EXAMINING THE ROLE OF DISTRESS TOLERANCE ON THE RELATIONSHIP BETWEEN MATERNAL CHILDHOOD MALTREATMENT AND THE INTERGENERATIONAL TRANSMISSION OF EMOTION DYSREGULATION

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ABSTRACT

EXAMINING THE ROLE OF DISTRESS TOLERANCE ON THE RELATIONSHIP BETWEEN MATERNAL CHILDHOOD MALTREATMENT AND THE INTERGENERATIONAL TRANSMISSION OF EMOTION DYSREGULATION

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Individuals who experience childhood maltreatment can experience a variety of psychosocial difficulties which can continue throughout the lifetime. Furthermore, these difficulties may affect not only the victims of childhood maltreatment but their children, as well, creating a cycle that has recently been referred to as "intergenerational trauma." One specific factor, emotion dysregulation, may play a significant role in this cycle. This study aimed to build on a recently published theoretical model of the intergenerational transmission of emotion dysregulation by examining the extent to which distress tolerance plays a role in the relationship between maternal caregivers' experience of childhood maltreatment and later emotion dysregulation in their children. This study utilized Qualtrics to administer an online survey to maternal caregivers ages 18 and above of children ages 17 and under. The study assessed reported frequency of childhood maltreatment experience, distress tolerance levels, and emotion dysregulation levels of both the maternal caregivers and their children.

INTRODUCTION

Childhood maltreatment is defined as abuse or neglect that is perpetrated by any individual under 18 years of age and results in potential harm to the individual's health, survival, or development (WHO, 2020). The most common types of child maltreatment include physical abuse or neglect, emotional abuse or neglect, and sexual abuse (Child Trends, 2019). Recent research suggests that childhood maltreatment (CM) affects 20 - 40% of US girls and 14 - 20% of US boys (Moody et al., 2018). A 2010 WHO retrospective survey across 21 countries found that a total of 8% of respondents reported experiencing physical abuse, 4.4% reported experiencing neglect, and 1.6% reported experiencing sexual abuse during childhood; of those who had experienced CM, almost 40% had experienced multiple instances (Kessler et al., 2010). Unfortunately, Child Protection Services estimates that the statistics for prevalence of child maltreatment is likely underestimated, as not all instances of abuse are reported or substantiated (CDC, 2014).

Additionally, a 2017 study conducted by the World Health Organization found that childhood adversities elevated the risk of first onset of DSM-IV disorders across the lifespan, with a significant elevation for the experience of more than one childhood adversity (Kessler et al., 2010). Due to the high prevalence of histories of childhood maltreatment in individuals in the US and the correlational relationship between childhood maltreatment and later psychological difficulties, it is crucial for research to assess the mechanisms at play in this relationship. Furthermore, numerous studies have looked at childhood maltreatment and childhood trauma as causing difficulties not only for the survivors of those circumstances, but potentially for the

survivors' children, as well, creating a cycle that has been referred to as *intergenerational trauma* (IT; Cabecinha-Alati et al., 2020a; Plant et al., 2017; Warmingham et al., 2020).

Recent literature has begun to look at aspects of emotional functioning, specifically emotion regulation (ER), as a salient mechanism that may help further elucidate the relationship between childhood maltreatment and later negative outcomes in both caregivers and children. Emotion regulation is defined in research literature in numerous ways; this study utilizes the definition by Gross et al. (2014) who define ER, in sum, as changes to activated emotions in a goal-oriented direction. ER abilities include "shaping which emotion one has, when one has them, and how one experiences or expresses these emotions" (Gross et al., 2014, p. 6). ER abilities have been found to be significantly lowered for survivors of CM (Ehring & Quack, 2010; Shields & Cicchetti, 1998; Rosencrans et al., 2004). Furthermore, difficulty with ER can affect attachment and the emotion socialization (ES) abilities of caregivers for their children, in that caregivers with histories of CM may not have the developed abilities to model adaptive emotional coping strategies or provide needed support when children are upset (Cabacinha-Alati et al., 2020a; Cole et al., 2004).

Although the relationship between CM and ER has gained significant traction in recent research (Burns et al., 2010; Cabecinha-Alati et al., 2020a; Haselgruber et al., 2020; Shortt et al., 2016), currently only one comprehensive model addresses the potential pathways between caregiver history of childhood maltreatment and child ER difficulties, e.g., emotion dysregulation (ED). This model, proposed by Cabecinha-Alati et al. (2020a), looks specifically at maternal caregivers and the potential protective and risk factors affecting the transmission of ED from maternal caregiver to their children. Although much research has been done on many of the factors proposed in Cabecinha-Alati et al's model, some gaps necessitate further study. The

current study aims to build on the model proposed by Cabecinha-Alati et al. (2020a) by looking at distress tolerance (DT), a potential mediating factor, to further understand the pathway between a history of childhood maltreatment and child ED in the cycle of intergenerational trauma.

Childhood Maltreatment and Development

One significant negative impact from childhood maltreatment is the strain it can place on ER abilities. This negative impact can take place on a neurological level (Tottenham & Sheridan, 2010) as well as a developmental level, affecting both the original survivor of childhood maltreatment and potentially affecting their children (Plant et al., 2018; Schore & Schore, 2008). For example, childhood maltreatment has been seen to negatively impact the development of self-regulation abilities, specifically ER, through the impact of brain development (Tottenham & Sheridan, 2010; Schore, 2015), attachment and co-regulation through the mother-infant dyad (Cole et al., 2008; Mikulincer et al., 2003), parenting styles/practices (McCullough et al., 2017; Plant et al., 2018), and caregiver emotion socialization (Cabecinha-Alati et al., 2020b; Shipman et al., 2007). These detrimental impacts can continue from infancy into childhood, youth, and adulthood (Plant et al., 2018). This early developmental impact of childhood maltreatment on ER, specifically, is a crucial aspect of the intergenerational trauma cycle in that, as Cabecinha-Alati et al., (2020a) state, "bolstering parental ER skills may be a first step to disrupting the intergenerational transmission of ED and promoting resilience in children" (p. 60).

Emotion Regulation and Development

Emotion regulation as a psychological research concept is important in that higher ED has been associated with numerous negative outcomes, including PTSD symptomatology (Burns et al., 2010), behavioral and conduct problems (Cole et al., 2003), and mental illness across the

lifespan (Cole & Deater-Deckard, 2009; Heleniak et al., 2016). Further, ER has been seen as a significant mediator between childhood maltreatment and later psychological dysfunction, with higher ER abilities lowering the risk for later mental health difficulties (Weissman et al., 2019). ED, on the other hand, may include being unable to identify emotions, being unable to control impulses stemming from an emotion, lack of access to coping strategies when experiencing strong emotions, and not accepting emotions (e.g., shaming oneself for feeling a certain way) (Bjureberg et al., 2016). Impairments or dysfunction in ER have been correlated with numerous risk factors, such as bullying and rejection from peers (Shields & Cicchetti et al., 2001), difficulty in the classroom (Cowell et al., 2015), and negative health outcomes (Kim-Spoon, 2013). Further, ED has been linked with greater risk for development of psychopathology (McLaughlin et al., 2011) as well as general non-adaptive functioning (Cloitre et al., 2005).

According to developmental theory, ER abilities are developed most critically during early developmental years, during which children begin to learn necessary skills such as help seeking and self-soothing (Calkins & Hill, 2007; Shields & Cicchetti, 2001). In health early development, a child can progress from relying on co-regulation (regulation provided almost solely by the caregiver) to self-regulation (Calkins & Hill, 2007; Cole et al., 2004). In contrast, disruptions in this crucial developmental period—primarily molded by a child's caregivers—may cause significant dysfunction in the development of ER, among other abilities (Calkins & Hill, 2007; Cole et al., 2004; Ehring & Quack, 2010).

Attachment theory provides a significant backdrop for how ER may be impaired by childhood maltreatment, specifically in mother-child dyads. Building upon Bowlby's (1969) theory of attachment, which focused on the integration of both psychological and biological processes in development, Schore and Schore (2008) view attachment theory as having

transitioned primarily to a theory of regulation. In this perspective, the interaction between mother and child during the early developmental years is seen to be primary in affecting self-regulatory abilities, including ER, that carry through to an individual's adult years (Schore & Schore, 2008). Because ED in early childhood is significantly associated with emotion-centric outcomes such as depression and anxiety later in adulthood (Robson et al., 2020), and because ER abilities are primarily developed through interaction with one's caregivers, it follows that caregivers with histories of CM likely may experience difficulties with ER, which may then be transferred to their children, creating a cycle of ED effects from intergenerational trauma.

Current Theoretical Models of Intergenerational Trauma

Recent literature has begun to look more in depth at the concept of intergenerational trauma in attempts to understand what mechanisms are at play in this cycle and what factors may be useful for intervention. Possible pathways in this theoretical cycle look specifically at difficulties with mental health and psychological functioning, such as heightened caregiver and child depression (Warmingham et al., 2020), as well as a combination of caregiver mental illness and parenting practices (Plant et al., 2018). Other models have begun to look at concepts related to emotional functioning as salient factors at play in the intergenerational trauma cycle. For example, Thomas et al. (2011) and Shipman et al. (2007) have focused specifically on the concept of emotion socialization (ES) in the IT cycle; this concept includes factors such as the way parents engage with, model, and react to emotions and how these emotion socialization practices affect children's emotion-related abilities (Morris et al., 2007).

Since parental history of CM has been associated with decreased ES abilities (Shipman et al., 2000; Shipman & Zeman, 2001) and ES skills in parents have been found to affect ER abilities in children (Cole et al., 2009; Hurrell et al., 2015), the inclusion of ES and ER in the

study of intergenerational trauma may be salient for future research. A recent study that looked specifically at ER in the IT cycle found that in a sample of low-income mother and child dyads, maternal history of maltreatment was positively correlated with both child maltreatment and heightened maternal depression, and that this heightened risk of childhood maltreatment significantly increased risk for maladaptive ER in the mothers' children (Warmingham et al., 2020). Interestingly, this study found that child maltreatment was the only factor that mediated the relationship between maternal maltreatment and child ED, indicating that further research that focuses specifically on mediating factors in the relationship between CM and ED may be useful.

Cabecinha-Alati and colleagues (2020a) proposed the first comprehensive model that addresses the relationships between child maltreatment, emotion socialization, and caregiver as well as child ED. This model postulates that disruptions in attachment and co-regulation from a maltreating primary caregiver affect ER skills of the victim; these skills then pose significant challenges in further attachment, co-regulation, and adaptive modeling in the survivor's children. Thus, children of parents with histories of childhood maltreatment may also experience difficulties related to ER (Cabecinha-Alati et al., 2020a). Cabacinha-Alati et al.'s (2020a) model includes both protective and risk factors. Risk factors in the model include risk of revictimization, disrupted attachment, teenage motherhood, neurobiological changes, problems with parent emotion socialization, socioeconomic factors, and difficulties with ER. Protective factors include social support, self-care and efforts to heal from trauma, and interventions that aid in healthy ER. Although there is current research on many of the mediating factors included in this model, one factor, distress tolerance (DT), has only begun to be researched in the context of intergenerational trauma. Cabacinha-Alati et al. (2020a) proposed that, as their model is solely

a theoretical understanding of connection between maternal history of CM and children's ED, more research is warranted on the potential factors at play, such as DT.

Distress Tolerance

Distress tolerance (DT), which is broadly defined by Simons and Gaher (2005) as the ability to withstand negative emotional states, is an emerging psychological concept related to affect and ER abilities. Simons and Gaher (2005) view DT as a multidimensional construct including anticipation and experience of negative emotions, further divided into tolerance of, assessment leading to acceptability of, regulation of, and amount of attention given to negative emotions. Although similar, DT differs from ER in that DT can be viewed as an individual's "tendency to tolerate or endure versus to avoid or actively attenuate psychological states of distress," versus ER, which can be viewed as an "an individual's awareness of, control over, and efficiency in eliminating distress" (p. 285, Rosencrans et al., 2017). In other words, DT can be seen as an individual being "hit" by a wave of distress and immediately "going under," in essence becoming absorbed by the feeling (low DT), whereas ER can be seen as either refusing to accept that the wave of distress exists (low ER abilities) or being "hit" by the wave and using swimming abilities to safely resurface (high ER abilities) (Rosencrans et al., 2017). Distress tolerance is an important area of study as it may differentially elucidate outcomes from different types of CM (Rosencrans et al., 2017) and may also indicate an additional area of potential intervention, especially as it, along with ER, has been found to correlate with negative life outcomes.

Lower DT has been associated with disorder-specific and across-disorder risk (Zvolensky et al., 2011) for anxiety (Daughters et al., 2009), depression (through emotional DT, see Clen et al., 2011), substance use (Richards et al, 2011), and borderline personality disorder (Linehan,

1993; Gratz & Tull, 2011). Distress tolerance as an individual predisposition has also been theorized to pose a compounded negative effect on traumatic stress (Vujanovic et al., 2011). For example, lower levels of DT may predispose an individual to ED following a traumatic event (such as childhood maltreatment), as the individual may not possess or believe to possess the capability to experience aversive events without significant distress (Vujanovic et al., 2011). Further, Vujanovic et al. (2011) theorize that traumatic stress exposure may both increase or decrease DT levels (likely depending on individual differences).

Recent literature has identified DT as a salient topic of research in the context of ER and intergenerational trauma. Rosencrans et al. (2017) found that DT, *not* ER, mediated the relationship between emotional neglect and quality of life in adults with histories of childhood maltreatment, indicating that DT and ER may have differential impacts on childhood maltreatment outcomes. Yang et al. (2020) examined the link between early CM and internalizing symptoms, such as anxiety and depression, in adulthood and found that childhood emotional abuse was significantly linked to internalizing symptoms through low DT levels. Additionally, DT has been found to act as a significant mediator between histories of CM and mental health outcomes in university students (Robinson et al., 2019), in that higher DT levels have been seen to predict lower risk for maladaptive psychopathology in adulthood. These outcomes indicate that interventions directed specifically at building or strengthening DT levels may be useful in attempts to curb the cycle of intergenerational trauma.

CURRENT STUDY

The current study aimed to assess factors related to maternal histories of childhood maltreatment and child outcomes in order to contribute to the literature surrounding intergenerational trauma. Specifically, this study aimed to add to the model proposed by Cabecinha-Alati et al. (2020a) by measuring DT levels in both maternal caregivers and their children in an effort to assess whether DT is a predicting factor in the transmission of ED levels in maternal caregivers to their children. Given the relationships between childhood maltreatment and DT levels, as well as the few current studies addressing the potential for DT levels to be passed on from caregivers to their children, it can be concluded that DT may play a significant predictive role, above and beyond other maternal caregiver and child factors, in the pathway between maternal histories of childhood maltreatment and ED in children. Of note, the current study utilized an overall frequency of childhood maltreatment rather than the specific type of maltreatment due to the high rate of CM co-occurrence.

The hypotheses regarding the relationship between maternal history of childhood maltreatment and caregiver and child outcomes are as follows:

Hypothesis I: a maternal history of childhood maltreatment will be negatively correlated with maternal DT.

Hypothesis II: a maternal history of childhood maltreatment will be positively correlated with child ED.

Hypothesis III: maternal levels of DT will predict higher levels of child ED above and beyond maternal history of childhood maltreatment, maternal ED, and age of oldest child.

METHOD

Participants

Maternal caregivers over the age of 18 with one or more children under the age of 17 were recruited for participation in the current study. Exclusion criteria include identifying as non-female, being under 18 years of age, not having any children, and residing outside of the United States. Study participation was entirely voluntary, and responses were completely anonymous. The entire project was granted exemption by the university IRB.

Participant Demographics

Demographic information was gathered for all participants. This information included age, ethnicity, education level, household income, and items about each participant's household (see Appendix A for a full list of demographic questions). Participants were also asked to provide age, gender, relationship to, and custody status for their oldest child for whom they reported being the primary caregiver. A total of 302 individuals began the questionnaire. A total of 207 participants were excluded for not completing the key predictor and outcome measures utilized in the study hypotheses, as well as for factors such as residence outside of the US and non-maternal caregiver status. The final sample ($N = 95$) included only those participants who completed the SMS, DTS-P, and DERS-C.

Participant descriptives were divided into maternal caregiver and child demographics. Of those who completed caregiver type items, 81 respondents reported being biological mothers, 3 reported being stepmothers, and 2 reported other relationships; custody amount varied, with 72 reporting full-time custody, 5 reporting part-time custody, and 2 reporting no custody. The mean age for maternal caregivers ($N = 95$) was 35 years old, with a range of 23 to 59. Regarding

ethnicity, the majority of participants were white (n = 85), with 6 of Latinx or Spanish origin, 1 Black or African American, 1 Asian, and 5 participants of varied mixed ethnicity. The majority of maternal caregivers had obtained either their bachelor's (*n* = 32) or master's/professional degree (*n* = 28) with the remainder ranging from less than high school (*n* = 1), high school diploma or GED (*n* = 13), associates degree or technical certification (*n* = 17), and doctoral degree (*n* = 4). For these descriptives as well as participant SES, see Table 1. The number of children per household ranged from 1 – 5, with over 50% being single-child households. The mean age for the oldest child was 7 years of age with a range of 1 – 18. For household makeup and child demographic descriptives, see Table 2.

Table 1

Sociodemographic Characteristics of Maternal Caregivers

	n	*%*	*M*	*SD*	Range
Age			35.2	6.8	23 – 59
Ethnicity					
White	81	85.3			
Black or African American	1	1.1			
Hispanic, Latinx, or Spanish	6	6.3			
Asian	1	1.1			
Middle Eastern or North African	1	1.1			
Mixed	5	5.3			
Highest Educational Level					
Middle School	1	1.1			
High School/GED	13	13.7			
Associate's/Technical	17	17.9			
Bachelor's Degree	32	33.7			
Master's/Doctorate Degree	32	33.7			
Combined Household Income			$71k	$29k	$<9,999 – ≥ $100k
$0 – 19,999	3	3.2			
$20,000 – 39,999	13	13.7			
$40,000 – 59,999	13	13.7			
$60,000 – 79,999	14	14.7			
$80,000 – 100,000 +	52	54.7			

Table 2

Demographic Characteristics of Maternal Caregivers and Children

	n	*%*	*M*	*SD*	Range
Caregiver Age			35.2	6.8	23 – 59
Age – 20s	21	22.1			
Age – 30s	46	48.4			
Age – 40s	26	27.4			
Age – 50s	2	2.1			
Number of Children			1.64	.81	1 – 5
1	50	52.6			
2	34	35.8			
3 – 5	11	11.6			
Child Age			7.1	5.1	1- 18
Under 1 y/o	12	12.6			
1 – 3	26	27.4			
4 – 6	18	18.9			
7 – 12	22	23.2			
13 – 17	16	16.8			

Measures

Solomon Maltreatment Screener

The Solomon Maltreatment Screener (SMS; Appendix B) was used to assess type and frequency of childhood maltreatment that each participant may have experienced before the age of 18. This self-report scale includes 24 items asking, “How often did this happen to you before

the age of 18?" with responses recorded as a Likert scale, ranging from 0 (*Never*) to 3 (*Often*). Items include questions such as, "A caregiver burned me on purpose," and "Someone made me have oral sex with them." The SMS includes 5 domains for type of maltreatment: emotional abuse, emotional neglect, physical abuse, physical neglect, and sexual abuse. The scale can be scored with sums of each domain; an overall sum, denoting total frequency of childhood maltreatment, was used for this study. It is important to note that this scale measures frequency of childhood maltreatment as opposed to severity. This demarcation will be pertinent to the interpretation and discussion of the study results. Observed internal consistency for the SMS was excellent (α = .95). The observed consistency for each subscale ranged from acceptable (physical neglect subscale α = .77, physical abuse subscale α = .74) to good (emotional abuse subscale α = .86) to excellent (emotional neglect subscale α = .92).

Difficulties in Emotion Regulation Scale

The Difficulties in Emotion Regulation Scale-16 (DERS-16; Bjureburg et al., 2016; Appendix C & D) was used to assess overall ER abilities for caregiver (DERS-P) and oldest child (DERS-C). The DERS-16 Self-Report (Bjureburg et al., 2016) and the DERS-16 Parent Report (Bunford et al., 2020) include 16 items assessing both overall ER abilities and 5 subscales of ER: lack of clarity, difficulties engaging in goal-directed behavior, impulse control difficulties, limited access to effective ER strategies, and nonacceptance of emotional responses. Items are rated on a 5-point Likert scale ranging from 1 (*Almost Never*) to 5 (*Almost Always*) and include statements such as, "When I am upset, I feel out of control," and, "When I am upset, my emotions feel overwhelming." The DERS-16 Parent-Report measure includes: "When my child is upset, he/she becomes out of control," and "When my child is upset, his/her emotions feel overwhelming" (Bunford et al., 2020). For both versions of the DERS-16 (Self-Report and

Parent-Report), items from each subscale are summed to create subscale scores and the mean of the 5 subscales creates the higher-order DERS score; higher scores indicate greater ED. The DERS-16 was derived from the original 36-item Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004) to create a brief version of the DERS that maintained psychometric strength. The DERS-16 has been found to have excellent internal consistency (α = .92), good test-retest relatability ($\rho_I = 0.85$, $p < 0.001$), and construct validity equivalent to the original DERS (Bjureburg et al., 2016). Observed internal consistency for the DERS-P and DERS-C were excellent (α = .94 and α = .92, respectively).

Distress Tolerance Scale

The Distress Tolerance Scale (DTS; Simons & Gaher, 2005; Appendix E & F) was used to assess both caregiver (DTS-P) and child (DTS-C) DT abilities, specifically DT for negative psychological states. This scale consists of 15 items and asks participants to rate each item based on a time that feeling distressed or upset was experienced. Item responses are rated on a 5-point Likert scale ranging from 1 (*Strongly Agree*) to 5 (*Strongly Disagree*). Item examples for the caregiver self-report include: "Feeling distressed or upset is unbearable to me," and "I am ashamed of myself when I feel distressed or upset." The DTS was modified for this study to create a caregiver-report form. Caregiver-report item examples include: "My child finds feelings of distress or being upset unbearable," and "My child becomes ashamed of his/herself when he/she feels distressed or upset." For both DTS versions, items are divided into 4 subscales: tolerance, absorption, appraisal, and regulation. Scoring for both versions is as follows: subscale scores are the mean of the subscale items; the higher-order DTS score is derived from the mean of the 4 subscale scores. Higher scores indicate higher DT. The DTS has been found to have good test-retest reliability (r = .61; Simons & Gaher, 2005) and good internal consistency (α =

.82; Zvolenksy et al., 2011). Observed internal consistency for the DTS-P measure was excellent (α = 91) and was good for the DTS-C measure (α = .88).

Procedure

This study is part of a larger study assessing parenting practices and coping strategies along with the measures included above. The base survey consisted of demographic information and nine measures, one of which (the SMS) is shared across the larger study. In addition to the four measures described above and used for this study's analysis, the base survey also included the Parent-Child Conflict Tactics Scales (Straus et. al, 1998), the Coping Self-Efficacy Scale (Chesney et al., 2006), the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960), and the Strengths and Difficulties Questionnaire (Goodman, 1997). The groups of measures for each study were administered in random order to ensure equal distribution of items in the case of incomplete surveys.

The survey was administered through Qualtrics with an anonymous link. Participants were recruited primarily through social media platforms, specifically Reddit and Facebook. A brief explanation of the study was posted to subReddits and Facebook groups that pertained to topics such as motherhood, parenting, family life, trauma, and childhood maltreatment. Additionally, links were posted only if the subreddit or Facebook group rules allowed posting and/or if the moderators of the groups approved the post. From 211 posts and requests to post made over 3 months, a combined total of 145 posts were accepted to both Facebook groups and subReddits. Because of the sensitive nature of some of the survey measures, all posts included a statement about difficult topics and a reminder of the voluntary and anonymous nature of the survey. Additionally, content warnings were included in the post for any posting sites that were

understood to be for survivors or survivors of abuse or trauma (see Appendix G for posting material).

After participants clicked on the posted link, they were taken to the Qualtrics survey. Before beginning the survey, participants were provided with an overview of the purpose and length of the survey as well as contact information for the researchers and were then asked to accept or decline informed consent. After informed consent was received digitally, participants were asked demographic questions. If a) the reported age was under 18 years, and/or b) the reported gender was not female, the survey ended. After participants completed the Solomon Maltreatment Screener they were provided with a statement pertaining to the potential difficulty of some of the previous questions and a reminder that the survey is completely voluntary. Phone numbers for crisis lines were then provided before participants continued the survey. Once participants completed all remaining study measures, a debriefing statement including phone numbers for a general crisis hotline and a child maltreatment hotline were provided and participation was concluded.

Analysis

An a priori power analysis was conducted using G*Power 3.1 Software (Faul et al., 2007) to assess needed sample size. Using a small-medium Cohen's f^2 of .25 (Cohen, 1988; Selya et al., 2012), the test indicated that for 95% power to detect a predictive effect in a hierarchical regression with 4 predictors, the needed sample size would require 80 participants. The research team aimed to gather data past this number to account for incomplete or invalid responses. To test Hypotheses I and II, a one-way bivariate correlation was conducted on associations between maternal history of CM and both maternal and child outcome variables, including maternal and child DT and ED. Child age and gender were also included in the correlation analysis to assess

the association between these variables and child outcome variables. For the correlation analysis, cases were excluded listwise to maintain the largest sample sizes possible for the main variables in the model (e.g., maternal history of CM, maternal DT, and child ED). Hypothesis III was tested using a hierarchical regression model to assess whether maternal DT accounted for the relationship between maternal history of CM and child ED above and beyond other maternal and child outcome variables. The correlation and regression analyses were conducted in IBM SPSS Statistics software version 28.0.1 (IBM, 2021).

RESULTS

Correlations

Hypotheses I and II were analyzed using bivariate correlations of the associations between maternal and child outcomes, as well as child age and gender. Consistent with Hypothesis I, maternal history of CM was negatively correlated with maternal DT (r = -.37, p < .001), indicating that maternal caregivers who experienced a greater frequency of childhood maltreatment also reported lower DT abilities. Maternal history of CM was also positively correlated with maternal ED (r = -.48, p < .001), indicating that higher frequency of CM was associated with higher ED. Additionally, maternal DT was negatively correlated with maternal ED (r = -.82, p < .001), indicating that individuals with higher ED typically reported lower DT abilities. Regarding associations between maternal caregivers and children, there were no significant correlations between maternal history of CM and child ED. In contrast to Hypothesis II, maternal history of CM was not significantly associated with child ED (r = .04, p = .742). Maternal reports of CM frequency were also not significantly associated with child DT (r = .09, p = .377). Additionally, maternal ED was not significantly associated with child ED (r = .17, p = .117) and child DT (r = .12, p = .271), while maternal DT was not significantly associated with child ED (r = -.12, p = .262) and child DT (r = -.04, p = .727). These results, though insignificant, may indicate that current functioning of maternal caregivers, but not their history of CM, may affect their child's ability to regulate emotion. More specifically, these results may point to a maternal caregiver's current ER as having the highest impact on their child's ER and DT. Additionally, child ED was negatively and significantly associated with child DT (r = -.36, p < .001), possibly indicating that the more emotionally dysregulated a child is, the lower DT

abilities they may have. Child gender and age were also analyzed. Out of these analyses, child ED and child gender were positively and significantly correlated (r = .22, p .037), possibly indicating that, in this sample, male children demonstrate higher ED than female children. Associations between maternal and child outcomes can be found in Table 3.

Table 3

Associations Between Maternal and Child Outcome Variables

	1	2	3	4	5	6
1. Maternal CM	—					
2. Maternal ED	.48**	—				
3. Maternal DT	- .37**	- .82**	—			
4. Child ED	.04	.17	- .12	—		
5. Child DT	.09	.12	- .04	- .36**	—	
6. Child Age	.20	.07	- .13	.20	.07	—
7. Child Gender	.03	.02	.08	.22*	- .08	.08

Notes. * $p < .05$. ** $p < .001$.
Cases were excluded listwise, $N = 92$.
Gender was coded female = 1, male = 2.

Hierarchical Regression

Hypothesis III was analyzed using a hierarchical linear regression, which was conducted to assess if maternal DT accounted for variations in child ED above and beyond variables previously established to predict child ED. We regressed child ED onto maternal DT, while

controlling for maternal history of childhood maltreatment, maternal ED, and child age. Below, we report semi-partial Pearson's *r* (r_{sp}) as a measure of the effect size for regression coefficients (Dudgeon, 2016). Maternal history of CM, maternal ED, and age of child were entered in the first step of the model and maternal DT was entered into the second step. The first step of the model accounted for 7% of the variance, $R^2 = .071$, $F(3, 90) = 2.307$, $p = .082$, which was not significant. In this first step, maternal history of CM was negatively but not significantly correlated with child ED, $B = -0.11$, $t(90) = -0.90$, $p = .354$, 95% CI [-0.31, 0.11], $r_{sp} = -.095$; maternal ED was positively but not significantly correlated with child ED, $B = 0.21$, $t(90) = 1.78$, $p = .078$, 95% CI [-0.02, 0.34], $r_{sp} = .181$; and age of child was positively but not significantly correlated with child ED, $B = 0.21$, $t(90) = 1.98$, $p = .051$. 95% CI [0.00, .97], $r_{sp} = .201$. Adding maternal DT to the second step of the model accounted for an additional 0.3% of the variance, $\Delta R^2 = .003$, $F(1, 89) = 0.277$, $p = .600$. In this second step, maternal DT was not correlated with child ED, $B = 0.09$, $t(89) = .53$, $p = .600$, 95% CI [-0.21, 0.37], $r_{sp} = .054$. In sum, Hypothesis III was not supported, as no significant predictive value was found in maternal DT above and beyond maternal CM, maternal ED, and child age. The insignificant results of the regression analysis are in line with the lack of correlation of maternal CM and maternal DT to any child outcome variables.

Table 4

Regression Analysis Predicting Child ED from Maternal DT, Maternal History of CM, Maternal ED, and Child Age

				95% CI for *B*		Effect Size
	B	*t*	*p*	Lower	Upper	r_{sp}
Step 1						
Maternal CM	- .11	- 0.90	.354	- 0.31	0.11	- .095
Maternal ED	.21	1.78	.078	- 0.02	0.34	.181
Child Age	.21	1.98	.051	0.00	0.97	.201
Step 2						
Maternal CM	- .12	- 0.97	.334	- 0.32	0.11	- .099
Maternal ED	.28	1.51	.134	- 0.07	0.52	.154
Child Age	.21	2.02	.047	- 0.01	0.99	.206
Maternal DT	.09	0.53	.600	- 0.21	0.37	.054

Notes. CI = confidence interval. Effect size r_{sp} is a semi-partial Pearson correlation.

DISCUSSION

Recent literature has indicated that histories of CM may result in lowered ER (e.g., Burns et al., 2010; Cabecinha-Alati et al., 2020a) and DT (e.g., Rosencrans et al., 2017; Yang et al., 2020) abilities. Additionally, years of research have investigated parenting challenges for caregivers with histories of CM, such that the risk of decreased ER abilities likely affects the ER abilities of the caregivers' children (Cabecinha-Alati et al., 2020a; Plant et al., 2017; Warmingham et al., 2020), resulting in what has come to sometimes be termed as *intergenerational trauma*. Based off the theoretical model proposed by Cabecinha-Alati and colleagues (2020a), this exploratory study looked at DT, a more recent variable in the emotion and ER research realm, as a potential addition to the cycle of intergenerational transmission of childhood maltreatment and ED. This study aimed to assess whether, for children of maternal caregivers who were survivors of childhood maltreatment, maternal DT accounted for child ED above and beyond other variables (e.g., maternal history of CM, maternal ED, and child age) which were previously established predictors. Maternal DT was looked at specifically as variable of interest due to recent literature (Rosencranz et al., 2017) noting that interventions tailored specifically for DT or ED, versus aimed generally at both, may be more efficacious treatments. This study gathered self- and parent- report information from maternal caregivers with histories of childhood maltreatment about their perceived ER and DT abilities, as well as their perceived ER and DT abilities of their oldest child.

In support of hypothesis I, correlational analysis found that maternal caregivers with more frequent experiences of CM reported lower DT abilities; however, contrary to the second hypothesis, maternal history of CM was not associated with child ED. Additionally, contrary to

our third hypothesis but in line with the results of the correlation analyses, maternal DT was found to have no predictive value in child ED above and beyond maternal history of CM, maternal ED, and child age. Interestingly, the findings of our second hypothesis, that maternal history of CM was not associated with child ED, are inconsistent with much of the recent literature. For example, a systematic review conducted by Plant and colleagues (2018) found that, over 12 studies of mother-child dyads, maternal CM history was overall positively associated with child emotion and behavior regulation difficulties. Additionally, recent studies have found preliminary evidence of maternal history of CM and later difficulties related to emotional functioning in their children (Cabecinha-Alati et al., 2020b; Shipman et al., 2007); Warmingham and colleagues' 2020 study of 378 mother-child dyads found that maternal self-reported history of CM was associated with an increase in observed child ED. These studies, combined with research indicating lower DT levels for survivors of CM (e.g., Berenz et al., 2018; Rosencranz et al., 2017; Yang et al., 2020), indicate contrasting evidence to the results found in the current study.

One potential explanation for the inconsistent results of the current study is research that has indicated that histories of childhood maltreatment only result in minimal levels of impairment, especially when protective factors are taken into account. For example, protective factors such as social support, healthy relationships with partners and/or parent(s), and access to and use of interventions and treatment may decrease ER difficulties for caregivers, and thus, decrease ER difficulties for their children (see Collinshaw et al., 2007; DuMont et al., 2007). Another confounding factor in the current study may be that of discrepancies with parent/observer- and child-report of emotion-related concepts (see Keefer, 2015 and Haselgruber et al., 2020 for commentary on this methodology issue). Consequently, the results of the current

study's measures may not be as accurate as, for example, as observational or multiple-informant data of child ED or DT may be.

Along with these potential confounds, the choice of an overall frequency sum of CM versus a frequency of different types of CM may have affected results, as some literature points to specifically emotion-related maltreatment (e.g., emotional neglect, emotional abuse) may affect later emotion-related abilities more than CM such as physical abuse or neglect (Berenz et al., 2018; Burns et al., 2010). In light of these studies, the correlational and linear regression analyses were re-run with CM type frequency sums (instead of overall frequency sums); results indicated that, for this sample, each subscale was associated only with maternal outcomes (i.e., maternal ED and DT), with no significant correlations found between CM type and child outcome variables.

The lack of association between maternal history of CM and child ED may also be explained by sample and recruitment format. For example, the logistical necessity of using a convenience sample may have affected analysis, as there is likely less history of CM in the general population than in a clinical population, this adding to the insignificant findings. Per the current study's methodology, there is no way to tell which, or how many, participants came from which type of group. Additionally, the location of recruitment (parenting groups, groups related to trauma) may have had an effect on the type of participant in that those who might follow a trauma-related subreddit may actively spend more time thinking about/processing their trauma and also may have more access to parenting support and parenting resources. However, this consideration could go in both directions, such that individuals who gravitate toward groups related to parenting or trauma gravitate toward them *because* of their struggles with both.

Limitations

Although this study increased exploratory understanding of DT, in that it may *not* account for the transmission of ED from mother to child above and beyond other variables, it is important to consider the results in light of the study's limitations. One significant limitation in this study was that of the report versus observation/performance assessments, especially when measuring perceived reports of emotion-related concepts such as ER or DT. For example, Keefer (2015) comment on the limitations, including response bias, the effect of age on introspection and self-awareness, and construct validity (to name a few) that are inherent risks in using accessible and efficient self-report measures. Additionally, a recent study addressed discrepancies is informant reports by comparing multiple parent- and child-report measures of ER, as well as internalizing and externalizing symptoms, in children (Haselgruber et al., 2020). This study found that there is consistent discrepancy in parent- and child-report variables and that parent and child perspectives are not interchangeable and hold different weights. The answer to this confound is not simple, as methodology may be logistically easier with solely parent- or child-report; however, combining reports and/or including observational assessments of variables such as ER will likely be more meaningful in future research. For example, future research may benefit from assessing emotion-related variables with multi-informant observational reports and/or behavioral measures, such as the breath-holding task (Hajek et al., 1987) or the Mirror-Tracing Persistence Task (MTPT; Quinn et al., 1996) used in Berenz and colleagues' (2018) study of DT.

Although this study addressed multiple factors associated with histories of childhood maltreatment, it was also limited in the additional variables that were assessed for. For example, protective factors likely play a significant role both in caregiver resiliency and decreasing the

negative effects on parenting and ER for caregivers with histories of maltreatment (Cabecinha-Alat et al., 2020a; Chamberlain et al., 2019). This study also did not address frequency of adult revictimization of caregivers who had survived maltreatment (see Stroem et al., 2019). Future research may benefit from developing a more comprehensive picture of additional risk and protective factors. Additionally, the current study did not assess for culture or gender (in that participants were only maternal and not paternal caregivers) in its analysis, likely missing significant factors at play in both caregiver ER and DT abilities as well as the interactions of ES and parenting on children. In order to more fully add to Cabecinha-Alati and colleagues' (2020a) model, more factors (e.g., risk/protective factors, culture, and gender) will need to be measured and controlled for in order to assess whether DT plays a significant role above and beyond other theoretical variables in the transmission of ED from maltreated caregiver to child. Finally, due to exclusion criteria and incomplete responses, the sample size needed for a small effect size (per the a priori power analysis conducted using G* Power) of 80 participants was met but was still small; a larger sample size may have yielded clearer and more meaningful results.

Future Directions

In sum, recent literature indicates a need to identify variables at play in the potential intergenerational transmission of negative childhood maltreatment outcomes from survivors to their children, especially those related to ER, in order to increase both caregivers and children's wellbeing. Identifying and separating individual mediating and moderating variables in models such as that of Cabecinha-Alati and colleagues (2020a) may aid researchers and clinicians in more comprehensive understanding of the effects of childhood maltreatment on parents and children and subsequently may aid in developing more efficacious interventions that target specific factors, such as maternal and child ER and parent emotion socialization.

This exploratory study did not result in significant indications that distress tolerance may be a specific factor affecting ED in children of childhood maltreatment survivors. However, due to the limitations previously discussed, DT may still be an important target of study. Future research would benefit from assessing DT and ED observationally, rather than through self-report, as research on DT and ED point to differences in these assessment modalities. Additionally, future research may benefit from measuring DT and ED in a clinical sample in order to capture a more targeted understanding of potentially beneficial treatment-related variables. While additional factors (e.g., child age, maternal history of CM, and maternal ED) were controlled for when assessing the predictive value of DT, protective factors, such as social support or previous treatment or therapy, were not included in the analysis. Assessing for and presence of both protective and risk factors may aid in a more comprehensive understanding of the specific role of DT, and if there *is* a specific role of DT. Additional research is needed to address whether distress tolerance is a beneficial focus of research in the study of intergenerational transmission of emotion dysregulation.

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APPENDIX A

Demographic Information Sheet

1. Please complete the following information about yourself:

2. Age: ___

3. Do you live: _____In the United States or _____Outside of the United States?

4. 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: _____

5. 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

6. How much total combined money did all members of your household earn in 2019?

$0-$9,999
$10,000-$19,999
$20,000-$29,999
$30,000-$39,999
$40,000-$49,999
$50,000-$59,999
$60,000-$69,999
$70,000-$79,999
$80,000-$89,999
$90,000-$99,999
$100,000 or more

7. Are you a woman?

_____ yes, cisgender woman(the term cisgender means your sex assigned at birth is the same as your gender identity)

_____ yes, transgender woman

_____ no, I am not a woman

8. Who else lives with you? Choose all that apply.

A romantic partner, spouse, boyfriend, girlfriend etc.	Another family member (grandparent, cousin, etc.
A child or children	Friend
Parent(s)	Other

9. Other than yourself, how many total people live in your household:

10. For how many children are you a primary caretaker, meaning that you are a primary adult for a child/children and responsible for meeting his/her/their basic needs?

11. Please fill out one row in this table for each child for whom you are the primary caregiver.

Age of child	Child Gender	Your relationship with child	How much custody you have
0-17	boy/girl	Biological mother Stepmother Foster mother Grandmother Aunt Other:	full/half/none

12. For how many of the children for whom you are a primary caretaker live with you at least part-time?

APPENDIX B

Solomon Maltreatment Screener – 24 Item – Self Report

Directions: 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----------1----------2----------3
Never Rarely Sometimes 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
A caregiver put me in time out.	0	1	2	3
5. A caregiver slapped or punched me.	0	1	2	3
6. I didn't feel supported by my family.	0	1	2	3
7. A caregiver threatened to hurt me, but didn't do it.	0	1	2	3
8. I didn't have enough food to eat.	0	1	2	3
9. A caregiver gave me a reward for good behavior.	0	1	2	3
10. I had to wear dirty clothes to school.	0	1	2	3
11. Someone made me have oral sex with them.	0	1	2	3
12. A caregiver spanked me so hard it left a mark such as a bruise or welt.	0	1	2	3
13. I felt like a caregiver didn't want me around.	0	1	2	3
14. A caregiver said that they hated me.	0	1	2	3
15. A caregiver burned me on purpose.	0	1	2	3
16. Someone older than me touched my private parts.	0	1	2	3
17. A caregiver did not take care of my needs because they were drinking or doing drugs.	0	1	2	3
18. Someone older than me showed me their genitals.	0	1	2	3
19. I didn't feel like a part of my family.	0	1	2	3
20. A caregiver spanked me, but it did not leave a mark.	0	1	2	3
21. A caregiver hit me with something other than a belt or switch.	0	1	2	3
22. Someone put their penis or another object inside my vagina or butt.	0	1	2	3
23. I was sick, but nobody took me to the doctor or gave me medicine.	0	1	2	3
24. I saw my caregivers physically fighting with each other.	0	1	2	3

APPENDIX C

Difficulties in Emotion Regulation Scale – 16 Item – Self Report

Directions: Please indicate how often the following statements apply to you by selecting the appropriate number from the scale below (1-5) for each item.

1	2	3	4	5
Almost never	Sometimes	About half the time	Most of the time	Almost always

1. I have difficulty making sense out of my feelings. [C]
2. I am confused about how I feel. [C]
3. When I am upset, I have difficulty getting work done. [G]
4. When I am upset, I become out of control. [I]
5. When I am upset, I believe that I will remain that way for a long time. [S]
6. When I am upset, I believe that I'll end up feeling very depressed. [S]
7. When I am upset, I have difficulty focusing on other things. [G]
8. When I am upset, I feel out of control. [I]
9. When I am upset, I feel ashamed of myself for feeling that way. [N]
10. When I am upset, I feel like I am weak. [N]
11. When I am upset, I have difficulty controlling my behaviors. [I]
12. When I am upset, I believe that there is nothing I can do to make myself feel better. [S]
13. When I am upset, I become irritated with myself for feeling that way. [N]
14. When I am upset, I start to feel very bad about myself. [S]
15. When I am upset, I have difficulty thinking about anything else. [G]
16. When I am upset, my emotions feel overwhelming. [S]

Scoring. Subscale scores are the mean of the items. The higher-order DERS is formed from the mean of the four subscales. Higher scores indicate lower emotion regulation ability.
Note. C= Lack of Emotional Clarity; G = Difficulties Engaging in Goal-Directed Behavior; I = Impulse Control Difficulties; S = Limited Access to Effective Emotion Regulation Strategies; N = Nonacceptance of Emotional Responses.
Bjureberg, J., Ljótsson, B., Tull, M. T., Hedman, E., Sahlin, H., Lundh, L. G., ... & Gratz, K. L. (2016). Development and validation of a brief version of the difficulties in emotion regulation scale: the DERS-16. *Journal of psychopathology and behavioral assessment, 38*(2), 284-296.

APPENDIX D

Difficulties in Emotion Regulation Scale – 16 Item – Parent Report

Directions: Please indicate how often the following statements apply to your child by selecting the appropriate number from the scale below (1-5) for each item.
If you are the caregiver for multiple children, please answer the following questions with your oldest child in mind.

1	2	3	4	5
Almost never	Sometimes	About half the time	Most of the time	Almost always

1. My child has difficulty making sense out of his/her feelings. [C]
2. My child is confused about how he/she feels. [C]
3. When my child is upset, he/she has difficulty getting work done. [G]
4. When my child is upset, he/she becomes out of control. [I]
5. When my child is upset, he/she believes that he/she will remain that way for a long time. [S]
6. When my child is upset, he/she believes that he/she will end up feeling very depressed. [S]
7. When my child is upset, he/she has difficulty focusing on other things. [G]
8. When my child is upset, he/she feels out of control. [I]
9. When my child is upset, he/she feels ashamed of him/herself for feeling that way. [N]
10. When my child is upset, he/she feels like he/she is weak. [N]
11. When my child is upset, he/she has difficulty controlling his/her behaviors. [I]
12. When my child is upset, he/she believes that there is nothing he/she can do to make him/herself feel better. [S]
13. When my child is upset, he/she becomes irritated with his/herself for feeling that way. [N]
14. When my child is upset, he/she starts to feel very bad about his/herself. [S]
15. When my child is upset, he/she has difficulty thinking about anything else. [G]
16. When my child is upset, his/her emotions feel overwhelming. [S]

Scoring. Subscale scores are the mean of the items. The higher-order DERS is formed from the mean of the four subscales. Higher scores indicate lower emotion regulation ability.
Note. C= Lack of Emotional Clarity; G = Difficulties Engaging in Goal-Directed Behavior; I = Impulse Control Difficulties; S = Limited Access to Effective Emotion Regulation Strategies; N = Nonacceptance of Emotional Responses. 16-item form adapted from: Bunford, N., Dawson, A. E., Evans, S. W., Ray, A. R., Langberg, J. M., Owens, J. S., DuPaul, G. J., & Allan, D. M. (2020). Difficulties in Emotion Regulation Scale--Parent Report [Database record]. Retrieved from PsycTESTS.

APPENDIX E

Distress Tolerance Scale – Self Report

Directions: Think of times that you feel distressed or upset. Select the item from the menu that best describes your beliefs about feeling distressed or upset.

1	2	3	4	5
Strongly Agree	Mildly Agree	Agree/Disagree Equally	Mildly Disagree	Strongly Disagree

1. Feeling distressed or upset is unbearable to me. [T]
2. When I feel distressed or upset, all I can think about is how bad I feel. [Ab]
3. I can't handle feeling distressed or upset. [T]
4. My feeling of distress are so intense that they completely take over. [Ab]
5. There's nothing worse than feeling distressed or upset. [T]
6. I can tolerate being distressed or upset as well as most people. [Ap]
7. My feelings of distress or being upset are not acceptable. [Ap]
8. I'll do anything to avoid feeling distressed or upset. [R]
9. Other people seem to be able to tolerate feeling distressed or upset better than I can. [Ap]
10. Being distressed or upset is always a major ordeal for me. [Ap]
11. I am ashamed of myself when I feel distressed or upset. [Ap]
12. My feelings of distress or being upset scare me. [Ap]
13. I'll do anything to stop feeling distressed or upset. [R]
14. When I feel distressed or upset, I must do something about it immediately. [R]
15. When I feel distressed or upset, I cannot help but concentrate on how bad the distress actually feels. [Ab]

Scoring: Item 6 is reverse scores. Subscale scores are the mean of the items. The higher-order DTS is formed from the mean of the four subscales. T = Tolerance, Ab = Absorption, Ap = Appraisal, R = Regulation. Higher scores mean higher distress tolerance.

Simons, J. S., Gaher, R. M. (2005). The distress tolerance scale: Development and validation of a self-report measure. *Motivation and Emotion, 29*(2). DOI: 10.1007/s11031-005-7955-3

APPENDIX F

Distress Tolerance Scale – Parent Report

Directions: Think of times that your child has exhibited feelings of distress or being upset. Select the item from the menu that best describes your beliefs about these moments.
If you are the caregiver for multiple children, please answer the following questions with your oldest child in mind.

1	2	3	4	5
Strongly Agree	Mildly Agree	Agree/Disagree Equally	Mildly Disagree	Strongly Disagree

From my perspective:

1. My child finds feelings of distress or being upset unbearable. [T]
2. When my child feels distressed or upset, he/she dwells on the negative feelings for long periods of time. [Ab]
3. My child cannot handle feeling distressed or upset. [T]
4. My child's feelings of distress are so intense that they seem to completely take over. [Ab]
5. For my child, there's nothing worse than feeling distressed or upset. [T]
6. My child can tolerate being distressed or upset as well as most other children. [Ap]
7. My child views feelings of distress or being upset as not acceptable. [Ap]
8. My child will do anything to avoid feeling distressed or upset. [R]
9. Other children seem to be able to tolerate feeling distressed or upset better than my child can. [Ap]
10. Being distressed or upset is always a major ordeal for my child. [Ap]
11. My child becomes ashamed of his/herself when he/she feels distressed or upset. [Ap]
12. My child's feelings of distress or being upset scares his/her. [Ap]
13. My child will do anything to stop feeling distressed or upset. [R]
14. When my child feels distressed or upset, he/she must do something about it immediately. [R]
15. When my child feels distressed or upset, he/she cannot help but concentrate on how bad the distress actually feels. [Ab]

Scoring. Item 6 is reverse scores. Subscale scores are the mean of the items. The higher-order DTS is formed from the mean of the four subscales. T = Tolerance, Ab = Absorption, Ap = Appraisal, R = Regulation. Higher scores mean higher distress tolerance.

Note. Parent-report adapted from Simons, J. S., Gaher, R. M. (2005). The distress tolerance scale: Development and validation of a self-report measure. *Motivation and Emotion, 29*(2). DOI: 10.1007/s11031-005-7955-3

APPENDIX G

Reddit Posting Message

Title: TLDR: graduate student looking for moms to help with her thesis research! Studying difficult childhood experiences (parent history) and parent/child outcomes. Anonymous survey, ~ 20 mins in length.

Body: Hello, all! I'm a graduate student studying clinical psychology and hoping to go into child development. I'm currently working on my thesis on difficult childhood experiences, parenting practices, and general parent and child outcomes. I'm hoping to develop a clearer understanding of the effects of difficult childhood experiences on both parents and their kiddos in an effort to create better prevention, treatment, and intervention models.

I'm looking to survey maternal caregivers (bio moms, foster moms, adoptive moms, grandmother moms, everyone!) who currently have 1+ kiddos 17 and under. The survey is completely anonymous and will take maybe 20 minutes.

TW: questions about childhood maltreatment may be distressing--feel free to 1) take breaks and take care of yourself or 2) not participate if it's past your boundaries. <3

https://wcu.az1.qualtrics.com/jfe/form/SV_03wnL08chnyu65E?Q_CHL=social&Q_SocialSource=redditQualtrics Survey | Qualtrics Experience Management

If you would like to participate in the survey, please follow the link above! Also, feel free to share this survey with others if you think they are interested in participating.
If you have any questions about this study, please contact Dr. David Solomon at dsolomon@wcu.ed