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Facets of Emotional Distress Tolerance as Mediators**

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OVERPARENTING, EMOTIONAL DISTRESS, AND SUBJECTIVE WELL-BEING:
FACETS OF EMOTIONAL DISTRESS TOLERANCE AS MEDIATORS

by

Christopher M. Perez

A Dissertation
Submitted to the Graduate School,
the College of Arts and Sciences
and the School of Psychology
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

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ABSTRACT

Overparenting (OP) has been characterized by parental behaviors that encroach upon children's ability to develop age-appropriate, autonomous emotional responses and behaviors. OP has been associated with poor mental health, decreased subjective well-being (SWB), and decreased emotional distress tolerance (EDT) in the emerging adult population. The present study investigated relationships between OP, EDT, emotional distress, and SWB. Additionally, the mediating role of EDT, as well as the parallel mediating roles of EDT facets (i.e., appraisal, absorption, tolerance, regulation), were assessed between OP and emotional distress, as well as SWB. Participants included 313 undergraduate psychology students from a mid-sized university in the southeastern United States. Demographic information was gathered, as well as information involving participants' perceptions of parental involvement and self-reports of emotional distress, SWB, and EDT. In bivariate analyses, OP shared significant, negative associations with EDT, appraisal, tolerance, regulation, while reflecting a significant, positive association with emotional distress. SWB also shared significant, positive relationships with the higher-order construct of EDT, as well as distinct EDT facets, while sharing a significant, negative relationship with emotional distress within the bivariate analyses. While multivariate models did not suggest OP as a predictor of higher-order EDT or its facets, the current findings indicate that OP may be predictive of emotional distress when accounting for reported perceived parental involvement. Furthermore, the present study shows that EDT, as well as two facets of EDT (i.e., appraisal, absorption), may predict emotional distress and SWB when accounting for perceived parental involvement.

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DEDICATION

My deepest expressions of gratitude, love, and passion are extended to my spouse and daughter, Briana Olivia Perez and Mairi James Perez, my parents, Teresita and Michael Perez, sisters, Lindsey Ichante Mann, Elizabeth Claire Perez, and Mary Sarah Elizabeth Perez, brother-in-law, Dustin Mann, and nieces, Evelyn Ichante Mann, as well as Ellie Rose Mann, for providing me the everlasting motivation and encouragement that has driven me through my graduate education.

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CHAPTER I - INTRODUCTION

Cullaty (2011) defined overparenting (OP), or “helicopter parenting,” as parents’ over-involvement in children’s lives through excessive engagement in problem-solving and crisis intervention. Overparenting has also been typified by parents’ application of developmentally inappropriate tactics that exceed what is “necessary” during the emerging adult stage of life (Segrin, Givertz, Swaitowski, & Montgomery, 2015). OP has been associated with outcomes in young adults such as anxiety, depression, and stress (LeMoyne & Buchanan, 2011; Perez, 2017; Schreffin et al., 2012; Segrin et al., 2013), personality traits such as narcissism (Segrin et al., 2013) dependence (Montgomery, 2010), and maladaptive coping behaviors (Segrin et al., 2013). Emotional distress tolerance, or the ability to regulate emotions during stress, was identified as a mediator in the relationship between OP and poor mental health outcomes (Perez, 2017). However, the unique facets of EDT (i.e., appraisal, absorption, tolerance, regulation) and the distinct contributions they make in this mediating role have yet to be examined. Additionally, there is evidence to suggest that subjective well-being (SWB) is consequential to psychological well-being (Ryan, Huta, & Deci, 2006; Perez-Garin, Molero, & Bos, 2015; Sanjuan, 2011) and that EDT is related to SWB (Ameral, Bishop, & Palm Reed, 2017; Quidbach, Berry, Hansenne, & Mikolajczak, 2010; Saxena, Dubey, & Pandey, 2011). This is important to examine, as OP may be associated with the ways in which emerging adult children assess, pay attention to, tolerate, and respond during negative emotional experiences, which in turn may explain levels of life satisfaction and emotional distress in this population. Building upon previous research (Perez, 2017), the

current study hypothesized that the higher-order construct of EDT and the distinct facets of EDT would play significant mediating roles between OP and outcome variables of emotional distress, as well as SWB, in this sample. Information about specific mechanisms involved in this relationship may inform intervention efforts.

Psychological Functioning in Emerging Adulthood

Emotional Distress

Research has reflected steady increases in the incidence of mental health concerns in emerging adult college student populations (ACHA, 2005). In this population, reports of heightened stress (Prichard et al., 2007; Mackenzie et al., 2011), depression, low levels of life satisfaction, and poor adjustment (Crede & Niehorster, 2012; Floyd et al., 2007; Newman & Newman, 2008; Verschoor & Markus, 2011) have been increasing across the past 30 years. The American College Health Association (2011) gathered reports from 30,000 college students, with findings suggesting that 15.4% of the sample had been provided some form of depressive diagnosis, while 28.4% of the same sample endorsed experiences of depressive symptomatology to the extent of significant difficulties in normal functioning.

Studies have associated parenting as a strong predictor of emotional distress across the lifespan, and particularly in emerging adulthood (Cole, Dennis, Smith-Simon, & Cohen, 2009). The transition to college from a family environment has been linked to heightened stress in emerging adulthood (Asberg, Bowers, Renk, & McKinney, 2008; Bland, Melton, Welle, & Bigham, 2012; Conley, Durlak, & Dickson, 2013; Deckro et al., 2002; Hicks & Heastie, 2008; Krypel & King, 2010; Ramya & Parthasarathy, 2009). Peer and colleagues (2015) found emerging adult college students' reports of parent-child

relationship quality to be associated with levels of stress, anxiety, and depression, as well as lower levels of stress management solutions. Related to this, studies have shown that punitive and minimizing responses to children's emotional distress may likely lead to less autonomous emotion regulation strategies in later life (Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997; Jones et al., 2002). Studies have shown that punitive and minimizing responses to children's emotional distress may likely lead to less autonomous emotion regulation strategies in later life (Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997; Jones et al., 2002). The effects of parenting on emotional distress and emotional distress tolerance may also differ by race (Boardman & Alexander 2011; Perez, 2017).

Subjective Well-Being

Subjective well-being (SWB) has been defined as an indicator of how and why individuals are happy in their lives (Lin, 2017). Notable predictors of SWB include life purpose, perceived opportunity, and health, as well as work satisfaction (Harlow & Newcomb, 1990). The quality of personal relationships (i.e., peer, family, intimate) has also been identified as an influential predictor of SWB (Harlow & Newcomb, 1990). Amongst college students, self-image, academic success, and financial security have been identified as predictors of subjective well-being, also (Flynn & MacLeod, 2015).

Protective parenting has been positively correlated with SWB, while dysfunctional parenting has shown inverse correlations (Parkes, Sweeting, & Wight, 2016). Both parental involvement and closeness have been examined as predictors of SWB in adolescence, which later translated into psychological outcomes in adulthood including psychological distress and negative affect (Flouri & Buchanan, 2002b), as well

as psychological adjustment in adolescence, which consequently led to similar findings in mid-adulthood (Flouri, 2004). Ratelle, Simard, and Guay (2013) found parental autonomy support to be a marked predictor of SWB within a college student sample. OP has been assessed as a negative predictor of psychological well-being in emerging adult females (LeMoyne & Buchanan, 2011), while parental over-involvement has also been associated with lower levels of life satisfaction in the family setting (Segrin et al., 2012).

Emotional Distress Tolerance

EDT has also been characterized as one's perceived ability to be exposed to, and endure, negative emotional experiences (Bardeen, Fergus, & Orcutt, 2013; Zvolensky, Vujanovic, Berstein, & Leyro, 2010). EDT has been defined as a higher-order construct manifested in diverse aspects of affective and behavioral regulation that may be disrupted by tendencies to focus on distress, determine distress as unbearable, and/or avoid distressing stimuli (Simons & Gaher, 2005). In recent studies, researchers have encouraged the examination of EDT as a transdiagnostic vulnerability (Michel, Rowa, & McCabe, 2015). Specifically, studies have assessed levels of EDT across anxiety disorders and determined low EDT to be consistent amongst them (Bernstein, Marshall, & Zvolensky, 2011). Anestis and colleagues (2007) further examined EDT across syndromes such as anxiety, posttraumatic stress, bulimia nervosa, and substance use, and found that EDT mediated the relationship between anxiety sensitivity and bulimia nervosa. Holliday, Pedersen, and Leventhal (2015) found positive correlations between alcohol use, PTSD, and EDT. This study further found EDT to mediate the relationship between PTSD and alcohol use, as well as depression and alcohol use (Holliday et al., 2015).

Based on Gross' (1998) conceptualization of EDT, the Distress Tolerance Scale (DTS; Simons & Gaher, 2005) is a 15-item measure intended to assess four, second-order factors (i.e., appraisal, absorption, tolerance, regulation), which indicate one, second order factor of general distress tolerance. At present, studies have continued to conduct confirmatory and exploratory factor analyses to determine the utility and precision of the DTS, which have led to the use of this instrument across a diverse variety of populations. The factor structure of the DTS has been confirmed by Leyro and colleagues (2011), who found the DTS to maintain the four, first-order factors, as well as the second-order construct of EDT, with acceptable levels of internal consistency.

While EDT is commonly measured as a unitary construct, some researchers have explored the each of the four DTS subscales in an effort to understand the unique ways in which these components impact emotional distress and behavioral health (Anestis et al., 2007; Brown et al., ; Daughters et al., 2005; Leyro et al., 2011; Raykos, Byrne, & Watson, 2009; Simons & Gaher, 2005; Stasiewicz et al., 2013).

Appraisal, broadly characterized as individual beliefs associated with the self, world, and others (Foa & Rothbaum, 1998; Resnick & Shnicke, 1992). These individual evaluations of events, rather than the events themselves, have been noted as integral components of eliciting and differentiating between emotions (Fernando, Kashima, & Laham, 2017). Appraisal has also been considered as one mechanism through which family factors influence levels of emotional valence in emerging adulthood (McCarthy, Lambert, & Seraphine, 2004) and has also been positively associated with family functioning, positive emotions (McCarthy et al., 2004), perceived social support (Vaux & Wood, 1987), adaptive cognitive restructuring (Bruehlman-Senecal et al., 2016), and

parenting behavior (DeBoard-Lucas et al., 2010), while sharing a negative relationship with aversive emotional experiences (McCarthy et al., 2004).

As another distinct facet of EDT, Simons and Gaher (2005) typified *absorption* as an individual's attention being disrupted by the experience of negative emotions, particularly through focusing on distressing characteristics of events or, conversely, avoiding such negative characteristics. Absorption related to the self has been associated with poorer mental health in emerging adulthood (Simsek, Ceylandeg, & Akcan, 2013), while more specifically being linked to stress, anxiety, depression, and somatization (Kracmarova & Plhakova, 2015). Additionally, the absorption of negative emotions has been found to be negatively correlated with reports of SWB in emerging adulthood (Simsek et al., 2013; Watten, Vassend, Myhrer, & Syverson, 1997) and positively associated with compulsive behavior (Williams, 2012), psychological and somatic complaints (Kracmarova & Plhakova, 2015), rumination (Magidson, 2013).

Leyro, Zvolensky, and Bernstein (2010) defined *tolerance* as an ability to persist in goal-directed behavior, despite the presence of aversive experiences (e.g., emotions, pain). This facet of EDT has been associated with psychopathology, risky behavior (Brown et al., 2005; Daughters et al., 2005), negative affect (Leyro et al., 2011; Simons & Gaher, 2005), depression (Clen et al., 2011), negative self-perception (Raykos et al., 2009), and symptoms of bulimia (Anestis et al., 2007). Ehrlich and colleagues (2013) found adolescents' distress tolerance to be negatively associated with perceived friendship quality, as predicted by punitive parental discipline. Furthermore, studies have reflected relationships between tolerance and adolescents' reports of dysfunctional family

interactions with parents (i.e., enmeshment) (Kivisto, Welsch, Darling, & Culpepper, 2015), and harsh parental discipline (Ehrlich et al., 2013).

Finally, Simons and Gaher (2005) reported that *regulation*, as a facet of EDT, is one's ability to moderate emotional responses to aversive stimuli. It has also been identified as a distinct mechanism by which individuals *respond* to the affective processes (i.e., appraisal, absorption, tolerance) (Campos, Campos, & Barrett, 1989; Carver, Lawrence, & Scheier, 1996). O'Bryan, McLeish, Kraemer, and Fleming (2015) typified *dysregulation* as events during which strategies used to regulate emotions do not adapt in the direction of one's goal or the costs of using such regulations strategies over time are greater than their use on a short-term basis. As a facet of EDT, cross-situational regulation seems to be a notable predictor of adaptive psychological adjustment (Bonanno et al., 2004). Furthermore, Cole (2014) proposed that the social changes which typically arise in adolescence provide new circumstances for individuals to encounter challenges involving emotional regulation. Brenning, Soenens, Van Petegam, and Vansteenkiste (2015) found that early adolescents' perceived autonomy support, defined as the extent to which parents' support autonomy development in respective children (Depestele et al., 2017), predicted adaptive emotion regulation. Conversely, researchers have also found greater levels of both parental behavioral and psychological control to be negatively correlated with reports of emotion regulation as a unitary construct in emerging adulthood (Manzeske & Stright, 2009). As it relates to the present study, the facet of regulation has been linked to greater reports of SWB (Mandal et al., 2017; Quoidbach et al., 2010; Saxena et al., 2011). Additionally, researchers have suggested that greater quantities of adaptive regulatory responses to emotion appears to be

predictive of overall well-being (Quoidbach et al., 2010). Based on the previous literature, it seems reasonable that the distinct facets of EDT may be unique mechanisms through which OP works to be associated with mental health in emerging adulthood.

EDT has also been studied in relation to SWB and has been found to be predictive of reported quality of life and general life satisfaction (Ameral, Bishop, & Palm Reed, 2017). Regulation appears to be correlated with SWB and general life satisfaction (Mandal, Arya, & Pandey, 2017; Quoidbach, Berry, Hansenne, & Mikolajczak, 2010; Saxena, Dubey, & Pandey, 2011). Appraisals of negative emotions have been associated with SWB (Balzarotti et al., 2016; Smith et al., 2014) as well, while the facet of absorption has been correlated with distress and reported SWB amongst college student samples (Watten et al., 1997).

Overparenting

OP, also known as *helicopter parenting*, has been characterized as a style of parental control through which parents aim to control the behavior of their children by taking over problem-solving situations that, well into adulthood, they believe their children may be incapable of resolving (Segrin et al., 2012). Padilla-Walker and Nelson (2012) found OP as a new dimension of parenting, characterized by high levels of control, parental involvement, and warmth, as well as low levels of autonomy granting, which has been defined as the extent to which parents support autonomy development in their children (Depestele et al., 2017). It has been suggested that the lack of development involving age-appropriate, autonomous behaviors in social, financial, and emotional domains may potentially lead to interpersonal difficulties in emerging adulthood (Aquilino, 2006). Interestingly, OP has also been positively associated with parent-child

relationship satisfaction (Perez, 2017). Considering this, the present study accounted for the effects of perceived parental involvement to gain a more precise understanding of how inappropriate parental involvement associated with OP influences levels of emotional distress, life satisfaction, and EDT.

The body of literature surrounding associations between OP and emerging adult children suggests a number of associations with mental health concerns such as poor stress-coping skills (Segrin et al., 2013), anxiety, depression (LeMoyne & Buchanan, 2011; Padilla-Walker & Nelson, 2012; Perez, 2017; Reed, Duncan, Lucier-Greer, Fixelle, & Ferraro, 2016; Schreffin et al., 2014; Segrin et al., 2013; Willoughby, Hersh, Padilla-Walker, & Nelson, 2015), and recreational substance (i.e., painkiller) use (LeMoyne & Buchanan, 2011), as well as personality features including narcissism (Segrin et al., 2013) and dependence (Montgomery, 2010). Conversely, negative correlations have been found between OP and constructs of emerging adult mental health concerns such as self-efficacy (Reed et al., 2016), interpersonal sensitivity (Scharf, Rousseau, & Bsoul, 2016), EDT (Perez, 2017), and life-satisfaction (Schreffin et al., 2014).

At present, studies have examined the mediating role of correlates between OP and mental health concerns in the emerging adult population. It was found that emerging adults' locus of control mediated the relationship between OP and emotional well-being (Kwon, Yoo, & Bingham, 2016). Segrin and colleagues (2012) found that reports of parent-child communication in emerging adult child-parent dyads mediated the relationship between OP and low family satisfaction. Perez (2017) examined the relationship between OP, EDT, and emotional distress (i.e., depression,

stress, anxiety) in emerging adulthood (Perez, 2017). Perez (2017) found OP to be negatively correlated to a significant extent with EDT and positively correlated with emotional distress. Furthermore, the results of this study displayed a negative correlation between EDT and emotional distress in emerging adulthood. Mediation analyses determined that EDT mediated the relationship between OP and the observed variable of emotional distress, as well as the relationships between OP and depression, stress, and anxiety, independently (Perez, 2017). Interestingly, emerging adult participants within this study indicated overall satisfaction within the parent-child relationship with their identified primary caregiver, despite heightened levels of OP and involvement (Perez, 2017).

At present, it seems that OP is associated primarily with negative outcomes. Given that OP is typified by intrusive parenting behaviors that restrict adequate adult growth and, consequentially, the individuals experiencing OP seem to report negative mental health outcomes, it is still in question whether OP also may generally impact SWB in emerging adults. Despite indications that emerging adults are satisfied with the levels of involvement linked with this intrusive style of parenting (Perez, 2017), some evidence suggests that OP may be correlated with decreased well-being in emerging adulthood, although this finding has only been found significant amongst females (LeMoyné & Buchanan, 2011). Little is known about the mechanisms which be associated with OP and SWB. It is plausible that the high levels of intrusive parental behavior linked to OP may negatively affect the process through which emerging adult children develop the abilities to appraise, attend to, tolerate and regulate negative emotions. Thus, it was hypothesized that emerging adult participants would report

significantly lower levels of general life satisfaction when accounting for the effects of perceived parental involvement and including emotional distress as a second out variable in the same model.

To this point, OP has reportedly influenced emerging adult child behavior across a variety of domains including academic (Frey & Tatum, 2016), occupational (Gibbs, 2009), and family settings (LeMoyne & Buchanan, 2011; Padilla-Walker & Nelson, 2012; Segrin et al., 2013). Those most involved with emerging adults, such as university faculty and employers alike, seem to have begun noticing trends in excessive parental involvement in regard to disputing grades and performance (Frey & Tatum, 2016), as well as with employers to negotiate salary agreements (Gibbs, 2009). OP appears to be on the rise (Fingerman et al., 2012), and thus, the current study aimed to gain a better understanding of how this style of parental control may impact autonomous growth, psychological health, and behavioral adaptation in emerging adulthood.

Statement of Purpose

OP has been negatively associated with EDT in emerging adulthood (Perez, 2017) and positively related to symptoms of distress such as stress, anxiety, depression, and emotional distress (LeMoyne & Buchanan, 2011; Schreffin et al., 2014; Segrin et al., 2013; Perez, 2017). While Perez (2017) found that EDT to mediate the relationship between OP and emotional distress, it remains uncertain which facets (i.e., absorption, appraisal, regulation, tolerance) of emotional DT contribute most within this relationship. Additionally, limited studies have examined the impact OP has on SWB, or the impact that EDT may have on this relationship. Given the continued uncertainty regarding the negative impact of OP on emerging adult children, as well as the predominant focus on

negative outcomes, this study aims to determine links between OP and SWB as well, to provide evidence that OP is not only related to less desirable mental health symptoms, but also negatively associated with emerging adults' reported life satisfaction. Furthermore, the current study will assess the mediating role of distinct EDT facets (i.e., absorption, appraisal, regulation, tolerance) between OP and SWB in emerging adulthood.

Research Questions and Hypotheses

Research Question 1: Is OP related to emotional distress in emerging adults?

Hypothesis 1: OP is expected to be significantly correlated with emotional distress.

Research Question 2: When accounting for perceived parental involvement, does EDT partially mediate the relationship between OP and emotional distress?

Hypothesis 2: EDT is expected to partially mediate the relationship between OP and emotional distress when accounting for perceived parental involvement.

Research Question 3: When accounting for perceived parental involvement, do the facets of EDT (i.e., appraisal, absorption, tolerance, regulation) partially mediate the relationship between OP and emotional distress?

Hypothesis 3: Appraisal, absorption, and tolerance are expected to partially mediate the relationship between OP and emotional distress. We do not expect regulation to affect this relationship.

Research Question 4: Is OP related to subjective well-being?

Hypothesis 4: OP is expected to be significantly correlated with subjective well-being.

Research Question 5: Is subjective well-being related to emotional distress?

Hypothesis 5: Subjective well-being is expected to be significantly, negatively correlated to emotional distress.

RQ6: When accounting for perceived parental involvement, does EDT partially mediate the relationship between OP and subjective well-being?

Hypothesis 6: EDT is expected to partially mediate the relationship between OP and subjective well-being when accounting for perceived parental involvement.

RQ7: When accounting for perceived parental involvement, do the facets of EDT (i.e., appraisal, absorption, tolerance, regulation) partially mediate the relationship between OP and subjective well-being?

Hypothesis 7: Appraisal, absorption, and tolerance are expected to partially mediate the relationship between OP and subjective well-being when accounting for perceived parental involvement. Regulation is not expected to change this relationship.

RQ8: Do appraisal, absorption, tolerance, and regulation hold significantly distinct indirect effects between OP and emotional distress, as well as subjective well-being, in emerging adulthood?

Hypothesis 8: It is not expected that appraisal, absorption, tolerance, and regulation hold significantly distinct indirect effects between OP and emotional distress, as well as subjective well-being.

CHAPTER II – METHODOLOGY

Participants

The present study included a sample of 313 valid participants. Participants included 55 male (17.6%) and 258 female (82.4%) emerging adult college students, ranging from 18 to 29 years in age ($M = 19.55$; $SD = 1.88$). Ethnically, the sample included 200 white/non-Hispanic (63.9%), 100 black/African-American (31.9%), three Asian-American (1.0%), and 10 “Other” (3.2%) participants. Regarding self-identified college status, the sample consisted of 154 freshman (49.2%), 53 sophomores (16.9%), 62 juniors (19.8%), and 44 seniors (14.1%). Two hundred thirty-three participants identified their mother as primary caregiver (74.4%), 58 identified father (18.5%), four identified Other Male Family Member (1.3%), eight identified Other Female Family Member (2.6%), eight identified “Other” (2.6%), one identified stepmother (.3%), and one identified stepfather (.3%). Lastly, 167 participants endorsed living on-campus with roommate(s) (53.4%), 67 as living off-campus, with roommates (21.4%), 36 as living off-campus, with a parent(s) (11.5%), 23 as living on-campus, without roommate(s) (7.3%), 14 as living off-campus, without roommate(s) (4.5%), and six as “Other” (1.9%).

Measures

Demographic Questionnaire

The demographic questionnaire distributed within this study collected information pertaining to participants’ age, sex, college status, race/ethnicity, primary caregiver, and socioeconomic status. The role of primary caregiver was defined within this study as “the parent or ‘primary caregiver’ whom you consider to have provided the most support in your life at this time.” Options included “Father,” “Mother,” “Other male family member

(e.g., uncle),” “Other female family member (e.g., aunt),” and “Other (describe briefly).”

Lastly, participants were asked to report levels of perceived parental involvement (1 = *Not at all* and 10 = *Extremely*) in their life at the time of study completion.

The Helicopter Parenting Instrument (HPI)

The Helicopter Parenting Instrument (HPI; Odenweller et al., 2014) was administered to measure participants’ reports of perceived OP on behalf of the identified parent or primary caregiver during their upbringing. This measure consists of 14 items, which implement a seven-point Likert scale (1 = *Very strongly disagree* and 7 = *Very strongly agree*). Higher scores represent greater perceptions of parental involvement. This particular instrument is intended to derive a total score through summing each item and finding the mean. Examples of items include, “My parent considers oneself as a bad parent when he or she does not step in and ‘save’ me” and “My parent voices his or her opinion about my personal relationships.” Perez (2017) conducted a study that displayed a reliability alpha of .80 in a similar demographic, while the original study carried out by Odenweller et al. (2014) derived an alpha of .78 in a college student sample.

Distress Tolerance Scale)

The Distress Tolerance Scale (DTS; Simons & Gaher, 2005) is a 15-item scale that measures four distinct facets (i.e., appraisal, absorption, tolerance, regulation) of EDT, as well as one higher-order construct of EDT. The subscale of appraisal contains six items, while absorption, tolerance, and regulation are measured by three items each. Items are answered using a five-point Likert scale (1 = *Strongly Agree* and 5 = *Strongly Disagree*), with higher subscale scores representing more adaptive levels of that specific feature and higher total scores indicating higher levels of overall EDT. Items include

phrases such as “I’ll do anything to avoid feeling distressed or upset” and “When I feel distressed or upset, I cannot help but concentrate on how bad the distress actually feels.” Subscale scores are found by summing each item and deriving their average. A total score is found by summing the averages of each subscale and deriving the mean. Leyro and colleagues (2011) conducted a confirmatory factor analysis and found an observed alpha value of .91 for the DTS total score, and alphas for the tolerance, absorption, appraisal, and regulation subscales to be .66, .83, .85, and .77, respectively. Simons and Gaher (2005) found the alpha for DTS total score to be .89, with tolerance, absorption, appraisal, and regulation subscale alphas as .85, .82, .85, and .72, respectively. Emami, Woodcock, Swanson, Kapphahn, and Pulvers (2016) reported excellent internal consistency (.91) of the DTS in a study examining distress tolerance, unhealthy eating, and pain catastrophizing. Furthermore, Cogle, Bernstein, Zvolensky, Vujanovic, and Macatee (2013) conducted a study in order to validate the DTS, which reflected sufficient internal consistency amongst the separate subscales (i.e., appraisal, absorption, tolerance, regulation), as well as within the total score.

Depression, Anxiety, Stress Scales – 21 item

The Depression, Anxiety, Stress Scales – 21 item (DASS-21; Lovibond & Lovibond, 1995) is a measure of depression, anxiety, and stress. Items are completed using a four-point Likert scale (0 = *Did not apply to me at all* and 3 = *Applied to me very much, or most of the time*). Subscale scores range from zero to 21 and are derived through summing the total score of seven items assessing the specific clinical syndrome (i.e., depression, stress, anxiety). Higher scores posit more prominent experiences of the symptom being measured. Items include phrasing such as “I felt that I had nothing to

look forward to” for depression, “I was worried about situations in which I might panic and make a fool of myself” for anxiety, and “I tended to over-react to situations” for stress. Perez (2017) found a total score reliability alpha of .95, with subscale alphas for depression, stress, and anxiety of .92, .85, and .86, respectively. Another study conducted by Henry and Crawford (2005) found similar values, with a total score alpha of .93, as well as depression, anxiety, and stress coefficients of .88, .82, and .90, in that order. Given evidence from previous studies (Perez, 2017; Winner, 2016), DASS-21 subscales were collapsed to reflect one total score for the observed variable of emotional distress.

Satisfaction with Life Scale

The Satisfaction with Life Scale (SWLS; Deiner, Emmons, Larsen, & Griffin, 1985) is a five-item questionnaire which gathers information involving self-reported, global life satisfaction. Items are rated on a seven-point Likert scale (1 = strongly disagree and 7 = strongly agree) and include statements such as “In most ways my life is close to my ideal” and “I am satisfied with my life.” Items are summed to gather a total score, with greater endorsements reflecting higher levels of subjective well-being.

Procedures

Three hundred eighty-eight undergraduate psychology students enrolled in coursework at a mid-sized university in the southeastern United States were provided class credit in return for participation in the present study. After receiving approval from the Institutional Review Board (IRB; Appendix A), recruitment took place through a departmental research program (<http://usm.sona-systems.com/>) and participants responded to study questionnaires through a secured, online survey system (i.e., Qualtrics). Validity checks were included to detect both random responding and

sufficient time(s) of completion. Random responding was checked by embedding two items within survey content (e.g., “Please answer ‘Often’ for this item”). Forty- seven participants were removed from the study due to random responding, while five participants were removed due to spending what was considered to be an insufficient amount of time spent responding to study measures (Huang, Curran, Keeney, Poposki, & DeShon, 2012). Participants who did not complete 100% of items or did not identify within the required age range (i.e., 18-29) were removed from the study as well (N = 75). Missing values were compensated for using linear trend at point imputation. Furthermore, both linear and multivariate outliers were examined using truncation. Scale reliability coefficients were derived in order to ensure the internal consistency of each scale administered within the current study (see Table 1). Given the research of Perez (2017), parental involvement (assessed by self-report on a scale of 1-10, with 10 indicating high levels of involvement) was examined as a potential covariate within the model.

CHAPTER III - RESULTS

Bivariate Correlation Analyses

Bivariate correlation analyses were conducted to determine the strength of relationships between study variables. OP shared significant, negative correlations with the high-order constructs of EDT and emotional distress, as well as the EDT facets of appraisal, tolerance, and regulation. However, no significant relationship was found between OP and subjective well-being, denying support for the fourth hypothesis of this study. Furthermore, subjective well-being shared a significant, negative relationship with emotional distress. Hence, these findings confirm the first and fifth hypotheses of the present study regarding significant relationships between OP and emotional distress, as well as subjective well-being and emotional distress (See Table 1). Additionally, this analysis reflects significant relationships between perceived parental involvement and OP, EDT, appraisal, absorption, tolerance, emotional distress, and SWB. It should be noted, however, that when these variables were placed into a structural equation model, the significance of relationships between OP and EDT, emotional distress, appraisal, tolerance, and regulation, were no longer present ($p > .05$). Additionally, participants' reports of emotional distress reflected means notably lower than those found within previous data from a comparable sample (Perez, 2017).

Table 1 *Reliability Coefficients, Means, Standard Deviations, and Bivariate Correlations for Study Measures*

Variable	α	<i>M</i> (<i>SD</i>)	1	2	3	4	5	6	7	8	9
1. HPI	.82	3.60 (.82)	-	-.12*	-.11*	-.09	-.11*	-.11*	.12*	-.03	.16**
2. EDT	.93	3.21 (.87)		-	.87**	.92**	.86**	.80**	-.52**	.35**	.13*
3. Appraisal	.85	3.40 (.92)			-	.78**	.70**	.63**	-.50**	.36**	.14*
4. Absorption	.82	3.26 (1.09)				-	.79**	.59**	-.53**	.37**	.16**
5. Tolerance	.80	3.23 (1.02)					-	.58**	-.40**	.27**	.11*
6. Regulation	.78	2.95 (.97)						-	-.38**	.20**	.05
7. Distress	.93	13.94 (11.09)							-	-.38**	-.17**
8. SWB	.88	25.41 (6.21)								-	.29**
9. Involvement	-	8.62 (1.95)									-

Note: HPI = Helicopter Parenting Instrument; DTS = Distress Tolerance Scale Total Score; Appraisal = DTS Appraisal subscale; Absorption = DTS Absorption subscale; Tolerance = DTS Tolerance subscale; Regulation = DTS Regulation subscale; Distress = DASS-21 Total Score; SWB = Satisfaction With Life Survey Total Score; Involvement = Perceived Parental Involvement

* $p < .05$ ** $p < .01$ (two-tailed)

Mediation Analyses

The current study implemented structural equation modeling to determine the predictive strength of OP on EDT, emotional distress, and subjective well-being, while accounting for the effects of reported parental involvement (see Figure 1). Mplus software was utilized with 10,000 bootstrapped samples to determine approximate confidence intervals (CI) to detect levels of significance amongst direct, indirect, and total effects within each model. The fit of the first mediation model (See Figure 1), yielded a significant chi-square value ($\chi^2(1, 6) = 204.723, p < .001$), adequate CFI (.97) and TLI (.68) values, and a probability of RMSEA falling below .05 ($p < .01$). To address this issue, single-item strength for each measure was assessed using confirmatory factor analyses (Hooper, Coughlan, & Mullen, 2008). However, the strength of items appeared to load appropriately within each measure. In the first model, OP appeared to significantly predict levels of emotional distress ($\beta = .14, SE = .06, p < .05, [.04, .24]$) in a positive manner when accounting for the effect of reported parental involvement. Although OP did not predict higher-order EDT, higher-order EDT negatively predicted emotional distress when accounting for the effect of reported parental involvement ($\beta = -.50, SE = .05, p < .001, [-.57, -.42]$). Furthermore, higher-order EDT positively predicted SWB when accounting for the effect of reported parental involvement ($\beta = .31, SE = .06, p < .001, [.21, .41]$).

A second model was conducted to examine the same predictive strength of OP onto facets of EDT, emotional distress, and subjective well-being, as well as the predictive nature of EDT facets onto emotional distress and SWB, while accounting for the effects of reported parental involvement (See Figure 2). Within this analysis, the

facets of tolerance and regulation did not appear to be predicted by OP or predictive of either outcome variable, consequentially. Therefore, tolerance and regulation were removed from the parallel mediation analysis. While the second parallel mediation model displayed a significant chi-square value ($\chi^2(1, 15) = 518.065, p < .001$) and a RMSEA value likely to fall below .05, as well as CFI (.98) and TLI (.88) values suggesting adequate fit. Regarding the individual facets of EDT, absorption negatively predicted emotional distress when accounting for the effects of reported parental involvement ($\beta = -.35, SE = .08, p < .001, [-.47, -.22]$), while positively predicting SWB in the same model ($\beta = .20, SE = .09, p < .05, [.05, .34]$). Appraisal negatively predicted emotional distress ($\beta = -.20, SE = .08, p < .05, [-.34, -.08]$) and positively predicted SWB ($\beta = .18, SE = .09, p < .05, [.04, .32]$) when accounting for the effects of perceived parental involvement.

The second and sixth hypotheses, which examined the mediating role of EDT as a higher-order construct between OP and emotional distress, as well as OP and SWB, were not supported. Furthermore, hypotheses three, seven, and eight, which examined the mediating role of each EDT facet between OP and emotional distress, OP and subjective well-being, and lastly, OP with dependent variables of both emotional distress and subjective well-being, were not supported.

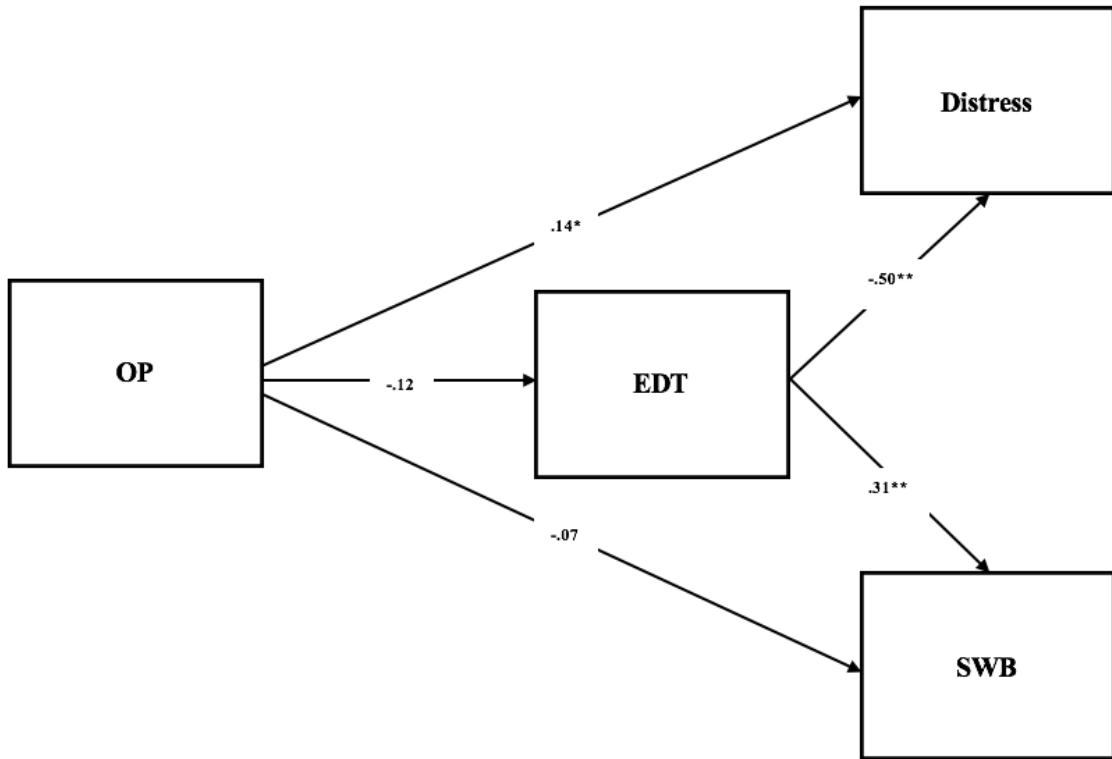


Figure 1. Mediation Analysis Using Higher-Order EDT Construct as a Mediator

Note: Standardized regression coefficients are reported. The indirect effect fell insignificant after accounting for EDT as a mediator within the model, as well as accounting for the effect of parental involvement as a covariate. OP = Helicopter Parenting Scale Total Score; EDT = Distress Tolerance Scale Total Score; Distress = Distress Anxiety Stress Scale – 21 item Total Score; SWB = Satisfaction with Life Survey Total Score.

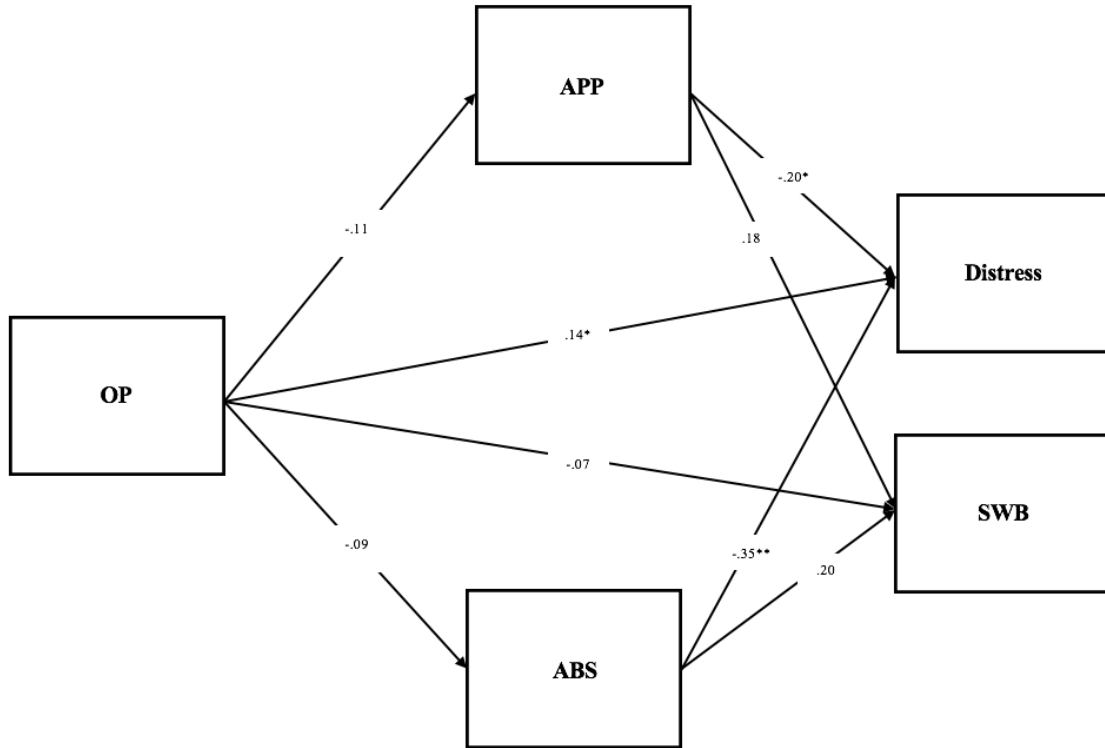


Figure 2. Parallel Mediation Analysis Using EDT Facets as Mediators

Note: Standardized regression coefficients are reported. The indirect effect fell insignificant after accounting for facets of EDT as mediators within the model, as well as accounting for the effect of parental involvement as a covariate. OP = Helicopter Parenting Scale Total Score; APP = DTS Appraisal Subscale; ABS = DTS Absorption Subscale; Distress = Distress Anxiety Stress Scale – 21 item Total Score; SWB = Satisfaction with Life Survey Total Score.

* $p < .05$ ** $p < .001$

CHAPTER IV - DISCUSSION

The present study intended to assess relationships between OP, EDT, facets of EDT (i.e., appraisal, absorption, tolerance, regulation), emotional distress, and subjective well-being in an emerging adult, college student sample. It was hypothesized that OP would be significantly, positively associated with levels of emotional distress, while sharing a significant, negative relationship with SWB. Within bivariate correlation analyses, results suggested significant, negative relationships between OP and the higher-order construct of EDT, as well as EDT facets including appraisal, tolerance, and regulation. Furthermore, OP shared a significant, positive relationship with levels of perceived parental involvement, as well as emerging adults' reports of emotional distress. Interestingly, a significant, positive relationship was shared between SWB and perceived parental involvement, further supporting previous literature which posits that emerging adults actually prefer greater parental involvement in their day-to-day lives and see it as normative (Fingerman et al., 2012).

Within the first mediation model (See Figure 1) examining the mechanism of higher-order EDT between OP and the outcome variables of emotional distress, as well as SWB, OP appeared to be significantly correlated with, and further predictive of, emotional distress in emerging adulthood when accounting for the effects of perceived parental involvement, supporting the first hypothesis. Furthermore, in support of the fifth hypothesis, emotional distress appeared to share a significant relationship with perceptions of SWB. However, OP did not share a significant relationship with SWB, rejecting the third hypothesis. Greater levels of OP did not seem to suggest significantly lower levels of EDT, further rejecting the second hypothesis.

Within the second parallel mediation model (See Figure 2), the significant relationship was upheld between OP and emotional distress, while accounting for the effects of parental involvement. However, OP did not appear to be associated with any EDT facets, thus eliminating the possibility of any significant mediation(s) and a rejection of the seventh hypothesis.

Concerning the first mediation model, the association between OP and the higher-order construct of EDT is generally supported by previous literature (Perez, 2017), while the association between OP and emotional distress adds to an ongoing body of literature proposing mental health consequences resulting from excessive levels of parental involvement (LeMoyne & Buchanan, 2011; Padilla-Walker & Nelson, 2012; Perez, 2017; Schreffin et al., 2014; Segrin et al., 2015). However, the present findings presented lower-than-expected levels of reported emotional distress in comparison to studies conducted in similar samples (Perez, 2017), which perhaps played a role in the limited support of hypotheses. OP did not appear to share any significant relationship with SWB, as proposed by the current study. Padilla-Walker and Nelson (2012) provided findings comparable to this study, which suggested OP was not negatively correlated with SWB. Other researchers have suggested that OP may be negatively correlated with SWB in emerging adult females (LeMoyne & Buchanan, 2011). Related to this, Segrin and colleagues (2012) found a significant, negative relationship between OP and life satisfaction, particularly as it was perceived by emerging adults within the family context. Studies involving OP have also found significant negative relationships between emotional distress and SWB in emerging adult samples (LeMoyne & Buchanan, 2011; Segrin et al., 2013; Schreffin et al., 2014). The current results further support these

findings, as well as the fifth hypothesis presented here. The first model within this study also contributes to a better understanding of EDT and how it may predict both emotional distress, as well as SWB, in emerging adulthood. Studies have suggested that one's ability to tolerate distress may be predictive of quality of life in emerging adulthood and onward (Ameral et al, 2017). Saxena and colleagues (2011) reported greater distress tolerance skills to be predictive of both decreased mental health issues and increased SWB. It should be noted that, when accounting for these variables in a multivariate model, the significant relationship between OP and the higher-order construct of EDT, as well as OP and the EDT facet of regulation, became non-significant.

Although hypotheses involving significant mediating roles amongst facets of EDT were not supported within the present study, the second parallel mediation model (See Figure 2) did provide important considerations that concur with prior research findings. The current study found more adaptive emotional appraisals to be negatively associated with emotional distress in emerging adult participants. Studies have previously found emotional appraisals to be predictive of anxiety and sadness (Smith et al., 2014). Balzarotti and colleagues (2016) further disseminated these findings and provided results that posited positive emotional appraisals may predict greater SWB, while maladaptive emotional appraisals may predict lower levels of SWB in an adult sample. Previously, the EDT facet of absorption has been considered as one potential predictor of poor mental health (i.e., depression) in psychiatric populations (Magidson et al., 2013). Having one's attention absorbed by aversive stimuli has also been found to decrease positive affective experiences, considered to be a key facet of SWB, although the interruption of such maladaptive absorption by effective EDT strategies appeared to return participants' affect

to baseline levels (Ferri et al., 2016). The present findings not only support previous studies highlighting the predictive roles of appraisal and absorption onto emotional distress and positive emotional experiences, but also provide unique information about how these facets of distress tolerance may be associated with, as well as predict, levels of emotional distress and SWB in the emerging adult college student population.

;Limitations

Demographically, the current sample was composed of predominantly white/non-Hispanic, female college students from only one region in the United States. To this point, the majority of studies examining the nature of OP share a comparable imbalance between male and female participants. Therefore, research involving OP in the emerging adult population may unfairly represent the presence of, and correlates with, parental intrusiveness in the emerging adult college student population. Additionally, the majority of participants identified their mother as the primary caregiver, leaving little to understand about the implications associated with paternal overparenting in the emerging adult population. Given that differences in paternal parenting have been found in other studies (Barton & Kirtley, 2012), the results of the current study should be interpreted cautiously. Participants also reported notably lower levels of emotional distress when compared to previous studies examining emerging adult college students (Perez, 2017), which may explain some of the diminished multivariate associations and statistical power amongst mediation models. With this in mind, it is important to acknowledge that the results of this study may not accurately portray the relationships OP shares with EDT, SWB, or emotional distress amongst emerging adults.

Areas for Future Research

An area for growth in the OP literature exists in the context of scale construction. Particularly, researchers have continued to adapt scales based on findings within the literature (LeMoyne & Buchanan, 2011; Odenweller et al., 2011; Padilla-Walker & Nelson, 2012), although no predominant scale has been agreed upon for use amongst those interested in the construct. In an effort towards standardizing the measurement of OP, jointly conceptualizing and testing a gold-standard measurement for OP may lead to robust findings moving forward. To this point, measures of OP seem to gather information related to a higher-construct, while disseminating the ways in which OP presents (e.g., emotional, behavioral) may provide more specific details regarding both predictive and consequential factors associated with this mode of parenting. Given the area of growth involving links between OP and desirable mental health outcomes, researchers would likely gain from considering the ways in which OP is associated with other variables reflective of positive emotional and behavioral adaptability. Furthermore, the findings of this study bring into question whether measures of OP are accurately gathering information pertaining to how emerging adults perceive parental involvement as either good or bad and at what levels it becomes excessive. While the present study did not reflect any significance in the relationship between OP and SWB, there is likely still some associative nature between intrusive parenting and positive experiences in the emerging adult population.

An ongoing theme in the OP literature is one of mothers being reported as the primary parent above and beyond any other relative (Perez, 2017; Schriffin et al., 2014; Segrin et al., 2013). It is important for researchers not only to gather information across a

more balanced participant demographic, but also to have the data reflect a more balanced representation of parents' demographics, as well. Related to this, an effort towards gathering reports of both emerging adults, as well as respectively identified parents/primary caregivers, may facilitate a better understanding of the congruence, or lack thereof, between reports of OP within the parent-child dyad.

Conclusions

Overall, the current study found OP may be predictive of emotional distress in the emerging adult population when accounting for the effects of reported parental involvement. The higher-order construct of EDT did not mediate the relationship between OP and the outcome variables of emotional distress, as well as SWB, due to the lack of predictive potential from OP to EDT. However, the present results posit that higher-order EDT may be predictive of emotional distress and SWB when accounting for participants' reports of parental involvement. Furthermore, the present study found that the way in which emerging adult college students adaptively assess negative experiences may be predictive of their general mental health and life satisfaction, while the extent to which they allow negative experiences to control their attention may also influence these variables.

APPENDIX A – DEMOGRAPHIC QUESTIONNAIRE

What is your age?

What is your gender?

- Male
- Female
- Other _____

Please indicate your college status:

- Freshman
- Sophomore
- Junior
- Senior
- Other (please specify) _____

Please indicate your current living situation

- Off campus (with parents)
- Off campus (without parents; with roommates)
- Off campus (without parents; without roommates)
- On campus (with roommates)
- On campus (without roommates)
- Other (please indicate): _____

What is your race?

- White/Non-Hispanic
- Black/African-American
- Asian-American
- Native American
- Native Hawaiian/Pacific Islander
- Other _____

What is your immediate family's estimated income?

- \$0-\$24,999
- \$25,000-\$49,999
- \$50,000-\$74,999
- \$75,000-\$99,999
- \$100,000-\$124,999
- \$125,000-\$149,999
- \$150,000+

For the purposes of this study, you will be asked to identify a primary caregiver. This should be the parent, or “primary caregiver” that you consider to currently provide the most support in your life.

- Mother
- Father
- Grandfather or other male family member (e.g., uncle)
- Grandmother or other female family member (e.g., aunt)
- Other (please describe) _____

On a scale from 1-10 (1 = *not involved at all* and 10 = *very involved*), how involved do you believe your primary caregiver is in your life?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

On a scale from 1-10 (1 = *completely unsatisfied* and 10 = *completely satisfied*), how satisfied are you in your relationship with your primary caregiver?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

APPENDIX B – IRB Approval Letter



INSTITUTIONAL REVIEW BOARD
118 College Drive #5147 | Hattiesburg, MS 39406-0001
Phone: 601.266.5997 | Fax: 601.266.4377 | www.usm.edu/research/institutional.review.board

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.
Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 17100506
PROJECT TITLE: Overparenting, Emotional Distress, and Positive Affect: Facets of Emotional Distress Tolerance as Mediators
PROJECT TYPE: New Project
RESEARCHER(S): Christopher M. Perez
COLLEGE/DIVISION: College of Education and Psychology
DEPARTMENT: Psychology
FUNDING AGENCY/SPONSOR: N/A
IRB COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 10/06/2017 to 10/05/2018
Lawrence A. Hosman, Ph.D.
Institutional Review Board

APPENDIX C – Electronic Informed Consent

PURPOSE: The present study seeks to better understand the relationship between parenting and mental health outcomes in emerging adulthood.

DESCRIPTION OF STUDY: The present study will consist of completing several brief questionnaires through a secure web portal via the internet. Completion of the study should take approximately 30 minutes, and participants will receive .5 points of SONA credit. Quality assurance checks will be used in this study to make sure that participants read each question carefully and provide thoughtful answers. Participants who do not pass these checks will not receive credit for completing the study.

BENEFITS: Participants will earn 0.5 research credits for completing this study. Those who do not complete the study or who do not pass the quality assurance checks will not receive research credit. Participants will receive no other direct benefits; however, the information provided may better enable researchers to better understand parenting behaviors and how they may be related to mental health outcomes in emerging adulthood. This study does not involve treatment procedures of any kind, or the potential for medical injury.

RISKS: There are no foreseeable risks associated with the current study, beyond those already present in routine daily life. If any questionnaire material evokes distress during the completion of this study, participants should contact the researcher with concerns immediately.

CONFIDENTIALITY: The online questionnaires are anonymous and the information you provide will be kept strictly confidential. Any potentially identifying information (e.g., IP address) will not be retained with your responses. All data collected from the study will be stored in aggregate form with no identifying information to ensure confidentiality. Data will be stored in a secure location for six (6) years, after which time it will be destroyed.

PARTICIPANT'S ASSURANCE: This project has been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, Box 5147, Hattiesburg, MS 39406, (601) 266-6820. Participation in this project is completely voluntary, and participants may withdraw from this study at any time without penalty, prejudice, or loss of benefits. Questions concerning the research should be directed to the primary researcher Christopher Perez (Christopher.m.perez@eagles.usm.edu) or the research supervisor, Dr. Bonnie Nicholson (bonnie.nicholson@usm.edu).

If you experience distress as a result of your participation in this study, please notify the primary researcher Christopher Perez (christopher.m.perez@eagles.usm.edu) or the

research supervisor, Dr. Bonnie Nicholson (bonnie.nicholson@usm.edu). A list of available agencies that may be able to provide services for you are provided below:

Community Counseling and Assessment Clinic (601) 266-4601

Student Counseling Services (601) 266-4829

Pine Belt Mental Healthcare (601) 544-4641

Forrest General Psychology Service Incorporated (601) 268-3159

By selecting “Yes” below, consent is hereby given to participate in this study.

I have read the informed consent agreement associated with this study, and hereby provide informed consent of my participation.

- Yes**
- No**

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