



Differential Associations Between Childhood Emotional Abuse and Difficulties in Emotion Regulation Among Female Emerging Adults

Ruby Charak¹, Anne L. Steel¹, Terri L. Messman-Moore², Kim L. Gratz³, & David DiLillo¹
¹University of Nebraska-Lincoln, ²Miami University, ³University of Mississippi Medical Center



Introduction

- Though less often studied than other forms of child maltreatment, child emotional abuse (CEA) has been consistently linked to enduring negative sequelae, including anxiety, depression, and posttraumatic stress symptoms (Spertus, Yehuda, Wong, Halligan, & Seremetis, 2003). Researchers attempting to understand the long-term consequences of CEA have suggested that difficulties in emotion regulation may account for the association between CEA and mental health problems in adulthood (Burns, Jackson, & Harding, 2010; Soenke, Hahn, Tull, & Gratz, 2010).
- Prior theory suggests that development of emotion regulation skills is hindered in environments in which appropriate emotional expression is not modeled or is undermined through ignoring or punishment (e.g., in emotionally abusive homes; Linehan, 1993). Consistent with this notion, adult victims of CEA report greater difficulties in emotion regulation than do both non-victims as well as victims of other types of child abuse (Burns et al., 2010).
- Despite empirical evidence linking a history of CEA to *overall* emotion dysregulation in adulthood, little is known about the impact of CEA on *specific* difficulties in emotion regulation. Given that these difficulties play a key role in the subsequent development of serious mental health problems (e.g., PTSD, borderline personality pathology; Burns et al., 2010; Kuo et al., 2015) or risk factors for subsequent (re)victimization (Walsh, DiLillo, & Messman-Moore, 2012), identifying those aspects of emotion regulation most impacted by early emotional abuse could yield important clinical implications.
- In the present study, we address this gap in knowledge by examining differential associations between CEA and specific difficulties in emotion regulation among young adult women. Because CEA often co-occurs with other types of child maltreatment (Dong et al., 2004), we control for the effect of other early abuse and neglect experiences on emotion regulation.

Method

Participants

- Participants were 490 young adult women who completed Wave 1 of a larger longitudinal study. Participants were recruited from four different sites in the Southern and Midwestern United States (including Mississippi, Nebraska [Lincoln and Omaha], and Ohio).
- Participants' mean age at Wave 1 was 21.7 years ($SD = 2.23$, range 18 to 25).
- Self-reported race of the sample was 61.3% White or European American, 35% African American, 4.3% Asian, 3.1% American Indian, and 2.6% Other. Categories were not mutually exclusive; thus, the total exceeds 100%. Hispanic ethnicity was endorsed by 5.7% women in the sample.

Measures

- **Childhood maltreatment.** Experiences of emotional and other forms of maltreatment during childhood (up to age 18 years) were measured using the 25-item Childhood Trauma Questionnaire (Bernstein et al., 2003). The scale assesses: emotional, physical, and sexual abuse, and emotional and physical neglect. Each subscale is measured by 5 items, with responses ranging from *Never true* to *Very often true* on a 5-point Likert scale (range 1-5). Cronbach's alpha for the CEA subscale was 0.89 in the present study; alphas for the other forms of maltreatment ranged from 0.65-0.92.
- **Difficulties in Emotion Regulation (DERS).** Emotion dysregulation was measured via the Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2004). It is a 36-item self-report questionnaire with six subscales, including non-acceptance of negative emotional responses, difficulties engaging in goal-directed behavior, emotion-driven impulsivity, lack of emotional awareness, limited access to emotion regulation, and lack of emotional clarity. Participants respond to items on a scale ranging from *Almost never* to *Almost always* on a 5-point Likert scale (range 1-5). Cronbach's alpha for the six subscales ranged 0.84-0.93.

Data Analytic Plan

- Analyses were carried out in four steps. First, using confirmatory factor analysis (CFA) with a weighted least squares means and variance adjusted estimator, we examined the fit indices for a one-latent factor model of CEA comprising five items from the CTQ.
- Second, we assessed the factor structure of the DERS using CFA.
- Third, we analyzed a joint model comprising the models of CEA and DERS obtained via CFA in step 1 and 2. After controlling for four other types of child maltreatment, the joint model assessed the unique relationship between CEA and each of the latent factors of the DERS.
- Fourth, we used Wald tests to compare associations between CEA and each of the factors of the DERS after applying a Bonferroni correction term ($p = 0.003$).

Table 1. Wald's chi-square test of parameter constraints comparing the relation between latent factor of Emotional Abuse and the six-factor model of DERS in women (N = 490)

Path	r	Path	r	Wald test (p value)
CEA-NER	0.30	CEA-DEG	0.20	5.64 (0.02)
		CEA-EDI	0.40	6.29 (0.01)
		CEA-LEA	0.22	1.63 (0.20)
		CEA-LAE	0.37	3.26 (0.07)
		CEA-LEC	0.29	0.10 (0.75)
CEA-DEG	0.20	CEA-EDI	0.40	22.84 (0.000)
		CEA-LEA	0.22	0.15 (0.70)
		CEA-LAE	0.37	19.55 (0.000)
		CEA-LEC	0.29	2.90 (0.09)
CEA-EDI	0.40	CEA-LEA	0.22	8.94 (0.003)
		CEA-LAE	0.37	0.62 (0.43)
		CEA-LEC	0.29	5.68 (0.02)
CEA-LEA	0.22	CEA-LAE	0.37	6.38 (0.01)
		CEA-LEC	0.29	2.07 (0.15)
CEA-LAE	0.37	CEA-LEC	0.29	2.94 (0.09)

Note: CEA = Childhood emotional abuse. NER = Non-acceptance of negative emotional responses. DEG = Difficulties engaging in goal-directed behavior. EDI = Emotion driven impulsivity. LEA = Lack of emotional awareness. LAE = Limited access to emotion regulation strategies. LEC = Lack of emotional clarity. All values of correlation are significant at $p < 0.001$ level

Acknowledgments

Data collection was supported by the National Institute of Child Health and Human Development grant R01 HD062226-01A2 (PI: DiLillo, University Nebraska-Lincoln).

Results

- Using cut scores on the CTQ provided by Bernstein and Fink (1998), 45% of women reported experiencing CEA. Wherein 22.1% reported a low level of abuse, 8% reported moderate level, and 14.7% reported a severe level of emotional abuse during childhood.
- CFA indicated an adequate fit for the one-factor model of CEA ($\chi^2 [3] = 2337.63$, $p < 0.001$, CFI/TLI = 0.99/0.99, RMSEA = 0.11; factor loading range = 0.78-0.93), and a 6-factor model of the DERS ($\chi^2 [579] = 2257.15$, $p < 0.001$, CFI/TLI = 0.94/0.93, RMSEA = 0.08; factor loading range = 0.62-0.94). Item variance corresponded to their respective factors as proposed in the original scale of the CTQ (Bernstein et al., 2003), and the DERS (Gratz & Roemer, 2004), respectively.
- The joint model had an adequate fit with all factors significantly correlated with each other ($\chi^2 [5] = 1401.17$, $p < 0.001$, CFI/TLI = 0.95/0.98, RMSEA = 0.10).
- Wald tests indicated that CEA was significantly *more correlated* with Emotion-Driven Impulsivity than Difficulties in Goal-Directed Behavior (Wald $\chi^2 = 22.84$, $p < 0.001$) or Lack of Emotional Awareness (Wald $\chi^2 = 8.94$, $p = 0.003$). Similarly, CEA was significantly more correlated with Limited Access to ER Strategies than Difficulties Engaging in Goal-Directed Behavior (Wald $\chi^2 = 19.55$, $p < 0.001$). All factor covariance and comparison of covariance are displayed in Table 1.

Discussion

- In the present study, we found support for a latent model comprising one-factor of CEA (controlling for physical and sexual abuse, and emotional and physical neglect) and six factors of difficulties in emotion regulation in a diverse sample of young women. This suggests that the latent factors of CEA and DERS were significantly correlated.
- Results indicated that female victims of CEA reported particular deficits in two subtypes of emotion dysregulation, namely, emotion-driven impulsivity, and limited access to emotion regulation strategies. These findings are in line with a study indicating the role of emotion dysregulation comprising emotion-driven impulsivity, limited access to emotion regulation strategies, and non-acceptance of negative emotional responses (as measured by the DERS) in mediating associations between CEA and severity of border personality features (Kuo et al., 2015). Noteworthy is that the present study assessed the unique association between CEA and six different types of difficulties in emotion regulation, whereas Kuo et al. (2015) used a latent factor comprising emotion-driven impulsivity, limited access to emotion regulation strategies, and non-acceptance of negative emotional responses.
- The present findings suggest that CEA experiences, which can result from lack of social proximity to or responsiveness from caregivers (Bernstein et al., 2003), may disrupt the ability to regulate impulsive behavior under distress (Kuo et al., 2015; Weiss et al., 2013). This lack of regulatory skills may continue into adulthood, and, in turn, increase the risk for revictimization through mechanisms such as risky sexual behavior or heavy substance use (Walsh et al., 2012; Weiss et al., 2013).
- One limitation of the present study is our use of self-report measures to assess both emotional abuse during childhood and difficulties in emotion regulation. These methods may introduce reporting biases among individuals who have difficulty accurately recalling victimization experiences or who have high levels of emotion dysregulation. Second, we did not examine the effect that any subsequent abuse or assault during adulthood may have had on emotion regulation during adulthood.
- The present findings have implications for clinical work with adults who have experienced CEA. It may be beneficial to aid women with a history of CEA in developing strategies for effectively managing emotion driven impulses under distress (e.g., through Dialectical Behavioral Therapy; Linehan, 1993). Such interventions may help reduce this risk of distress-based disorders (e.g., PTSD, GAD) that have been linked to a history of CEA (Soenke et al., 2010; Weiss et al., 2013).