are not at higher risk of negative outcomes for more accurate results. In particular, this study suggests that it is better to use subjectively worded questions when screening or assessing for anxiety since those types of questions are more strongly correlated with anxiety outcomes than more objectively worded questions. This is, perhaps, not surprising from a cognitive perspective. While it is certainly helpful in clinical work to know what happened in the individual's background, the feelings and thoughts that they have about those experiences are of key importance in a clinical setting (Samoilov & Goldfried, 2000).

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APPENDIX A

Demographic Questions

Please complete the following information about yourself:

Age:

Ethnicity (choose all that apply):

- Black or African American
- Hispanic, Latino/a, or Spanish origin
- White
- Asian
- American Indian or Indigenous or Alaska Native
- Middle Eastern or North African
- Native Hawaiian or Other Pacific Islander
- Open Option: _____

Please indicate your highest attained level of education obtained:

- Less than a High School Diploma
- High School Diploma or GED equivalent
- Associates Degree or Certification (Technical College)
- Bachelor's degree
- Master's or Other Professional Degree
- Doctorate degree

What was the sex you were assigned at birth (previously referred to “biological sex”)

- Male
- Female
- Intersex

What is your gender identity - with which of these do most you identify?

- Man
- Woman
- Trans/Transgender
- Gender Queer
- Gender Non-Conforming
- Gender Fluid
- Gender Non-Binary
- Gender Expansive
- Open Option: _____

How would you identify your sexual orientation? With which one of these do you most identify?

- Straight / Heterosexual
- Lesbian
- Gay
- Bisexual
- Pansexual
- Asexual
- Queer
- Questioning
- Open Option: _____

APPENDIX B

Behavioral History of Emotional Neglect (BHEN)

Below is a list of experiences that some people have while growing up. For each item, please indicate how often you had that experience before the age of 18 on a scale from 0 (Never) to 3 (Often). Some items ask about caregivers, who could be a parent, stepparent, grandparent, or other significant person who took care of you growing up. The complete rating scale is below.

0 - Never

1 - Rarely

2 - Sometimes

3 – Often

	How often did this happen to you before the age of 18?			
1. A caregiver did not speak to me.	0	1	2	3
2. A caregiver gave me the cold shoulder.	0	1	2	3
3. A caregiver showed physical affection by hugging or cuddling me.	0	1	2	3
4. A caregiver asked about my needs, hopes, or feelings.	0	1	2	3
5. A caregiver told me they loved me.	0	1	2	3
6. A caregiver told me they were proud of me.	0	1	2	3
7. A caregiver ignored me when I needed them to focus on their smartphone or television.	0	1	2	3
8. A caregiver showed interest in what had happened to me that day.	0	1	2	3
9. A caregiver checked on me when I was upset.	0	1	2	3
10. A caregiver did not listen to my problems.	0	1	2	3

APPENDIX C

Maltreatment History and Impact Questionnaire (MHIQ)

Below is a list of experiences that some people have while growing up. For each item, please indicate how often you had that experience before the age of 18 on a scale from 0 (Never) to 3 (Often). If you had that experience, also indicate how often you are bothered by thoughts of that experience currently as an adult. Some items ask about caregivers, who could be a parent, stepparent, grandparent, or other significant person who took care of you growing up. The complete rating scale is below.

0 - Never

1 - Rarely

2 - Sometimes

3 – Often

	How often did this happen to you before the age of 18?			
1. A caregiver called me insulting names or swore at me.	0	1	2	3
2. A caregiver told me that I had done a good job.	0	1	2	3
3. I felt unloved by a caregiver.	0	1	2	3
4. A caregiver did something to make me feel afraid of them.	0	1	2	3
5. A caregiver put me in time out.	0	1	2	3
6. A caregiver slapped or punched me.	0	1	2	3
7. I didn't feel supported by a caregiver.	0	1	2	3
8. A caregiver threatened to hurt me, but didn't do it.	0	1	2	3
9. A caregiver didn't give me enough food to eat.	0	1	2	3
10. A caregiver gave me a reward for good behavior.	0	1	2	3
11. I wore dirty clothes to school because a caregiver did not wash them.	0	1	2	3
12. Someone made me have oral sex with them.	0	1	2	3
13. A caregiver spanked me so hard it left a mark such as a bruise or welt.	0	1	2	3
14. I felt like a caregiver didn't want me around.	0	1	2	3
15. A caregiver said that they hated me.	0	1	2	3
16. A caregiver burned me on purpose.	0	1	2	3
17. Someone older than me touched my private parts.	0	1	2	3

18. A caregiver did not take care of my needs because they were drinking or doing drugs.	0	1	2	3
19. Someone older than me showed me their genitals.	0	1	2	3
20. I didn't feel like a part of my family.	0	1	2	3
21. A caregiver spanked me, but it did not leave a mark.	0	1	2	3
22. A caregiver hit me with something other than a belt or switch.	0	1	2	3
23. Someone put their penis or another object inside my vagina or butt when I didn't want them to.	0	1	2	3
24. I was sick, but nobody took me to the doctor or gave me medicine.	0	1	2	3
25. I saw my caregivers physically fighting with each other.	0	1	2	3

Key:

Emotional Abuse: 1, 4, 8, 15

Emotional Neglect: 3 7 14 20

Physical Neglect: 9 11 18 24

Physical Abuse: 6 13 16 22

Sexual Abuse: 12 17 19 23

Positive Parenting: 2 5? 10

Corporal Punishment: 21

Parents Physical Fight: 25

APPENDIX D

Public Health Questionnaire (PHQ-9)

(PHQ - 9)				
Over the <u>last 2 weeks</u>, how often have you been bothered by any of the following problems? (Use "✓" to indicate your answer)	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

FOR OFFICE CODING 0 + _____ + _____ + _____
=Total Score: _____

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

Not difficult
at all

Somewhat
difficult

Very
difficult

Extremely
difficult

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APPENDIX E

General Anxiety Disorder-7 (GAD-7)

GAD-7

Over the <u>last 2 weeks</u> , how often have you been bothered by the following problems? <i>(Use "✓" to indicate your answer)</i>	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

(For office coding: Total Score T ____ = ____ + ____ + ____)

APPENDIX F

Suicide Behaviors Questionnaire-Revised (SBQ-R)

SBQ-R Suicide Behaviors Questionnaire-Revised

Patient Name _____ Date of Visit _____

Instructions: Please check the number beside the statement or phrase that best applies to you.

1. Have you ever thought about or attempted to kill yourself? (check one only)

- 1. Never
- 2. It was just a brief passing thought
- 3a. I have had a plan at least once to kill myself but did not try to do it
- 3b. I have had a plan at least once to kill myself and really wanted to die
- 4a. I have attempted to kill myself, but did not want to die
- 4b. I have attempted to kill myself, and really hoped to die

2. How often have you thought about killing yourself in the past year? (check one only)

- 1. Never
- 2. Rarely (1 time)
- 3. Sometimes (2 times)
- 4. Often (3-4 times)
- 5. Very Often (5 or more times)

3. Have you ever told someone that you were going to commit suicide, or that you might do it? (check one only)

- 1. No
- 2a. Yes, at one time, but did not really want to die
- 2b. Yes, at one time, and really wanted to die
- 3a. Yes, more than once, but did not want to do it
- 3b. Yes, more than once, and really wanted to do it

4. How likely is it that you will attempt suicide someday? (check one only)

- | | |
|--|---|
| <input type="checkbox"/> 0. Never | <input type="checkbox"/> 4. Likely |
| <input type="checkbox"/> 1. No chance at all | <input type="checkbox"/> 5. Rather likely |
| <input type="checkbox"/> 2. Rather unlikely | <input type="checkbox"/> 6. Very likely |
| <input type="checkbox"/> 3. Unlikely | |

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APPENDIX G

Table 2.

Hierarchical Linear Regression Predicting Depression from oCEN.

Predictor	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>		
Step 1							
sCEN	0.17	0.07	0.17	2.47	.01*	0.03	0.30
CEA	0.30	0.07	0.32	4.05	<.001**	0.15	0.45
Physical Neglect	0.06	0.07	0.05	0.83	.41	-0.08	0.19
Physical Abuse	-0.14	0.07	-0.15	-2.23	.03*	-0.27	-0.02
Sexual Abuse	0.16	0.05	0.18	3.26	.001**	0.06	0.26
Step 2							
sCEN	0.11	0.08	0.11	1.46	.15	-0.04	0.26
CEA	0.28	0.08	0.30	3.79	<.001**	0.14	0.43
Physical Neglect	0.04	0.07	0.04	0.67	.51	-0.09	0.17
Physical Abuse	-0.16	0.07	-0.17	-2.50	.01*	-0.29	-0.04
Sexual Abuse	0.16	0.05	0.18	3.30	.001**	0.07	0.26
oCEN	0.14	0.09	0.12	1.57	.12	-0.04	0.32

Note. * $p < .05$ level. ** $p < .01$ level.

APPENDIX H

Table 3.

Hierarchical Linear Regression Predicting Anxiety from oCEN.

Predictor	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI	
Step 1							
sCEN	0.17	0.07	0.16	2.27	.02*	0.02	0.31
CEA	0.35	0.08	0.34	4.32	<.001**	0.19	0.51
Physical Neglect	0.06	0.07	0.06	0.87	.39	-0.08	0.20
Physical Abuse	-0.14	0.07	-0.13	-1.96	.051	-0.28	0.001
Sexual Abuse	0.14	0.05	0.14	2.58	.01**	0.03	0.25
Step 2							
sCEN	0.16	0.08	0.15	1.90	.06	-0.01	0.32
CEA	0.35	0.08	0.34	4.23	<.001**	0.19	0.51
Physical Neglect	0.06	0.07	0.05	0.84	.40	-0.08	0.20
Physical Abuse	-0.14	0.07	-0.13	-1.96	.051	-0.28	0.00
Sexual Abuse	0.14	0.05	0.14	2.58	.01**	0.03	0.24
oCEN	0.02	0.10	0.02	0.22	.83	-0.17	0.22

Note. * $p < .05$ level. ** $p < .01$ level.

APPENDIX I

Table 4.

Hierarchical Linear Regression Predicting Suicidality from oCEN.

Predictor	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI	
Step 1							
sCEN	0.22	0.12	0.13	1.81	.07	-0.02	0.45
CEA	0.14	0.13	0.10	1.11	.27	-0.11	0.04
Physical Neglect	0.20	0.12	0.12	1.72	.09	-0.03	0.43
Physical Abuse	-0.09	0.11	-0.06	-0.81	.42	-0.32	0.13
Sexual Abuse	0.20	0.09	0.14	2.34	.02*	0.03	0.38
Step 2							
sCEN	0.26	0.14	0.16	0.16	.06	-0.01	0.52
CEA	0.16	0.13	0.10	0.10	.23	-0.10	0.42
Physical Neglect	0.21	0.12	0.12	0.12	.08	-0.02	0.44
Physical Abuse	-0.07	0.12	-0.05	-0.05	.51	-0.31	0.15
Sexual Abuse	0.20	0.09	0.14	0.14	.02*	0.03	0.38
oCEN	-0.11	0.16	-0.06	-0.06	.50	-0.42	0.21

Note. * $p < .05$ level. ** $p < .01$ level.

APPENDIX J

DEMOGRAPHIC TABLES

Table 5.

Gender

<i>Gender</i>	<i>N</i>	<i>Percent</i>
Woman	212	69.74
Man	54	17.76
Transgender	20	6.58
Queer	9	2.96
Non-conforming	8	2.63
Gender Fluid	6	1.97
Non-Binary	22	7.24
Expansive	2	0.66
Open Option	5	1.64

Table 6.

Race

<i>Race</i>	<i>N</i>	<i>Percent</i>
White	266	87.50
Asiana	23	7.57
Hispanic	18	5.92
Other	14	4.61
Black	10	3.29
Middle Eastern/North African	6	1.97
Native American/Alaskan	5	1.67
Hawaiian/Pacific Islander	1	0.33

Table 7.

Education

<i>Education Level</i>	<i>N</i>	<i>Percentage</i>
Less than High School	13	4.28
High School/GED	74	24.34
Associate degree or Certification	41	13.49
Bachelors	93	30.59
Masters	67	22.04
Doctorate	11	3.62

