KATHERINE E. ENDY, MSW, LCSW

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CURRICULUM VITAE

EDUCATION

Ph.D., Social Work — December 2022
University of Maryland Graduate School of Social Work, Baltimore, MD
Dissertation: *Mindfulness, Self-compassion, Emotion Regulation, and Parenting Stress in Mothers of Preschool-Aged Children*
Dissertation Co-Chairs: Paul Sacco, Ph.D. & Brenda Jones Harden, Ph.D.

M.S.W. — May 2009
Boston College Graduate School of Social Work, Boston, MA
Concentration in Health/Mental Health

B.A., Liberal Arts — December 2001
Sarah Lawrence College, Bronxville, NY

RESEARCH & ACADEMIC EXPERIENCE

Georgetown University, Washington, D.C. — 2022
Graduate Research Assistant for Dr. Deborah Perry
- Analyzed Early Childhood Mental Health Consultation (ECMHC) data
- Wrote and reviewed sections of manuscript for publication of ECMHC results

University of Maryland School of Social Work, Baltimore, MD — 2020-2022
Institute for Innovation and Implementation; Parent, Infant, Early Childhood (PIEC) Team
Graduate Research Assistant for Dr. Margo Candelaria
- Analyzed statewide data related to National Pyramid Model, Early Childhood Mental Health Consultation, and other early childhood programs
- Assisted with the preparation of grant reports and manuscripts for publication
- Collaborated with other PIEC Team researchers on projects such as literature reviews and development of new measurement tools

University of Maryland School of Social Work — 2018-2020

Graduate Research Assistant for Dr. Ericka Lewis
Evaluation of the Quality Parenting Initiative, funded by the Annie E. Casey Foundation

- Conducted site visit, including focus group and interviews with research participants
- Conducted interviews with research participants remotely
- Coded qualitative data and analyzed quantitative data
- Contributed to the writing and editing of grant reports

Graduate Research Assistant for Dr. Lisa Berlin 2016-2018
Buffering Children from Toxic Stress through Attachment-Based Intervention, Funded by the U.S. Administration for Children and Families

- Involved in multiple aspects of research projects
- Designed and executed independent research utilizing data from the study
- Prepared research results for presentation at the Society for Research in Child Development (SRCD) symposium

Boston College Graduate School of Social Work, Chestnut Hill, MA 2007-2008
Graduate Assistant for MSW Satellite Program

- Prepared teaching materials for professors
- Liaison between satellite program and main campus

TEACHING EXPERIENCE

University of Maryland School of Social Work Baltimore, MD 2019
Teaching Assistant for Professor Victoria Stubbs
SW 700 Advanced Clinical Interventions

- Prepared teaching materials
- Graded student papers and exams
- Developed and delivered a lecture on attachment theory

PROFESSIONAL EXPERIENCE

The Family Life Coach, LLC, Baltimore, MD 2019-present
Founder and Parent Coach

- Provide individual and group parent coaching, in person and online
- Manage a small team of assistants and consultants
- Create online marketing content, including social media, blog posts, and ad copy
- Oversee financial aspects of the business including budgets, projections, and payroll

St. Andre Home, Inc., Biddeford, ME 2013-2016
Clinical Director

- Ensured clinical integrity and implement brain-based, attachment-focused, trauma-informed clinical approach
- Hired, trained, and supervised clinicians in adult and child clinical programs and residential treatment programs
- Developed clinical programming, including opening the Center for Parenting & Play and Hope Rising, Maine's only safe house for survivors of human trafficking and sexual exploitation

Outreach Clinical Social Worker/Supervisor 2012-2013

- Provided attachment-focused therapy to parents with children ages birth to 5 years old
- Educated families about brain-based, attachment-focused parenting techniques
- Provided clinical supervision to licensed clinical social workers

Spurwink Services, Portland, ME 2009-2012

Public School Counselor

- Administered psychosocial assessments; diagnosed child clients; developed and implemented treatment plans
- Delivered school-based mental health services to children in grades K-5, including individual and play therapy, family therapy, and parenting support

Maine Medical Center, PIER Program, Portland, ME 2007-2008

Social Work Intern

- Carried caseload of teenaged clients presenting early signs of psychosis and their families
- Led individual and family therapy sessions and co-facilitated Multi-Family Group
- Provided supported education/employment, aided in relapse prevention and problem-solving skills development

Outreach and Training Coordinator 2006-2008

- Raised awareness about the early warning signs of mental illness through community outreach
- Coordinated and presented trainings for schools, medical professionals and youth; managed database

PUBLICATIONS

Afkinich, J., Torres, J., Latta, L., Wasserman, K. S., **Endy, K**., & Candelaria, M. (2021). "Needed Now More than Ever:" Infant and Early Childhood Mental Health Consultation in an Unprecedented Time. *ZERO TO THREE*, *41*(4), 26-33.

West, A. L., Berlin, L. J., Goodman, A., **Endy, K**., Manzon, C., & Harden, B. J. (2022). Home-Based Early Head Start plus Attachment and Biobehavioral Catch-up: A

Qualitative Study of Implementation Outcomes. *Journal of Child and Family Studies*, 1-12.

PUBLICATIONS UNDER REVIEW

Afkinich, J., **Endy, K. E.,** Candelaria, M., Sweeney Wasserman, K., Hanna, T. (2022) Influence of consultants' licensure status on infant and early childhood mental health consultation (IECMHC) outcomes: Evidence from Maryland [Manuscript under review].

Candelaria, M., Tellerman, K., Whitty, H., Silver, D., Feigelman, S., **Endy, K.E.,** Afkinich, J., & Wilmsfloet, A. (2022). The TREE program: Promoting positive parent-child interactions during well-child visits. [Manuscript under review].

CONFERENCE PRESENTATIONS

Siegel J., **Endy, K. E.**, Wagner, F. (October, 2020). *Migration policy narratives and the health of immigrant children: An empirical test of differences between 2012 and 2017.* Oral paper presentation, American Public Health Association Annual Meeting, San Francisco, California (virtual).

Berlin, L. J., **Endy, K. E.**, Martoccio, T., & Jones Harden, B. (March, 2019). *Parent coaches' in-vivo feedback predicts improvement in parenting behaviors among low-income, predominantly Latina mothers.* In A. Costello (Chair), *Leveraging a major component of Attachment and Biobehavioral Catch-up to ensure successful community dissemination.* Symposium presented at the Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.

PRESENTATIONS AND PARENTING WORKSHOPS

Workshops and professional trainings presented to preschools and parent groups.

How to Handle Triggering Behaviors – online 2022
Understanding Your Child's Brain So You Can Manage their Behavior – online 2021
How to Create Cooperation Using Connection (Not Coercion!) – online 2021
How to Manage Your Child's Big Emotions without Losing Your Cool– online 2021
How to set Boundaries without Blaming, Shaming, or Punishing– online 2021
How to Manage Defiance, Tantrums & Meltdowns– online 2021
Calm, Confident & Conscious Parents – online workshop series 2021
Mindful Parenting – online 2020
How to Manage Difficult Toddler and Preschooler Behavior without Resorting to Bribery or Punishment – online 2020
Parenting and the Brain – presented in Baltimore, MD in January and March 2017
Peaceful Parenting Play Group for Moms and Babies – partnership with DHHS Prevention Program, June-Aug. 2013

Alternatives to Punishment – with Sarah MacLaughlin, LSW; presented at the Anti-Punishment Symposium (Oct. 2013) and monthly/ongoing at the Community Partnership for Protecting Children in 2014
Non-Punitive Behavior Management – with Sarah MacLaughlin, LSW; presented to Spurwink foster parents, March 2014; Camp Ketcha Counselors, June 2014; Child & Family Provider Network Conference, April 2015; foster parents, May 2015
Parenting and the Brain – presented at Jewish Community Alliance, March 2014; with Sarah MacLaughlin, LSW at Camp Ketcha, March 2014
Tantrums and Meltdowns – with Sarah MacLaughlin, LSW, Camp Ketcha, April 2014
The Playful Family – Camp Ketcha, May 2014
Brain-based Classroom Interventions for Early Childhood Educators – with Sarah MacLaughlin, LSW; Little Red Caboose Daycare, February 2015

HONORS AND AWARDS

University of Maryland, Baltimore School of Social Work Dissertation Award 2020-2021
For dissertation research
($3,500)

Awardee, University of Maryland, Baltimore Graduate School Association Scholarship 2020-2021
For dissertation research
($1,000)

Winner, Susan J. Zuravin Scholarship 2019-2020
For PhD research in children's behavioral health research and evaluation
($2,000)

ACADEMIC SERVICE

University of Maryland, School of Social Work PhD Program Committee 2016-2017

PROFESSIONAL MEMBERSHIPS & COMMITTEES

Zero to Three, Member since 2018
Maine Resilience Building Network (MRBN) Member of Leadership Team 2014-2016
National Association of Social Workers (NASW), Member since 2009

PROFESSIONAL LICENSE

Licensed Clinical Social Worker – Maine 2009-Current
(License number LC13520)

Abstract

Title of Dissertation: Mindfulness, Self-Compassion, Emotion Regulation, and Parenting Stress in a Sample of Mothers of Preschoolers

Katherine Endy, Doctor of Philosophy, 2022 Dissertation

Directed by: Paul Sacco, Associate Professor, University of Maryland, Baltimore, School of Social Work and Brenda Jones Harden, Professor of Child and Family Welfare, Columbia University School of Social Work

Parenting stress is known to have adverse effects on both parents and children and is particularly salient during the early childhood years. Parenting stress can lead to harsh parenting behaviors which in turn have negative consequences for children, including internalizing and externalizing behaviors. Parental emotional dysregulation and low levels of compassion toward oneself are factors associated with elevated parenting stress. Mindfulness has been identified as a state of being negatively associated with symptoms of high stress, anxiety, and depression, and has been shown to be beneficial for parents of children with autism and those with chronic illnesses. The purpose of this dissertation study is to analyze the relationship between mindfulness and parenting stress, looking specifically at self-compassion and difficulties with emotion regulation as possible mediators. Using an electronic survey administered by Qualtrics Panels, I gathered data from mothers of 2- to 5-year-old children and analyzed the data using mediation models. I hypothesized that self-compassion and/or difficulties with emotion regulation would mediate the relationship between mindfulness and parenting stress. Results were that self-compassion partially mediated the relationship between mindfulness and parenting stress. Difficulties in emotion regulation did not mediate the relationship between mindfulness and parenting stress. This research has implications for the field of social work, and for

parenting interventions in particular, as it has the potential to expand our understanding of how mindfulness works to reduce parenting stress.

Mindfulness, Self-Compassion, Emotion Regulation, and Parenting Stress in Mothers of Preschoolers

by
Katherine Endy

Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, Baltimore in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
2022

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Chapter 1: Background/Significance

Problem Statement

Parenting plays an important role in the social, emotional, and cognitive development of children (Bernier et al., 2016; Whittle et al., 2016). Parenting stress, which has been shown to significantly impact parenting behavior (Crnic, 2005), can diminish an adult's capacity to behave in ways that are supportive of optimal child outcomes (Crnic & Ross, 2017). Early parenting behavior has been shown to affect child-parent attachment, which has implications for children's long-term outcomes including self-reliance, self-confidence, and the ability to regulate their own emotions (Sroufe, 2005). Early attachment has lasting effects on adult attachment relationships as well. (Mikulincer & Shaver, 2008). In sum, early parenting behavior has is critical for the social and emotional development of young children.

Parenting stress has been defined as the aversive psychological reaction to the demands of parenting (Deater-Deckard, 1998). It occurs when there is a mismatch between the perceived demands of parenting and the resources available to meet those demands (Abidin et al., 1978), whether they be material, financial, or emotional resources. Parenting stress can be associated with major life events as well as the daily hassles of caring for others (Crnic et al., 2005). Researchers have found that parenting stress is universal (Deater-Deckard & Scarr, 1996) and may be particularly salient during the preschool years (Crnic et al., 2005). A parent's perception of her child and her child's behavior can be an element of parenting stress (McMahon & Meins, 2011). Parenting stress can lead to poor parenting behavior and negative outcomes for children (Crnic et al., 2005).

Researchers and clinicians have identified mindfulness as one possible way in which parents can reduce overall stress and parenting stress, in particular. Over the past thirty years, mindfulness practice has been identified from the Buddhist tradition as having salutary effects on both physical and mental health (Greeson, 2009). Mindfulness is a receptive state of being, in which one's attention and awareness are deliberately and nonjudgmentally focused on thoughts, feelings, and bodily experiences in the present moment (Brown et al., 2007; Kabat-Zinn, 1990). While this is a state that can be achieved through a variety of mindfulness practices, such as meditation or yoga, researchers have identified mindfulness as an inherent human capacity (Brown & Ryan, 2003; Kabat-Zinn, 2003). Mindfulness practice strengthens this capacity and creates measurable changes in the brain (Davidson et al., 2003). Mental health practitioners have begun to use mindfulness as a way to mitigate stress related to a diverse array of problems, from physical illness and pain (Merkes, 2010) to emotional and psychological distress (Hayes, 2004; Kabat-Zinn et al., 1992; Linehan, 1993; Segal et al., 2002).

The Current Study

In this dissertation study, I examined the relationship between dispositional mindfulness and parenting stress. Additionally, I examined the possible mediating influences of self-compassion and difficulties with emotion regulation on this relationship. As mindfulness has become popularized in the Western world as a form of stress reduction, many researchers have examined how, why, and for whom mindfulness reduces stress. Whereas some research has been conducted to understand the relationship between mindfulness and stress in parents of children with autism (see Cachia et al. 2016), and chronic health conditions (Kabat-Zinn et al., 1985; Merkes, 2010), fewer studies have investigated this topic in samples of parents of healthy, typically developing

children. This dissertation is a cross-sectional study using a sample of mothers who have at least one child ages 2-to 5 years old. In this study, I examine the potential mediating effects of self-compassion and difficulties with emotion regulation on the relationship between mindfulness and parenting stress.

Background

Parenting Stress

Parenting stress has been associated with many negative parental and child outcomes, including negative maternal parenting behavior (McMahon & Meins, 2011), anxiety and depression (Corthorn & Milicic, 2016; Riva Crugnola et al., 2016), and child behavior problems (Anthony et al., 2005; Mackler et al., 2015). There are many factors, both internal to the parent (such as emotional wellbeing) and external to the parent (such as environmental stressors), that can cause an adult to feel stressed about caring for a child and about various other aspects of family life. Whereas there are some unique circumstances that cause very high levels of parenting stress, such as preterm birth (Castel et al., 2016), parenting a child with a chronic illness (Cousino & Hazen, 2013), or having a child diagnosed with developmental delays (Chan & Neece, 2018; Estes et al., 2009; Hayes & Watson, 2013), especially autism (Miranda et al., 2019), all parents experience some level of stress from life events and from the daily demands associated with meeting the needs of children (Belsky et al., 1995; Crnic & Booth, 1991; Crnic et al., 2005).

Decades of research on parenting and parenting stress point to a tension between parenting demands (practical, physical, emotional, and psychological), and the internal and external resources a parent has to meet those demands (Abidin et al., 1978). Although there is a negative relationship between income and parenting stress, such that,

as income increases, parenting stress decreases, some research has demonstrated that parenting stress may have a U-shaped distribution with regard to its association with income level and education. Some studies have found that stress, and parenting stress in particular, are high in samples of parents from both high- and low-socioeconomic positions (Luthar & Ciciolla, 2015; Nam et al., 2015; Parkes et al., 2015). This suggests that, although the stressors for low- and high-income parents might be different, parents across income categories experience stress related to parenting, with the highest stress at the most extreme income levels.

Transactional Model. There is a transactional relationship between parenting stress and child behavior, with parenting stress leading to more child behavior problems, and more child behaviors problems increasing parenting stress (Neece et al., 2012). A transactional model is one that acknowledges and accounts for the contributions of two independent forces on one another (Sameroff, 1975). In a transactional model, one party's behavior influences the internal state of another, which leads to a reaction or behavior that affects the first person (Sameroff, 1975). In the parent-child relationship, a parent experiences parenting stress, which directly and indirectly affects the child, who displays a behavior that the parent views as problematic, which causes more parenting stress and in turn a negative reaction from the parent (Mackler et al., 2015). Understanding the underlying mechanisms through which parenting stress may be lowered could be useful in helping parents mitigate parenting stress and interrupt the cycle of stressor, negative behavior, parental reaction, more negative behavior, and more stress.

Attribution Theory. Parents who are highly stressed often attribute negative or hostile intent to their children (Beckerman et al., 2017, 2018; Crouch et al., 2017; Deater-Deckard & Scarr, 1996; Mash & Johnston, 1990). Indeed, a parent's negative perception of his or her child's behavior exacerbates the child's problematic behavior (Renk, 2011; Arikan et al., 2020; Crnic et al., 2005). Attribution theory suggests that the perceived causes of an event affect the feelings and behaviors of the perceiver (Kelley & Michela, 1980). For parents, this means that their own explanation for their children's behavior affects how they react to that behavior. For example, Crouch et al. (2017) presented research participants with vignettes of parent-child scenarios and found that parents who perceived that the child in the vignette was intentionally misbehaving or trying to annoy the parent were more likely to endorse harsh parenting practices. Parents who report higher levels of parenting stress also endorse fewer positive parenting beliefs (Respler-Herman et al., 2012).

Mindfulness

Mindfulness is a deceptively simple concept that has entered the Western lexicon in the past 30 years and is becoming more and more common. However, the clinical definition and application of mindfulness differ somewhat from the original conceptualization of mindfulness in the ancient Buddhist texts (Siegel et al., 2009). Dispositional mindfulness is an individual's natural state of being mindful, without engaging in a specific mindfulness intervention or practice (Parent et al., 2016). The word *mindfulness* is an English translation of the word *Sati*, from the ancient Pali language in which the original Buddhist teachings were first recorded (Siegel et al., 2009). *Sati* refers to attention, awareness, and remembering (as in *intention* or remembering to be aware; this does not refer specifically to memory; Siegel et al., 2009). The mindfulness scholar

John Kabat-Zinn defined mindfulness as deliberately and nonjudgmentally focusing one's attention on thoughts, feelings, and bodily experiences in the present moment (Kabat-Zinn, 1990). His definition of mindfulness evolved to include, "paying attention in a particular way: on purpose, in the present moment, and non-judgmentally" (Kabat-Zinn, 1994, p. 4). This definition encompasses three core components other scholars have used in their definition of mindfulness: *intention*, *attention*, and *attitude* (Shapiro et al., 2006). Mindfulness involves consciously (*intention*), focusing one's *attention* on the present moment, with an *attitude* of receptivity, curiosity, openness, nonjudgment, and compassion (Brown et al., 2007; Duncan et al., 2009; Shapiro et al., 2006). Understood another way, mindfulness is a "quality of consciousness" (Brown et al., 2007, p. 213) characterized by clarity of attention and awareness and receptivity to the events and experiences of the present moment (Brown et al., 2007).

Although often associated with meditation, "mindfulness" is much more than meditation alone (Brown et al., 2007; Duncan et al., 2009; Shapiro et al., 2006). Mindfulness can be understood as a human capacity that can be cultivated through a variety of conscious, intentional practices, including meditation, yoga/movement, contemplative writing, or breathwork. The Buddhist monk and scholar Bukkhi Bodhi describes mindfulness as "a versatile mental quality that can be developed in a variety of ways," (Bodhi, 2011, p. 27), of which meditation is but one.

There have been attempts in recent years to operationally define mindfulness as a construct in psychological research (Bishop, 2004; Brown & Ryan, 2004; Gethin, 2011; Leary et al., 2007). Although there has been considerable debate on the topic, recent studies, including those using exploratory and confirmatory factor analyses, have pointed

to the emergence of five facets of mindfulness: acting with awareness, observing, describing, nonreactivity to inner experience, and nonjudging of inner experience (Baer et al., 2006; Baer et al., 2008). The five facets map onto mindfulness skills, which can be cultivated through meditation and clinical interventions that incorporate mindfulness practice as part of the treatment modality.

However, one study found that the five-factor structure did not hold up in a cross-cultural sample and that a six-factor model, in which the awareness factor was split into "awareness of thoughts" and "awareness of emotions," was more fitting (Karl et al., 2020). The study, which analyzed the Five-factor Mindfulness Questionnaire (FFMQ) data from 16 different countries, found that the measure fit better in samples from more individualistic Western cultures. The authors suggest that Western cultures tend to assume cultural neutrality, ignoring the cultural context in which psychological constructs are formulated. Mindfulness is no exception. In an exploratory analysis of the FFMQ, the authors of this cross-cultural study found that mindfulness, as measured by the FFMQ, is a construct that may be culturally biased toward a Western, highly individualistic interpretation of the construct. The FFMQ has been used in culturally diverse samples within the U.S., for example, in a sample of low-income African American adults who had attempted suicide (Watson-Singleton et al., 2019). In this study, the five-factor model held up, which may suggest that, even across racial and cultural differences, the construct of mindfulness as measured by the FFMQ is relevant and comprised of five factors. It may also suggest that, in spite of some cultural differences between Black and non-Black Americans, Black Americans hold to

individualistic values that are characteristic of Western culture. It is, however, important to note that this was not a culturally generalizable sample.

Self-Compassion

Compassion has been defined as recognizing and feeling moved by the suffering of another, and being motivated to help (Goetz et al., 2010; Lazarus, 1991; Strauss, et al., 2016). Just as compassion involves being touched by the suffering of others, self-compassion means being touched by and open to one's own suffering, with a nonjudgmental attitude toward one's own pain and inadequacies (Neff, 2003b). To have self-compassion is to offer support and kindness to oneself and to remember that suffering is part of the human experience, something shared by all of humanity (Neff, 2003b; Neff & Faso, 2015). Self-compassion involves three components: self-kindness versus self-judgement; common humanity versus isolation; and mindfulness versus over-identification (Neff, 2003b; Neff & Faso, 2015). Self-kindness versus self-judgment means being kind and understanding toward oneself instead of judgmental and critical. Common humanity refers to viewing one's experience as part of the larger human experience rather than feeling isolated. Mindfulness, in this context, refers to having a balanced awareness of one's experiences rather than over-identifying with painful thoughts and feelings (Neff, 2003b). Kabat-Zinn et al. (1992) also suggested that mindfulness improves the quality of interpersonal relationships in part due to the self-compassion cultivated through mindfulness practice.

Self-compassion is associated with adaptive coping strategies (Neff et al., 2005), especially positive cognitive restructuring (Allen & Leary, 2010). Positive cognitive restructuring involves viewing difficult situations in a more positive light (Allen & Leary, 2010), which is particularly relevant in connecting self-compassion and parenting stress.

Considering that perceived stress is subjective and that parenting stress is subject to an individual's interpretation of stress, cognitive restructuring via compassionate self-talk may be associated with lower parenting stress.

Emotion Regulation and Dysregulation

Difficulty managing or regulating emotions has been linked to numerous mental health diagnoses (Gross & Muñoz, 1995; Koenigsberg et al., 2002; Phillips et al., 2003; Repetti et al., 2002), especially anxiety and depression, which could be categorized as "distress disorders" (Watson, 2005). Emotion dysregulation, defined as "patterns of emotion experience or expression that interfere with goal-directed activity" (Thompson, 2019, p.805), predicts symptom severity in post-traumatic stress disorder, depression, and alcohol misuse (Weiss et al., 2020). Emotion regulation, by contrast, is an individuals' attempt, whether intentional or automatic, to control when and how emotions are experienced and expressed (Mauss et al., 2007). Whether or not they have a diagnosed mental health condition, parents often become emotionally dysregulated when their children's behavior triggers a negative or unwanted emotional response, such as anger or frustration. Emotion dysregulation is the construct that is used in this study to better understand the role that management of one's emotional state plays in the relationship between mindfulness and parenting stress levels.

Process model. Emotion regulation is a multi-faceted construct comprised of various aspects of cognition, emotion, behavior, and physiology (Cole et al., 2019; Deater-Deckard et al., 2016) that has been conceptualized in a variety of ways by different researchers. Gross (1998a) proposed a process model of emotion regulation in which external stimuli (emotional cues from the environment) are evaluated and

modulated before an emotional response is formed. In the process model, emotion regulation is viewed as an adaptation to the environment, (Gross, 1998a). According to this model, emotion regulation may happen at any of these five points in the process of emotion generation: selection of the situation, modification of the situation, deployment of attention, change of cognitions, or modulation of responses (Gross, 1998a). In this model, the first four points in the process of emotion generation constitute antecedent-focused emotion regulation, whereas the final point, modulation of responses, is a response-focused form of emotion regulation, focused on suppressing emotion (Gross, 1998a, 1998b).

Suppression, avoidance, and rumination are strategies for emotion regulation that may be useful for a child to survive in certain threatening or suboptimal environments (Thompson, 2019), but prove to be maladaptive in adult relationships (Gross & John, 2003), including the parenting relationship. Children of parents who are constantly engaged in conflict, or are depressed or anxious, tend to develop the need to anticipate and manage their parents' emotional states, developing insecure attachment representations both within the family unit and in relationships outside the context of the family (Thompson, 2019).

Automatic emotion regulation. Mauss et al. (2007) discussed the difference between deliberate and automatic emotion regulation, pointing out that most of the existing research on emotion regulation focuses on the deliberate, which targets explicit goals (Mauss et al., 2007). However, much of our emotional responsiveness is automatic, based on learned and internalized schemas and concepts (Mauss et al., 2007). There are many instances in which we engage in appraisal, deployment of attention, and/or

emotional engagement or disengagement without conscious thought or awareness of those strategies (Mauss et al., 2007; Williams et al., 2009).

Adaptive emotion regulation. Adaptive emotion regulation involves strategies that, whether automatic or deliberate, are healthy and constructive. Adaptive emotion regulation strategies are attempts at managing difficult emotions. By contrast, emotion dysregulation may consist of unsuccessful attempts to regulate emotion, emotions that interfere with situationally appropriate behavior, emotions that are expressed inappropriately relative to the context in which they are expressed, or emotions that change abruptly or slowly (Beauchaine & Zisner, 2017; Thompson, 2019). Emotion dysregulation may involve a lack of awareness of one's emotions, a lack of understanding of one's emotions, and/or difficulty accepting one's experience of certain emotions (Gratz & Roemer, 2004).

Although there is preliminary research examining the relationships among mindfulness, parenting stress, self-compassion, and emotion regulation, those relationships are still poorly understood. This dissertation study examines the associations between and among mindfulness, self-compassion, difficulties with emotion regulation, and parenting stress. In particular, I examined whether self-compassion and/or difficulties with emotion regulation mediate the relationship between dispositional mindfulness and parenting stress in parents of preschool-aged children.

Research Aims and Hypotheses

Aim 1: To examine the interrelationships between mindfulness, self-compassion, emotion regulation, and parenting stress in a sample of mothers of preschool-aged children.

H1: There is a negative association between mindfulness and parenting stress.

H2: There is a positive association between mindfulness and self-compassion.

H3: There is a negative association between self-compassion and parenting stress.

H4: There is a negative association between mindfulness and difficulties with emotion regulation.

H5: There is a negative association between difficulties with emotion regulation and parenting stress.

Aim 2: To examine self-compassion and difficulties with emotion regulation as possible mediators in the relationship between mindfulness and parenting stress. (See Figures 1, 2, and 3 for mediation models.)

H6: Self-compassion mediates the relationship between mindfulness and parenting stress.

H7: Difficulties with emotion regulation mediates the relationship between mindfulness and parenting stress.

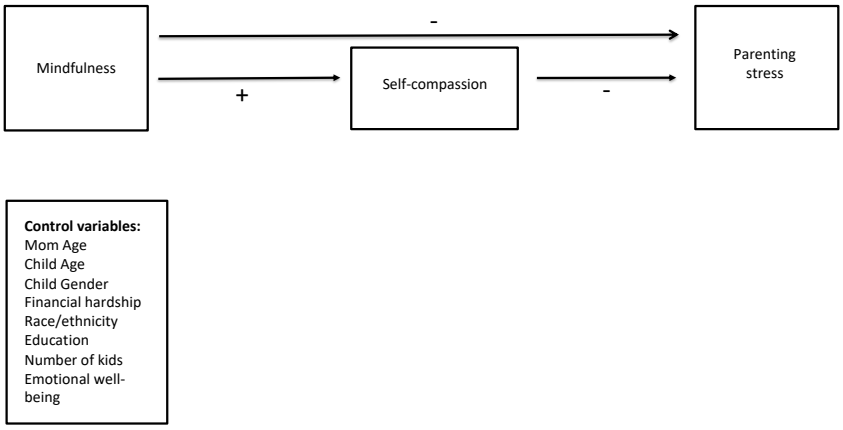

Figure 1. Mediation model in which self-compassion mediates the relationship between mindfulness and parenting stress (H1-H3; H6)

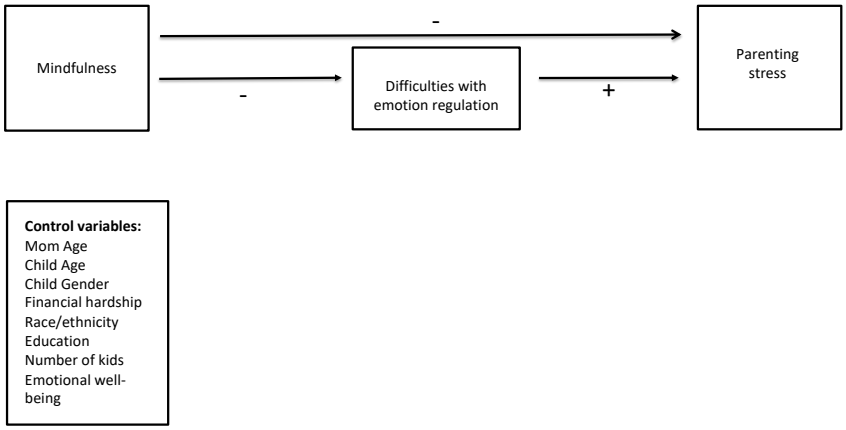

Figure 2. Mediation model in which difficulties with emotion regulation mediate the relationship between mindfulness and parenting stress (H4-H5; H6)

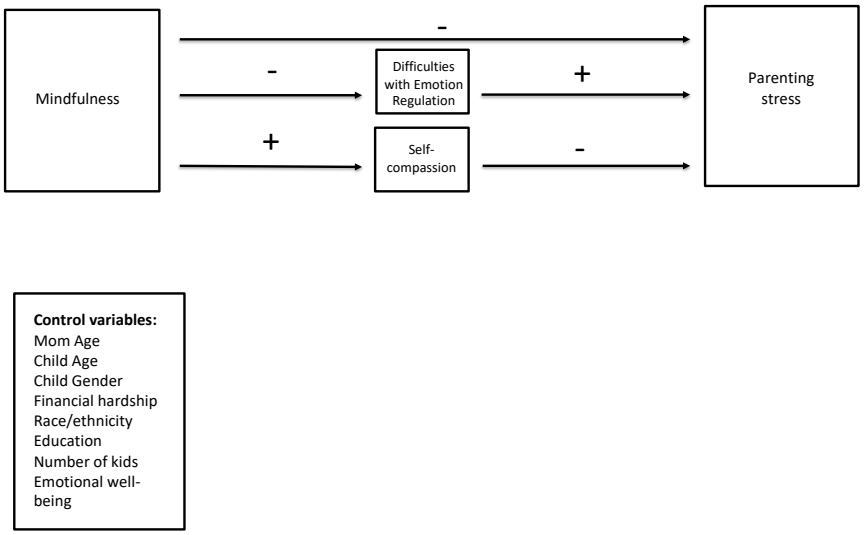

Figure 3. Parallel mediation model in which self-compassion and difficulties with emotion regulation simultaneously mediate the relationship between mindfulness and parenting stress (H6 & H7)

This research fills a gap in the literature by examining mechanisms which may be contribute a reduction in parenting stress. It has been established in the literature that there are associations between mindfulness, self-compassion, emotion regulation, and parenting stress, however, the nuances of *how* and in what ways these constructs are related are still unclear. Considering that parenting stress is so pervasive and can be detrimental to the physical and mental health of both the adults and the children in a family, understanding the mechanisms through which parenting stress may be reduced could be an important contribution to the parenting literature. Specifically, higher levels of dispositional mindfulness are associated with lower levels of parenting stress (Campbell et al., 2017; Corthorn & Milicic, 2016; Ferraioli & Harris, 2013), but just how this is accomplished is poorly understood.

Significance to Social Work

Parenting is an area of research and of service provision that does not fit neatly into a single discipline. Researchers from social work, psychology, human development, medicine, family studies, law, and other fields have all engaged in some line of inquiry directly or indirectly related to parenting. Social workers are uniquely suited to address the needs of parents and families given the multidisciplinary approach, the focus on assisting individuals across the lifespan, and the emphasis on the importance of human relationships inherent in social work practice. The child-parent relationship is a human's very first relationship and it is of critical importance for the child's future health and well-being (Hong & Park, 2012; Sroufe, 2005; Winston & Chicot, 2016). Social workers are often the professionals who intervene when parenting difficulties result in adverse outcomes for the child, the parent, or the family unit. Considering the interconnectedness of parenting stress and child outcomes, understanding mechanisms through which

parenting stress may be reduced is especially important. This dissertation contributes to the field of parenting research by examining the mechanisms through which mindfulness in parents is associated with parenting stress, and what other factors may be responsible for reducing parenting stress. This work may also inform social work policy, specifically regarding how, when, where, and to whom parenting interventions are delivered.

Chapter 2: Theory

There are two prevailing epistemologies, or theories of knowledge, that have classically been applied to research in the Western world: positivism and constructionism (Crotty, 1998). The positivist perspective is that an unassailable truth exists, whether or not humans are present to consciously experience it. From this perspective, knowledge is "discovered" by humans, and this guides the way we come to know things as "true" (Crotty, 1998). Constructionists, by contrast, believe that knowledge is *created* through human thought, language, and interaction with other humans (Crotty, 1998). Crotty makes an important and useful distinction between constructionism, the social construction of reality, and constructivism, the meaning-making of and within the mind of an individual, though these terms are often used interchangeably in the literature (Patton, 2014). According to constructivists, humans use language to identify, describe, and classify things and this creates our experience of the world.

Mindfulness and meditation have their roots in Buddhism, which has a rich epistemological tradition of its own, one which predates positivist and constructionist ways of knowing (Forman, 1989). Some scholars have compared Buddhist philosophy to constructivism, pointing out the many similarities. The Buddhist positioning on constructivism is based on three core ideas: *dependent origin, impermanence,* and *emptiness*. *Dependent origination* is the notion that you cannot identify or classify any object without comparing it to other objects in the environment. Its origination is dependent upon and built-in context with other objects and ideas. *Impermanence* suggests that no phenomenon has existed in its current state or will continue to exist in the same state forever. Because we create experiences of phenomena and objects through our

linguistic descriptions of them, combined with existing knowledge and experience, any new experience or phenomenon we encounter can only exist in the context of everything we already know. Finally, the concept of *emptiness* is the idea that no individual thing has inherent qualities of its own. The unique qualities or characteristics of an object or phenomenon are only those that humans ascribe to it (McWilliams, 2010).

In the *Vijnanavada* (or *Yogachara*) Buddhist tradition, "reality" or truth is individually constructed through language or "imprints of linguistic constructions" (Nedu, 2015). Any sense of shared truth or experience pertains to a consensus of consciousness and is driven by karma but does not indicate an objective reality outside the consciousness of the individuals having the experience. "There is no objective authority to establish what the truth is; all truth-related matters are about consensus, convention and practice," (Nedu, 2015, p. 62).

Like modern-day constructivists, the 5th century Indian Buddhist missionary and translator, Paramartha, who is said to have brought *Vijnanavada* Buddhism from India to China, understood experience to be created and shaped by language, concepts, and past experiences (Forman, 1989). Our perception of the world is influenced by associations with past experiences, upon which we build new experiences, habits, concepts, and understandings of the world around us. Nedu (2015) writes:

> Truly, Vijñānavāda claims that any type of conceptual knowledge simply represents a subjective phenomenon, with no cognitive value and no corresponding object; it also considers that the apparition of a certain conceptual experience is determined by entirely subjective causes, which are related only to the individual identity (ātman) appropriated by consciousness, (p. 59).

While classical constructivists stop at the idea that experience is created and mediated through language, past experience, and the five senses, some Buddhist thinkers introduce the idea that there may be some types of "mystical" experiences that cannot be experienced (constructed) through language, concepts, or past experiences. In other words, in contrast to the assertion that Steven Katz made, that there are no pure, unmediated experiences, (Katz, 1978). Paramartha stated that mystical experiences, such as those attained through meditation, transcend language and mediation through thought or past experience (Forman, 1989). Indeed, Buddhist doctrines teach ways of knowing that transcend the mind and even the body. Forman (1989) goes so far as to call this *anti*-constructivist.

According to the Buddhist way of thinking, suffering comes from believing that what we see and experience in the world is fixed and essentially true (the positivist worldview), which robs us of hope that things could get better. If we acknowledge and embrace the belief that we construct our reality through perception and language, then uncomfortable experiences can, de facto, be changed by changing our thoughts about them. This is where constructivist philosophy and Buddhist philosophy diverge: constructivists insist upon alleviating suffering by creating "more effective worldviews" (McWilliams, 2010, p. 87), whereas the Buddhist approach emphasizes making meaning out of the sensations experienced in the present moment (Garland et al., 2017).

Forman takes this a step further and suggests that it is the dialectical categorization of objects and experiences – describing something as "good" or "bad," "rich" or "poor," "health" or "sickness" – that "will inevitably lead to suffering," (Forman, 1989, p. 414). Perhaps this is why the "nonjudgmental" stance is such a key

component of mindfulness, and why nonjudgmental openness and receptivity to what *is*, can be such a powerful balm to all forms of physical and emotional suffering. However, Buddhist monk and scholar Bikkhu Bodhi argues that, in spite of the emphasis on nonjudgment in the Western popular application of mindfulness, in the "eightfold path" (to liberation or "nirvana"), the Buddha delineated an ethical code of conduct, consisting of: right thought, right speech, right action, right livelihood, right effort, right mindfulness, and right concentration. Bodhi points out that these concepts are not, in fact, devoid of judgment and evaluation (Bodhi, 2011).

Theory of Mindfulness

Shapiro and colleagues (2006) proposed a theory of how mindfulness works to alleviate perceived pain and suffering. The central mechanism involved in mindfulness, according to this theory, is called *reperceiving*, in which an individual separates herself from her thoughts, such that she can view her present-moment experience more objectively and with more clarity (Shapiro et al., 2006). In doing so, a shift in perspective occurs. Furthermore, decentering herself from her experience allows an individual to "simply be" with her thoughts, feelings, and physical sensations, rather than being defined by them (Shapiro et al., 2006). Brown et al. state that "mindfulness concerns a noninterference with experience, by allowing inputs to enter awareness in a simple noticing of what is taking place" (Brown et al., 2007, p. 213). Therefore, mindfulness mediates external stimuli (e.g., environmental stressors, trauma, or child behavior problems) and negative states of mind (e.g., stress, anxiety, depression). In the Western conceptualization of the concept, mindfulness is a personal process or internal state of being, not necessarily connected to common humanity or a collective experience, which would be more in line with a Buddhist worldview.

Model of Mindful Parenting

The concept of mindfulness recently been applied to parenting. Duncan et al. (2009) have developed a model of mindful parenting that provides a framework for understanding how mindfulness can be integrated into parenting practices and the role of the parent, and, perhaps more importantly, the relationship between parent and child. The model of mindful parenting outlines five dimensions: *listening with full attention* refers to the parent's ability to accurately read the child's verbal and behavioral cues; *nonjudgmental acceptance of self and child* refers to the parent's sense of self-efficacy and ability to accurately attribute the child's behavior while appreciating the child's traits; *emotional awareness of self and child* means that the parent is aware of her own and her child's emotions and is able to respond appropriately; *self-regulation in the parenting relationship* refers to the parent's ability to regulate her emotions in the context of parenting, relying less on automatic responses and instead pausing to choose how she wishes to respond in a given situation; *compassion for self and child* refers to the parent's affection for herself and her child and her ability to forgive herself in her efforts to parent effectively (Duncan et al., 2009).

In Duncan et al.'s model, the five dimensions of mindful parenting lead to more consistent child management practices, better parent-child communication, a greater sense of parents' sense of self-efficacy, more realistic expectations of the child, and better parental emotional and mental health (Duncan et al., 2009). The model frames how mindfulness may be incorporated into parenting behavior, the parent-child relationship, and parental well-being and has been used in several studies of mindful parenting and mindfulness-based parenting interventions. Duncan and colleagues suggest that mindfulness and the mindful parenting behaviors outlined in the model may be resources

parents can use to cope with parenting- and family-related stress, thereby minimizing the impact of these stressors on the parent-child relationship (Duncan et al., 2009).

In tandem with a basic understanding of the constructs of mindfulness, self-compassion, and emotion regulation, the model of mindful parenting was used to underpin the current research examining the relationships among the aforementioned constructs and parenting stress in a sample of mothers of preschoolers.

Chapter 3: Review of the Literature

Parenting Stress

Decades of research on parenting stress has demonstrated that it has a negative impact on both child and parental wellbeing (Crnic, 2005, Deater-Deckard, 1998). There are both direct and indirect effects of parenting stress on child psychological well-being (Crnic, 2005) and child behavior (Neece et al., 2012). While some have hypothesized that the impact of parenting stress on the child is mediated through parenting behavior, Crnic (2005) found that stress in the family context also has direct, negative effects on children, regardless of its impact on parenting behavior. Parenting stress can be acute or chronic and can be caused by the day-to-day demands of caring for children as well as more significant life events associated with being a parent (Deater-Deckard, 1998).

Considering the often-high demands-to-resources ratio associated with parenting stress, it comes as no surprise that parenting stress is associated with poverty and financial hardship (Cassells & Evans, 2017). Economic hardship predicts parenting stress (Williams et al., 2015), though this stress is caused not merely by an inability to make ends meet, but to provide more than just the basics of food and shelter. For example, parents want to provide extras such as a special toy or money for school field trips, which they perceive as markers of being a good parent (Mistry et al., 2008). While material hardship accounts for more variability in parenting stress than income level (Gershoff et al., 2007), a more salient factor may by the parents' perception of lack, deprivation, and social comparison (Cassells & Evans, 2017). Although it is true that as income goes up, parenting stress goes down, that is not the case for families whose incomes were 150-200% poverty level (Gershoff et al., 2007). This is generally the threshold for public assistance eligibility and families may no longer qualify for Temporary Assistance for

Needy Families (TANF), Medicaid, or childcare assistance programs, but are then unable to meet their basic needs, like paying rent or purchasing groceries (Gershoff et al., 2007).

Single mothers have higher parenting stress than mothers with partners, and non-employed single mothers fare even worse in terms of stress and emotional well-being (Meier et al., 2016). This is in part because of the economic impact of single parenthood (Waldfogel et al., 2010). Fathers are more likely than mothers to experience parenting stress through employment factors, such as unemployment or working multiple jobs (Nomaguchi & Johnson, 2016).

Parenting stress varies by race and ethnicity. Hispanic parents may have higher stress than Black, American Indian, or White parents (Nam et al., 2015). Some studies have found that parenting stress in Black mothers is higher than in White mothers (Nam et al., 2015; Nomaguchi & House, 2013) and the relationship between parenting stress and parenting behavior is mediated by depression in Black mothers (Cassells & Evans, 2017). Furthermore, exposure to community violence contributes to parenting stress (Wilson et al., 2017). By contrast, one study found that, in a sample of educated, wealthy, mostly White, suburban-dwelling mothers, predictors of parenting stress were role overload (e.g., a perception of too many competing responsibilities), parenting guilt, and negative child behavior (Luthar & Ciciolla, 2015).

Mental health issues are strong predictors of parenting stress and can have significant negative implications for child outcomes. Trait anxiety and pregnancy-related anxiety are both predictors of post-partum parenting stress (Corthorn & Milicic, 2016; Huizink et al., 2017; Riva Crugnola et al., 2016). Post-partum depression is also associated with higher levels of parenting stress (Reid & Taylor, 2015; Riva Crugnola et

al., 2016). Depression plays a prominent role in predicting parenting stress and mediating the relationship between several risk factors and parenting stress, including prenatal anxiety, low self-esteem, low social support, negative cognitive style, and history of depression (Leigh & Milgrom, 2008). Maternal depression mediates the relationship between parenting stress and developmental delays in children of Black and Hispanic adolescent mothers (Huang et al., 2014). In a sample of single mothers of Black boys, Jackson et al. (2015) found that mothers' depressive symptoms and parenting stress predicted harsh parenting behavior which, in turn predicted the boys' behavior problems. This research clearly supports the transactional model of parenting stress.

In addition to anxiety and depression, trauma plays a role in parenting stress, though this relation is usually mediated by anxiety or depression. Depression partially mediates the relationship between trauma exposure and parenting stress (Molina et al., 2018). In a study conducted by Molina et al. (2018) which examined trauma and parenting stress in a sample of mostly Hispanic, low-income parents, the authors found that parental exposure to trauma also had both direct and indirect effects (through maternal depressive symptoms and parenting stress) on child behavior problems. Parental exposure to adverse childhood experiences (ACES) has a significant, indirect effect on parenting stress (both parent and child domains), mediated by parents' anxiety (Moe et al., 2018). ACES can be individual to a child or family (e.g., physical or sexual abuse, parental mental illness or incarceration) or community-wide (e,g., poverty, discrimination, or community violence; Ellis & Dietz, 2017). Mothers' experiences of interpersonal victimization (IPV, also an "ACE") are another predictor of high parenting

stress and leads to emotionally unsupportive parenting behavior (Loucks & Shaffer, 2014).

Parenting Outcomes. Although raising children may have many benefits for the parent, the daily hassles of parenting can negatively affect the level of dyadic pleasure and quality of parent-child interactions (Crnic et al., 2005). The pleasure a parent experiences from parenting is associated with sensitivity (Brown & Cox, 2020), which is deemed an important factor in the social and emotional development of children (Mesman et al., 2012; Newton et al., 2014). Additionally, parenting stress is associated with a lower sense of parental efficacy (Crnic & Ross, 2017), which affects parenting behavior. Parenting stress itself predicts parenting behavior (Deater-Deckard, 1998), with increased parenting stress associated with more negative parenting behaviors including the use of harsh discipline and physical punishment (Beckerman et al., 2017, 2018; Deater-Deckard, 1998). Harsh parenting practices lead to more internalizing and externalizing behaviors and social problems in children (Deater-Deckard, 1998; Fletcher et al., 2008). Although the current study does not evaluate parenting behavior, understanding one of the primary causes of negative parenting behaviors (e.g., parenting stress) and the factors that may be associated with it (e.g., mindfulness, self-compassion, and difficulties with emotion regulation) may inform the development and implementation of interventions and tools designed to mitigate parenting stress.

Difficulty regulating emotion is associated with more ineffective discipline strategies in mothers (Babinski et al., 2016; Banks et al., 2008; Deater-Deckard et al., 2010; Harvey et al., 2003; Lorber, 2012; Lorber & O'Leary, 2005; Mokrova et al., 2010; Murray & Johnston, 2006), a controlling parenting style (Martini et al., 2004), and

negative parenting in general (Bridgett, Burt, et al., 2013; Bridgett, Laake, et al., 2013; Chronis-Tuscano et al., 2011; Chronis-Tuscano et al., 2008). Emotion dysregulation also plays a role in child abuse potential. Smith et al. (2014) found that while mothers' history of child abuse predicts risk for becoming an abusive parent, this relationship is mediated by the mothers' emotional dysregulation. These findings speak to the feedback loop in which maternal emotion dysregulation may be caused by stress or trauma and, in turn, the mother's interactions with her child (parenting behaviors) are mediated by how well or poorly the mother can regulate her own emotions and behavior.

Child outcomes. As noted in the previous section, parenting stress has a negative impact on children, often through negative parenting behaviors or attitudes. However, Crnic et al. (2005) found that parenting stress has a direct negative effect on child functioning. This may be explained by the "spillover effect" in which an individual's level of stress extends beyond their own internal experience and affects others in their environment. Stressful home environments can negatively impact a child's self-esteem and level of anxiety (Fiese & Winter, 2010).

Studies examining the causes of parenting stress have found anxiety and/or depression to be mediating factors between a stressor such as a child's health issue (Cousino & Hazen, 2013), financial strain (Cassells & Evans, 2017), or a parent's experiences of trauma (Molina et al., 2018), including IPV and structural racism (Watson-Singleton et al., 2020; Watson-Singleton et al., 2019) and parenting stress. Considering the widespread and empirically validated use of mindfulness-based practices and interventions for addressing anxiety and depression in clinical samples (Hayes, 2004; Hayes et al., 1999; Kabat-Zinn et al., 1992; Linehan, 1993; Segal et al., 2002), examining

how mindfulness operates to alleviate stress in parents, all of whom experience stress at some level, seems particularly important. There may be aspects of mindfulness, such as self-compassion and emotion regulation (the hypothesized mediators in this study) that parents could practice or incorporate into parenting in other ways, beyond formal mindfulness training, intervention, or meditation. For example, remembering to pause and take a deep breath before reacting to a child's behavior, or identifying and acknowledging emotional upset in oneself and offering compassion to oneself could enhance the parenting experience by reducing parenting stress. As demonstrated in the literature on parenting stress, parenting behavior, and child outcomes, lower parenting stress is associated with effective parenting behavior and in turn, better child outcomes.

Mindfulness and Parenting

Mindfulness allows for more adaptive responses, minimizing automatic or impulsive reactions to events in the environment (Bishop, 2004; Brown et al., 2007). This is relevant to parenting because parenting involves constantly responding to in-the-moment needs and demands of the child. Reducing reactivity and cultivating responsiveness can improve parent-child communication and the quality of the parent-child relationship (Parent et al., 2016). Mindfulness may be a tool that parents can use to remain present moment focused, cultivate self-awareness (Vago & Silbersweig, 2012), and in turn, create the foundation for healthy relationships with one's children. While the mechanisms through which mindfulness works to increase responsiveness and decrease reactivity and stress have been explored in the literature, the stressors associated with parenting are unique and the ways in which mindfulness aids parents in reducing parenting-specific stressors may also be unique. One of the aims of the present study is to

examine specific mechanisms that through which mindfulness operates in the reduction of parenting-related stress.

In a study of mindfulness in parenting and co-parenting, Parent et al. (2016) found that dispositional mindfulness had both direct and indirect effects on parenting behavior, as well as the quality of the co-parenting relationship. Dispositional mindfulness in parents was indirectly related to positive parenting practices, through mindful parenting (Parent et al., 2016), suggesting that it is not mindfulness *per se* that changes parenting behavior, but actively and intentionally engaging in mindful parenting, or bringing present-moment awareness and attention to parent-child interactions. Another study found that mindfulness mediates the relationship between parents' perceptions of their early childhood experiences and their sense of competence in parenting (Miklosi et al., 2017). While the relationship between mindfulness and parenting behavior is clear, the mechanism through which mindfulness works to lower stress in general and parenting stress in particular is not fully understood.

How does mindfulness work? According to Kabat-Zinn (1994), mindfulness practice works by increasing moment-to-moment awareness and acceptance, increasing a person's ability to respond rather than react. Mindfulness increases awareness of one's emotional state (Kabat-Zinn, 1994; Shapiro et al., 2006) is one of the mechanisms through which mindfulness helps to reduce physical and emotional suffering (Shapiro et al., 2006). Gottman et al. (1996) found that parents' awareness of their own emotions was related to parenting behavior and to child outcomes. Shapiro et al. (2006) posit that individuals shift their perspectives through increased capacity for objective self-awareness (of thoughts, physical sensations, and emotions). They refer to this as "re-

perceiving," a process that allows an individual to shift from thoughts such as "I am afraid" or "I am angry" to "I *feel* afraid" or "I *feel* angry." Though the difference is subtle, this "meta-perspective" allows an individual to de-identify with thoughts, feelings, and physical sensations and, instead, observe these experiences objectively. This process, according to Shapiro et al. (2006), leads to self-regulation and greater cognitive, behavioral, and emotional flexibility, which in turn leads to responsiveness, rather than reactivity, in relationships (Duncan et al., 2009).

Attention is another key mechanism through which mindfulness operates. Mindful attention allows one to "disengage from unexpected and emotional stimuli" (Bögels et al., 2010), a common occurrence in parenting. Parents are constantly faced with a child's emotional upset, a need, an injury, or any number of other unexpected events, and it is easy to get swept up into a negative emotional state or experience a "fight or flight" response in these moments (Bögels et al., 2010). The fight or flight response bypasses the prefrontal cortex of the brain, activating a survival response, rather than a rational, problem-solving response in the prefrontal cortex, or executive functioning, part of the brain (Siegel, 2009). While parents do occasionally need to respond to legitimate emergencies or react quickly to a dangerous situation, most parenting interactions do not warrant a fight or flight response. The ability to put a breath or a pause in between the stimulus and the response allows a parent to respond calmly and more effectively to situations that do not demand a strong reaction.

Mindfulness and Parenting Stress

Considering the substantial literature pointing to the effectiveness of mindfulness and mindfulness-based interventions for reducing stress in samples of adults from a variety of backgrounds, with a variety of identified problems, it follows that mindfulness,

both as a practice (e.g., meditation) and as a way of interacting with children (i.e., mindful parenting), would be beneficial in reducing parenting stress. Chan and Lam (2017) found that mindfulness was a mediator between child behavior problems and parenting stress and that parental mindfulness was directly and negatively associated with parental stress (Chan & Lam, 2017). Gouviea et al. (2016) found that dispositional mindfulness was associated with mindful parenting and that both were negatively associated with parenting stress. Corthorn & Milicic (2016) found a strong association between mindfulness and mindful parenting, both of which were negatively associated with parenting stress, in a sample of non-meditating parents of preschoolers (Corthorn & Milicic, 2016). Both studies used cross-sectional data and only reported on correlations between variables, therefore it is impossible to determine causality. Understanding *why* and *how* mindfulness alleviates parenting stress may help parents of young children focus on specific aspects of what is involved in "being mindful," such as regulating one's emotional responses and consciously choosing to be compassionate toward oneself.

Emotions in Parenting: Regulation and Dysregulation

An emotion is an episodic response to an object (person, thing, or circumstance), which is usually accompanied by physical sensations in the body, and which is often assigned a value (i.e., good or bad) by the individual experiencing the emotion (Mulligan & Scherer, 2012). Emotions usually precede a behavior (e.g., crying, smiling, yelling; Cole et al., 2019), which may or may not be directed toward another person. Parents experience a wide range of emotions in response to their children, (Adam et al., 2004). Research has shown that emotional regulation problems in parents can lead to attachment problems and psychopathology in children (Leerkes et al., 2017). Therefore, learning

effective ways to regulate one's own emotions may be a key factor in raising emotionally healthy children.

Emotion Regulation and Parenting

Emotion regulation is characterized by both intrinsic and extrinsic processes for "monitoring, evaluating, and modifying emotional reactions," (Thompson, 1994, p. 27). Emotion regulation is an important component of positive parenting behavior and has demonstrated positive effects for parenting when incorporated into parenting interventions (David et al., 2017; David et al., 2014). Emotion regulation is negatively correlated with family stress and with negative affect (Deater-Deckard et al., 2016), suggesting that a parent's ability to regulate her emotions may be part of the mechanism through which parents are able to decrease parenting stress. A mother's ability to regulate her emotions may influence her parenting behaviors as well as her child's behavior (Gottman et al., 1996; Morelen et al., 2016; Shaffer et al., 2018). Emotion regulation also plays a key role in sensitive parenting (Rutherford et al., 2015; Thompson, 1994), which is linked to positive outcomes for children (Mesman et al., 2012). The current study investigates whether difficulties with emotion regulation may be a mediator between mindfulness and parenting stress which, may in turn affect parenting behavior. A deeper understanding of the influence of difficulties with emotion regulation on parenting stress (and, specifically as a mediator between mindfulness and parenting stress), will help to inform parenting interventions that target parenting stress and, in turn, parenting behavior.

Emotion (Dys)regulation and Parenting Stress

In a 2016 study of mothers of 3- to 7-year-old children, Deater-Deckard and colleagues found that mothers with more stressors had lower emotion regulation, lower

positive affectivity, and higher negative affectivity than those with fewer stressors (Deater-Deckard et al., 2016). In contrast to emotion regulation, emotion dysregulation is defined as "patterns of emotional experience or expression that interfere with goal-directed activity," (Thompson, 2019, p. 805) and tends to be inappropriately prolonged and characterized by lability and intensity (Lin et al., 2019). Parental emotion dysregulation predicts parenting stress (Cao et al., 2017). Emotion dysregulation is also positively correlated with both chronic and episodic stress (Lin et al., 2019). Emotion dysregulation implies a total lack of regulatory processes, in contrast to difficulties with emotion regulation, a concept which suggests that attempts to regulate emotion are being made, but unsuccessfully (Morelen et al., 2016).

Mindfulness and Emotion Regulation

Although the effects of mindfulness practice on emotion regulation are well established in the literature (Chambers et al., 2009; Teper et al., 2013), and the correlation appears to be strong (Feldman et al., 2007), the exact mechanism through which this occurs is still poorly understood (Teper et al., 2013). Teper et al. propose that mindfulness enhances emotion regulation by improving an individual's sensitivity to sensory cues associated with emotion (e.g., rapid breathing when feeling anxious), subtle changes in affect, and habitual cognitive reactions (Teper et al., 2013). The focus on awareness and nonjudgmental acceptance of present-moment sensations are features of mindfulness that alert the brain to initiate a regulatory response (Teper et al., 2013).

Although it has been shown that mindfulness meditation is associated with higher executive functioning (Teper & Inzlicht, 2012), research using fMRI imaging showed that meditators had decreased activity in the executive, evaluative, and emotion centers of

the brain (prefrontal cortex, hippocampus , and amygdala, respectively), and increased brain activity in the anterior cingulate cortex, thalamus, and insula, (Grant et al., 2011). Compared to individuals with lower levels of dispositional mindfulness, those with higher levels of dispositional mindfulness displayed less activation in the amygdala and greater activation in the prefrontal cortex, specifically the right dorsolateral prefrontal cortex (Creswell et al., 2007). This suggests that mindfulness influences emotion regulation not by increasing the mindful person's cognitive reappraisal skills, but by enhancing awareness of physical sensations and affective cues and strengthening the connection between the limbic system and the prefrontal cortex (Chambers et al., 2009). Indeed, there is a bidirectional relationship between the limbic system and the prefrontal cortex, wherein regulating emotions is a dynamic process, not a purely top-down process of cognitive control (Gross, 1998b). Mindfulness meditation enhances the meditator's sensitivity to physical and emotional cues (Lazar et al., 2005), activating a regulatory response (Chambers et al., 2009).

Mindfulness involves first an awareness of and relationship with the self, which can then be translated into relationship with others. The nonjudgmental awareness aspect of mindfulness allows an individual to interpret physical and emotional cues as important information that can be used to mobilize internal and external resources for regulating emotions rather than avoiding or suppressing emotions judged as negative or undesirable.

Review of the Literature on Self-Compassion

Although research has confirmed the speculation that self-compassion is, in fact, associated with many positive interpersonal outcomes (Neff & Beretvas, 2013; Yarnell & Neff, 2013), surprisingly little research has investigated the relationship between self-compassion and parenting process and behaviors (Moreira et al., 2016). Two Portuguese

studies found that self-compassion was negatively associated with parenting stress (Gouveia et al., 2016; Moreira et al., 2015). Neff and Faso (2015) found that self-compassion is associated with decreased parenting stress in parents of children with autism spectrum disorder. Few studies have examined self-compassion as a mediator between mindfulness and parenting stress in a sample of mothers of typically developing preschool-aged children. The mindful parenting model proposes that self-compassion may be an aspect of the way in which mindfulness operates in relation to parenting stress.

Consistent with the model of mindful parenting, Gouveia et al. (2016) found that self-compassion is strongly correlated with mindful parenting. In a study of a mindfulness-based intervention involving a sample of pregnant women with depression, Townshend et al. (2018) found that self-compassion was a stronger mediator than mindfulness in the relationship between pre- and post-intervention depression. Potharst et al. (2017) also found that self-compassion increased from pre- to post-intervention in a sample of mothers who received a mindful parenting training.

It is difficult to determine the true utility of self-compassion as a mediator in these studies, however, because they are intervention studies primarily utilizing pre/post-intervention designs. There is some limited non-intervention research pointing to self-compassion as a key benefit of mindfulness. For example, Baer et al. (2012) examined mindfulness and self-compassion in a sample of meditators and non-meditators and found that self-compassion was a stronger predictor of psychological well-being than mindfulness. This research treats mindfulness meditation as a lifetyle or practice, rather than an intervention. In other words, the researchers examined characteristics of individuals who either practiced meditation in their daily life compared to those who did

not; the meditation practice was not introduced as an intervention aimed at solving a specific problem.

Mindfulness and Self-Compassion as Ways of Decreasing Parenting Stress

Mindfulness is a practice that has gained popularity in recent years as an effective strategy for reducing stress (Kabat-Zinn et al., 1998). Previous research has found that mindfulness is negatively correlated with parenting stress, depression, anxiety, and general stress (Corthorn & Milicic, 2016; Duncan & Bardacke, 2010; Pan et al., 2019; Perez-Blasco et al., 2013; Townshend et al., 2018). Additionally, studies examining the efficacy of parenting interventions that include mindfulness activities or information about mindfulness, suggest that this type of intervention may reduce stress (Duncan & Bardacke, 2010; Pan et al., 2019; Perez-Blasco et al., 2013; Rayan et al., 2018; Short et al., 2017; Singh et al., 2014; Townshend et al., 2018), and parenting stress in particular (Mann et al., 2016; Potharst et al., 2017). Parenting stress is distinct from general stress in that it relates specifically to the pressures of the parenting role (Deater-Deckard, 1998).

Campbell et al. (2017) found that parenting stress mediates the relationship between mindfulness and parental responsiveness to the child. This suggests that mindfulness may change the way a parent responds to her child by lowering parenting stress. Indeed, by honing awareness of the present moment, mindfulness allows the individual to respond, rather than react, to what is happening, interrupting the "automaticity" that often governs parenting behavior (Duncan et al., 2009). One limitation of the Campbell et al. study, however, is its use of cross-sectional data, which makes it impossible to infer causality. In a study of parents of children with autism spectrum disorder, Neff and Faso (2015) found that parents who had higher self-

compassion had lower parenting stress than parents who had low levels of self-compassion. This study was, however, limited by the fact that it relied upon cross-sectional survey data from participants who were predominantly White and middle class.

One recent study found that a mindfulness-based intervention increased mindfulness and self-compassion in caregivers of family members with mental illness (Stjernswärd & Hansson, 2017). Self-compassion is positively associated with mindfulness and negatively associated with stress, anxiety, perinatal anxiety, and depression (Townshend et al., 2018). Mindfulness-based stress reduction (MBSR), an eight-week clinical intervention in which mindfulness meditation is systematically taught as a way to alleviate suffering associated with many mental and physical conditions, has demonstrated effectiveness at lowering some types of stress and increasing self-compassion (Chiesa & Serretti, 2009). A longitudinal, quasi-experimental study of MBSR in a sample of university students found that mindfulness precedes self-compassion, suggesting that mindfulness is a necessary pre-requisite for the development of self-compassion, which was not found to mediate the relationship between mindfulness and anxiety (Bergen-Cico & Cheon, 2014). In a pre-post study of a mindfulness intervention for pregnant women, Townshend et al. (2018) found that self-compassion *did* mediate the relationship between the intervention and markers of parental distress (e.g., anxiety, depression, and stress).

Summary

The research on emotion regulation and dysregulation and parenting stress, and the emerging literature on mindfulness serve as the foundation for this study of mindfulness, parenting stress, self-compassion, and difficulties with emotion regulation.

Although it is well established in the mindfulness literature that mindfulness meditation, such as the form of meditation taught in MBSR, is an effective way to reduce certain types of stress and to increase self-compassion (Chiesa & Serretti, 2009), the mechanism through which mindfulness affects these outcomes is not yet fully understood. While attention and mindful awareness are believed to be aspects of mindfulness (Shapiro et al., 2006), the model of mindful parenting suggests that self-compassion and emotion regulation may also be salient aspects of mindfulness when it is deliberately and intentionally applied to parenting (Duncan et al., 2009).

Chapter 4: Method

Although mindfulness is challenging to define and quantify, valid and reliable measures of mindfulness have been developed to quantify this construct. The purpose of this study was to examine the relation between mindfulness and parenting stress and whether self-compassion and/or emotion regulation mediated the relationship between mindfulness and parenting stress. I used a cross-sectional study design to answer my research questions about parents' perceived parenting stress, dispositional mindfulness, and their self-reported levels of self-compassion and ability to regulate their emotions.

Participants

Participants were recruited in September 2021 through the Qualtrics Panels survey platform (Qualtrics, Provo, Utah, 2020). Mothers were included in the study if they had at least one child between the ages of 2 and 5 years old. Based on a power analysis I conducted in G*Power (Faul et al., 2007), the target number of participants for this study was $n = 300$ to detect a small to medium direct effect for any individual coefficient. In order to evaluate the power for indirect effects in the model, I used the instructions outlined by Schoemann et al. (2017) and conducted a second power analysis in R Studio (Rstudio Team, 2020). This power analysis also indicated that the study would be adequately powered to detect small to medium indirect effects in the model.

Qualtrics Panels maintains a database of individuals in the United States who have already agreed to respond to surveys in exchange for small monetary compensation at a rate determined by Qualtrics. They send the link to potential participants who meet the inclusion criteria. For the current study, Qualtrics Panels opened the survey on September 21, 2021 to collect preliminary results for one day, getting a total of 33 responses. Of those 33 responses, none identified as African American/Black. (Four

identified as Asian/Pacific Islander, one identified as Native American/Alaska Native, and 28 identified as White). Based on the fact that no African American/Black mothers responded, Qualtrics Panels then re-opened the survey on September 23, 2021 just to African American/Black respondents for one hour, until they had at least 30 responses, or 10% of the total desired sample size. After one hour, there were 38 responses from African American/Black mothers and the survey was opened to all qualifying participants until *n*=315 was reached (the target *n*, plus and additional 15 responses in case any responses were unusable). The target number was reached and the survey was closed on the same day. Of the 315 responses, 26 were unusable for this study, either because the participant indicated that the age of their child was below age 2 (*n* = 11), above 5 years (*n* = 13), or the way they entered the age was unclear (*n* = 2), and therefore I could not determine if they met the eligibility criteria for the study. The final *n* for the current study was 289. Two additional cases were dropped from the final analysis because of missing data on one variable, Mom age.

Variables

The outcome variable of interest in this study was parenting stress. The independent variable was dispositional mindfulness. Two mediating variables were also examined: self-compassion and maternal emotion regulation. The independent, dependent, and mediator variables were all measured on a continuous scale, based on total scores participants received on reliable, valid measures.

Control variables. Studies of mindfulness in parenting have demonstrated that parentings stress is highly correlated with parental anxiety (Corthorn & Milicic, 2016) and depression (Huang et al., 2014; Lutz et al., 2012). Mindfulness is also negatively correlated with these markers of distress (Corthorn & Milicic, 2016; Townshend et al.,

2018). For this reason, depression/anxiety was entered as a control variable. Research suggests that younger parents have higher parenting stress than older parents. Mother's age was included as a control variable. Parenting stress levels vary by race (Nam et al., 2015), therefore a combined race/ethnicity variable was, using the categories described by the Office of Management and Budget (1997a and 1997b). Financial hardship is also associated with parenting stress (Gershoff, 2007). Financial hardship was dichotomized and used as a control variable. There is some evidence that the way parents respond to children's emotions varies by the child's gender, due in part, to cultural norms and the ways in which adults socialize girls and boys differently (Kennedy Root, 2010), therefore child gender was included as a control variable. Additionally, consistent with other, similar studies (e.g., Corthorn & Milicic, 2016, and Gouveia et al., 2016), mother's level of education, child's age, and number of children in the household, were used as control variables.

Measures

Parenting Stress Index – Short Form. I used the Parenting Stress Index – Short Form (PSI-SF) to measure levels of parenting stress. (The PSI-SF is not included in the appendix due to copyright restrictions.) The PSI-SF consists of 36 statements which the respondent is asked to rate on a scale of 1 to 5 (*1=strongly disagree, 5=strongly agree*). Responses are summed to create a total parenting stress score. The PSI-SF has three subscales: Parenting Distress, Dysfunctional Parent-Child Interaction, and Difficult Child, each of which consists of 12 items. The Parenting Distress subscale measures the parent's feelings of competence about parenting, the level of conflict they have with their partner or spouse, and the level of perceived social support they receive. An example statement from the Parenting Distress subscale is *"I feel alone and without friends."* The

Difficult Child subscale assesses the parent's perception of specific child characteristics, such as temperament and noncompliance. An example of an item from the Difficult Child Subscale is *"My child makes more demands on me than most children."* The Dysfunctional Parent-Child Interaction subscale measures the positive feelings the parent gets from interactions with the child. An example statement form the Dysfunctional Parent-Child Interaction subscale is *"When I do things for my child, I get the feeling that my efforts are not appreciated very much."* Responses are measured on a scale of 1 (strongly agree) to 5 (strongly disagree) and were scored according to instructions in the PSI-SF manual. (Due to copyright restrictions, a copy of the PSI-SF is not included herein.)

The PSI-SF is a valid, reliable (Cronbach's $\alpha = .85 - .90$) measure of parenting stress (Abidin, 1983; Holly et al., 2019) and has been widely used in diverse samples of parents. In a sample of predominantly African American mothers from a Head Start program, Reitman et al. (2002) reported α of .95 for the Total Stress Scale. Haskell et al. (2006) found α of .83 in a diverse sample of parents, half of whom had a history of physically abusing their children. Test-retest reliability was stable, with a statistically significant correlation between time 1 and time 2 (one year later) assessments in a subsample of abusive parents ($n = 21$; $r = .75$; $p<.001$). Lee et al. (2016) examined criterion validity of the PSI-SF and found the total score had moderate to large positive relationships with the Center for Epidemiologic Studies Depression (CES-D) scale ($r = .61$; $p <.01$), the Inattention/Overactivity with Aggression (IOWA) Rating Scale, inattention–impulsivity–overactivity subscale ($r = .26$; $p <.01$), and the IOWA, oppositional defiance subscale ($r = ..45$; $p <.01$) (Lee et al. 2016). In confirmatory factor

analyses, Deater-Deckard and Scarr (1996), Haskett et al. (2006), and Lee et al. (2016) all found that the 3-factor model did not fit the data. Reitman et al. (2002) found that the 3-factor model fit their data, but a 2-factor model also fit. I used the Total Stress Score in this study, summing the responses to individual items on the scale. Cronbach's alpha for the PSI total score in the current study was $\alpha = .94$. Alphas for PSI subscales in the current sample can be found in Table 1.

Table 1: *Scores on Key Measures* (n=289)

Construct	Mean *(SD)*	Range	Skewness (SE)	Kurtosis (SE)	Number of items	Cronbach's alpha
PSI-SF Total Score	83.69 (26.99)	(36,168)	.29 (.14)	-.30 (.29)	36	.94
PSI-SF Parent	32.30 (11.07)	(12, 60)	.05 (.14)	-.60 (.29)	12	.90
PSI-SF Parent-Child	24.30 (9.55)	(12, 56)	.84 (.14)	.36 (.29)	12	.90
PSI-SF Difficult Child	27.09 (10.51)	(12, 58)	.50 (.14)	-.32 (.29)	12	.86
FFMQ-15	49.32 (8.54)	(24, 75)	.54 (.14)	.53 (.29)	15	.74
FFMQ-15 Observe	10.06 (2.72)	(3, 15)	-.26 (.14)	-.01 (.29)	3	.63
FFMQ-15 Describe	9.93 (2.66)	(3, 15)	.12 (.14)	-.22 (.29)	3	.58
FFMQ-15 Aware	9.79 (2.97)	(3, 15)	.41 (.14)	-.63 (.29)	3	.75
FFMQ-15 Nonjudge	10.30 (3.12)	(3, 15)	-.27 (.14)	-.69 (.29)	3	.82
FFMQ-15 Nonreact	9.24 (2.98)	(3, 15)	-.09 (.14)	-.35 (.29)	3	.72
SCS	82.77 (17.82)	(29, 129)	.18 (.14)	.56 (.29)	26	.91
SCS Self-Kindness	14.34 (4.80)	(5, 25)	.24 (.14)	-.25 (.29)	5	.82
SCS Self-Judgment	16.61 (4.94)	(5, 25)	-0.22 (.14)	-.60 (.29)	5	.84
SCS Common Humanity	11.91 (3.82)	(4, 20)	.13 (.14)	-.56 (.29)	4	.77

Table 1 (Continued): *Scores on Key Measures* (n=289)

Construct	Mean *(SD)*	Range	Skewness (SE)	Kurtosis (SE)	Number of items	Cronbach's alpha
SCS Isolation	13.56 (4.12)	(4, 20)	-.38 (.14)	-.47 (.29)	4	.84
SCS Mindfulness	12.33 (3.85)	(4, 20)	.26 (.14)	-.62 (.29)	4	.79
SCS Over-identification	14.02 (3.10)	(4, 20)	-.39 (.14)	-.52 (.29)	4	.80
DERS*	63.56 (18.35)	(25, 121)	-.15 (.14)	-.46 (.29)	25	.92
DERS Nonaccept	15.28 (6.19)	(6, 29)	.37 (.14)	-.67 (.29)	5	.89
DERS Goals	13.81 (4.42)	(5, 23)	-.01 (.14)	-.60 (.29)	3	.64
DERS Impulse	14.49 (5.20)	(6, 28)	.32 (.14)	-.44 (.29)	4	.72
DERS Aware	16.22 (5.22)	(6, 29)	.01 (.14)	-.62 (.29)	5	.83
DERS Strategies	20.00 (6.64)	(8, 38)	.10 (.14)	-.59 (.29)	3	.66
DERS Lack of Clarity	12.07 (4.32)	(5, 25)	-.02 (.14)	-.68 (.29)	5	.75

*Includes only the 25 valid items

Note. PSI is Parenting Stress Index-Short Form, FFMQ-15 is 15-item Five-Factor Mindfulness Questionnaire, SCS is Self-Compassion Scale, DERS is Difficulties with Emotion Regulation Scale.

Five-Facet Mindfulness Questionnaire, Short Form (FFMQ-15). Mindfulness has been defined in a variety of ways by different scholars, however, there are core elements of the construct that remain consistent across these definitions. The original 39-item Five-Facet Mindfulness Questionnaire (FFMQ) was developed from a factor analysis of five different measures of mindfulness, culminating in a five-facet model. A shorter, 15-item version, the FFMQ-15, has also been validated. The five facets measured in the FFMQ are: observing, describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience (Baer et al., 2006). The 39-item FFMQ has been validated in samples of college students in which it has a Cronbach's alpha ranging from .86 to .88 (Baer et al., 2008) and, more recently, in a sample of African American adults who had a recent suicide attempt. In the latter sample, the measure had internal consistency coefficients that ranged from .60 to .86 and the five-factor structure was supported, however test-retest reliability was not supported in this sample (Watson-Singleton et al., 2018).

The short, 15-item version of the FFMQ (see Appendix B) was developed by Baer (2008) by selecting items from the original 39-question measure according to their factor loadings. Gu et al. (2016) determined that the 15-item version of the FFMQ is reliable and valid, with internal consistency ranging from .64 to .83. The total facet scores on the 15-item FFMQ were highly correlated with the total facet scores on the 39-item FFMQ, indicating that the two scales measure the same thing (Gu, et al., 2016). Example items and their corresponding facets are: *"I pay attention to sensations, such as the wind in my hair or sun on my face"* (observe); *"Even when I'm feeling terribly upset, I can find a way to put it into words"* (describe); *"I don't pay attention to what I'm doing because*

I'm daydreaming, worrying, or otherwise distracted" (act with awareness, reverse-coded); *"I believe some of my thoughts are abnormal or bad and I shouldn't think that way"* (nonjudgment, reverse-coded); and *"When I have distressing thoughts or images, I just notice them and let them go"* (non-react). There are five response options: *Never or very rarely true, rarely true, sometimes true, often true, very often or always true,* which are coded on a scale of 1-5. Of the 15 items in the measure, 7 are reverse-coded. Items are then summed to create a total score. Cronbach's alpha for the FFMQ-15 total score in the current study was $\alpha = .74$, which is consistent with findings from Gu et al. (2016). Alphas for the total FFMQ-15 and its subscales in the current sample can be found in Table 1. Although some of the subscales in my sample had low alphas ($\alpha < .74$)

Self-compassion Scale (SCS). The Self-compassion Scale (see Appendix C) was used to measure parents' self-compassion. The SCS has 26 items (Neff, 2003a), which load onto six factors: self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification and an overarching self-compassion factor (Neff, 2016)

The SCS has good internal reliability ($\alpha=.92$) and good test-retest reliability over a 3-week period of time ($\alpha=.93$; Neff, 2003a). In a clinical sample of low-income African Americans, Zhang et al. (2019) found that the SCS had acceptable internal consistency, which alphas on subscales ranging from .68 to .78, which, although considered acceptable, were lower than alpha coefficients in other studies of both clinical and nonclinical samples. Townshend et al. (2018) used SCS in a study of 109 pregnant women at-risk for perinatal depression and anxiety and found strong internal consistency

(Cronbach's α = .94). Cronbach's alpha for the SCS total score in the current study was α = .91. Alphas for SCS subscales in the current sample can be found in Table 1.

In terms of construct validity, the SCS is negatively correlated with the Self-Criticism subscale of the Depressive Experiences Questionnaire (DEQ; r = -.65, p < .01) and significant positively correlated with the Social Connectedness scale (r = .41, p < .01) and subscales of the Trait-Meta Mood Scale (Attention, r = .11, p <.05, Clarity, r = .43, p <.01, and Repair, r = .55, p <.01; Neff, 2003a). Zhang et al. (2019) also found strong convergent validity of the SCS in a clinical sample of low-income African Americans.

Examples of items on the scale are: *"I try to be understanding and patient towards those aspects of my personality I don't like"* (Self-Kindness subscale); *"I'm intolerant and impatient towards those aspects of my personality I don't like"* (Self-Judgment subscale); *"I try to see my failings as part of the human condition"* (Common Humanity subscale); *"When something upsets me I try to keep my emotions in balance"* (Mindfulness subscale); *"When I fail at something important to me I become consumed by feelings of inadequacy"* (Isolation subscale); and *"When I'm feeling down I tend to obsess and fixate on everything that's wrong"* (Overidentified subscale), (Raes et al., 2011). Items are measured on a 5-point scale, from *almost never* to *almost always*, and negatively worded items are reverse-coded. A high score on the SCS indicates a high level of self-compassion.

Although the SCS contains a mindfulness subscale, the questions pertain to whether or not the respondent takes a balanced perspective in response to situations that

evoke emotion. By contrast, the construct of mindfulness measured by the FFMQ-15 in the current study is defined as attention, intention, and awareness.

Difficulties in Emotion Regulation Scale (DERS). The Difficulties in Emotion Regulation Scale (DERS; see Appendix D) was used to evaluate emotion regulation in mothers in this sample. The DERS is a 36-item self-report measure with the following six subscales: Nonacceptance of Emotional Responses (e.g. *"When I'm upset, I feel guilty for feeling that way"*), Difficulties Engaging in Goal-Directed Behaviors (e.g., *"When I'm upset, I have difficulty concentrating"*), Impulse Control Difficulties (e.g. *"When I'm upset, I feel out of control"*), Lack of Emotional Awareness (*"I am attentive to my feeling"*), Access to Strategies for Regulating Emotions (e.g., *"When I'm upset, I believe that there is nothing I can do to make myself feel better"*), and Clarity of Emotions (e.g., *"I am confused about how I feel"*). Respondents are asked to rate items within each subscale on a 5-point scale from *almost never* to *almost always*. Responses are summed to create a total score and high scores on the DERS indicate more difficulties regulating one's emotions. I used the total DERS score in this study.

The DERS demonstrated high internal consistency in samples of undergraduates (Cronbach's $\alpha = .93$) (Gratz & Roemer, 2004; Salters-Pedneault et al., 2006) and adequate internal consistency for subscales (Cronbach's $\alpha > .80$; Gratz & Roemer, 2004; and $> .76$; Salters-Pedneault et al., 2006). In a sample of parents of preschoolers, Cronbach's alpha for the total scale was .95 at time 1 and .94 at time 2, and subscales ranged from .81 to .89 across times 1 and 2 (Havighurst et al., 2009). The DERS has acceptable construct and predictive validity and adequate convergent validity with other measures of related constructs (e.g., emotion dysregulation, emotional expressiveness,

and emotional avoidance; Gratz & Roemer, 2004). Cronbach's alpha for the DERS total score in the current study was α = .92. Alphas for DERS subscales in the current sample can be found in Table 1.

Depression, Anxiety and Stress Scale (DASS-21). The Depression, Anxiety and Stress Scale (DASS-21; see Appendix E.) is a 21-item scale measuring on a 4-point Likert-type scale symptoms of depression, anxiety, and stress experienced in the past week (Lovibond & Lovibond, 1995). The scale is reliable and valid and has a three-factor structure corresponding to the dimensions it measures, all with high internal consistency: depression (.94), anxiety (.87) and stress (.91) (Antony et al 1998). The subscales on the DASS-21 are moderately to highly correlated with other measures of those constructs. The depression subscale is moderately to highly correlated with the Beck Depression Inventory (*r*=.79), the anxiety subscale is highly correlated with the Beck Anxiety Inventory (*r*=.85), and the stress subscale is moderately correlated with the Beck Anxiety Inventory (*r*=.70) and the State-Trait Anxiety Scale *(r*=.68; Antony et al 1998). The DASS-21 Norton (2007) compared the validity and reliability of the DASS-21 across four racial groups (Caucasian, African American, Asian, and Hispanic/Latino) and found small differences in the convergent and divergent reliability of the DASS-21 with other measures of depression, anxiety, and stress. The DASS-21 had similarly acceptable to good internal consistency across all four groups (α=.829 for depression, α=.778 for anxiety, and α=.871 for stress) and factor loadings were similar across groups (Norton, 2007). The DASS-21 has been used in samples of breastfeeding mothers (Perez-Blasco et al., 2013), parents of children with autism spectrum disorder (Rayan et al., 2018), and several non-English speaking samples, including Russian and Polish (Scholten et al.,

2017), Brazilian Portuguese (Vignola & Tucci, 2014) , and in samples from several Asian countries (Oei et al., 2013). Cronbach's alpha for the DASS-21 total score in the current study was $\alpha = .97$.

Example items from the DASS-21 are: *"I felt down-hearted and blue"* (Depression subscale); *"I felt I was close to panic"* (Anxiety subscale); and *"I found it difficult to relax"* (Stress subscale). The items on the DASS-21 are summed to create a total score for depression, however, individual subscales (depression, anxiety, and stress) may also be calculated by summing the corresponding items in each subscale (Lovibond & Lovibond, 1995).

Demographics and Financial Hardship

A brief demographic survey was included to gather information about respondents' age, education, race, as well as the child's gender and age, and total number of children. Financial hardship was measured using the five "economic" questions from the Epidemic – Pandemic Impacts Inventory (EPII; Grasso et al., 2020). The full list of demographic and financial hardship questions can be found in Appendix F.

Procedure

After entering all the measures into Qualtrics survey software, I requested that Qualtrics Panels, a survey administration company, identify a sample of participants that met my inclusion criteria. Informal piloting of the survey suggested that it took approximately 15-30 minutes to complete. Qualtrics Panels sent an email to individuals on their panels with a link to the survey. They piloted the survey by collecting 15 responses and then temporarily closed the survey. From these responses, I noticed that people identifying as Black or African American were under-represented in this initial small sample. In order to get a more representative sample, Qualtrics Panels opened the

survey only to Black/African American until at least 30 responses (10% of the total target sample size) were obtained. Then the survey was opened to all parents of preschool-aged children, until the desired sample size was reached. The number of responses collected before the data were cleaned was 315.

Qualtrics Panels provides incentives for survey participants, usually in the form of gift cards or cash payments delivered electronically (e.g., via PayPal). Qualtrics Panels determines the rate of compensation ($3-$5) based on the amount of time participants spend completing the survey. The funds were delivered via PayPal after the participant successfully completed the survey.

All procedures were verified and approved by the University of Maryland, Baltimore Institutional Review Board.

Scoring, coding, and data cleaning. I recoded all the variables in the dataset using SPSS version 27 (IBM Corp., 2020). All measures (e.g., FFMQ-15, SCS, DERS, PSI-SF, and DASS-21) were coded in SPSS using the scale associated with that measure (e.g., Likert-type scale from 1 to 5). Race and ethnicity were combined into one variable, "race/ethnicity" in order to easily and clearly analyze the data. I put all respondents who selected "Hispanic" ethnicity into a category called "Hispanic," regardless of what race they selected on the race question. Any respondents who selected more than one race (and did not select "Hispanic" ethnicity) were categorized as "mixed race/other." I then dummy coded all the race/ethnicity categories for use in the statistical model.

The financial hardship question had categorical response options (e.g., *Unable to get enough food or healthy food, Unable to access clean water*), therefore I recoded the financial hardship variable such that "0" indicated no financial hardship and if the

respondent selected one or more hardship the response was recoded as "1," indicating some financial hardship. After recoding, I scored all other measures within the survey according to the instructions, including reverse-coding items that required it.

Missing data. Due to forced responses in Qualtrics, there were no missing data on key variables in the study. Since child age and mom age were entered as text, there were some missing data on these variables, as some respondents typed invalid responses. Cases with invalid responses on the child age variable were dropped from the dataset because child age was part of the inclusion criteria study (respondent must have at least one child between the ages of 2 and 5 years). Cases were missing on mom age because the number entered for age was not plausible (e.g. one response was "3" and another response – from a mother of a 5-year-old – was "13"). Cases with missing data on the mom age variable (n = 2) were dropped from the analysis, therefore the n of cases used in the mediation analysis was 287.

Univariate and bivariate analyses. I conducted univariate and bivariate data analysis using Statistical Package for the Social Sciences (SPSS), version 27. I conducted univariate analysis of each variable in the model to determine their distribution, (e.g., mean, median, and range), and to check for skewness and kurtosis. I also checked multivariate normality using Mardia's test in M*Plus*. I created a correlation matrix to assess the bivariate relationships amongst the continuous variables in the analysis. All the primary variables in the model are continuous.

Mediation models. Using M*plus* statistical software (Muthén & Muthén, 1998-2017), I conducted mediation analyses using mindfulness as the independent variable, parenting stress as the dependent variable, and self-compassion and difficulties with

emotion regulation as mediators in two separate models. A path model allows for the parameters and standard errors of a series of linear regressions to be estimated simultaneously. By combining a series of linear regression models, path models attempt to estimate causal effects (Kane, 2017). Causal effects can be inferred based on the researcher's *a priori* theory about the relationships among the variables in the model (Barbeau et al., 2019). I used the MLR estimator in M*Plus*. The MLR estimator provides maximum likelihood parameter estimates and standard errors and is robust to non-normality in the data (Muthén & Muthén, 2017).

The theoretical models I tested in this study are depicted in Figures 1, 2, and 3. In the first model, mindfulness is the independent variable, parenting stress is the dependent variable, and self-compassion is the mediating variable. In the second model, I tested difficulties with emotion regulation as a mediator, and in the third model, I tested both self-compassion and difficulties with emotion regulation as mediators simultaneously, allowing the two mediator variables to correlate.

Using M*Plus*,Version 8, I first estimated the direct pathway between mindfulness and parenting stress, as well as the individual, direct paths between mindfulness and self-compassion and between self-compassion and parenting stress in Model 1 and the direct paths between mindfulness and difficulties with emotion regulation and between difficulties with emotion regulation and parenting stress in Model 2. To estimate the mediation effect, M*Plus* provides parameter estimates for the indirect pathway from the IV to the DV, taking into account the unique contribution of the mediator. I included the following control variables in the model: mom age, child age, child gender, mother's

level of education, number of children in the household, race/ethnicity, financial hardship, and mother's depression/anxiety.

Chapter 5: Results

Preliminary Analyses

Descriptive statistics. The sample consisted of 289 mothers between the ages of 19 and 72 years old (M = 33.10, SD = 8.26) with preschool-aged children ranging in age from 2 to 5.92 years (M = 3.55, = SD = 1.07). Since I did not restrict the age of the parent to a specific age range, there were 20 outliers (on age) who otherwise met criteria for the study and therefore were included in the analysis. Mothers in the sample were 55.7% White, 18.7% African American or Black, 14.2% Hispanic, 6.2% Asian or Pacific Islander, and 5.2% other or mixed race. Their educational background was high school completion (29.1%); some college (28.7%); college degree (28.0%); graduate degree (9.3%); and not completing high school (4.8%).

The total number of children in the household ranged from 1 to 5 (M = 2.18, SD = 1.17), however, participants were asked to identify only one child, the youngest within the specified age range, to focus on when completing the survey. The target children in the study were 54% female.

See Table 2 for complete demographic information.

Table 2: *Child and Mother Demographics* (n=289)

	n	(%)			
Child gender					
Female	156	54%			
Male	133	46%			
Parent Education Level					
Did not complete high school	14	4.8%			
High School Diploma	84	29.1%			
Some college	83	28.7%			
College degree	81	28.0%			
Graduate degree	27	9.3%			
Parent race/ethnicity					
African American/Black	54	18.7%			
Asian/Pacific Islander	18	6.2%			
Hispanic	41	14.2%			
White	161	55.7%			
Other/Mixed	15	5.2%			
Report Some Financial Hardship	131	45.3%			
	Mean (SD)	Range	Skewness (SE)	Kurtosis (SE)	
Child Age (in years)	3.55 (1.07)	(2.00, 5.92)	0.15 (.14)	-1.12 (.29)	
Mom Age (in years)	33.10 (8.26)	(19, 72)	1.52 (.14)	4.01 (.29)	
Number of children living in the household	2.18 (1.17)	(1, 5)	.86 (.14)	-.02 (.29)	
Mom Depression/anxiety (DASS-21)		21.82 (18.23)	(0, 63)	0.36 (.14)	-1.16 (.29)

Univariate and bivariate analyses. Univariate analyses of key variables indicated that the data were normally distributed, with the exception of mom age, which was leptokurtic, with a kurtosis > 3 and moderately skewed, with a skewness > 1. I used Mardia's test (Mardia, 2004) to test for multivariate normality, which indicated that the data were multivariate skewed, therefore I selected the MLR estimator in M*Plus*, which corrects for multivariate non-normality in path models (Muthén & Muthén, 2017). Means, standard deviations, skewness, kurtosis, and Cronbach's alphas for key variables used in the models are presented in Table 2.

Bivariate correlations amongst predictor and outcome variables were all statistically significant and in the expected direction (see Table 3 for correlations amongst all variables). A number of variables were highly correlated, including the two potential mediators, self-compassion and difficulties with emotion regulation. I checked the variance inflation factor (VIF) for all variables and found that none were above 4, and therefore determined that multicollinearity was not a problem.

Table 3: *Correlation Matrix of All Continuous Variables in Models 1, 2, & 3*

	PSI-SF	FFMQ-15	SCS	DERS	Child Age	Mom Age	Mom Edu	Total Kids	DASS-21
1. PSI-SF	1								
2. FFMQ-15	-.51**	1							
3. SCS	-.51**	.68**	1						
4. DERS	.59**	-.75**	-.79**	1					
5. Child Age	-.13*	.02	.05	-.06	1				
6. Mom Age	-.10	.002	-.02	-.04	.13*	1			
7. Mom Edu	.08	.11	.07	-.08	-.05	.09	1		
8. Total kids	-.005	.01	-.003	-.06	.10	.02	-.13*	1	
9. DASS-21	.59**	-.57**	-.56**	.73**	-.006	.05	-.04	.04	1

Note. PSI-SF is Parenting Stress Index – Short Form; FFMQ-15 is 15-item Five-Factor Mindfulness Questionnaire; SCS is Self-compassion Scale; DERS is Difficulties with Emotion Regulation Scale; DASS-21 is 21-item Depression, Anxiety, and Stress Scale.

In the process of cleaning the data, I noticed that I made an error when creating the survey in Qualtrics. In the last block of 10 questions from the DERS (questions 26-36), the response options were presented incorrectly. The correct response options are: "Almost never," "Sometimes," "About half the time," "Most of the time," and "Almost Always." For questions 26-36, the last response option was "Never," but should have been "Almost Always." After running many analyses on these last 10 questions as well as a Confirmatory Factor Analysis (CFA) on the measure, with and without these items included, I decided to drop the items from the DERS total score. Even without these 10 items, the Cronbach's alpha for the DERS in my sample was $\alpha = .92$, which indicates good internal consistency, in spite of the missing items. With this information, I decided to include the DERS total score in the model, excluding the 10 problematic items. The DERS total score I used in the analyses is the sum of items 1-25 on the DERS. Since I did not intend to use any of the DERS subscales in this analysis, the omission of 10 items did not affect the use of subscales. The 10 items came from all subscales except CLARITY, which had no missing items.

Results of Mediation Analyses

Model 1: Self-compassion as a Mediator between Mindfulness and Parenting Stress

Model fit. The model using mindfulness as an IV, parenting stress as a DV, and self-compassion as a mediator fit the data perfectly: $\chi^2 = 0.00$, $p < .0001$, $df = 0$, $CFI = 1.00$, $TLI = 1.00$, $SRMR = 0.00$, $RMSEA = 0.00$, 90% CI [0.00 to 0.00]. Because the model had zero degrees of freedom, the model was just-identified. In other words, the number of known parameters is equal to the number of unknown parameters.

Model 1 Results

Direct effects. As hypothesized, mindfulness had a statistically significant negative association with parenting stress ($\beta = -.27$, $p < .001$, 95% CI [-0.33, -0.20]), such that for every one standard deviation increase in mindfulness score, there was a .27 standard deviation decrease in parenting stress score. This finding supports H1: *There is a negative association between mindfulness and parenting stress.* The association between mindfulness and self-compassion was also statistically significant and in the expected direction ($\beta = .55$ $p < .001$, 95% CI [-0.47, -0.63]), indicating that for every one standard deviation increase in mindfulness score, there was a .55 standard deviation increase in self-compassion score, which supports H2: *There is a positive association between mindfulness and self-compassion.* There was also a statistically significant negative association between self-compassion and parenting stress ($\beta = -.40$, $p < .001$, 95% CI [-0.47, -0.33]), indicating that for every one standard deviation increase in self-compassion score, there was a .40 standard deviation decrease in parenting stress, which supports H3: *There is a negative direct association between self-compassion and parenting stress.* The standardized path coefficients for Model 1 can be found in Figure 4.

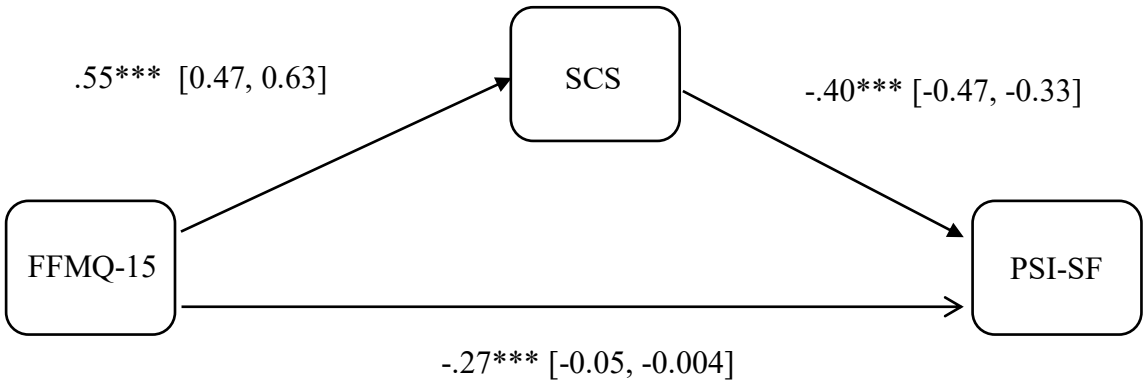

Figure 4. Standardized path coefficients for mediation Model 1

Indirect effects. To test the mediating role of self-compassion in the relationship between mindfulness and parenting stress, I examined the indirect effects in Model 1. In partial support of H6: Self-compassion mediates the relationship between mindfulness and parenting stress, there was a small, statistically significant negative indirect effect from mindfulness to parenting stress through self-compassion ($\beta = -.22$, $p < .001$, 95% CI [-0.27, -0.17]). The strength of the relationship between mindfulness and parenting stress decreased slightly when the mediator (self-compassion) was added to the model. This may suggest a partial mediation effect.

Percentage of variance explained by the model. The relationships amongst variables proposed in Model 1 explains 36% of the variance in mindfulness ($R^2 = 0.36$; *SE* 0.04), 53% of the variance in self-compassion ($R^2 = 0.53$; *SE* 0.04), and 78% of the variance in parenting stress ($R^2 = 0.79$, *SE* 0.02). The standardized and unstandardized direct and indirect effects and percentage of variance explained by the model can be found in Table 4.1.

Table 4.1: *Self-compassion as a Mediator of the relationship between Mindfulness and Parenting Stress* (*n*=287)

Direct Effects	*b (S.E.)*	*z*	*p*	*β (S.E.)*	R^2*(S.E.)*
Y: Parenting Stress					**0.79 (0.024)**
Mindfulness → Parenting Stress	-0.568 (0.081)	-6.87	<.0001	-.265 (0.039)	
Self-Compassion → Parenting Stress	-0.407 (0.044)	-9.46	<.0001	-.396 (0.042)	
Child Age → Parenting Stress	-0.437 (0.494)	-0.88	.38	-.025 (0.029)	
Child Gender → Parenting Stress	-0.210 (1.017)	-0.21	.84	-.006 (0.028)	
Mom Age → Parenting Stress	-0.130 (0.063)	-2.03	.043	-.059 (0.029)	
Mom Education → Parenting Stress	-0.130 (0.485)	-0.27	.79	-.008 (0.028)	
African American* → Parenting Stress	-1.102 (1.380)	-0.80	.43	-.023 (0.029)	
Latino/a* → Parenting Stress	-0.268 (1.387)	-0.19	.85	-.005 (0.026)	
Asian* → Parenting Stress	2.164 (1.890)	1.14	.25	.029 (0.025)	
Other Race* → Parenting Stress	1.431 (2.617)	0.54	.59	.017 (0.032)	
Number of Kids → Parenting Stress	-0.145 (0.488)	0.30	.77	-.009 (0.031)	
Financial Hardship → Parenting Stress	0.784 (0.984)	0.80	.43	.021 (0.027)	
Emotional Wellbeing → Parenting Stress	0.344 (0.038)	9.18	<.0001	.343 (0.037)	
M: Self-Compassion					**0.53 (0.043)**
Mindfulness → Self-Compassion	1.147 (0.115)	10.88	<.0001	.550 (.051)	
Child Age → Self-Compassion	.720 (0.703)	1.03	.30	.043 (0.042)	
Child Gender → Self-Compassion	.084 (1.449)	0.06	.95	.002 (0.041)	
Mom Age → Self-Compassion	-.166 (0.090)	-1.83	.07	-.078 (0.042)	
Mom Education → Self-Compassion	.179 (0.666)	0.27	.79	.011 (0.040)	
African American* → Self-Compassion	1.199 (1.817)	0.66	.51	.026 (0.040)	
Latino/a* → Self-Compassion	1.933 (2.375)	0.80	.42	.108 (0.134)	
Asian* → Self-Compassion	2.076 (2.998)	0.69	.49	.028 (0.041)	
Other Race* → Self-Compassion	-6.555 (3.926)	-1.66	.10	-.082 (0.049)	

Table 4.1 Continued

Number of Kids → Self-Compassion	.145 (0.611)	0.24	.81	.009 (0.040)	
Financial Hardship → Self-Compassion	-1.473 (1.490)	0.99	.32	.0041(0.042)	
Depression/Anxiety → Self-Compassion	-.247 (0.049)	-5.25	<.0001	-.253 (0.048)	
X: Mindfulness					**0.36 (0.040)**
Child Age → Mindfulness	.061 (0.395)	0.154	.88	.008 (0.049)	
Child Gender → Mindfulness	.087 (0.816)	0.11	.92	.005 (0.048)	
Mom Age → Mindfulness	0.085 (0.059)	1.43	.15	.081 (0.057)	
Mom Education → Mindfulness	.655 (0.387)	1.71	.88	.082 (0.048)	
African American* → Mindfulness	2.074 (1.112)	1.87	.06	.095 (0.051)	
Latino/a* → Mindfulness	1.291 (1.215)	1.06	.29	053 (0.050)	
Asian* → Mindfulness	-1.380 (1.510)	-0.91	.36	-.039 (0.043)	
Other Race* → Mindfulness	3.200 (1.653)	1.88	.06	.083 (0.044)	
Number of Kids → Mindfulness	.222 (0.390)	0.57	.57	.030 (0.053)	
Financial Hardship → Mindfulness	-0.507 (0.805)	-0.63	.53	-.029 (0.047)	
Depression/Anxiety → Mindfulness	-.246 (0.024)	-12.87	<.0001	-.526 (0.041)	

Indirect Effect	*b (S.E.)*	*z*	*p*	*β (S.E.)*
Mindfulness → Self-Compassion → Parenting Stress	-.467 (0.066)	-7.12	<.0001	-.218 (0.029)

Model Fit	x^2	*p*	*RMSEA*	*90% CI*	*TLI*	*SRMR*
	0.00	<.0001	0.00	[0.00, 0.00]	1.00	.000

*Reference category is White

Model 2: Emotion regulation as a Mediator between Mindfulness and Parenting Stress

Model fit. To test the relationships amongst mindfulness, parenting stress, and difficulties with emotion regulation as the mediator, I ran a second mediation model, similar to Model 1. As with Model 1, Model 2 was just-identified, meaning the model perfectly fit the data: $\chi^2 = 0.00$, $p < .0001$, $df = 0$, $CFI = 1.00$, $TLI = 1.00$, $SRMR = 0.00$, $RMSEA = 0.00$, 90% CI [0.00 to 0.00].

Model 2 Results

Direct effects. As hypothesized in H1, mindfulness had a statistically significant negative direct association with parenting stress ($\beta = -.46$, $p < .001$, 95% CI [-0.52, -0.39]), such that for every one standard deviation increase in mindfulness score, there was a .46 standard deviation decrease in parenting stress score. The association between mindfulness and difficulties with emotion regulation was statistically significant and in the expected direction ($\beta = -.26$ $p < .0001$, 95% CI [-0.36, -0.17]), such that for every one standard deviation increase in mindfulness score, there was a .26 standard deviation decrease in difficulties with emotion regulation score. This supports H4: *There is a negative association between mindfulness and difficulties with emotion regulation.*

Indirect effects. To test the mediating role of difficulties with emotion regulation in the relationship between mindfulness and parenting stress, I examined the indirect effects in Model 2. The effect of mindfulness on parenting stress through the mechanism or pathway of difficulties with emotion regulation was nonsignificant and therefore did not support H7: *Difficulties with emotion regulation mediate the relationship between mindfulness and parenting stress* ($\beta = -.03$, $p = .06$, 95% CI [-0.05, -0.004]). This means that difficulties with emotion regulation is not a mediator in the relationship between

mindfulness and parenting stress. The standardized path coefficients for Model 2 can be found in Figure 5.

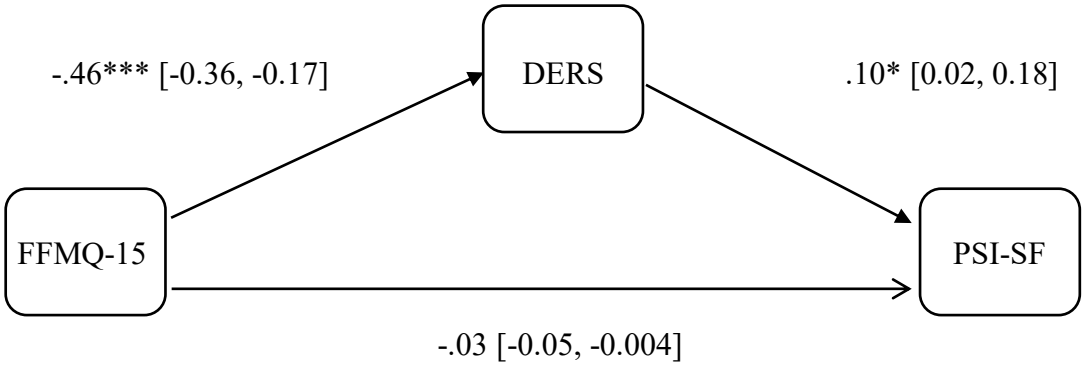

Figure 5. Standardized path coefficients for mediation Model 2

Percentage of variance explained by the model. The relationships amongst variables proposed in Model 2 explains 35% of the variance in mindfulness (R^2 = 0.35; *SE* 0.04), 44% of the variance in difficulties with emotion regulation (R^2 = 0.44; *SE* 0.04), and 72% of the variance in parenting stress (R^2 = 0.72, *SE* 0.03). The standardized and unstandardized direct and indirect effects and percentage of variance explained by Model 2 can be found in Table 4.2.

Table 4.2: *Difficulties with Emotion Regulation as a Mediator of the Relationship Between Mindfulness and Parenting Stress* (*n*=287)

	b (S.E.)	*z*	*p*	*β (S.E.)*	R^2*(S.E.)*
Direct Effects					
Y: Parenting Stress					**0.72 (0.027)**
Mindfulness → Parenting Stress	-0.976 (0.085)	-11.69	<.0001***	-.455 (0.039)	
Difficulties with Emotion Regulation → Parenting Stress	-0.071 (0.034)	2.12	.03*	.104 (0.049)	
Child Age → Parenting Stress	-0.687 (0.530)	-1.30	.19	-.040 (0.031)	
Child Gender → Parenting Stress	-0.120 (1.152)	-0.10	.92	-.003 (0.031)	
Mom Age → Parenting Stress	-0.059 (0.063)	-0.93	.35	-.027 (0.029)	
Mom Education → Parenting Stress	-0.426 (0.580)	-0.73	.46	-.025 (0.034)	
African American* → Parenting Stress	-1.356 (1.495)	-0.91	.37	-.029 (0.032)	
Latino/a* → Parenting Stress	-1.361 (1.751)	-0.78	.44	-.026 (0.033)	
Asian* → Parenting Stress	1.247 (2.522)	0.39	.69	.055 (0.139)	
Other Race* → Parenting Stress	4.528 (2.522)	1.61	.10	.055 (0.033)	
Number of Kids → Parenting Stress	-0.212 (0.519)	-.41	.68	-.014 (0.033)	
Financial Hardship → Parenting Stress	0.773 (1.159)	0.67	.50	.021`(0.031)	
Depression/Anxiety → Parenting Stress	0.404 (0.046)	9.29	<.0001***	.403 (0.043)	
M: Difficulties with Emotion Regulation					**0.44 (0.044)**
Mindfulness → Difficulties with Emotion Regulation	-0.827 (0.176)	-4.76	<.0001***	-264 (.055)	

Table 4.2 Continued

Child Age → Difficulties with Emotion Regulation	-0.600 (1.120)	-0.54	.59	-.024 (0.044)	
Child Gender → Difficulties with Emotion Regulation	-1.763 (2.416)	-0.73	.47	-.033 (0.045)	
Mom Age → Difficulties with Emotion Regulation	-.050 (0.148)	-0.34	.73	-.015 (0.045)	
Mom Education → Difficulties with Emotion Regulation	3.153 (1.043)	3.04	.002**	.125 (0.041)	
African American* → Difficulties with Emotion Regulation	-3.304 (2.789)	-1.19	.23	-.048 (0.040)	
Latino/a* → Difficulties with Emotion Regulation	4.322 (4.121)	1.05	.29	.056 (0.054)	
Asian* → Difficulties with Emotion Regulation	1.014 (4.467)	0.23	.82	.009 (0.040)	
Other Race* → Difficulties with Emotion Regulation	-6.071 (4.818)	-1.25	.21	-.050 (0.040)	
Number of Kids → Difficulties with Emotion Regulation	0.125 (1.008)	-0.12	.90	-.005 (0.044)	
Financial Hardship → Difficulties with Emotion Regulation	8.636 (2.619)	3.30	.0001**	.160 (0.048)	
Depression/Anxiety → Difficulties with Emotion Regulation	0.572 (0.093)	6.50	<.0001***	.389 (0.060)	
X: Mindfulness					**0.35 (0.040)**
Child Age → Mindfulness	.061 (0.395)	0.15	.88	.008 (0.049)	
Child Gender → Mindfulness	.087 (0.816)	0.11	.92	.005 (0.048)	
Mom Age → Mindfulness	.085 (0.059)	1.43	.15	.081 (0.057)	
Mom Education → Mindfulness	.655 (0.387)	1.71	.09	.082 (0.048)	

Table 4.2 Continued

African American* → Mindfulness	2.074 (1.112)	1.87	.06	.095 (0.051)
Latino/a* → Mindfulness	1.291 (1.215)	1.064	.29	.053 (0.05)
Asian* → Mindfulness	-1.379 (1.510)	-0.91	.36	-.039 (0.043)
Other Race* → Mindfulness	3.200 (1.653)	1.88	.06	.083 (0.044)
Number of Kids → Mindfulness	.222 (0.390)	0.57	.57	.030 (0.053)
Financial Hardship → Mindfulness	-.507 (0.805)	-0.63	.53	-.029 (0.047)
Depression/Anxiety → Mindfulness	-.246 (0.024)	-12.87	<.0001***	-.526 (0.041)
Indirect Effect				
Mindfulness → Difficulties with Emotion Regulation → Parenting Stress	-0.059 (0.031)	-1.901	0.06	-.027 (0.014)

Model Fit	x^2	*p*	*RMSEA*	*90% CI*	*CFI*	*TLI*
	0.00	<.0001	0.00	[0.00, 0.00]	1.00	1.00

*Reference category is White

Model 3: Parallel mediation model

In order to test the effects of self-compassion and difficulties with emotion regulation together, I ran a third, parallel mediation model with both mediators. As with the previous two models, Model 3 was just-identified: $\chi^2 = 0.00$, $p < .0001$, $df = 0$, $CFI = 1.00$, $TLI = 1.00$, $SRMR = 0.00$, $RMSEA = 0.00$, 90% CI [0.00 to 0.00].

Direct effects. The direct effect from mindfulness to self-compassion was similar to Model 1 ($\beta = -.26$, p<.001, 95% CI [-.32, -.19]. The direct effect from mindfulness to difficulties with emotion regulation was the same in Model 3 as in Models 2 ($\beta = -.26$, p <.0001, 95% CI [-0.36, -0.17]). The direct effect from self-compassion to parenting stress in Model 3 ($\beta = -.39$, p <.001, 95% CI [-0.46, -0.32]) was similar to the findings in Model 1. This pathway demonstrates that for every one unit increase in self-compassion score, there is a there is a .39 decrease in parenting stress score. The direct effect from difficulties with emotion regulation to parenting stress in Model 3 was nonsignificant (β= -.046, p = 0.29, 95% CI [-0.03, 0.12]). It is important to note that the two mediators, self-compassion and difficulties with emotion regulation, are highly negatively correlated (d=-.78).

Indirect effects. The indirect effect of mindfulness on parenting stress through self-compassion in Model 3 was slightly lower than in Model 1 ($\beta = -.21$, p <.001, 95% CI [-0.26 -0.16]), though still statistically significant. The indirect effect of mindfulness on parenting stress through difficulties with emotion regulation in Model 3 was nonsignificant ($\beta = -.012$, $p = 0.31$, 95% CI [-0.03, -0.01]). The standardized path coefficients for Model 3 can be found in Figure 6.

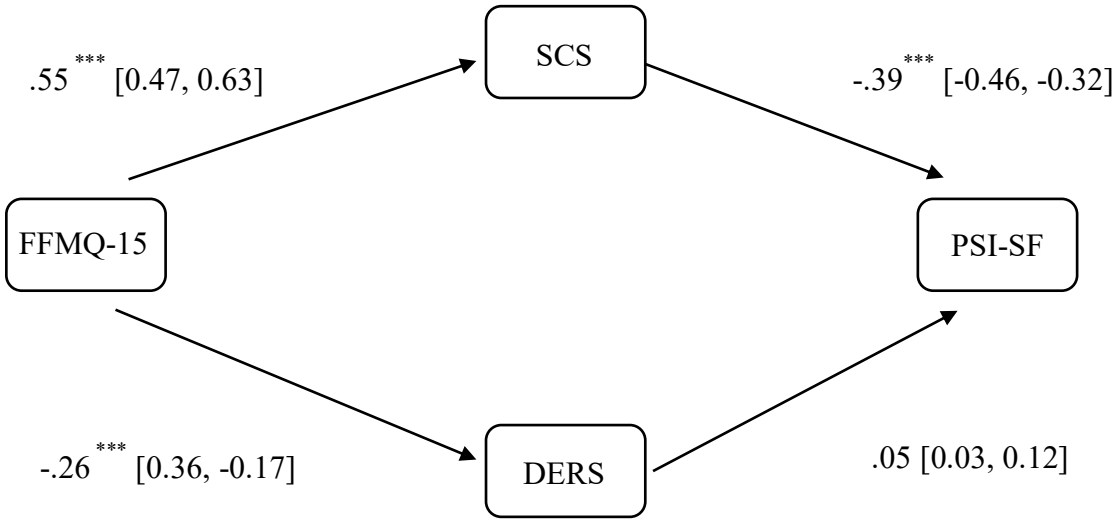

Figure 6. Standardized path coefficients for mediation Model 3

Percentage of variance explained by the model. The relationships amongst variables proposed in Model 3 explains 35% of the variance in mindfulness (R^2 = 0.35; *SE* 0.04), 53% of the variance in self-compassion (R^2 = 0.53; *SE* 0.04), 44% of the variance in difficulties with emotion regulation (R^2 = 0.44; *SE* 0.04), and 79% of the variance in parenting stress (R^2 = 0.79, *SE* 0.02). The standardized and unstandardized direct and indirect effects and percentage of variance explained by Model 3 can be found in Table 4.3.

Table 4.3: *Self-Compassion and Difficulties with Emotion Regulation as a Mediators of the Relationship between Mindfulness and Parenting Stress* (*n*=287)

	b (S.E.)	*z*	*p*	*β (S.E.)*	R^2*(S.E.)*
Direct Effects					
Y: Parenting Stress					**0.79 (0.023)**
Mindfulness → Parenting Stress	-0.551 (0.081)	-6.70	<.0001***	-.257 (0.038)	
Self-compassion → Parenting Stress	-0.399 (.045)	-9.12	<.0001***	-.388 (0.043)	
Difficulties with Emotion Regulation → Parenting Stress	0.032 (0.030)	1.06	.29	.046 (0.044)	
Child Age → Parenting Stress	-0.424 (0.494)	-0.86	.39	-.025 (0.029)	
Child Gender → Parenting Stress	-0.155 (1.010)	-0.15	.88	-.004 (0.027)	
Mom Age → Parenting Stress	-0.127 (0.062)	-2.01	.04*	-.057 (0.028)	
Mom Education → Parenting Stress	-0.231 (0.498)	-0.46	.64	-.013 (0.029)	
African American*→ Parenting Stress	-1.007 (1.392)	-0.72	.47	-.021 (0.030)	
Latino/a*→ Parenting Stress	-0.422 (1.358)	-0.31	.76	-.008 (0.026)	
Asian*→ Parenting Stress	2.114 (1.906)	1.12	.27	.028 (0.025)	
Other Race*→ Parenting Stress	1.678 (2.657)	0.63	.53	.020 (0.032)	
Number of Kids → Parenting Stress	-0.150 (0.483)	-.31	.76	-.010 (0.031)	
Financial Hardship → Parenting Stress	0.523 (0.997)	0.60	.53	.014 (0.027)	
Depression/Anxiety → Parenting Stress	0.328 (0.042)	8.06	<.0001*	.327 (0.041)	
M: Self-Compassion					**0.53 (0.043)**

Table 4.3 Continued

Mindfulness → Self-Compassion	1.147 (0.115)	10.88	<.0001*	.550 (.051)	
Child Age → Self-Compassion	.720 (0.703)	1.03	.30	.043 (0.042)	
Child Gender → Self-Compassion	.084 (1.449)	0.06	.95	.002 (0.041)	
Mom Age → Self-Compassion	-.166 (0.090)	-1.83	.07	-.078 (0.042)	
Mom Education → Self-Compassion	.179 (0.666)	0.27	.79	.011 (0.040)	
African American* → Self-Compassion	1.199 (1.817)	0.66	.51	.026 (0.040)	
Latino/a* → Self-Compassion	1.933 (2.375)	0.82	.41	.038 (0.046)	
Asian* → Self-Compassion	2.076 (2.998)	0.69	.49	.028 (0.041)	
Other Race* → Self-Compassion	-6.555 (3.926)	-1.11	.10	-.082 (0.049)	
Number of Kids → Self-Compassion	.145 (0.611)	0.24	.81	.009 (0.040)	
Financial Hardship → Self-Compassion	-1.473 (1.490)	-0.99	.32	-.041 (0.042)	
Depression/Anxiety → Self-Compassion	-.247 (0.049)	-5.25	<.0001***	-.253 (0.048)	
M: Difficulties with Emotion Regulation					**0.44 (0.044)**
Mindfulness → Difficulties with Emotion Regulation	-0.827 (0.176)	-4.76	<.0001***	-.264 (0.055)	
Child Age → Difficulties with emotion regulation	-0.600 (1.120)	-0.54	.60	-.024 (0.044)	
Child Gender → Difficulties with emotion regulation	-1.763 (2.416)	-0.73	.47	-.033 (0.045)	

Table 4.3 Continued

Mom Age → Difficulties with emotion regulation	-.050 (0.148)	-0.34	.73	-.015 (0.045)	
Mom Education → Difficulties with emotion regulation	3.153 (1.043)	3.04	.002	.125 (0.041)	
African American* → Difficulties with emotion regulation	-3.304 (2.789)	-1.19	.23	-.048 (0.040)	
Latino/a* → Difficulties with emotion regulation	4.322 (4.121)	1.05	.29	.056 (0.054)	
Asian* → Difficulties with emotion regulation	01.014 (4.467)	0.23	.82	.009 (0.040)	
Other Race* → Difficulties with Emotion Regulation	-6.070 (4.818)	-1.25	.213	-.050 (0.040)	
Number of Kids → Difficulties with Emotion Regulation	-.125 (1.008)	0.12	.90	-.005 (0.044)	
Financial Hardship → Difficulties with Emotion Regulation	8.636 (2.619)	3.30	<.0001***	.160 (0.048)	
Depression/Anxiety → Difficulties with Emotion Regulation	0.572 (0.093)	6.498	<.0001***	.389 (0.060)	
X: Mindfulness					**0.35 (0.040)**
Child Age → Mindfulness	.085 (0.059)	0.15	.88	.008 (0.049)	
Child Gender → Mindfulness	.087 (0.816)	0.12	.92	.005 (0.048)	
Mom Age → Mindfulness	.085 (0.059)	1.43	.15	.081 (0.057)	
Mom Education → Mindfulness	.655 (0.387)	1.71	.09	.082 (0.048)	

Table 4.3 Continued

African American* → Mindfulness	2.074 (1.112)	1.87	.06	.095 (0.051)
Latino/a* → Mindfulness	1.291 (1.215)	01.06	.29	.053 (0.050)
Asian* → Mindfulness	-1.379 (1.510)	-0.91	.36	-.039 (0.043)
Other Race* → Mindfulness	3.199 (1.653)	1.88	.06	.083 (0.044)
Number of Kids → Mindfulness	.222 (0.390)	0.57	.57	.030 (0.053)
Financial Hardship → Mindfulness	-.507 (0.805)	-0.63	.53	-.029 (0.047)
Depression/Anxiety → Mindfulness	-.246 (0.024)	-12.87	<.0001***	-.526 (0.041)
Indirect Effect				
Mindfulness à Self-compassion à Parenting Stress	-.457 (0.066)	-7.272	<.0001***	-213 (0.029)
Mindfulness à Difficulties with Emotion Regulation à Parenting Stress	-0.026 (0.025)	-1.026	.31	-.012 (0.012)

Model Fit	x^2	*p*	*RMSEA*	*CFI*	*TLI*	*SRMR*	*90% CI*
	0.00	<.0001	0.00	1.00	1.00	0.00	[0.00, 0.00]

*Reference category is White

Chapter 6: Discussion

Summary of Findings

Previous research has demonstrated that higher dispositional mindfulness in parents is associated with lower levels of parenting stress (Corthorn & Milicic, 2016), but little is known about what explains that association. The current study adds to the literature on mindfulness and parenting stress by expanding our understanding of *how* mindfulness works to reduce parenting stress in mothers of preschool-aged children. While previous studies have noted the relationship between mindfulness and self-compassion (Gouveia et al., 2016; Van Dam et al., 2011), and between mindfulness and emotion regulation (Lutz et al., 2014; Roemer et al., 2015), no studies to date had examined both constructs as possible mechanisms through which mindfulness operates in reducing parenting stress in a sample of mothers of preschool-aged children. Findings from the mediation analyses suggest that self-compassion partially mediates the relationship between mindfulness and parenting stress. Difficulties with emotion regulation was not found to be a statistically significant mediator at the $p \leq .05$ level, however, with the small sample size, a significance level of .10 may be appropriate, in which case difficulties with emotion regulation may be considered a mediator with a small, marginally significant effect.

The Importance of Examining Parenting Stress

Parenting stress is an important variable that has not been extensively measured in relation to mindfulness. Researchers typically look at mental health measures as markers of well-being (e.g., Van Dam et al., 2014), including in samples of parents (e.g. Bogels et al., 2010). Given the extensive literature on the impact parenting stress has on parenting behavior and child outcomes (Crnic et al., 2005; Parent et al., 2020; Ren et al., 2020;

Tsotsi et al., 2019), understanding how to mitigate parenting stress is critically important for the health and well-being of children and parents.

The topic of parenting stress and emotional wellbeing became even more salient in March 2020 when the global COVID-19 pandemic hit, and most schools and childcare facilities were closed, adding many stressors to the lives of parents. One study found that 71% of parents reported more parenting stress in March 2020 (reported retrospectively) than prior to the start of the pandemic (Adams et al., 2021). Another study found elevated levels of parenting stress, anxiety, and depression, with two out of five parents meeting criteria for a clinical diagnosis of depression and a similar number meeting criteria for generalized anxiety disorder (Lee et al., 2021). Data for this dissertation study was collected in the fall of 2021, when the initial shock of the pandemic had, perhaps, abated, but some parents were still dealing with unusually high levels of parenting stress.

The Relationship Between Mindfulness and Parenting Stress

This study examined the potential mediating effects of self-compassion and/or difficulties with emotion regulation on the relationship between mindfulness and parenting stress. Findings suggest that self-compassion partially mediates the relationship, but difficulties with emotion regulation was not a mediator. These findings are consistent with previous studies that suggest that self-compassion is strongly associated with mindfulness (Neff & Dahn, 2015) and both are negatively related to parenting stress (Moreira et al., 2015; Moreira et al., 2016; Parent et al., 2016).

Mindfulness may be one way to lower parenting stress, and the finding that dispositional mindfulness is associated with low parenting stress is consistent with the literature (Corthorn et al., 2016; Gouveia, et al., 2016). The self-report measure used in this study measures the individual's current level of mindfulness, as they perceive it.

Studies have demonstrated that certain mindfulness practices, including meditation and exercises designed to enhance present-moment awareness, can change a person's level of mindfulness, as measured by self-report (Irving, et al., 2009). In a study comparing parents who received a mindfulness-based parenting intervention to those who received a skills-only intervention, Ferraioli and Harris (2013) found that the mindfulness group had significantly lower parenting stress at Time 2, compared to the skills-only group. This finding is also consistent with the reduction in general stress found in research on other mindfulness-based interventions, such as Mindfulness-Based Stress Reduction (MBSR), which has been shown to reduce stress in clinical and non-clinical populations (Irving et al., 2009). Notably, the salutary effects of mindfulness go beyond merely lowering stress and may include an increased sense of well-being (Zollars et al., 2019), reduction in mental health symptoms (Bohlmeijera et al., 2010), reduction in physical health problems (Baer et al., 2003), and changes in the brain (Nakamura et al., 2021, Turpyn et al., 2021).

The Mediating Role of Self-Compassion

Self-compassion was found to significantly partially mediate the relationship between mindfulness and parenting stress. This means that one mechanism through which mindfulness might lower parenting stress is self-compassion. Self-compassion and mindfulness are closely related, but distinct constructs. Specifically, the dimension of mindfulness that related to self-compassion is the ability to be aware of one's own suffering and to do so with equanimity (Neff & Dahm, 2015). This is distinct from general mindfulness, in which an individual may be aware of a range of experiences, positive, negative, or neutral (Neff & Dahm, 2015).

One can be mindful without being self-compassionate. For example, one can eat mindfully, taking in the flavors and sensations they are experiencing, but this has nothing

to do with offering compassion toward oneself (Neff & Dahm, 2015). The place where self-compassion and mindfulness overlap pertains specifically to suffering (Neff & Dahm, 2015). And, unlike general mindfulness, self-compassion incorporates "common humanity," the idea that all humans suffer and are deserving of warmth and compassion in response. In terms of parenting, a mother might have awareness of her internal experience, the thoughts and feelings that arise as a result of her interactions with her child, but self-compassion is only a factor when those experiences are challenging or cause stress.

The ability to offer compassion toward oneself and to acknowledge the "common humanity" in parenting (e.g., "all moms are stressed right now" or "parenting a toddler is hard for any parent") alleviates some of the stress of parenting. Mindfulness helps to cultivate awareness of suffering and self-compassion is the salve that soothes the suffering. Without mindful awareness, it is difficult or impossible to intentionally direct one's attention to the aspects of suffering that may need tending. Self-compassion, resulting from, or perhaps co-arising with, mindful awareness, may help a parent to be motivated to seek additional support which would help to alleviate parenting stress.

The finding that self-compassion is a partial mediator in the relationship between mindfulness and parenting stress is consistent with previous studies of parents (e.g., Bergen-Cico & Cheon, 2014; Yip et al., 2016; Baer et al., 2012). Parents who are more compassionate toward themselves are less likely to perceive parenting challenges as personal failures (Garcia et al., 2021), instead practicing acceptance and focusing on what they can learn from the situation or how they might do things differently in the future. Individuals who are more self-compassionate tend to engage in more positive self-

appraisal (e.g., job performance or work towards a goal) and are more prone to separate their self-worth from their performance (Barnard & Curry, 2011).

Self-compassion also leads to more compassion for others, including one's children. Compassionate towards one's children translates into more sensitivity and responsiveness, and when parents respond sensitively to a child's challenging behavior, it results in more positive parent-child interactions (Juffer et al., 2014). Children's challenging behavior is part of the feedback loop of parenting stress (Crnic, 2001), in which negative child behavior causes parents to feel stressed which in turn leads the parent to react negatively to behavior. Thus, parents' ability to feel compassion for themselves and their children and respond accordingly is one way to interrupt the negative feedback loop.

Self-compassion mediates the relationship between mindfulness and compassion for others (Fulton, 2018), suggesting that the ability to connect to one's own suffering and to direct compassionate feelings inward is what allows a person to then direct compassion toward others. Studies have found that mindfulness increases self-compassion because as individuals become more aware of and alert to their own inner experience, they naturally feel more kindness toward themselves (Malis et al., 2017). Additionally, mindfulness, by definition, involves nonjudgmental awareness of emotions and experience (Shapiro et al., 2006) and cognitive diffusion, or the ability to identify thoughts as just thoughts, rather than interpreting thoughts as reality (Chambers et al, 2009). This partially explains why mindfulness is closely associated with self-compassion. If a parent is able to identify self-critical thoughts about their parenting experiences or behaviors as "merely thoughts" instead of believing those thoughts to

always be true, the result is a more self-compassionate attitude. This is captured in the overidentification subscale of the Self-Compassion Scale.

Although difficulties with emotion regulation was not found to be a statistically significant mediator at the $p \leq .05$ level, future research should continue to examine this construct in the relationship between mindfulness and parenting stress. It may be the case that this construct belongs somewhere else in the model. For example, mindfulness may, in fact, be a mediator in the relationship between difficulties with emotion regulation and parenting stress. When examining parenting behavior as an outcome, difficulties with emotion regulation may be a mediator between parenting stress and parenting behavior.

Strengths and Limitations

Strengths. This study has several strengths. Notably, by working with Qualtrics Panels, I had access to a large sample of mothers of preschoolers that I would not have been able to access, had I collected data in-person (which became impossible when the COVID-19 pandemic emerged in March 2020). I conducted an *a priori* power analysis in order to determine the necessary sample size to detect a small to medium effect size. The measures I selected were all valid, reliable measures that have been used extensively in the parenting and mindfulness literature, and with parents from diverse backgrounds. Additionally, I used robust statistical analyses to examine the relationships between variables. Specifically, I used path analysis to examine unique mediation pathways between variables including many potentially confounding variables in the path models.

Limitations. As with all research, this study had several limitations. First, the cross-sectional design of this study makes it impossible to determine causality or disentangle associations amongst variables in the model. Second, the use of an online survey platform, while a convenient way to access a large sample, limits the data

collection only to those who have access to a computer or phone on which to complete the survey. While Qualtrics Panels maintains a large database of potential survey-takers, the study is biased towards people who have the ability and interest in reference to taking surveys, excluding parents who do not own an internet-enabled device, are unable to read, or simply are not signed up to receive an invitation to take surveys with Qualtrics. Both limitations were constraints imposed, at least in part, by the COVID-19 pandemic, which limited the data collections methods available to me, since in-person data collection was not feasible.

Although the measures I used are valid and reliable, they are self-report measures, which introduces the possibility of social-desirability bias and common method bias. Social desirability bias means that the respondents may paint themselves in a positive light in order to be viewed positively by the researcher. Common method bias is introduced when constructs within a model are measured using a single method (e.g., a survey), rather than validating the measurement by using multiple methods (e.g., self-report measures combined with behavioral observation; Siemsen et al., 2010). It is also the case that the instruments I used in my study measured very similar constructs, creating potentially confounding effects.

In lab-based or field-based empirical human subject studies, researchers can collect biological markers of stress, such as heart rate variability and cortisol levels, and collect observational data of parent-child dyads (Deater-Deckard et al., 2016). This study would have been strengthened if multiple indicators of each construct, such as self-report and observational measures, had been used. An additional measurement issue in my study was an error in the provision of response options on one of the measures, calling into

question the reliability of that measure in this study and potentially contributing to the findings related to difficulties with emotion regulation.

Finally, the risk of endogeneity, or the risk that X variables in the model may be correlated with error terms in the model (Duncan et al., 2018), was present in this study. In other words, there is a possibility that some of the predictors in the model are correlated with something that was not measured and included in the analysis. While every effort was made to include all relevant X variables, endogeneity can be a problem, as it refers to unmeasured confounding factors in the model. This may be particularly true in areas of research that are still relatively new, such as mindfulness research, wherein the constructs and how they are related to one another are not yet well understood. Much research is still being done to understand what, exactly, mindfulness is and how it works.

Recommendations for Future Research

Extending the research beyond perceptions of parenting stress, the effects of mindfulness and self-compassion on parenting behavior is an important area of study to address concrete implications these findings (e.g., how do parents behave toward their children when they are more, or less, mindful and self-compassionate?) Lathran et al. (2020) propose a model in which self-compassion leads to enhanced child-parent attachment, through the parents' ability to respond sensitively to the child's difficult emotions. Future studies of parenting stress and factors that may increase or decrease it should include measures of parenting behavior, as well as child emotional and behavioral outcomes, to more broadly understand elevated parenting stress and its effects on parents and in turn on children, in the context of factors such as mindfulness and self-compassion. The current study could be extended to include observational measures of

parenting behavior and parent-child interactions to better understand how mindfulness, self-compassion, and parenting stress together influence parent-child outcomes.

Since difficulties with emotion regulation was not found to be a mediator between mindfulness and parenting stress, it is possible that that construct belongs elsewhere in the model. For example, perhaps the ability to regulate emotions is affected by levels of parenting stress, such that lower parenting stress is associated with lower difficulties with emotion regulation. A future study may look at difficulties with emotion regulation as a mediator between parenting stress and parenting behavior, with mindfulness and self-compassion as predictors of parenting stress.

Few studies of self-compassion as a component of mindfulness-based interventions for parents exist. Qualitative research, in particular, would be beneficial in illustrating the experiential aspects of mindfulness and mindfulness-based interventions by asking participants questions about *what it's like* to be aware of their inner experience and how they perceive the impacts of this awareness on their parenting. Parenting stress is a perceived state, meaning that if an individual thinks they are stressed, they are stressed, and their body and physiology respond accordingly. If, on the other hand, one does not perceive their circumstances as stressful, they do not experience stress. Therefore, talking with individuals about their felt experience of parenting would add great depth to the finding that mindfulness and self-compassion are associated with low parenting stress. Qualitative data on this topic would help researchers more deeply understand *why* these constructs are related.

Community-based participatory research methods are recommended for mindfulness research with American minority communities (Proulx et al., 2018).

Engaging in this type of research, using qualitative methods of data collection, would provide a richer contextual understanding of the experiences of marginalized communities. It is important for social workers to be in conversation with the communities they serve, and to avoid bringing in interventions, therapeutic modalities, and curricula that are not culturally aligned. For example, some researchers have critiqued mindfulness interventions, suggesting that they are sometimes used to quiet the emotional reactions of people who are or have been oppressed, rather than addressing the systemic issues that cause those emotional reactions (Walsh, 2018). Additionally, when mindfulness and related practices are taken out of their historical and cultural context, they actually reinforce western values such as individualism, ignoring the collectivist cultural values from which they originate (Ishikawa, 2018; Walsh, 2018).

Implications for Social Work Practice

Knowledge about the relationship between mindfulness, self-compassion and lower parenting stress may be beneficial for anyone who works with parents, especially those providing counseling, parenting education or coaching, and even case management services. Survey data indicate that 9 out of 10 parents feel judged by other parents or by their community (Zero to Three, 2016). Social workers, in their various roles supporting parents, can help to mitigate these feelings of judgment by teaching parents to be more self-compassionate. This can be accomplished by teaching self-care and other practices that promote mothers' well-being. Research has shown the Mindfulness-based Stress Reduction (MBSR) intervention increases self-compassion (Barnard & Curry, 2011); this is just one example of a mindfulness-based intervention that may help parents increase self-compassion.

Understanding what types of interventions and which aspects of those interventions work for various segments of the population is important in social work, in order to maximize resources and serve people most effectively. Although this study did not examine mindfulness-based interventions, the findings from this study may have implications for the development of parenting interventions. Specifically, incorporating mindfulness into interventions for parents of young children may increase self-compassion, reduce parenting stress, and in turn improve parenting behavior and child outcomes.

Cultural Considerations in Social Work Practice

It is important to consider cultural factors and social acceptability of interventions that incorporate mindfulness. Although the state of "being mindful" is not necessarily tied to any one practice or spiritual tradition, and contemplative practices may include prayer, expressions of gratitude, walking meditation, martial arts, and even journaling and storytelling (CMind, 2021), mindfulness is often associated primarily with meditation which comes from the Buddhist tradition and may not be acceptable or relatable to everyone. One qualitative study of a mindfulness intervention for Black women found that, although the participants found the mindfulness meditation practice easily accessible and congruent with their daily lives, there was stigma associated with meditation (Watson et al., 2016). Participants in the study associated meditation with "hippies," "atheists," "new-age spiritualists" and people who shop in health food stores and did not necessarily view it as something that is practiced by Black people. Nonetheless, they acknowledged the potential health benefits of practicing meditation (Watson et al., 2016).

Li et al. (2019) conducted a qualitative analysis of Latino/a sexual minority young adults and their families and found that the five factors of mindfulness (i.e., act with

awareness, observe, describe, non-judge, non-react) had buffering effects against the effects of minority stress on the youth. Several of the youth in the study described using meditation to deconstruct the oppression they had experienced and their intersectional identities (Li et al., 2019). These findings suggest that the *skills* associated with dispositional mindfulness, whether learned through meditation or cultivated in some other way, may ameliorate the negative effects of various forms of stress. Interestingly, this study also found that the aforementioned facets of mindfulness aided parents in relating in a more positive, accepting way to their sexual minority children, for example, when they made an observation rather than a judgment (Li et al., 2019). This is relevant to the current dissertation research because it demonstrates the benefit of mindfulness facets on a different aspect of parenting (i.e., accepting the gender identity of one's child) later in life. This reinforces the assertation that mindfulness skills are beneficial for parenting, beyond the early childhood stage.

Perhaps there are ways to cultivate the skills associated with dispositional mindfulness without explicitly using words like "mindfulness" or "meditation." Watson-Singleton et al. (2019) recommend using culturally familiar terminology, incorporating culturally salient values, providing culturally relevant resources, and using community-sanctioned locations when offering mindfulness interventions to African Americans. They also recommend employing African American facilitators to deliver the intervention to African American participants (Watson-Singleton et al., 2019).

Modern day manifestations of mindfulness as "self-help" erase the historical and cultural context of mindfulness practices (Walsh, 2016). Western "wellness culture" has adopted practices such as yoga and meditation, selecting certain self-serving aspects and

practices that reinforce hegemonic norms, and repackaging these practices into "interventions" designed to serve low-income, non-white populations (Ishikawa, 2018, Brown, 2019) or expensive wellness programs marketed to wealthy white people. This is usually done with no acknowledgment of the Asian cultures from which these practices originate (Brown, 2019). Ishikawa (2018) argues that, in order to reorient mindfulness practices to their Buddhist cultural roots, westerners should be required to receive training and lessons in Buddhist culture and ontologies (Ishikawa, 2018).

Some White scholars argue that the capacities cultivated through meditation (e.g. clarity, equanimity, compassion) are universal and therefore it is appropriate to use them in secular settings (Williams & Kabat-Zinn, 2011; Kirmayer, 2015). If this is the case, the question might not be *whether* mindfulness interventions are appropriate for non-white groups, but *how* those interventions are presented, implemented, and evaluated. Proulx et al. (2018) discuss considerations of mindfulness-based interventions when working with African American and Native American groups, both of which have historically been harmed by white dominant cultural practices and medical/psychological systems, including research. They stress the importance of building trust, using community-based participatory research methods, engaging community leaders, and utilizing and building upon community strengths (Proulx et al., 2018). Characteristics of mindfulness itself can also be useful in engaging in mindfulness intervention and research practice with American minority communities. For example, using the attitudinal foundations of "beginner's mind" and gratitude when engaging in mindfulness work with American minority communities may enhance both the mindfulness practice *and* the research process (Proulx et al., 2018). Additional research, especially research that is appropriately

situated in cultural context, is needed to understand mindfulness and self-compassion more completely, and how these concepts relate to parenting stress across diverse groups.

Conclusion

This study investigated the relationships among mindfulness, self-compassion, difficulties with emotion regulation, and parenting stress in a sample of mothers of preschool-aged children. As hypothesized, self-compassion partially mediated the relationship between mindfulness and parenting stress. Difficulties with emotion regulation was not found to be a mediator, therefore, the hypothesis that difficulties with emotion regulation mediates the relationship between mindfulness and parenting stress was not supported.

Understanding the mechanisms through which mindfulness affects parenting stress adds to the literature on parental functioning by demonstrating how an emphasis on present-moment awareness and self-compassion may be associated with low parenting stress. Although the effectiveness of mindfulness practice on lowering stress and the relationships between mindfulness and self-compassion are well established in the literature, no studies have looked at the mediating effects of both self-compassion and difficulties with emotion regulation in a sample of mothers of preschoolers. This research may have implications for the development of mindfulness-based parenting interventions and may help parents to understand how mindfulness practices such as meditation, yoga, and breathwork may reduce stress and enhance their relationships with their children.

Appendices

Appendix A

Measures Summary

Construct	Measure	Author	Cronbach's alpha	Number of items
Mindfulness	Five-facet mindfulness questionnaire, short form (FFMQ-15)	Baer, 2006	α = .64 to .83	15
Self-compassion	Self-compassion Scale (SCS)	Neff, 2003a	α = .92	26
Difficulties with Emotion Regulation	Difficulties in Emotion Regulation Survey (DERS)	Gratz & Roemer, 2004	α = .93	36
Parenting Stress	Parenting stress index – short form (PSI-SF)	Abidin, 1997	α =.85-.90	36
Anxiety/Depression	Depression and Anxiety Stress Scale (DASS-21)	Lovibond, & Lovibond, 1995; Anthony et al. 1998	Anxiety: α =.87 Depression: α = .94 Stress: α = .91	21
Race, ethnicity, education, age of parent, gender of child, number of children in the household,	Demographic survey	n/a	n/a	6
Financial Hardship	Financial Hardship questions from the Epidemic-Pandemic Impacts Inventory (EPII)	Grasso et al., 2020	Data not available	5
			Total number of items	145

Appendix B

FFMQ-15: 15-Item Five-Facet Mindfulness Questionnaire

Instructions

Please use the 1 (never or very rarely true) to 5 (very often or always true) scale provided to indicate how true the below statements are of you. Circle the number in the box to the right of each statement which represents your own opinion of what is generally true for you. For example, if you think that a statement is often true of you, circle '4' and if you think a statement is sometimes true of you, circle '3'.

Never or very rarely true	Rarely true	Sometimes true	Often true	Very often or always true
1	2	3	4	5

1. When I take a shower or a bath, I stay alert to the sensations of water on my body.
2. I'm good at finding words to describe my feelings.
3. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.
4. I believe some of my thoughts are abnormal or bad and I shouldn't think that way.
5. When I have distressing thoughts or images, I "step back" and am aware of the thought or image without getting taken over by it.
6. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.
7. I have trouble thinking of the right words to express how I feel about things.
8. I do jobs or tasks automatically without being aware of what I'm doing.
9. I think some of my emotions are bad or inappropriate and I shouldn't feel them.
10. When I have distressing thoughts or images I am able just to notice them without reacting.
11. I pay attention to sensations, such as the wind in my hair or sun on my face.
12. Even when I'm feeling terribly upset I can find a way to put it into words.
13. I find myself doing things without paying attention.
14. I tell myself I shouldn't be feeling the way I'm feeling.
15. When I have distressing thoughts or images I just notice them and let them go.

Scoring Information

*Observing items: 1, 6, 11.
Describe items: 2, 7R, 12.
Acting with awareness items: 3R, 8R, 13R.
Non-judging items: 4R, 9R, 14R.
Non-reactivity items: 5, 10, 15.
Reverse-phrased items are denoted by 'R' after the item number, e.g. 14R.

*Refer to the background information regarding recommendations for omitting the observing subscale score from comparisons of total scale/subscale scores before and after mindfulness interventions.

Appendix C

Self-Compassion Scale

HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost always **Almost never**
1 **2** **3** **4** **5**

1. I'm disapproving and judgmental about my own flaws and inadequacies.
2. When I'm feeling down I tend to obsess and fixate on everything that's wrong.
3. When things are going badly for me, I see the difficulties as part of life that everyone goes through.
4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.
5. I try to be loving towards myself when I'm feeling emotional pain.
6. When I fail at something important to me I become consumed by feelings of inadequacy.
7. When I'm down, I remind myself that there are lots of other people in the world feeling like I am.
8. When times are really difficult, I tend to be tough on myself.
9. When something upsets me I try to keep my emotions in balance.
10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.
11. I'm intolerant and impatient towards those aspects of my personality I don't like.
12. When I'm going through a very hard time, I give myself the caring and tenderness I need.
13. When I'm feeling down, I tend to feel like most other people are probably happier than I am.
14. When something painful happens I try to take a balanced view of the situation.
15. I try to see my failings as part of the human condition.
16. When I see aspects of myself that I don't like, I get down on myself.
17. When I fail at something important to me I try to keep things in perspective.
18. When I'm really struggling, I tend to feel like other people must be having an easier time of it.
19. I'm kind to myself when I'm experiencing suffering.
20. When something upsets me I get carried away with my feelings.
21. I can be a bit cold-hearted towards myself when I'm experiencing suffering.
22. When I'm feeling down I try to approach my feelings with curiosity and openness.
23. I'm tolerant of my own flaws and inadequacies.

24. When something painful happens I tend to blow the incident out of proportion.
25. When I fail at something that's important to me, I tend to feel alone in my failure.
26. I try to be understanding and patient towards those aspects of my personality I don't like.

Coding Key:
Self-Kindness Items: 5, 12, 19, 23, 26
Self-Judgment Items (reverse scored): 1, 8, 11, 16, 21
Common Humanity Items: 3, 7, 10, 15
Isolation Items (reverse scored): 4, 13, 18, 25
Mindfulness Items: 9, 14, 17, 22
Over-identified Items (reverse scored): 2, 6, 20, 24

To compute a total self-compassion score, take the mean of each subscale, then compute a total mean.

Appendix D

Difficulties in Emotion Regulations Scale

DERS

Please indicate how often the following 36 statements apply to you by writing the appropriate number from the scale above (1 – 5) in the box alongside each item.

1	2	3	4	5
Almost never (0-10%)	**Sometimes (11-35%)**	**About half the time (36-65%)**	**Most of the time (66 - 90%)**	**Almost always (91 - 100%)**

1. I am clear about my feelings

1 2 3 4 5

2. I pay attention to how I feel

1 2 3 4 5

3. I experience my emotions as overwhelming and out of control

1 2 3 4 5

4. I have no idea how I am feeling

1 2 3 4 5

5. I have difficulty making sense out of my feelings

1 2 3 4 5

6. I am attentive to my feelings

1 2 3 4 5

7. I know exactly how I am feeling

1 2 3 4 5

8. I care about what I am feeling

1 2 3 4 5

9. I am confused about how I feel

1 2 3 4 5

10. When I’m upset, I acknowledge my emotions

1 2 3 4 5

11. When I’m upset, I become angry with myself for feeling that way

1 2 3 4 5

12. When I’m upset, I become embarrassed for feeling that way

1 2 3 4 5

13. When I’m upset, I have difficulty getting work done

1 2 3 4 5

14. When I’m upset, I become out of control

1 2 3 4 5

15. When I’m upset, I believe that I will remain that way for a long time

1 2 3 4 5

16. When I’m upset, I believe that I’ll end up feeling very depressed

1 2 3 4 5

17. When I’m upset, I believe that my feelings are valid and important

1 2 3 4 5

18. When I’m upset, I have difficulty focusing on other things

1 2 3 4 5

19. When I’m upset, I feel out of control

1 2 3 4 5

20. When I’m upset, I can still get things done

1 2 3 4 5

21. When I’m upset, I feel ashamed with myself for feeling that way

1 2 3 4 5

22. When I'm upset, I know that I can find a way to eventually feel better

1 2 3 4 5

23. When I'm upset, I feel like I am weak

1 2 3 4 5

24. When I'm upset, I feel like I can remain in control of my behaviors

1 2 3 4 5

25. When I'm upset, I feel guilty for feeling that way

1 2 3 4 5

26. When I'm upset, I have difficulty concentrating

1 2 3 4 5

27. When I'm upset, I have difficulty controlling my behaviors

1 2 3 4 5

28. When I'm upset, I believe that there is nothing I can do to make myself feel better

1 2 3 4 5

29. When I'm upset, I become irritated with myself for feeling that way

1 2 3 4 5

30. When I'm upset, I start to feel very bad about myself

1 2 3 4 5

31. When I'm upset, I believe that wallowing in it is all I can do

1 2 3 4 5

32. When I'm upset, I lose control over my behaviors

1 2 3 4 5

33. When I’m upset, I have difficulty thinking about anything else

1 2 3 4 5

34. When I’m upset, I take time to figure out what I’m really feeling

1 2 3 4 5

35. When I’m upset, it takes me a long time to feel better

1 2 3 4 5

36. When I’m upset, my emotions feel overwhelming

1 2 3 4 5

Appendix E

Depression and Anxiety Stress Scale (DASS21)

Name: Date:

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all

1 Applied to me to some degree, or some of the time

2 Applied to me to a considerable degree, or a good part of time

3 Applied to me very much, or most of the time

1 I found it hard to wind down

0 1 2 3

2 I was aware of dryness of my mouth

0 1 2 3

3 I couldn't seem to experience any positive feeling at all

0 1 2 3

4 I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)

0 1 2 3

5 I found it difficult to work up the initiative to do things

0 1 2 3

6 I tended to over-react to situations

0 1 2 3

7 I experienced trembling (eg, in the hands)

0 1 2 3

8 I felt that I was using a lot of nervous energy

0 1 2 3

9 I was worried about situations in which I might panic and make a fool of myself

0 1 2 3

10 I felt that I had nothing to look forward to

0 1 2 3

11 I found myself getting agitated

0 1 2 3

12 I found it difficult to relax

0 1 2 3

13 I felt down-hearted and blue

0 1 2 3

14 I was intolerant of anything that kept me from getting on with what I was doing

0 1 2 3

15 I felt I was close to panic

0 1 2 3

16 I was unable to become enthusiastic about anything

0 1 2 3

17 I felt I wasn't worth much as a person

0 1 2 3

18 I felt that I was rather touchy

0 1 2 3

19 I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)

0 1 2 3

20 I felt scared without any good reason

0 1 2 3

21 I felt that life was meaningless

0 1 2 3

Appendix F

Demographic and Financial Hardship Questions

Demographics

1. Are you Hispanic or Latinx origin?

__ yes

__ no

2. What is your race?

__ African American/Black

__ Asian

__ White

__ Native American or Alaska Native

__ Native Hawaiian or other Pacific Islander

3. How old are you?

4. What is your level of education?

__ Did not complete high school

__ High School Diploma

__ Some college

__ College degree

__ Graduate degree

5. What is the sex of your preschool-aged child?

__ Female/Assigned female at birth

__ Male/Assigned male at birth

6. How many children live in your household?

1

2

3

4

5 or more

7. How many adults live in your household?
1
2
3 or more

Epidemic-Pandemic Impacts Inventory (EPII)

INSTRUCTIONS

We would like to learn how the coronavirus disease pandemic has changed people's lives. For each statement below, please indicate whether the pandemic has impacted you or a person in your home in the way described.

Check YES (Me) if you were impacted. Check YES (Person in Home) if another person (or people) in your home were impacted. Check NO if you and the people in your home were not impacted. Check N/A if the statement does not apply to you or someone in the home. ***If both YES (Me) and YES (Person in Home) are true, check both***

37.	Unable to get enough food or healthy food.	☐ YES (Me) ☐ YES (Person in Home)	☐ NO	☐ N/A
38.	Unable to access clean water.	☐ YES (Me) ☐ YES (Person in Home)	☐ NO	☐ N/A
39.	Unable to pay important bills like rent or utilities.	☐ YES (Me) ☐ YES (Person in Home)	☐ NO	☐ N/A
40.	Difficulty getting places due to less access to public transportation or concerns about safety.	☐ YES (Me) ☐ YES (Person in Home)	☐ NO	☐ N/A
41.	Unable to get needed medications (e.g., prescriptions or over-the-counter).	☐ YES (Me) ☐ YES (Person in Home)	☐ NO	☐ N/A

References

Abidin, R. R. (1983). Parenting Stress Index manual. *Charlottesville Pediatric Psychology*.

Abidin, R. R., Lutz, F. L., & Ainsworth, M. D. S. (1978). *Parenting Stress Index (4th edition). PAR. Patterns of attachment: A psychological study of the strange situation*.

Adam, E. K., Gunnar, M. R., & Tanaka, A. (2004). Adult attachment, parent emotion, and observed parenting behavior: Mediator and moderator models. *Child Development, 75*(1), 110-122. https://doi.org/10.1111/j.1467-8624.2004.00657.x

Adams, E. L., Smith, D., Caccavale, L. J., & Bean, M. K. (2021). Parents are stressed! Patterns of parent stress across COVID-19. *Frontiers in Psychiatry*, *12*, 626456.

Allen, A. B., & Leary, M. R. (2010). Self-Compassion, stress, and coping. *Social and Personality Psychology Compass*, 4(2), 107-118.

Anthony, L. G., Anthony, B. J., Glanville, D. N., Naiman, D. Q., Waanders, C., & Shaffer, S. (2005). The relationships between parenting stress, parenting behaviour and preschoolers' social competence and behaviour problems in the classroom. *Infant and Child Development, 14*(2), 133-154. https://doi.org/10.1002/icd.385

Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. Psychological assessment, 10(2), 176. https://doi.org/10.1037/1040-3590.10.2.176

Arikan, G., Kumru, A., Korkut, B., & Ilhan, A. O. (2019). Examining toddlers' problem behaviors: The role of SES, parenting stress, perceived support and negative intentionality. *Journal of Child and Family Studies*, *28*(12), 3467-3478.

Babinski, D. E., Pelham Jr, W. E., Molina, B. S., Gnagy, E. M., Waschbusch, D. A., Wymbs, B. T., Sibley, M. H., Derefinko, K. J., & Kuriyan, A. B. (2016). Maternal ADHD, parenting, and psychopathology among mothers of adolescents with ADHD. *Journal of Attention Disorders, 20*(5), 458-468. https://doi.org/10.1177/1087054712461688

Baer, R. A., Lykins, E. L., & Peters, J. R. (2012). Mindfulness and self-compassion as predictors of psychological wellbeing in long-term meditators and matched nonmeditators. *The Journal of Positive Psychology, 7*(3), 230-238. https://doi.org/10.1080/17439760.2012.674548

Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment, 13*(1), 27-45. https://doi.org/10.1177/1073191105283504

Baer, R. A., Smith, G. T., Lykins, E., Button, D., Krietemeyer, J., Sauer, S., Walsh, E., Duggan, D., & Williams, J. M. G. (2008). Construct Validity of the Five Facet Mindfulness Questionnaire in Meditating and Nonmeditating Samples. *Assessment, 15*(3), 329-342. https://doi.org/10.1177/1073191107313003

Banks, T., Ninowski, J. E., Mash, E. J., & Semple, D. L. (2008). Parenting behavior and cognitions in a community sample of mothers with and without symptoms of attention-deficit/hyperactivity disorder. *Journal of Child and Family Studies, 17*(1), 28-43. https://doi.org/10.1007/s10826-007-9139-0

Barnard, L. K., & Curry, J. F. (2011). Self-compassion: Conceptualizations, correlates, & interventions. *Review of General Psychology*, *15*(4), 289-303.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173.

Barbeau, K., Boileau, K., Sarr, F., & Smith, K. (2019). Path analysis in Mplus: A tutorial using a conceptual model of psychological and behavioral antecedents of bulimic symptoms in young adults. *The Quantitative Methods for Psychology*, *15*(1), 38-53.

Beauchaine, T. P., & Zisner, A. (2017). Motivation, emotion regulation, and the latent structure of psychopathology: An integrative and convergent historical perspective. *International Journal of Psychophysiology, 119*, 108-118. https://www.sciencedirect.com/science/article/abs/pii/S0167876016309138?via%3Dihub

Beckerman, M., van Berkel, S. R., Mesman, J., & Alink, L. R. (2017). The role of negative parental attributions in the associations between daily stressors, maltreatment history, and harsh and abusive discipline. *Child Abuse & Neglect, 64*, 109-116.

Beckerman, M., van Berkel, S. R., Mesman, J., & Alink, L. R. (2018). Negative parental attributions mediate associations between risk factors and dysfunctional parenting: A replication and extension. *Child Abuse & Neglect, 81*, 249-258.

Belsky, J., Crnic, K., & Woodworth, S. (1995, Dec). Personality and parenting: Exploring the mediating role of transient mood and daily hassles. *Journal of Personality, 63*(4), 905-929. https://doi.org/10.1111/j.1467-6494.1995.tb00320.x

Bergen-Cico, D., & Cheon, S. (2014). The mediating effects of mindfulness and self-compassion on trait anxiety. *Mindfulness, 5*(5), 505-519.

Bernier, A., Calkins, S. D., & Bell, M. A. (2016, 07//Jul/Aug2016). Longitudinal Associations Between the Quality of Mother-Infant Interactions and Brain Development Across Infancy [journal article]. *Child Development, 87*(4), 1159-1174. https://doi.org/10.1111/cdev.12518

Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J. et al. (2004). Mindfulness: A proposed operational definition. *Clinical Psychlogy: Science & Practice, 11*(3), 230-241. https://doi.org/10.1093/clipsy.bph077

Bodhi, B. (2011). What does mindfulness really mean? A canonical perspective. *Contemporary Buddhism, 12*(01), 19-39. https://doi.org/10.1080/14639947.2011.564813

Bögels, S. M., Lehtonen, A., & Restifo, K. (2010). Mindful parenting in mental health care. *Mindfulness, 1*(2), 107-120. https://doi.org/10.1007/s12671-013-0209-7

Bohlmeijer, E., Prenger, R., Taal, E., & Cuijpers, P. (2010). The effects of mindfulness-based stress reduction therapy on mental health of adults with a chronic medical disease: a meta-analysis. *Journal of psychosomatic research*, *68*(6), 539-544.

Bridgett, D. J., Burt, N. M., Laake, L. M., & Oddi, K. B. (2013). Maternal self-regulation, relationship adjustment, and home chaos: contributions to infant negative emotionality. *Infant Behavior Development, 36*, 534-547. https://doi.org/10.1016/j.infbeh.2013.04.004

Bridgett, D. J., Laake, L. M., Gartstein, M. A., & Dorn, D. (2013). Development of infant positive emotionality: The contribution of maternal characteristics and effects on subsequent parenting. *Infant and Child Development, 22*(4), 362-382.

Brown, G. L., & Cox, M. J. (2020). Pleasure in parenting and father-child attachment security. *Attachment & Human Development, 22*(1), 51-65.

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*(4), 822–848. https://doi.org/10.1037/0022-3514.84.4.822.

Brown, K. W., & Ryan, R. M. (2004). Perils and promise in defining and measuring mindfulness: Observations from experience. *Clinical Psychology: Science & Practice, 11*(3), 242-248. https://doi.org/10.1093/clipsy.bph078

Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry, 18*(4), 211-237. https://doi.org/10.1080/10478400701598298

Cachia, R. L., Anderson, A., & Moore, D. W. (2016). Mindfulness, stress and well-being in parents of children with autism spectrum disorder: A systematic review. *Journal of Child and Family Studies, 25*(1), 1-14. https://doi.org/10.1007/s10826-015-0193-8

Campbell, K., Thoburn, J. W., & Leonard, H. D. (2017). The mediating effects of stress on the relationship between mindfulness and parental responsiveness. *Couple and Family Psychology: Research and Practice, 6*(1), 48-59. https://doi.org/10.1037/cfp0000075

Cao, M., Powers, A., Cross, D., Bradley, B., & Jovanovic, T. (2017). Maternal emotion dysregulation, parenting stress, and child physiological anxiety during dark-enhanced startle. *Developmental Psychobiology, 59*(8), 1021-1030. https://doi.org/10.1002/dev.21574

Cassells, R. C., & Evans, G. W. (2017). Ethnic variation in poverty and parenting stress. In *Parental Stress and Early Child Development* (pp. 15-45). Springer.

Castel, S., Creveuil, C., Beunard, A., Blaizot, X., Proia, N., & Guillois, B. (2016). Effects of an intervention program on maternal and paternal parenting stress after preterm birth: A randomized trial. *Early Human Development, 103*, 17-25. https://doi.org/10.1016/j.earlhumdev.2016.05.007

Chambers, R., Gullone, E., & Allen, N. B. (2009). Mindful emotion regulation: An integrative review. *Clinical Psychology Review, 29*(6), 560-572. https://doi.org/10.1016/j.cpr.2009.06.005

Chan, N., & Neece, C. L. (2018). Parenting stress and emotion dysregulation among children with developmental delays: The role of parenting behaviors. *Journal of Child and Family Studies, 27*(12), 4071-4082. https://doi.org/10.1007/s10826-018-1219-9

Chan, T. O., & Lam, S. F. (2017). Mediator or moderator? The role of mindfulness in the association between child behavior problems and parental stress. *Res Dev Disabil, 70*, 1-10. https://doi.org/10.1016/j.ridd.2017.08.007

Chaplin, T. M., Turpyn, C. C., Fischer, S., Martelli, A. M., Ross, C. E., Leichtweis, R. N., ... & Sinha, R. (2021). Parenting-focused mindfulness intervention reduces stress and improves parenting in highly stressed mothers of adolescents. *Mindfulness*, *12*(2), 450-462.

Chiesa, A., & Serretti, A. (2009). Mindfulness-based stress reduction for stress management in healthy people: a review and meta-analysis. *The Journal of Alternative and Complementary Medicine, 15*(5), 593-600. https://doi.org/10.1089/acm.2008.0495

Chronis-Tuscano, A., O'Brien, K. A., Johnston, C., Jones, H. A., Clarke, T. L., Raggi, V. L., Rooney, M. E., Diaz, Y., Pian, J., & Seymour, K. E. (2011). The relation between maternal ADHD symptoms & improvement in child behavior following brief behavioral parent training is mediated by change in negative parenting. *Journal of Abnormal Child Psychology, 39*(7), 1047-1057. https://doi.org/10.1007/s10802-011-9518-2

Chronis-Tuscano, A., Raggi, V. L., Clarke, T. L., Rooney, M. E., Diaz, Y., & Pian, J. (2008). Associations between maternal attention-deficit/hyperactivity disorder symptoms and parenting. *Journal of Abnormal Child Psychology, 36*(8), 1237-1250. https://doi.org/10.1007/s10802-008-9246-4

Cole, P. M., Ashana Ramsook, K., & Ram, N. (2019). Emotion dysregulation as a dynamic process. *Developmental Psychopathololgy, 31*(3), 1191-1201. https://doi.org/10.1017/S0954579419000695

CMind. (2021). The Tree of Contemplative Practices [Illustration]. The Center for Contemplative Mind in Society. https://www.contemplativemind.org/practices/tree

Corthorn, C., & Milicic, N. (2016). Mindfulness and parenting: A correlational study of non-meditating mothers of preschool children. *Journal of Child and Family Studies, 25*(5), 1672-1683. https://doi.org/10.1007/s10826-015-0319-z

Cousino, M. K., & Hazen, R. A. (2013). Parenting stress among caregivers of children with chronic illness: A systematic review. *Journal of Pediatric Psychology, 38*(8), 809-828. https://doi.org/10.1093/jpepsy/jst049

Cowling, C., & Van Gordon, W. (2021). Mindful parenting: future directions and challenges. *International Journal of Spa and Wellness*, *5*(1), 1-21.

Creswell, J. D., Way, B. M., Eisenberger, N. I., & Lieberman, M. D. (2007). Neural correlates of dispositional mindfulness during affect labeling. *Psychosomatic Medicine, 69*(6), 560-565.

Crnic, K., & Ross, E. (2017). Parenting stress and parental efficacy. In K. Deater-Deckard & R. Panneton (Eds.), *Parental stress and early child development: Adaptive and maladaptive outcomes.* (pp. 263-284). Springer International Publishing. https://doi.org/10.1007/978-3-319-55376-4_11

Crnic, K. A., & Booth, C. L. (1991). Mothers' and fathers' perceptions of daily hassles of parenting across early childhood. *Journal of Marriage and the Family, 53*(4), 1042-1050. https://doi.org/10.2307/353007

Crnic, K. A., Gaze, C., & Hoffman, C. (2005). Cumulative parenting stress across the preschool period: Relations to maternal parenting and child behaviour at age 5. *Infant and Child Development, 14*, 117-132. https://doi.org/10.1002/icd.384

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Sage.

Crouch, J. L., Irwin, L. M., Milner, J. S., Skowronski, J. J., Rutledge, E., & Davila, A. L. (2017, May). Do hostile attributions and negative affect explain the association between authoritarian beliefs and harsh parenting? *Child Abuse and Neglect, 67*, 13-21. https://doi.org/10.1016/j.chiabu.2017.02.019

David, O. A., Capris, D., & Jarda, A. (2017). Online coaching of emotion-regulation strategies for parents: Efficacy of the online rational positive parenting program and attention bias modification procedures. *Frontiers in Psychology, 8*, 500. https://doi.org/10.3389/fpsyg.2017.00500

David, O. A., David, D., & Dobrean, A. (2014). Efficacy of the rational positive parenting program for child externalizing behavior: can an emotion-regulation enhanced cognitive-behavioral parent program be more effective than a standard one? *Journal of Evidence-Based Psychotherapies, 14*(2), 159.

Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S. F., Urbanowski, F., Harrington, A., Bonus, K., & Sheridan, J. F. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic Medicine, 65*(4), 564-570.

Deater-Deckard, K. (1998). Parenting stress and child adjustment: Some old hypotheses and new questions. *Clinical Psychology Science and Practice, 5*(3), 314-332. https://doi.org/10.1111/j.1468-2850.1998.tb00152.x

Deater-Deckard, K., Li, M., & Bell, M. A. (2016). Multifaceted emotion regulation, stress and affect in mothers of young children. *Cognition and Emotion, 30*(3), 444-457. https://doi.org/10.1080/02699931.2015.1013087

Deater-Deckard, K., & Scarr, S. (1996). Parenting stress among dual-earner mothers and fathers: are there gender differences? *Journal of Family Psychology, 10*(1), 45-59. https://doi.org/10.1037/0893-3200.10.1.45

Deater-Deckard, K., Sewell, M. D., Petrill, S. A., & Thompson, L. A. (2010). Maternal working memory and reactive negativity in parenting. *Psychological Science, 21*(1), 75-79. https://doi.org/10.1177/0956797609354073

Duncan, G. J., Magnuson, K. A., & Ludwig, J. (2004). The endogeneity problem in developmental studies. *Research in human development*, *1*(1-2), 59-80.

Duncan, L. G., & Bardacke, N. (2010). Mindfulness-based childbirth and parenting education: promoting family mindfulness during the perinatal period. *Journal of Child and Family Studies, 19*(2), 190-202. https://doi.org/10.1007/s10826-009-9313-7

Duncan, L. G., Coatsworth, J. D., & Greenberg, M. T. (2009). A model of mindful parenting: Implications for parent-child relationships and prevention research. *Clinical Child and Family Psychology Review, 12*(3), 255-270. https://doi.org/10.1007/s10567-009-0046-3

Ellis, W.R. & Dietz, W.H. (2017). A new framework for addressing adverse childhood and community experiences: The building community resilience model. *Academic Pediatrics, 17*(7s), S86-S93.

Estes, A., Munson, J., Dawson, G., Koehler, E., Zhou, X.-H., & Abbott, R. (2009). Parenting stress and psychological functioning among mothers of preschool children with autism and developmental delay. *Autism, 13*(4), 375-387. https://doi.org/10.1177/1362361309105658

Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior research methods*, *39*(2), 175-191.

Feldman, G., Hayes, A., Kumar, S., Greeson, J., & Laurenceau, J.-P. (2007). Mindfulness and emotion regulation: The development and initial validation of the Cognitive and Affective Mindfulness Scale-Revised (CAMS-R). *Journal of Psychopathology and Behavioral Assessment, 29*(3), 177. https://doi.org/10.1007/s10862-006-9035-8

Fernandes, D. V., Canavarro, M. C., & Moreira, H. (2021). The mediating role of parenting stress in the relationship between anxious and depressive symptomatology, mothers' perception of infant temperament, and mindful parenting during the postpartum period. *Mindfulness*, *12*(2), 275-290.

Fernandes, D. V., Martins, A. R., Canavarro, M. C., & Moreira, H. (2021). Mindfulness- and Compassion-Based Parenting Interventions Applied to the Postpartum Period: A Systematic Review. *Journal of Child and Family Studies*, 1-25.

Ferraioli, S. J., & Harris, S. L. (2013). Comparative effects of mindfulness and skills-based parent training programs for parents of children with autism: Feasibility and preliminary outcome data. *Mindfulness, 4*(2), 89-101. https://doi.org/10.1007/s12671-012-0099-0

Fiese, B. H., & Winter, M. A. (2010). The dynamics of family chaos and its relation to children's socioemotional well-being. In G. W. Evans & T. D. Wachs (Eds.), *Chaos and its influence on children's development: An ecological*

perspective (pp. 49–66). American Psychological Association. https://doi.org/10.1037/12057-004

Fletcher, A. C., Walls, J. K., Cook, E. C., Madison, K. J., & Bridges, T. H. (2008). Parenting style as a moderator of associations between maternal disciplinary strategies and child well-being. *Journal of Family Issues, 29*(12), 1724-1744. https://doi.org/10.1177/0192513X08322933

Forman, R. K. (1989). Paramārtha and modern constructivists on mysticism: Epistemological monomorphism versus duomorphism. *Philosophy East and West*, *39*(4), 393-418.

Fulton, C. L. (2018). Self-compassion as a mediator of mindfulness and compassion for others. *Counseling and Values*, *63*(1), 45-56.

Garcia, A. S., Born, S. L., Carotta, C. L., Lavender-Stott, E. S., & Liu, H. L. (2022). Hope and Self-Compassion to Alleviate Parenting Stress in the Context of the COVID-19 Pandemic. *The Family Journal*, *30*(2), 164-173.

Garland, E. L., Kiken, L. G., Faurot, K., Palsson, O., & Gaylord, S. A. (2017). Upward spirals of mindfulness and reappraisal: Testing the mindfulness-to-meaning theory with autoregressive latent trajectory modeling. *Cognitive Therapy and Research, 41*(3), 381-392.

Gershoff, E. T., Aber, J. L., Raver, C. C., & Lennon, M. C. (2007). Income is not enough: Incorporating material hardship into models of income associations with parenting and child development. *Child Development, 78*(1), 70-95. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2835994/pdf/nihms31053.pdf

Gethin, R. M. (2011). On some definitions of mindfulness. *Contemporary Buddhism, 12*(1), 263-279. https://doi.org/10.1080/14639947.2011.564843

Goetz, J. L., Keltner, D., & Simon-Thomas, E. (2010). Compassion: An evolutionary analysis and empirical review. *Psychology Bulletin, 136*(3), 351-374. https://doi.org/10.1037/a0018807

Gottman, J. M., Katz, L. F., & Hooven, C. (1996). Parental meta-emotion philosophy and the emotional life of families: Theoretical models and preliminary data. *Journal of Family Psychology, 10*(3), 243-268. https://doi.org/10.1037/0893-3200.10.3.243

Gouveia, M. J., Carona, C., Canavarro, M. C., & Moreira, H. (2016). Self-compassion and dispositional mindfulness are associated with parenting styles and parenting stress: The mediating role of mindful parenting. *Mindfulness, 7*(3), 700-712. https://doi.org/10.1007/s12671-016-0507-y

Grant, J. A., Courtemanche, J., & Rainville, P. (2011). A non-elaborative mental stance and decoupling of executive and pain-related cortices predicts low pain sensitivity in Zen meditators. *Pain, 152*(1), 150-156. https://doi.org/10.1016/j.pain.2010.10.006

Grasso, D. J., Briggs-Gowan, M. J., Ford, J. D., & Carter, A. S. (2020). The Epidemic–Pandemic Impacts Inventory (EPII). University of Connecticut School of Medicine.

Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment, 26*(1), 41-54. https://doi.org/10.1023/B:JOBA.0000007455.08539.94

Greeson, J. M. (2009). Mindfulness research update: 2008. *Complementary Health Practice Review, 14*(1), 10-18. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2679512/pdf/nihms107164.pdf

Gross, J. J. (1998a). Antecedent-and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. *Journal of Personality and Social Psychology, 74*(1), 224. https://doi.org/10.1037/0022-3514.74.1.224

Gross, J. J. (1998b). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2*(3), 271-299.

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology, 85*(2), 348. https://doi.org/10.1037/0022-3514.85.2.348

Gross, J. J., & Muñoz, R. F. (1995). Emotion regulation and mental health. *Clinical Psychology: Science and Practice, 2*(2), 151-164.

Gu, J., Strauss, C., Crane, C., Barnhofer, T., Karl, A., Cavanagh, K., & Kuyken, W. (2016). Examining the factor structure of the 39-item and 15-item versions of the Five Facet Mindfulness Questionnaire before and after mindfulness-based cognitive therapy for people with recurrent depression. *Psychological Assessment*, *28*(7), 791. doi: 10.1037/pas0000263

Brown, C. G. (2019). *Debating yoga and mindfulness in public schools: Reforming secular education or reestablishing religion?*. UNC Press Books.

Harvey, E., Danforth, J. S., McKee, T. E., Ulaszek, W. R., & Friedman, J. L. (2003). Parenting of children with attention-defecit/hyperactivity disorder (ADHD): the

role of parental ADHD symptomatology. *Journal of Attention Disorders, 7*(1), 31-42. https://doi.org/10.1177/108705470300700104

Havighurst, S. S., Wilson, K. R., Harley, A. E., & Prior, M. R. (2009). Tuning in to kids: an emotion-focused parenting program—initial findings from a community trial. *Journal of Community Psychology, 37*(8), 1008-1023. https://doi.org/10.1002/jcop.20345

Hayes, S. A., & Watson, S. L. (2013). The impact of parenting stress: A meta-analysis of studies comparing the experience of parenting stress in parents of children with and without autism spectrum disorder. *Journal of Autism and Developmental Disorders, 43*(3), 629-642. https://doi.org/10.1007/s10803-012-1604-y

Hayes, S. C. (2004). Acceptance and commitment therapy and the new behavior therapies: Mindfulness, acceptance, and relationship. In S. C. Hayes, V. M. Follette, & M. M. Linehan (Eds.), *Mindfulness and Acceptance: Expanding the Cognitive-Behavioral Tradition* (pp. 1-29). The Guilford Press.

Hayes, S. C., Strosahl, K., & Wilson, K. G. (1999). *Acceptance and commitment therapy*. Guilford Press.

Heapy, C., Norman, P., Emerson, LM. *et al.* Is Parental Mindfulness Associated with Quality of Life and Itch Intensity in Children with Psoriasis and Eczema and Well-being in Parents?. *Mindfulness* **12,** 2707–2717 (2021). https://doi.org/10.1007/s12671-021-01733-2

Holly, L. E., Fenley, A. R., Kritikos, T. K., Merson, R. A., Abidin, R. R., & Langer, D. A. (2019). Evidence-base update for parenting stress measures in clinical samples. Journal of Clinical Child & Adolescent Psychology, 48(5), 685-705.

Hong, Y. R., & Park, J. S. (2012). Impact of attachment, temperament and parenting on human development. *Korean Journal of Pediatrics, 55*(12), 449-454. https://doi.org/10.3345/kjp.2012.55.12.449

Huang, C. Y., Costeines, J., Kaufman, J. S., & Ayala, C. (2014). Parenting stress, social support, and depression for ethnic minority adolescent mothers: Impact on child development. *Journal of Child and Family Studies, 23*(2), 255-262. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3956110/pdf/nihms512118.pdf

Huizink, A., Menting, B., De Moor, M., Verhage, M., Kunseler, F., Schuengel, C., & Oosterman, M. (2017). From prenatal anxiety to parenting stress: a longitudinal study. *Archives of Women's Mental Health, 20*(5), 663-672. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5599437/pdf/737_2017_Article_746.pdf

IBM Corp. Released 2020. IBM SPSS Statistics for Windows, Version 27.0. Armonk, NY: IBM Corp

Ishikawa, M. (2018). Mindfulness in Western Contexts Perpetuates oppressive realities for Minority Cultures: The Consequences of Cultural Appropriation. *SFU Educational Review*, *11*(1).

Jackson, A. P., Choi, J.-K., & Preston, K. S. (2015). Nonresident fathers' involvement with young Black children: A replication and extension of a mediational model. *Social Work Research, 39*(4), 245-254.

Juffer, F., Bakermans-Kranenburg, M. J., & Van Ijzendoorn, M. H. (2014). Attachment-based interventions: Sensitive parenting is the key to positive parent–child relationships. In *The Routledge Handbook of Attachment: Implications and Interventions* (pp. 83-103). Routledge.

Kabat-Zinn, J. (1990). *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain and Illness*. Delacorte.

Kabat-Zinn, J. (1994). *Wherever You Go, There You Are: Mindfulness Meditation in Everyday Life*. Hyperion.

Kabat-Zinn, J. (2003). Mindfulness-based stress reduction (MBSR). . *Constructivism in the Human Sciences, 8*(2 SRC - BaiduScholar), 73-107.

Kabat-Zinn, J., Lipworth, L., & Burney, R. (1985, Jun). The clinical use of mindfulness meditation for the self-regulation of chronic pain. *Journal of Behavioral Medicine, 8*(2), 163-190.

Kabat-Zinn, J., Massion, A. O., Kristeller, J., Peterson, L. G., Fletcher, K. E., Pbert, L., Lenderking, W. R., & Santorelli, S. F. (1992, Jul). Effectiveness of a meditation-based stress reduction program in the treatment of anxiety disorders. *American Journal of Psychiatry, 149*(7), 936-943. https://doi.org/10.1176/ajp.149.7.936

Kabat-Zinn, J., Wheeler, E., Light, T., Skillings, A., Scharf, M. J., Cropley, T. G., Hosmer, D., & Bernhard, J. D. (1998, Sep-Oct). Influence of a mindfulness meditation-based stress reduction intervention on rates of skin clearing in patients with moderate to severe psoriasis undergoing phototherapy (UVB) and photochemotherapy (PUVA). *Psychosomatic Medicine, 60*(5), 625-632. https://doi.org/10.1097/00006842-199809000-00020 ·

Karl, J. A., Prado, S. M. M., Gracanin, A., Verhaeghen, P., Ramos, A., Mandal, S. P., Michalak, J., Zhang, C.-Q., Schmidt, C., & Tran, U. S. (2020). The Cross-cultural Validity of the Five-Facet Mindfulness Questionnaire Across 16 Countries. *Mindfulness, 11*(5), 1226-1237.

Katz, S. T. (1978). Language, epistemology, and mysticism. *Mysticism and philosophical analysis, 2274*.

Kelley, H. H., & Michela, J. L. (1980). Attribution theory and research. *Annual Review Psychology, 31*, 457-501. https://doi.org/10.1146/annurev.ps.31.020180.002325

Kennedy Root, A., & Rubin, K. H. (2010). Gender and parents' reactions to children's emo- tion during the preschool years. In A. Kennedy Root & S. Denham (Eds.), The role of gender in the socialization of emotion: Key concepts and critical issues. *New Directions for Child and Adolescent Development,* 128, 51–64. San Francisco: Jossey-Bass.

Kirmayer, L. J. (2015). Mindfulness in cultural context. *Transcultural Psychiatry*, *52*(4), 447-469.

Koenigsberg, H. W., Harvey, P. D., Mitropoulou, V., Schmeidler, J., New, A. S., Goodman, M., Silverman, J. M., Serby, M., Schopick, F., & Siever, L. J. (2002, May). Characterizing affective instability in borderline personality disorder. *American Journal of Psychiatry, 159*(5), 784-788. https://doi.org/10.1176/appi.ajp.159.5.784

Lazar, S. W., Kerr, C. E., Wasserman, R. H., Gray, J. R., Greve, D. N., Treadway, M. T., McGarvey, M., Quinn, B. T., Dusek, J. A., & Benson, H. (2005). Meditation experience is associated with increased cortical thickness. *Neuroreport, 16*(17), 1893. https://doi.org/10.1097/01.wnr.0000186598.66243.19

Lazarus, R. S. (1991). *Emotion and Adaptation*. Oxford University Press.

Leary, M. R., Tate, E. B., Adams, C. E., Allen, A. B., & Hancock, J. (2007). Self-compassion and reactions to unpleasant self-relevant events: The implications of treating oneself kindly. *Journal of Personality and Social Psychology, 92*(5), 887-904. https://doi.org/10.1037/0022-3514.92.5.887

Lee, S. J., Gopalan, G., & Harrington, D. (2016). Validation of the parenting stress index–short form with minority caregivers. *Research on Social Work Practice*, *26*(4), 429-440.

Lee, S. J., Ward, K. P., Chang, O. D., & Downing, K. M. (2021). Parenting activities and the transition to home-based education during the COVID-19 pandemic. *Children and Youth Services Review*, *122*, 105585.

Leerkes, E. M., Su, J., Calkins, S. D., O'Brien, M., & Supple, A. J. (2017). Maternal physiological dysregulation while parenting poses risk for infant attachment disorganization and behavior problems. *Development and Psychopathology, 29*(1), 245-257. https://doi.org/10.1017/S0954579416000122

Leigh, B., & Milgrom, J. (2008). Risk factors for antenatal depression, postnatal depression and parenting stress. *BMC Psychiatry, 8*(24), 1471-1244. https://doi.org/10.1186/1471-244X-8-24

Lin, B., Kaliush, P. R., Conradt, E., Terrell, S., Neff, D., Allen, A. K., ... & Crowell, S. E. (2019). Intergenerational transmission of emotion dysregulation: Part I. Psychopathology, self-injury, and parasympathetic responsivity among pregnant women. *Development and psychopathology*, *31*(3), 817-831. https://doi.org/10.1017/S0954579419000336

Linehan, M. M. (1993). *Diagnosis and treatment of mental disorders. Cognitive-behavioral treatment of borderline personality disorder*. Guilford Press.

Lorber, M. F. (2012). The role of maternal emotion regulation in overreactive and lax discipline. *Journal of Family Psychology, 26*(4), 642. https://doi.org/10.1037/a0029109

Lorber, M. F., & O'Leary, S. G. (2005). Mediated paths to overreactive discipline: Mothers' experienced emotion, appraisals, and physiological responses. *Journal of Consulting and Clinical Psychology, 73*(5), 972. https://doi.org/10.1037/0022-006X.73.5.972

Loucks, L. A., & Shaffer, A. (2014). Joint relation of intimate partner violence and parenting stress to observed emotionally unsupportive parenting behavior. *Couple and Family Psychology: Research and Practice, 3*(3), 178.

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research And Therapy, 33*(3), 335-343. https://www.sciencedirect.com/science/article/abs/pii/000579679400075U?via%3Dihub

Luthar, S. S., & Ciciolla, L. (2015). Who mothers mommy? Factors that contribute to mothers' well-being. *Developmental Psychology, 51*(12), 1812-1823. https://doi.org/10.1037/dev0000051.

Lutz, K. F., Burnson, C., Hane, A., Samuelson, A., Maleck, S., & Poehlmann, J. (2012). Parenting stress, social support, and mother-child interactions in families of multiple and singleton preterm toddlers. *Family Relations, 61*(4), 642-656. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3483797/pdf/nihms365740.pdf

Lutz, J., Herwig, U., Opialla, S., Hittmeyer, A., Jäncke, L., Rufer, M., ... & Brühl, A. B. (2014). Mindfulness and emotion regulation—an fMRI study. *Social cognitive and affective neuroscience*, *9*(6), 776-785.

Mackler, J. S., Kelleher, R. T., Shanahan, L., Calkins, S. D., Keane, S. P., & O'Brien, M. (2015). Parenting stress, parental reactions, and externalizing behavior from ages 4 to 10. *Journal of Marriage and Family, 77*(2), 388-406. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4712732/pdf/nihms651261.pdf

Mann, J., Kuyken, W., O'Mahen, H., Ukoumunne, O. C., Evans, A., & Ford, T. J. (2016). Manual development and pilot randomised controlled trial of mindfulness-based cognitive therapy versus usual care for parents with a history of depression. *Mindfulness, 7*(5), 1024-1033. https://doi.org/10.1007/s12671-016-0543-7

Mardia, K. V. (2004). Multinormality, Mardia's Test of. *Encyclopedia of statistical sciences*, *8*.

Martini, T. S., Root, C. A., & Jenkins, J. M. (2004). Low and middle income mothers' regulation of negative emotion: Effects of children's temperament and situational emotional responses [Article]. *Social Development, 13*(4), 515-530. https://doi.org/10.1111/j.1467-9507.2004.00281.x

Martorell, G. A., & Bugental, D. B. (2006). Maternal variations in stress reactivity: implications for harsh parenting practices with very young children. *Journal of Family Psychology*, *20*(4), 641.

Mash, E. J., & Johnston, C. (1990). Determinants of parenting stress: Illustrations from families of hyperactive children and families of physically abused children. *Journal of Clinical Child Psychology, 19*, 313-328. https://doi.org/10.1207/s15374424jccp1904_3

Mauss, I. B., Bunge, S. A., & Gross, J. J. (2007). Automatic emotion regulation. *Social and Personality Psychology Compass, 1*(1), 146-167. https://doi.org/10.1111/j.1751-9004.2007.00005.x

McMahon, C. A., & Meins, E. (2011). Mind-mindedness, parenting stress, and emotional availability in mothers of preschoolers. *Early Childhood Research Quarterly, 27*, 245-252. https://doi.org/10.1016/j.ecresq.2011.08.002

McWilliams, S. A. (2010). Inherent self, invented self, empty self: Constructivism, Buddhism, and psychotherapy. *Counseling and Values, 55*(1), 79-100.

Meier, A., Musick, K., Flood, S., & Dunifon, R. (2016). Mothering Experiences: How Single Parenthood and Employment Structure the Emotional Valence of Parenting. *Demography, 53*(3), 649-674. https://doi.org/10.1007/s13524-016-0474-x

Merkes, M. (2010). Mindfulness-based stress reduction for people with chronic diseases. *Australian journal of primary health, 16*(3), 200-210.

Mesman, J., van IJzendoorn, M. H., & Bakermans-Kranenburg, M. J. (2012). Unequal in opportunity, equal in process: Parental sensitivity promotes positive child development in ethnic minority families. *Child Development Perspectives, 6*(3), 239-250.

Miklosi, M., Szabo, M., & Simon, L. (2017). The role of mindfulness in the relationship between perceived parenting, early maladaptive schemata and parental sense of competence. *Mindfulness, 8*(2), 471-480.

Mikulincer, M., & Shaver, P. R. (2008). Adult Attachment and Affect Regulation. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of Attachment: Theory, Research, and Clinical Applications* (pp. 503-531). Guilford.

Miranda, A., Mira, A., Berenguer, C., Rosello, B., & Baixauli, I. (2019). Parenting stress in mothers of children with autism without intellectual disability. Mediation of behavioral problems and coping strategies. *Frontiers in Psychology, 10*, 464. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6418028/pdf/fpsyg-10-00464.pdf

Mistry, R. S., Lowe, E. D., Benner, A. D., & Chien, N. (2008). Expanding the family economic stress model: Insights from a mixed-methods approach. *Journal of Marriage and Family, 70*(1), 196-209.

Moe, V., Von Soest, T., Fredriksen, E., Olafsen, K. S., & Smith, L. (2018). The multiple determinants of maternal parenting stress 12 months after birth: The contribution of antenatal attachment style, adverse childhood experiences, and infant temperament. *Frontiers in Psychology, 9*, 1987. https://doi.org/10.3389/fpsyg.2018.01987

Mokrova, I., O'Brien, M., Calkins, S., & Keane, S. (2010). Parental ADHD symptomology and ineffective parenting: The connecting link of home chaos. *Parenting: Science and Practice, 10*(2), 119-135. https://doi.org/10.1080/15295190903212844

Molina, A. P., Negriff, S., Monro, W., & Mennen, F. E. (2018). Exploring the Relationships Between Maternal Mental Health Symptoms and Young Children's Functioning in a Low-Income, Minority Sample. *Journal of Child and Family Studies, 27*(12), 3975-3985.

Moreira, H., Carona, C., Silva, N., Nunes, J., & Canavarro, M. C. (2016). Exploring the link between maternal attachment-related anxiety and avoidance and mindful parenting: The mediating role of self-compassion. *Psychology and Psychotherapy, 89*(4), 369-384. https://doi.org/10.1111/papt.12082

Moreira, H., Gouveia, M. J., Carona, C., Silva, N., & Canavarro, M. C. (2015). Maternal attachment and children's quality of life: The mediating role of self-compassion

and parenting stress. *Journal of Child and Family Studies, 24*(8), 2332-2344. https://doi.org/10.1007/s10826-014-0036-z

Morelen, D., Shaffer, A., & Suveg, C. (2016). Maternal emotion regulation: Links to emotion parenting and child emotion regulation. *Journal of Family Issues, 37*(13), 1891-1916. https://doi.org/10.1177/0192513X14546720

Mulligan, K., & Scherer, K. R. (2012). Toward a working definition of emotion. *Emotion Review, 4*(4), 345-357. https://doi.org/10.1177/1754073912445818

Murray, C., & Johnston, C. (2006). Parenting in mothers with and without attention-deficit/hyperactivity disorder. *Journal of Abnormal Psychology, 115*(1), 52. https://doi.org/10.1037/0021-843X.115.1.52

Muthén, B. O., Muthén, L. K., & Asparouhov, T. (2017). *Regression and mediation analysis using Mplus*. Muthén & Muthén Los Angeles, CA.

Muthén, L. K., & Muthén, B. O. (1998-2017). *Mplus Users Guide (8th ed.)*. Los Angeles, CA: Muthén & Muthén.

Nakamura, H., Tawatsuji, Y., Fang, S., & Matsui, T. (2021). Explanation of emotion regulation mechanism of mindfulness using a brain function model. *Neural Networks,* 138, 198-214.

Nam, Y., Wikoff, N., & Sherraden, M. (2015). Racial and ethnic differences in parenting stress: Evidence from a statewide sample of new mothers. *Journal of Child and Family Studies, 24*(2), 278-288.

Nedu, O. C. (2015). A Non-Referential and Non-Cognitive Theory of Truth, in Vijñānavāda Buddhism. *Revista Hiperboreea, 2*(2), 52-73.

Neece, C. L., Green, S. A., & Baker, B. L. (2012). Parenting stress and child behavior problems: A transactional relationship across time. *American Journal on Intellectual and Developmental Disabilities, 117*(1), 48-66. https://doi.org/10.1352/1944-7558-117.1.48

Neff, K. D. (2003a). Development and validation of a scale to measure self-compassion. *Self and Identity, 2*(3), 223-250.

Neff, K. D. (2003b). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and identity, 2*(2), 85-101.

Neff, K. D., Hsieh, Y. P., & Dejitterat, K. (2005). Self-compassion, achievement goals, and coping with academic failure. *Self and identity*, 4(3), 263-287.

Neff, K. D., & Beretvas, S. N. (2013). The role of self-compassion in romantic relationships. *Self and Identity, 12*(1), 78-98.

Neff, K. D., & Dahm, K. A. (2015). Self-compassion: What it is, what it does, and how it relates to mindfulness. In *Handbook of mindfulness and self-regulation* (pp. 121-137). Springer, New York, NY.

Neff, K. D., & Faso, D. J. (2015). Self-compassion and well-being in parents of children with autism. *Mindfulness, 6*(4), 938-947. https://doi.org/10.1007/s12671-014-0359-2

Neff, K. D., Whittaker, T. A., & Karl, A. (2017). Examining the Factor Structure of the Self-Compassion Scale in Four Distinct Populations: Is the Use of a Total Scale Score Justified? *J Pers Assess, 99*(6), 596-607. https://doi.org/10.1080/00223891.2016.1269334

Newton, E. K., Laible, D., Carlo, G., Steele, J. S., & McGinley, M. (2014). Do sensitive parents foster kind children, or vice versa? Bidirectional influences between children's prosocial behavior and parental sensitivity. *Developmental Psychology, 50*(6), 1808.

Nomaguchi, K., & House, A. N. (2013). Racial-ethnic disparities in maternal parenting stress: The role of structural disadvantages and parenting values. *Journal of Health and Social Behavior, 54*(3), 386-404.

Nomaguchi, K., & Johnson, W. (2016). Parenting stress among low-income and working-class fathers: The role of employment. *Journal of Family Issues, 37*(11), 1535-1557. https://doi.org/10.1177/0192513X14560642

Norton, P. J. (2007). Depression Anxiety and Stress Scales (DASS-21): Psychometric analysis across four racial groups. *Anxiety, Stress, and Coping*, *20*(3), 253-265.

Oei, T. P., Sawang, S., Goh, Y. W., & Mukhtar, F. (2013). Using the depression anxiety stress scale 21 (DASS-21) across cultures. *International Journal of Psychology, 48*(6), 1018-1029. https://onlinelibrary.wiley.com/doi/abs/10.1080/00207594.2012.755535

Office of Management and Budget. (1997a) *Recommendation from the Interagency Committee for the Review of the Racial and Ethnic Standards nito the Office of Management and Budget Concerning Changes to the Standards for Classification of Federal Data on Race and Ethnicity*, Federal Register: 62: 36873-36946, July 9.

Office of Management and Budget. (1997b) *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity*, Federal Register: 62: No.210, October 30.

Pan, W.-L., Gau, M.-L., Lee, T.-Y., Jou, H.-J., Liu, C.-Y., Wen, T.-K. J. W., & Birth. (2019). Mindfulness-based programme on the psychological health of pregnant women. *Women and Birth, 32*(1), e102-e109. https://doi.org/doi.org/10.1016/j.wombi.2018.04.018

Parent, J., McKee, L. G., Anton, M., Gonzalez, M., Jones, D. J., & Forehand, R. (2016). Mindfulness in parenting and coparenting. *Mindfulness, 7*(2), 504-513. https://doi.org/10.1007/s12671-015-0485-5

Parent, J., Dale, C. F., McKee, L. G., & Sullivan, A. D. (2021). The longitudinal influence of caregiver dispositional mindful attention on mindful parenting, parenting practices, and youth psychopathology. *Mindfulness*, *12*(2), 357-369.

Parent, J., & DiMarzio, K. (2021). Advancing mindful parenting research: An introduction. *Mindfulness*, *12*(2), 261-265.

Patton, M. Q. (2014). *Qualitative research & evaluation methods: Integrating theory and practice*. Sage publications.

Parkes, A., Sweeting, H., & Wight, D. (2015). Parenting stress and parent support among mothers with high and low education. *Journal of Family Psychology, 29*(6), 907-918. https://doi.org/10.1037/fam0000129.

Perez-Blasco, J., Viguer, P., & Rodrigo, M. F. (2013). Effects of a mindfulness-based intervention on psychological distress, well-being, and maternal self-efficacy in breast-feeding mothers: Results of a pilot study. *Archives of Womens Mental Health, 16*(3), 227-236. https://doi.org/10.1007/s00737-013-0337-z

Phillips, M. L., Drevets, W. C., Rauch, S. L., & Lane, R. (2003, Sep 1). Neurobiology of emotion perception II: Implications for major psychiatric disorders. *Biological Psychiatry, 54*(5), 515-528. https://doi.org/10.1016/s0006-3223(03)00171-9

Poehlmann-Tynan, J., Engbretson, A., Vigna, A. B., Weymouth, L. A., Burnson, C., Zahn-Waxler, C., ... & Raison, C. L. (2020). Cognitively-Based Compassion Training for parents reduces cortisol in infants and young children. *Infant Mental Health Journal*, *41*(1), 126-144.

Potharst, E. S., Aktar, E., Rexwinkel, M., & Rigterink, M. (2017). Mindful with your baby: Feasibility, acceptability, and effects of a mindful parenting group training for mothers and their babies in a mental health context. *Mindfulness, 8*(5), 1236-1250. https://doi.org/10.1007/s12671-017-0699-9 r

Proulx, J., Croff, R., Oken, B., Aldwin, C. M., Fleming, C., Bergen-Cico, D., ... & Noorani, M. (2018). Considerations for research and development of culturally relevant mindfulness interventions in American minority communities. *Mindfulness*, *9*(2), 361-370.

Qualtrics (2021). Provo, Utah. Avaiable at: https://www.qualtrics.com

Raes, F., Pommier, E., Neff, K. D., & Van Gucht, D. (2011, May-Jun). Construction and factorial validation of a short form of the Self-Compassion Scale. *Clinical Psycholology and Psychotherapy, 18*(3), 250-255. https://doi.org/10.1002/cpp.702

Rayan, A., Ahmad, M., Rolon-Arroyo, B., Arnold, D. H., Breaux, R. P., & Harvey, E. A. (2018). Effectiveness of mindfulness-based intervention on perceived stress, anxiety, and depression among parents of children with autism spectrum disorder. *Mindfulness, 8*(3), 677-690. https://doi.org/10.1007/s12671-016-0595

Reid, K. M., & Taylor, M. G. (2015). Social support, stress, and maternal postpartum depression: A comparison of supportive relationships. *Social Science Research, 54*, 246-262. https://doi.org/doi.org/10.1016/j.ssresearch.2015.08.009

Reitman, D., Currier, R. O., & Stickle, T. R. (2002). A critical evaluation of the Parenting Stress Index-Short Form (PSI-SF) in a head start population. Journal of Clinical Child and Adolescent Psychology, 31(3), 384-392.

Ren, Y., Han, Z. R., Ahemaitijiang, N., & Zhang, G. (2021). Maternal mindfulness and school-age children's emotion regulation: mediation by positive parenting practices and moderation by maternal perceived life stress. *Mindfulness*, *12*(2), 306-318.

Renk, K. (2011). Mothers' perceptions of young children, parenting, and young children's behavior problems. *Child & Family Behavior Therapy, 33*(2), 123-138.

Repetti, R. L., Taylor, S. E., & Seeman, T. E. (2002). Risky families: Family social environments and the mental and physical health of offspring. *Psychology Bulletin, 128*(2), 330-366. https://doi.org/10.1037/0033-2909.128.2.330

Respler-Herman, M., Mowder, B. A., Yasik, A. E., & Shamah, R. (2012). Parenting beliefs, parental stress, and social support relationships. *Journal of Child and Family Studies, 21*(2), 190-198. https://doi.org/10.1007/s10826-011-9462-3

Riva Crugnola, C., Ierardi, E., Ferro, V., Gallucci, M., Parodi, C., & Astengo, M. (2016). Mother-infant emotion regulation at three months: The role of maternal anxiety, depression and parenting stress. *Psychopathology, 49*(4), 285-294. https://doi.org/10.1159/000446811

Roemer, L., Williston, S. K., & Rollins, L. G. (2015). Mindfulness and emotion regulation. *Current Opinion in Psychology*, *3*, 52-57.

Malis, R. F., Meyer, T., & Gross, M. M. (2017). Effects of an antenatal mindfulness-based childbirth and parenting programme on the postpartum experiences of

mothers: a qualitative interview study. *BMC Pregnancy and Childbirth*, *17*(1), 1-11.

Rutherford, H. J., Wallace, N. S., Laurent, H. K., & Mayes, L. C. (2015). Emotion regulation in parenthood. *Developmental Review, 36*, 1-14. https://doi.org/10.1016/j.dr.2014.12.008

RStudio Team (2020). RStudio: Integrated Development for R. RStudio, PBC, Boston, MA URL http://www.rstudio.com/.

Salters-Pedneault, K., Roemer, L., Tull, M. T., Rucker, L., & Mennin, D. S. (2006). Evidence of broad deficits in emotion regulation associated with chronic worry and generalized anxiety disorder. *Cognitive Therapy and Research, 30*(4), 469-480. https://doi.org/10.1007/s10608-006-9055-4

Sameroff, A. (1975). Transactional models in early social relations. *Human Development, 18*(1-2), 65-79.

Schellinger, K. B., Murphy, L. E., Rajagopalan, S., Jones, T., Hudock, R. L., Graff, J. C., ... & Tylavsky, F. A. (2020). Toddler Externalizing Behavior, Social Support, and Parenting Stress: Examining a Moderator Model. *Family relations*, *69*(4), 714-726.

Scholten, S., Velten, J., Bieda, A., Zhang, X. C., & Margraf, J. (2017). Testing measurement invariance of the Depression, Anxiety, and Stress Scales (DASS-21) across four countries. *Psychological Assessment, 29*(11), 1376.

Schoemann, A. M., Boulton, A. J., & Short, S. D. (2017). Determining power and sample size for simple and complex mediation models. *Social Psychological and Personality Science, 8*(4), 379-386. https://doi.org/10.1177/1948550617715068

Segal, Z. V., Williams, J. M. G., & Teasdale, J. D. (2002). *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. Guilford Press.

Shaffer, A., Whitehead, M., Davis, M., Morelen, D., & Suveg, C. (2018). A model-based cluster analysis of maternal emotion regulation and relations to parenting behavior. *Family Process, 57*(3), 707-718. https://doi.org/10.1111/famp.12326

Shapiro, S. L., Carlson, L. E., Astin, J. A., & Freedman, B. (2006). Mechanisms of mindfulness. *Journal of Clinical Psychology, 62*(3), 373-386. https://doi.org/10.1002/jclp.20237

Shonin, E., Van Gordon, W., Compare, A., Zangeneh, M., & Griffiths, M. D. (2015). Buddhist-derived loving-kindness and compassion meditation for the treatment of psychopathology: A systematic review. *Mindfulness*, *6*(5), 1161-1180.

Short, V. L., Gannon, M., Weingarten, W., Kaltenbach, K., LaNoue, M., & Abatemarco, D. J. (2017). Reducing stress among mothers in drug treatment: A description of a mindfulness based parenting intervention. *Maternal and Child Health Journal, 21*(6), 1377-1386. https://doi.org/10.1007/s10995-016-2244-1

Siegel, D. J. (2009). Mindful awareness, mindsight, and neural integration. *The Humanistic Psychologist, 37*(2), 137-158. https://doi.org/10.1080/08873260902892220

Siegel, R. D., Germer, C. K., & Olendzki, A. (2009). Mindfulness: What is it? Where did it come from? In *Clinical handbook of mindfulness* (pp. 17-35). Springer.

Siemsen, E., Roth, A., & Oliveira, P. (2010). Common method bias in regression models with linear, quadratic, and interaction effects. *Organizational research methods*, *13*(3), 456-476.

Singh, N. N., Lancioni, G. E., Winton, A. W., Karazsia, B. T., Myers, R. E., Latham, L. L., & Singh, J. (2014). Mindfulness-based positive behavior support (MBPBS) for mothers of adolescents with autism spectrum disorder: Effects on adolescents' behavior and parental stress. *Mindfulness, 5*(6), 646-657. https://doi.org/10.1007/s12671-014-0321-3

Smith, A., Cross, D., Winkler, J., Jovanovic, T., & Bradley, B. (2014). Emotional dysregulation and negative affect mediate the relationship between maternal history of child maltreatment and maternal child abuse potential. *Journal of Family Violence, 29*(5), 483-949. https://doi.org/10.1007/s10896-014-9606-5

Sroufe, L. A. (2005). Attachment and development: A prospective, longitudinal study from birth to adulthood. *Attachment & Human Development, 7*(4), 349-367. https://doi.org/10.1080/14616730500365928

Stjernswärd, S., & Hansson, L. (2017). Effectiveness and usability of a web-based mindfulness intervention for families living with mental illness. *Mindfulness, 8*(3), 751-764. https://doi.org/10.1007/s12671-016-0653-2

Strauss, C., Taylor, B. L., Gu, J., Kuyken, W., Baer, R., Jones, F., Cavanaugh, K. (2016). What is compassion and how can we measure it? A review of definitions and measures. *Clinical Psychology Review, 47*, 15-27. https://doi.org/10.1016/j.cpr.2016.05.004

Teper, R., & Inzlicht, M. (2012). Meditation, mindfulness and executive control: the importance of emotional acceptance and brain-based performance monitoring. *Social, Cognitive, and Affective Neuroscience, 8*(1), 85-92. https://doi.org/10.1093/scan/nss045

Teper, R., Segal, Z. V., & Inzlicht, M. (2013). Inside the mindful mind: How mindfulness enhances emotion regulation through improvements in executive control. *Current Directions in Psychological Science, 22*(6), 449-454. https://doi.org/10.1177/0963721413495869

Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. *Monographs of the Society for Research in Child Development, 59*(2-3), 25-52. https://doi.org/10.2307/1166137

Thompson, R. A. (2019). Emotion dysregulation: A theme in search of definition. *Development and Psychopathology, 31*(3), 805-815. https://doi.org/10.1017/S0954579419000282

Tsotsi, S., Broekman, B. F., Shek, L. P., Tan, K. H., Chong, Y. S., Chen, H., ... & Rifkin-Graboi, A. E. (2019). Maternal parenting stress, child exuberance, and preschoolers' behavior problems. *Child development*, *90*(1), 136-146.

Townshend, K., Caltabiano, N. J., Powrie, R., & O'Grady, H. (2018). A preliminary study investigating the effectiveness of the Caring for Body and Mind in Pregnancy (CBMP) in reducing perinatal depression, anxiety and stress. *Journal of Child and Family Studies, 27*(2), 1-11. https://doi.org/10.1007/s10826-017-0978-z

Turpyn, C. C., & Chaplin, T. M. (2016). Mindful parenting and parents' emotion expression: effects on adolescent risk behaviors. *Mindfulness*, *7*(1), 246-254.

Turpyn, C. C., Chaplin, T. M., Fischer, S., Thompson, J. C., Fedota, J. R., Baer, R. A., & Martelli, A. M. (2021). Affective neural mechanisms of a parenting-focused mindfulness intervention. *Mindfulness*, *12*(2), 392-404.

Vago, D. R., & Silbersweig, D. A. (2012). Self-awareness, self-regulation, and self-transcendence (S-ART): A framework for understanding the neurobiological mechanisms of mindfulness. *Frontiers in Human Neuroscience, 6*, 296. https://doi.org/10.3389/fnhum.2012.00296

Van Dam, N. T., Hobkirk, A. L., Sheppard, S. C., Aviles-Andrews, R., & Earleywine, M. (2014). How does mindfulness reduce anxiety, depression, and stress? An exploratory examination of change processes in wait-list controlled mindfulness meditation training. *Mindfulness*, *5*(5), 574-588.

Van Dam, N. T., Sheppard, S. C., Forsyth, J. P., & Earleywine, M. (2011). Self-compassion is a better predictor than mindfulness of symptom severity and quality of life in mixed anxiety and depression. *Journal of Anxiety Disorders*, *25*(1), 123-130.

Vignola, R. C. B., & Tucci, A. M. (2014). Adaptation and validation of the depression, anxiety and stress scale (DASS) to Brazilian Portuguese. *Journal of Affective Disorders, 155*, 104-109.

Walsh, Z. (2018). Mindfulness under neoliberal governmentality: Critiquing the operation of biopower in corporate mindfulness and constructing queer alternatives. *Journal of Management, Spirituality & Religion*, *15*(2), 109-122.

Waldfogel, J., Craigie, T.-A., & Brooks-Gunn, J. (2010). Fragile families and child wellbeing. *The Future of children/Center for the Future of Children, the David and Lucile Packard Foundation, 20*(2), 87.

Watson, D. (2005). Rethinking the mood and anxiety disorders: a quantitative hierarchical model for DSM-V. *Journal of abnormal psychology, 114*(4), 522.

Watson-Singleton, N., Mekawi, Y., Wilkins, K., & Jatta, I. (2020). Racism's effect on depressive symptoms: Examining perseverative cognition and Black Lives Matter activism as moderators. *Journal of Counseling Psychology*.

Watson-Singleton, N. N., Hill, L. K., & Case, A. D. (2019). Past Discrimination, Race-Related Vigilance, and Depressive Symptoms: The Moderating Role of Mindfulness. *Mindfulness, 10*(9), 1768-1778. https://doi.org/10.1007/s12671-019-01143-5

Watson-Singleton, N. N., Walker, J. H., LoParo, D., Mack, S. A., & Kaslow, N. J. (2018). Psychometric evaluation of the Five Facet Mindfulness Questionnaire in a clinical sample of African Americans. *Mindfulness, 9*(1), 312-324. https://doi.org/10.1007/s12671-017-0776-0

Weiss, N. H., Forkus, S. R., Contractor, A. A., & Dixon-Gordon, K. L. (2020). The interplay of negative and positive emotion dysregulation on mental health outcomes among trauma-exposed community individuals. *Psychological Trauma: Theory, Research, Practice and Policy, 12*(3), 219-226. https://doi.org/10.1037/tra0000503

Whittle, S., Vijayakumar, N., Dennison, M., Schwartz, O., Simmons, J., G. , Sheeber, L., & Allen, N., B. (2016, 01/01/). Observed Measures of Negative Parenting Predict Brain Development during Adolescence [article]. *PLoS One, 11*(1), e0147774-e0147774. https://doi.org/10.1371/journal.pone.0147774

Williams, D. T., Cheadle, J. E., & Goosby, B. J. (2015). Hard times and heart break: Linking economic hardship and relationship distress. *Journal of Family Issues, 36*(7), 924-950. https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1281&context=sociology facpub

Williams, J. M. G., & Kabat-Zinn, J. (2011). Mindfulness: diverse perspectives on its meaning, origins, and multiple applications at the intersection of science and dharma. *Contemporary Buddhism*, *12*(1), 1–18.

Williams, L. E., Bargh, J. A., Nocera, C. C., & Gray, J. R. (2009). The unconscious regulation of emotion: nonconscious reappraisal goals modulate emotional reactivity. *Emotion, 9*(6), 847. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2796590/pdf/nihms135211.pdf

Wilson, C. K., Padrón, E., & Samuelson, K. W. (2017). Trauma type and posttraumatic stress disorder as predictors of parenting stress in trauma-exposed mothers. *Violence and victims, 32*(1), 141-158. https://connect.springerpub.com/content/sgrvv/32/1/141

Winston, R., & Chicot, R. (2016). The importance of early bonding on the long-term mental health and resilience of children. *London Journal of Primary Care, 8*(1), 12-14. https://doi.org/10.1080/17571472.2015.1133012

Yarnell, L. M., & Neff, K. D. (2013). Self-compassion, interpersonal conflict resolutions, and well-being. *Self and Identity, 12*(2), 146-159. https://doi.org/10.1080/15298868.2011.649545

Yip, S. Y., Mak, W. W., Chio, F. H., & Law, R. W. (2017). The mediating role of self-compassion between mindfulness and compassion fatigue among therapists in Hong Kong. *Mindfulness*, *8*(2), 460-470.

Zero to Three (2016). Tuning In National Parent Survey Report. *Zero to Three,* 1-29. Retrieved from https://www.zerotothree.org/resources/1425-national-parent-survey-report

Zollars, I., Poirier, T. I., & Pailden, J. (2019). Effects of mindfulness meditation on mindfulness, mental well-being, and perceived stress. *Currents in Pharmacy Teaching and Learning*, *11*(10), 102