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The Role of Parental Self-Efficacy, Hardiness, Parenting Stress In Predicting Parenting Behaviors

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THE ROLE OF PARENTAL SELF-EFFICACY, HARDINESS, AND PARENTING

STRESS IN PREDICTING PARENTING BEHAVIORS

by

Erica Danielle Smith

A Dissertation

Submitted to the Graduate School,
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and the Department of Psychology
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December 2017

THE ROLE OF PARENTAL SELF-EFFICACY, HARDINESS, AND PARENTING
STRESS IN PREDICTING PARENTING BEHAVIORS

by Erica Danielle Smith

December 2017

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ABSTRACT

THE ROLE OF PARENTAL SELF-EFFICACY, HARDINESS, AND PARENTING STRESS IN PREDICTING PARENTING BEHAVIORS

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Given that there is a link between parenting practices and child developmental outcomes, it is important to explore the existence of variables that may influence the success of implementing parenting practices. Therefore, the current study aimed to understand how parental cognitions influence parenting practices by exploring the mediational influence of parenting stress. Parenting self-efficacy is an important cognitive variable to study as it has been related to positive parenting practices (Coleman & Karraker, 1997; Jones & Prinz, 2005) and considered a reliable predictor of parenting stress (Raikes & Thompson, 2005). Hardiness is also an important cognitive variable to examine as it is related to lower levels of psychological distress (Beasley, Thompson, & Davidson, 2002), and positively related to adjustment and well-being (Maddi, Brow, Khoshaba, & Vaitkus, 2006; Orr & Westman, 1990). While hardiness has not been directly linked to parenting practices, it has been negatively associated with stress in nonparent populations, therefore it is hypothesized that it may also be positively associated with parenting practices and negatively related to parenting stress. Given that there is some evidence that suggests that parenting stress serves as a mediator between parenting variables (i.e., social support and depressive symptomology) and parenting practices (Bonds, Gondoli, Sturge-Apple, & Salem, , 2002; Gerdes, Hoza, Arnold, Pelham, Swanson, Wigal, & Jenson ., 2007), the current study examined a model of

parenting that explores the mediational role of parenting stress in the relationships between parental cognitions (parenting self-efficacy and hardiness) and parenting behaviors. Results demonstrated that parenting stress partially mediated the relationships between the parental cognitions, hardiness and parenting self-efficacy, and parenting practices. Also, results demonstrated that the mediation model significantly differed across parent gender as predicted.

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DEDICATION

I dedicate my dissertation work to my family. A special feeling of gratitude to my parents, Anna Raisanen and Sharon Koenders, for their financial, emotional, and practical support throughout my dissertation process that made its completion possible. I am also grateful for my parents' unwavering words of encouragement and vote of confidence in me throughout this process, especially during times when I struggled to believe I could complete this journey.

I also dedicate my dissertation work to my husband, Jared Smith, who has been a constant source of support and encouragement throughout my entire graduate school journey. I also dedicate my dissertation to my son, Dallas Smith, who has served as my inspiration and motivation that has kept me moving forward during the most difficult challenges I faced in completing this dissertation.

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CHAPTER I - INTRODUCTION

The occurrence of emotional and behavioral problems is one of the most common health conditions during childhood and an important issue to consider as such problems have negative consequences for children's development (Merikangas, He, Brody, Fisher, Bourdon, & Koretz, 2010). Poor parenting practices may maintain or exacerbate behavioral problems in children (Johnston & Mash, 2001). Additionally, high levels of parenting stress have been associated with negative outcomes for both parents (Gelfand, Teti, & Fox, 1992) and children (Barry, Dunlap, Cotten, Lochman, & Wells, 2005). There is an extensive body of literature that examines effective parenting practices that promote positive child development, however less information is known about variables that affect a parents' ability to implement these positive parenting practices. It is important to explore the existence of such variables as they may influence the success of implementing parenting practices and inform prevention and intervention efforts. The current study explored parental cognitions, hardiness and parenting self-efficacy, and parenting stress as potential variables that influence parenting practices for both mothers and fathers.

A theoretical model provides a way to explain the relationships among variables. Having a way to explain how cognitions and emotions influence behavior is beneficial as it allows for the identification of points of interventions. For example, in psychotherapy, having knowledge that specific cognitions, such as self-defeating thoughts and cognitive distortions, are directly related to the severity of depression provides a mechanism to intervene in order to reduce the negative emotional response of depression (Beck, 2011). Similarly, having knowledge about how parents' resilient thinking and self-efficacy in the

parental role are related to parenting stress and outcomes will provide a mechanism for intervention that will help to reduce the negative emotional response of parenting stress and may impact parenting behavior positively.

The mechanism by which parental cognitions, such as hardiness and parenting self-efficacy, are related to parenting behaviors is unknown. However, a type of parental cognition, parenting sense of competence, has been found to be predictive of parenting stress (Mash & Johnston, 1990) and a similar construct, parenting efficacy, has been found to be predictive of parenting practices (Bondy & Mash, 1999; Gondoli & Silverberg, 1997; Shumow & Lomax, 2002). Additionally, research has suggested that parenting stress predicts parenting practices (Deater-Deckard & Scarr, 1996; Emery & Tuer, 1993). Therefore, one possible mechanism is that the parental cognitions may contribute to the level of experienced parenting stress that then predict parenting behaviors. A visual representation of the current study's proposed model is pictured below in Figure 1.

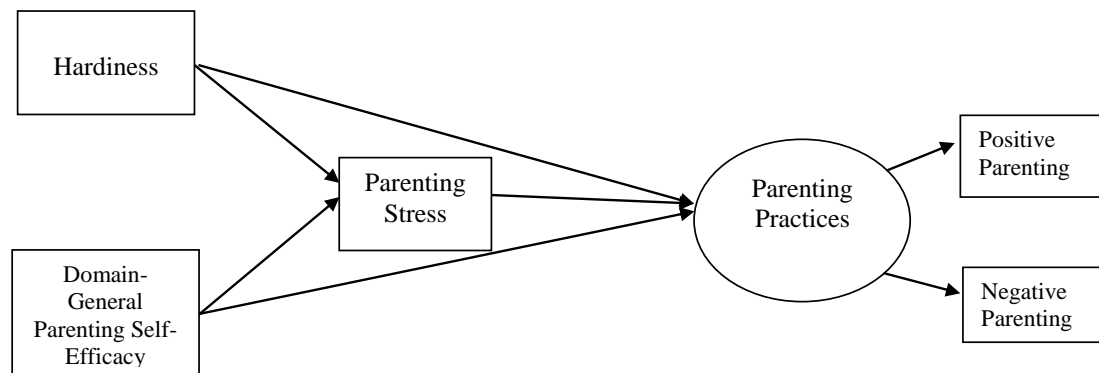


Figure 1. Visual Representation of Proposed Model in Current Study.

Additionally, while there have been some attempts to understand parenting differences between mothers and fathers (Dadds, 1995; Deckard & Scarr, 1996; Elgar at

al.; Esdaille & Greenwood, 2003; Gryczkowski & Jordan, 2010; Kane & Gaber, 2004; Krauss, 1993; Shin, Nhan, Crittenden, Flory, & Ladinsky, 2006; Warfield, 2005), more research is needed to explicate the ways in which these specific relationships will vary based on gender. As compared to earlier generations of fathers, there has been an increase in father involvement in the lives of children in the recent years (Bianchi, 2007).

Therefore, the current study sought to 1) understand the direct and indirect influences that parental cognitions (parenting self-efficacy and hardiness) have on parenting behaviors by exploring the mediational influence of parenting stress and 2) examined whether this model differs between mothers and fathers.

Hardiness

Hardiness is a personality characteristic that influences the development of resilient responses to stressful circumstances (Bartone, 1999, Bartone 2007), and a buffer that protects individuals from the negative effects of stress by way of increased resources to handle stress (Kobasa, 1979). While hardiness has not been studied extensively as a predictor of parenting stress, it is thought that hardiness could be another cognitive variable thought to influence parenting stress and affect parenting behaviors. Hardy individuals tend to be more positive and confident about their ability to successfully handle stressful situations (Allred & Smith, 1989; Delahaij, Gaillard, & van Dam, 2010; Florian, Mikulincer, & Taubman, 1995; Funk, 1992; Westman, 1990). For instance, Allred and Smith (1989) found that hardy individuals endorsed more positive self-statements about one's self and performance under highly stressful circumstances than did individuals with low levels of hardiness. Hardiness is negatively related to psychological distress (Beasley et al., 2002) and positively related to adjustment and

well-being and negatively related to depression (Maddi, Brow, Khoshaba, & Vaitkus, 2006; Orr & Westman, 1990). Given these associations with constructs similar to stress, hardiness will be included as a cognitive predictor in the proposed model.

The personality characteristic of hardiness has three main components, or cognitive traits, known as commitment, control, and challenge (Kobasa, 1979; Kobasa et al., 1982). The commitment component refers to the tendency to be involved in, and dedicated to, the activities of one's life rather than be detached or isolated from one's activities. Individuals with this cognitive trait do not tend to give up easily due to their investment in themselves as well as the events and significant relationships in their lives (Kobasa et al., 1982). The control component refers to the tendency to perceive oneself as having control over his or her life experiences. Individuals with this cognitive trait tend to have higher resistance to stress due to experiencing events as a product of their actions, rather than experiencing events as uncontrollable, unexpected and overwhelming. The challenge component refers to the tendency to view obstacles and changes as a means for further growth rather than viewing them as a threat. Individuals with this cognitive trait tend to view obstacles as motivating rather than threatening.

In a meta-analysis of hardiness literature, Eschleman, Bowling, and Alcorn (2010) examined the relationship between hardiness and several variables, including personality traits associated with hardiness, stressors, health outcomes, coping, social support, and work and academic performance. Eschleman and colleagues (2010) reported that hardiness is positively related to other personality traits that are known to buffer against the harmful effects of stress, such as self-esteem, optimism, extraversion, sense of coherence, and self-efficacy. Similarly, hardiness was negatively related to personality

traits that are known to intensify the harmful effects of stress, such as neuroticism, negative affectivity, trait anxiety, and trait anger (Eschleman et al., 2010). Hardiness was also negatively related to life stressors, work stressors, coworker conflict, supervisor conflict, task uncertainty, role overload, role ambiguity, role conflict, work-family conflict, and interpersonal stressors. In the same study, hardiness was negatively related to several psychological strains, including depression, psychological distress, state anxiety, burnout, negative state affect, posttraumatic stress disorder, poor mental health, psychological maladjustment, and frustration. Hardiness was found to have a positive relationship with variables of psychological well-being, including job and life satisfaction, positive state affect, personal growth, happiness, engagement, and quality of life. Hardiness was found to have negative relationships with physical symptoms and fatigue, and positive relationships with absence of illnesses, and two health promoting behaviors including health promoting habits and alcohol use (Eschleman et al., 2010). Given its relationship with stress in general, it was assumed that hardiness would similarly be associated with lower levels of parenting stress in the current study.

Hardiness has been examined in various nonparent populations, including military personnel (Bartone, Kelly, & Matthews, 2013; Johnsen, Bartone, Sandvik, Gjeldnes, Morken, Hystad, & Stornaes, 2013), business professionals (Dolbier, Smith, & Steinhardt, 2007; Maddi & Kobasa, 1984), and college students (Maddi, Harvey, Khoshaba, Fazel, & Resurreccion, 2012). In general, research has demonstrated that hardiness acts as a buffer of stress in various military personnel populations (Bartone et al., 2013; Britt, et al, 2001), a buffer of combat exposure stress to soldiers of the Gulf War (Bartone, 1999), and adaptability during deployment and favorable adjustment upon

return from deployment for soldiers (Britt et al., 2001). Research using military personnel populations has also shown that hardiness is significant predictor of important outcomes, such as successful completion of rigorous Cadet Basic Training, military program scores, retention during West Point Experience, graduation from West Point (Kelly & Bartone, 2005), and leadership performance and adaptability of military officers in real-life operations following their West Point experience (Bartone et al., 2013). Research has also shown that hardiness is negatively related to emotional exhaustion, or burnout, for Belgian service members (Lo Boe, Taverniers, Myelle, & Euwema, 2013). While hardiness has been found to serve as a buffer or moderator for stress in military personnel (Bartone et al., 2013; Britt, et al, 2001), it has also been negatively related to stress in populations of business professionals (Dolbier et al., 2007; Maddi & Kobasa, 1984) and has been related to psychological distress, a construct similar to stress (Beasley et al., 2002). In fact, Beasley et al (2002) found that hardiness was the most consistent predictor of psychological distress in their study. Research using undergraduate male and female students has suggested that hardiness may be a factor in college performance in that hardiness is positively associated with GPA (Maddi et al., 2012), and is negatively related to depression, hostility, anxiety in undergraduate students and is also associated with positive attitudes towards school (Maddi, Harvey, Khoshaba, Fazel, & Resurreccion, 2009).

There is a paucity of research that examines the personality characteristic of hardiness in relation to typical parenting, though it has been examined in relation to other various stressful parenting situations/populations as discussed below. Research findings from studies examining hardiness in other various stressful parenting situations may

provide some understanding of how the personality characteristic plays a role in parenthood that could extend to typical parenting. For example, in a study of parents of preschool-aged children with sleep problems, Johnson and McMahon (2008) examined the relationship between parental hardiness, parental sleep-related cognitions, bedtime interactions, and child sleep behavior. They found that parents with lower levels of hardiness experience more problematic sleep-related cognitions (i.e. doubting his/her competence as a parent due to child sleep problems) that predicted more parental bedtime interactions (specific behaviors) that contributed to child sleep problems. The authors suggested that the parents with higher levels of hardiness were better able to manage difficult child sleep problems, which they posit is theoretically consistent with the idea that the hardiness trait enables individuals to better manage stressful situations (Johnson & McMahon, 2008). In another study of mothers of children with autism or mental retardation and parents of typically developing children, Weiss (2002) examined the role of hardiness in ameliorating stress-related symptoms, such as anxiety, depression, and depersonalization. It was found that hardiness was predictive of successful adaptation such that those with higher levels of hardiness were less prone to anxiety, depression, and depersonalization. Further, this study found that mothers of typically developing children exhibited the highest levels of hardiness whereas mothers of children with mental retardation and autism had lower levels of hardiness (Weiss, 2002).

While there is little research directly examining hardiness in relation to typical parenting, there has been a recent effort to apply the concept of hardiness to families. Research that applies the concept of hardiness to families is important to examine as it is most similar to the current study's focus on parenting, and therefore may provide a foundation for how

hardiness may play a role in typical parenting. According to McCubbin, McCubbin, and Thompson (1986), family hardiness is defined as a family's set of internal strengths that allow them to take an active role in handling stressful situations and is exemplified by the family's sense of control over the outcomes of stressful events and the ability to consider change as a growth-promoting opportunity. Family hardiness has been examined in several populations of families, including families with children suffering from asthma (Donnelly, 1994; Svavarsdottir & Rayens, 2005; Svavarsdottir, Rayens, & McCubbin, 2005), families with children with developmental disabilities (Failla & Jones, 1991), and families facing other chronic stressors, such as a family member with fibromyalgia (Preece & Sandberg, 2005) or a psychological disorder (Greeff, Vansteenwegen, & Ide, 2006) and families involved in the process of divorce (Greeff & van der Merwe, 2004). Research has demonstrated that family hardiness is related to positive outcomes, such as satisfaction with family functioning and family adaptation. For example, in their study of children with developmental disabilities, Failla and Jones (1991) found that family hardiness was positively related to satisfaction with family functioning and family coherence. In studies of parents with children with chronic asthma, family hardiness was positively related to family adaptation and cohesion (Donnelly, 1994; Svavarsdottir & Rayens, 2005; Svavarsdottir, Rayens, & McCubbin, 2005). Research has also demonstrated that family hardiness is positively related to the use of social support in families of children with disabilities (Judge, 1998), and is related to the use of positive pain coping strategies for individuals managing chronic fibromyalgia (Preece & Sandberg, 2005).

In sum, hardiness, a personality characteristic that acts as a resilience factor in stressful situations, has been found to be positively related to adjustment and well-being (Maddi, Brow, Khoshaba, & Vaitkus, 2006; Orr & Westman, 1990), other personality traits known to buffer against stress, variables related to psychological well-being, and health promoting behaviors (Eschleman et al., 2010), and negatively related to psychological distress (Beasley et al., 2002), psychological strains and stressors, and physical illness symptoms and fatigue (Eschleman et al., 2010). While hardiness has been found to serve as a buffer or moderator for stress in military personnel (Bartone et al., 2013; Britt, et al., 2001), it has also been negatively related to stress in populations of business professionals (Dolbier et al., 2007; Maddi & Kobasa, 1984) and has been related to psychological distress, a construct similar to stress. Given the associations of hardiness with stress and psychological distress in non-parent populations, the current study theorized that hardiness would have a similar association with parenting stress. There is also a lack of research that examines the relationship between hardiness and parenting as well as differences in hardiness between mothers and fathers. As a result, the current study aimed to address this gap by including mothers and fathers in the overall model in order to test if the model is different across genders. Given that hardiness is considered to influence individual's cognitions in a way that leads to managing stressful situations, the current study conceptualized hardiness as a parental cognition that influences parenting practices by way of parenting stress.

Parenting Self-Efficacy

Self-efficacy refers to the belief individuals may have in their ability to perform actions that will produce intended outcomes (Bandura, 1997). Essentially, self-efficacy

describes individuals' perceptions of themselves as competent in a given task or domain. In particular, these beliefs are concerned with what individuals can do with their skills in different tasks or domains. Self-efficacy is linked to human agency, which refers to one's ability to produce intentional actions (Bandura, 1997). Self-efficacy is considered a key factor of human agency in that it regulates motivation. For instance, if individuals do not believe they can act in a way that will produce results, then they will not try to act at all (Bandura, 1997).

According to Bandura's theory of self-efficacy, self-efficacy influences individuals' investment of effort in activities, perseverance and resiliency when confronted with challenges and adversity, thought patterns about themselves, and the level of distress experienced in coping with environmental demands. It is thought that individuals with high levels of self-efficacy may tend to have more motivation to perform well and may be more likely to initiate difficult activities. It is also suggested that individuals with low levels of self-efficacy may tend to internalize failure and give up easily, and consequently may experience depression and anxiety and decreased role satisfaction when confronted with stress (Bandura, 1982). Self-efficacy is considered to be derived from four main informational sources, including one's history of personal accomplishments in given tasks and situations, vicarious experiences, verbal feedback regarding one's potential for success, and emotional arousal (Bandura, 1997). It is believed that self-efficacy operates at a global level as well as in various domains of life (Bandura, 1997). The current study examined self-efficacy in one particular life domain, parenting.

Parenting self-efficacy is a domain-specific case of the more general construct of self-efficacy. It has been defined as parents' belief in their ability to effectively manage the numerous and changing tasks and situations of parenthood (Coleman & Karraker, 1998; Jones, & Prinz, 2005; Leahy-Warren McCarthy, & Corcoran, 2001; Sanders & Woolley, 2004; Seigny & Lutzenhiser, 2009; Teti & Gelfand, 1991; Troutman, Moran, Arndt, Johnson, & Chmielewski, 2012). The construct of parenting self-efficacy also seems to have considerable conceptual overlap with parenting sense of competence, which is defined as a parent's perception of his or her ability to positively influence his or her child's behavior and development (Coleman & Karraker, 1998; Slagt, Dekovic', de Haan, van den Akker, & Prinzie, 2012), and parenting self-agency, which is defined as a parents' overall confidence in their ability to act successfully in the parental role (Dumka et al., 1996).

Several formulations of how to measure parenting self-efficacy have been offered and used within the literature (Coleman & Karraker, 2000; Jones & Prinz, 2005). According to Jones and Prinz (2005), there are three main ways in which parenting self-efficacy has been measured, including general parenting self-efficacy measures, task-related self-efficacy measures, and narrow-domain parenting self-efficacy measures. General parenting self-efficacy measures assess the extent to which parents feel competent in the parenting role at a broad, global level (Coleman & Karraker, 2000), and use global items, such as "being a parent is manageable, and any problems are easily solved" (Parenting Sense of Competence Scale; Johnston & Mash, 1989). Task-related self-efficacy measures assess the extent to which parents feel competent at performing specific parenting tasks (i.e., potty training, caring for a sick child), use task-specific

items, and often collapse across several parenting domains such as discipline and promotion of learning (Jones & Prinz, 2005; Coleman & Karraker, 2000). Narrow-domain self-efficacy measures the extent to which parents feel competent in a specific parenting domain, such as discipline, and use task-specific items (Jones & Prinz, 2005). The current study conceptualized general-domain parenting self-efficacy as a type of parental cognitions that influenced parenting practices.

Task-related and general parenting self-efficacy measures seem to be most commonly used by researchers; yet there is no standardization or agreement on the best or most preferred method of measuring parenting self-efficacy (Jones & Prinz, 2005). Coleman and Karraker (1998), recommend that research involving parenting self-efficacy be conducted at multiple levels of analysis (i.e., task-specific and domain general). One concern with using a task-specific measure is that the majority of the existing task-specific measures of parenting self-efficacy have been directed at mothers of infants and young toddlers, therefore not making the measures or findings easily generalizable to mothers of older children and fathers. It is important to include fathers in parenting research as fathers are becoming more involved in childrearing in today's society (Murdock, 2012; Rochlen, McKelly, & Whittaker, 2010), however measures of self-efficacy typically include tasks which are more readily associated with motherhood (such as tasks typical of a stay-at-home mother such as daily routines, feeding and hygiene care, etc.). Only one task-specific measure of parenting self-efficacy, the Self-Efficacy for Parenting Tasks Index (SEPTI), has been created for use with school-age children (Coleman & Karraker, 2000), however this measure was used with exclusively with mothers and therefore still limits the generalizability of the measure to fathers. To the

author's knowledge, there is one study of that utilized the SEPTI measure with a sample of mothers and fathers of school-age children (Juntilla, Vauras, & Laakkonen, 2007). To the authors' knowledge, no study exists that accounts for this issue with task-specific measures, therefore the current study utilized a domain-general measure of parenting self-efficacy.

Additionally, it is important to understand outcomes associated with various levels of self-efficacy. Most important to the current study, parenting self-efficacy is associated with parenting stress such that lower levels of parenting self-efficacy predict higher levels of parenting stress (Wells-Parker et al., 1990). In fact, it is thought that parenting self-efficacy can serve as a reliable predictor of parenting stress (Raikes & Thompson 2005). Furthermore, parenting self-efficacy is known to predict both positive and negative parenting practices, including positive, adaptive parenting practices and behaviors (Coleman & Karraker, 1997; Jones & Prinz, 2005), parental responsiveness, parental warmth (Wells-Parker, Miller, & Topping, 1990), and controlling and defensive parenting behaviors (Johnston & Mash, 1989; Jones & Prinz, 2005).

With some evidence linking parenting self-efficacy to both parenting stress and parenting practices, it is possible that parenting self-efficacy may predict parenting practices through the influence of parenting stress. The current study also aimed to determine whether the proposed model fits differently for mothers and fathers. In conjunction with parenting self-efficacy, the current study also explored how a second parental cognition, hardiness, influenced parenting practices in the model.

Parenting Practices

Parenting practices are an influential factor in the development and maintenance of child behavior problems, especially childhood externalizing behaviors (Dodge, Coie, & Lynam, 2007; Hawes & Dodd, 2005; Miller, Loeber, & Hipwell, 2009; Patterson, DeBaryshe, & Ramsey, 1989). There are five types of parenting practices that have been associated with child behavior problems, including poor parental monitoring and supervision, inconsistent punishment, corporal punishment, positive parenting, and parental involvement (Shelton, Frick, & Wooten, 1996). In addition, negative parenting practices have been associated with various negative child outcomes, including impairments in child self-regulation (Campbell, Pierce, Moore, & Marakovits, & Newby 1996), aggression (Dodge, Pettit, & Bates, 1997), conduct problems (Deater-Deckard, Dodge, Bates, & Pettit, 1998), internalizing problems such as child depressive symptomology (Dallaire, Pineda, Cole, Ciesla, Jacquez, & LaGrange, 2006), and problems with language development (Taylor, Donovan, Miles & Leavitt, 2009). Inconsistent and harsh discipline, poor supervision, and a lack of positive parenting practices have been associated with child externalizing behaviors (Dadds, 1995).

Given the link between poor parenting practices and negative child outcomes (Dodge, Coie, & Lynam, 2007; Hawes & Dodd, 2005; Miller, Loeber, & Hipwell, 2009; Patterson, DeBaryshe, & Ramsey, 1989), it is important to understand those variables which influence parenting practices. Several demographic variables related to parents have been demonstrated to predict parenting practices. For example, a parent's age, level of education (Kelley, Power, & Wimbush, 1992), gender (being female), and income (Elgar, Mills, McGrath, Waschbusch, & Brownridge, 2007) have all been suggested to

predict parenting practices. Variables related to a parent's mental health are also predictive of parenting practices, such as anxiety (Crawford & Manassis, 2001), depressive symptomology, and having a history of abuse (Simons, Beaman, Conger, & Chao, 1993). For instance, parental depressive symptomology has been suggested to predict negative parenting practices such as inconsistent and lax discipline (Lovejoy et al., 2000). Similarly, demographic variables related to children have been identified as predictors of parenting practices. Specifically, child gender (being female) has been identified as predicting more positive parental practices and child age tends to be related to higher levels of parental monitoring, and less nurturance (Elgar, Mills, McGrath, Waschbusch, & Brownridge, 2007). There is also evidence that suggests that child behavior problems and parenting practices have a reciprocal effect, such that child behavior problems are predictive of parenting practices (Burke, Pardini, & Loeber, 2008).

In addition to parent and child demographic variables, several psychosocial variables have been suggested to predict parenting practices. Low socioeconomic status and low resource neighborhoods have been linked to higher levels of harsh, inconsistent, and punitive parenting (Kohen, Leventhal, Dahinten, & McIntosh, 2008). Spousal support (Simons, Beaman, Conger, & Chao, 1993) and social support have been found to relate to positive parenting practices (Brynes & Miller, 2012). Additionally, parenting efficacy, a parental cognition of interest in the current study, has been found to be negatively related to negative parenting practices, such as coercive parenting, and positively related to positive parenting practices, such as parental responsiveness, monitoring, and parental involvement (Bondy & Mash, 1999; Gondoli & Silverberg, 1997; Shumow & Lomax, 2002).

There is also evidence that indicates that parenting stress influences parenting behaviors. Findings have suggested that parenting stress predicts negative parenting practices, such as harsh parenting (Deater-Deckard & Scarr, 1996; Emery & Tuer, 1993). Similarly, in a study of foster mothers, parenting stress was found to be negatively associated with parenting practices such that the mothers who reported higher levels of parenting stress reported greater use of dysfunctional parenting (Vanschoonlandt, Vanderfaeillie, Van Holen, De Maeyer, Robberechts, 2013). Parenting stress has also been negatively associated with maternal responsiveness and parental supervision (Ritchie & Holden 1998).

Variables related to mental health, such as depressive symptoms, and child demographic variables, such as child internalizing and externalizing behavior problems (Elgar et al., 2007) as well as child adjustment problems (Dadds, 1995; Kane & Gaber, 2004) have been suggested to influence fathers' poor parenting practices. Gender differences in discipline practices have been reported (Gryczkowski & Jordan, 2010). Mothers reported higher use of involvement and positive parenting, and less use of poor monitoring/supervision than fathers (Gryczkowski & Jordan, 2010). However, no gender differences in the use of inconsistent discipline were found in this study (Gryczkowski & Jordan, 2010). Findings have also suggested that fathers engage in more corporal punishment than mothers (Platz, Pupp, & Fox, 1994).

Much of what is known about these variables that influence parenting practices is from the perspective of mothers, while little information is known about the variables that influence parenting practices for fathers. Despite a limited perspective of fathers, it is known that mental health variables (specifically depressive symptoms) and child

behavior problems are predictive of parenting practices for both mothers and fathers (Dadds, 1995; Elgar et al.; Kane & Gaber, 2004). While there is a fairly large body of research which has examined factors that predict of parenting practices, there has not been an attempt to understand *how* these factors influence parenting practices. Therefore, the current study examined whether parenting stress serves as a mechanism by which parental cognitions, such as parenting self-efficacy and hardiness, influence parenting practices.

Parenting Stress

Parenting stress is defined as the discrepancy between the demands of parenting and parents' perceived availability of resources to manage them (Abidin, 1992; Deater-Deckard & Scarr, 1996; Goldstein, 1995; Morgan et al., 2002). In other words, the level of parenting stress experienced is a result of a parent's appraisal of his or her role as a parent in the current context. Parenting stress is an important construct to study as stress in the parental role has implications for both parent and child outcomes (Abidin 1992). High levels of parenting stress are associated with negative parenting practices, such as an increased risk of dysfunctional, or maladaptive parenting practices (Abidin, 1992; Ang, 2008), lax discipline (Ang, 2008), and harsh, authoritarian parenting characterized by low emotional warmth, overreactivity, and coercive discipline (Deater-Deckard and Scarr, 1996; Emery & Tuer, 1993). In contrast, low levels of parenting stress are associated with positive parenting practices, such as high emotional warmth and parental monitoring (Bonds, Gondoli, Sturge-Apple, & Salem, 2002). Parenting stress is also related to other negative parental outcomes, such as a tendency to focus on negative characteristics of a child and maternal depression (Gelfand, Teti, & Fox, 1992). Higher

levels of parenting stress are associated with negative child outcomes, such as lower child developmental competence, higher risk of disruptive child behavior problems (Barry, Dunlap, Cotten, Lochman, & Wells, 2005), and negative parent-child relationships (Mash & Johnston, 1983; Morgan et al., 2002).

The literature has also pointed to several potential factors that might predict parenting stress. For example, the perception of competence (Mash & Johnston, 1990), the parent-child relationship (Mash & Johnston, 1990), socioeconomic status (Viana & Welsh, 2010), age (Ostberg & Hagekull, 2000), the relationship with a spouse or significant other (Viana & Welsh, 2010), and child characteristics, such as gender [being male] (Viana & Welsh, 2010), hyperactivity, difficult temperament (Ostberg & Hagekull, 2000), and other behavior difficulties (Mash & Johnston, 1990), are known to be related to parenting stress (Mash & Johnston, 1990; Viana & Welsh, 2010). There are only a few studies which examined gender differences in parenting stress, and those studies which do exist were focused on specific populations of children and parents (e.g., parents of children with disabilities). Some have suggested that the source of parenting stress varies by parent gender (Krauss, 1993), such that fathers' parenting stress was related to their relationship with their children and to their children's temperament, whereas mothers' parenting stress was related to personal consequences of parenting (parent health, relationship with spouse, role restrictions). Others found that the predictors of parenting stress are different for mothers and fathers such that child behavior problems (Shin, Nhan, Crittenden, Flory, & Ladinsky, 2006; Warfield, 2005), child age (Skreden, Skari, Malt, Pripp, Björk, Faugli, & Emblem, 2012), and household income (Warfield, 2005) were identified as significant predictors of parenting stress for mothers, whereas

economic issues, social support (Shin, Nhan, Crittenden, Flory, & Ladinsky, 2006), and difficulty finding child care (Warfield, 2005) were identified as significant predictors of parenting stress for fathers. Both psychological distress (Skreden, Skari, Malt, Pripp, Björk, Faugli, & Emblem, 2012) and the number of children in the family (Warfield, 2005) were found to be similar predictors of parenting stress for mothers and fathers.

While different variables may predict parenting stress for mothers than for fathers, it is also unclear whether mothers and fathers experience different levels of parenting stress. Some studies have found that mothers and fathers experience parenting stress differently (Esdaille & Greenwood, 2003; Oelofsen & Richardson, 2006). For example, in a study of mothers and fathers of preschoolers with developmental disabilities, researchers found that mothers experience higher levels of parenting stress than fathers, indicating that mothers and fathers may experience parenting stress differently and therefore adjust to their children's disability in different ways (Oelofsen & Richardson, 2006). On the other hand, in a study of dual-earning mothers and father dyads of typically developing toddlers and preschool-age children, Deater-Deckard and Scarr (1996) found that there were few differences in perceived levels of parenting stress between mothers and fathers, and they found that parenting stress predicted parent and child behaviors almost identically for mothers and fathers. The authors argued that income and education level (i.e., high level of resources) likely play a role in how mothers and fathers experience parenting stress given the lack of gender differences found in their study. Similarly, in a study of parents of preschool-aged children with cerebral palsy, Wanamaker and Glenwick (1998) found that there were no significant differences in perceived levels of parenting stress between mothers and father. It is

important to note that the majority of studies that have examined parenting stress as a dependent variable (rather than as an independent variable) have used samples of mothers and fathers of children with disabilities or other medical conditions rather than parents of typically developing children.

In addition to exploring predictors and outcomes associated with parenting stress, there has been interest in identifying ways in which parenting stress exerts its influence in parenting. Mediation is one such way in which the influence of parenting stress has been explored. In fact, there is evidence that suggests parenting stress serves as a mediator between parenting variables and parenting outcomes, such as parenting practices (Bonds et al., 2002; Gerdes et al., 2007). For example, parenting stress has been suggested to serve as the mechanism by which parental support from family and friends is related to optimal parenting, which is defined as a combination of parental warmth and monitoring practices (Bonds et al., 2002). Parenting stress has also been found to mediate the relationship between maternal depressive symptomology and lax parenting practices (Gerdes et al., 2007). Findings also suggest that parenting stress mediates the relationship between parental conflict with ex-partners (due to divorce) and the quality of parents' relationships with their children (Hakvoort, Bos, Van Balen, & Hermanns, 2012). Since there is some evidence that suggests parenting stress serves as a mediator between parenting predictors and parenting outcomes, particularly parenting practices, it is hypothesized that parenting stress may mediate the relationship between parental cognitions and parenting practices.

Given the negative outcomes associated with high parental stress, coupled with unclear evidence regarding possible gender differences in the experience of stress, more

research is needed to better understand if parenting stress is predicted differently for mothers and fathers. Also, the majority of studies that examine gender differences in parenting stress have been on samples of parents of children with disabilities. However, research with parents of typically developing children is needed to add to the literature base in order to understand parents' experience in general. Given that there has been some evidence that suggests that parenting stress serves as a mediator between parenting variables and parenting practices (Gerdes et al., 2007), the current study will examine parenting stress as a mediator between parental cognitions and parenting practices. As previously mentioned, it is important to identify cognitions that influence behavior in the parental role. Some evidence suggests that one cognition, parenting self-efficacy, influences parenting practices (Bondy & Mash, 1999; Gondoli & Silverberg, 1997; Shumow & Lomax, 2002). Given this link, the current study examined whether parenting stress acts as the mechanism by which parenting self-efficacy, and a second parental cognition known as hardiness, predict parenting practices.

Purpose of the Study

The primary purpose of the current study was to test a proposed theoretical model that describes the relationships between parental cognitions, including hardiness and parenting self-efficacy, and parenting practices and examines parenting stress as a mediator between parental cognitions and parenting practices. Parenting self-efficacy has been related to positive parenting practices and healthy child development (Coleman & Karraker, 1997; Jones & Prinz, 2005). It is also considered to be a reliable predictor of parenting stress (Raikes & Thompson 2005). Since there is some evidence suggesting that parenting self-efficacy predicts both parenting stress and parenting practices, it was

expected that parenting self-efficacy would predict parenting practices and that this relationship would be mediated by parenting stress. Since hardiness has been related to lower levels of psychological distress (Beasley et al, 2002), stress and psychological distress in non-parent populations (Dolbier et al., 2007; Maddi & Kobasa, 1984), it was expected that hardiness would predict parenting stress. While hardiness has not been directly linked to parenting stress or parenting practices, it has been negatively associated with stress in nonparent populations such as business professionals (Dolbier et al., 2007), and found to be related to school performance among undergraduate students (Maddi et al., 2012). The concept of hardiness has also been applied to families and has been related to positive outcomes, such as satisfaction with family functioning and family adaptation (Failla & Jones, 1991; Svavarsdottir & Rayens, 2005; Svavarsdottir, Rayens, & McCubbin, 2005). Therefore, it is plausible that hardiness may have also be positively associated with positive parenting and likely negatively related to parenting stress.

Parenting stress has been associated with more punitive, less positive parenting practices (Abidin, 1992; Ang, 2008). Further, there has been some evidence that suggests that parenting stress serves as a mediator between parenting variables (i.e., social support and depressive symptomology) and parenting practices (Bonds et al., 2002; Gerdes et al., 2007). Therefore, it is possible that parenting stress may serve as a mediator between parental cognitions and parenting practices. However, the mechanism by which two specific parental cognitions, hardiness and parenting self-efficacy, are related to parenting practices is unknown. Therefore, the current study examined a model of parenting that explored the mediational role of parenting stress in the relationships between parental cognitions (parenting self-efficacy and hardiness) and parenting behaviors.

Lastly, given that most parenting research is done with mothers, less is known about father's experience. Therefore, research is needed that compares the effects for both mothers and fathers. Therefore, the current study aimed to understand how the model fits for mothers' and fathers. Overall, the current study aimed to understand how parental cognitions, specifically parenting self-efficacy and hardiness, affect parenting practices, through the influence of parenting stress.

Research Questions

Two primary research questions were evaluated in the current study.

1. Will parenting stress partially mediate the relationship between parental cognitions (parenting self-efficacy and hardiness) and parenting practices?
2. Does the proposed parenting model fit differently for mothers and fathers?

CHAPTER II - METHODOLOGY

Participants and Procedures

This study was approved by The University of Southern Mississippi's Institutional Review Board Human Subjects Protection Review Committee (Appendix A). A total of 370 parents of typically developing children were recruited for the current study through Amazon Mechanical Turk. Study measures were available through Qualtrics, a secure online service provider (www.qualtrics.com/academic-solutions/university-of-southern-mississippi). Privacy was ensured so that obtained data was accessible by the researcher with a secure password. The online survey included an informed consent and then all study measures in random order. As recommended by Meade and Craig (2012), two bogus items, also known as instructed response items, were added to the survey to identify careless responses and ensure that participants responded to items in a valid manner. Each item instructed participants to answer the item in a specific way (e.g., "Answer 'strongly agree' to this item"). Participants who failed both items were eliminated from the sample. The time taken to complete study measures also served as a validity check (Huang, Curran, Keeney, Poposki, & DeShon, 2012), and those participants who completed any of the study measures in less than thirty seconds were removed from further analyses. The total time to complete the measures was approximately 25-30 minutes.

A total of 370 participants initially responded to the online survey. Of this total, 83 failed validity checks and were removed from the study without receiving incentive (which was \$1), including 17 who incorrectly answered a directed response item (e.g., Please answer, "Very Like" for this item), 49 who completed the study measures in less

than thirty seconds, and 17 who did not meet the child age study criteria (those that reported having a child younger or older than the inclusion criteria of older than 6 years of age and less than 13 years of age). Of the remaining 287 participants, 9 did not complete the survey past the informed consent page, 3 did not complete the survey past the demographic questions, 2 did not complete more than one questionnaire, and 1 did not complete the measure of self-efficacy. Therefore, a total of 272 valid respondents were retained for the present study.

The majority of parents in the present study were White/non-Hispanic (82.0%), married (66.4%), college educated (48.9%), mothers (57.7%), between 25-34 years old (43%), who have two (39.0%) to three (35.6%) children. Parents were asked to select one child to serve as the focus child for the purposes of ensuring continuity when completing study measures. The majority of the focus children were female (51.1%) of varied ages between 6 and 13 years old (please see Table 1 for additional information). Only 6 parents (2.2%) reported that their focus child was diagnosed with an intellectual disability by a licensed healthcare provider, 20 parents (7.4%) reported that their focus child was diagnosed with a learning disability by a licensed healthcare provider, 26 parents (9.7%) reported that their focus child was diagnosed with a medical condition by a licensed healthcare provider, 11 parents (4.1%) reported that their focus child was diagnosed with a psychiatric condition by a licensed healthcare provider, and 10 parents (3.7%) reported that their focus child was diagnosed with a developmental condition by a licensed healthcare provider. All demographic characteristics are presented in Table 1

Table 1

Demographic Characteristics of the Sample

Characteristic	N	%
Participant Age		
18-24	9	3.3
25-34	118	43.4
35-44	114	41.9
45-54	26	9.6
55-64	5	1.8
Participant Sex		
Female	157	57.7
Male	115	42.3
Participant Race		
White/non-Hispanic	223	82.0
Black/African-American	22	8.1
Native Hawaiian/Pacific Islander	2	0.7
Asian/Asian-American	16	5.9
Other*	9	3.3
Family Income		
\$0-\$24,999	31	11.4
\$25,000-\$49,999	92	33.8
\$50,000-\$74,999	67	24.6
\$75,000-\$99,999	42	15.4
\$100,000-\$124,999	23	8.5
\$125,000-\$149,999	7	2.6
\$150,000+	10	3.7

Note: * included Hispanic, Hispanic/White, White Brazilian, Latina, Biracial/Black, White/Asian

Table 1 (Continued)

Characteristic	N	%
Relationship Status		
Never Married/Living Alone	23	8.5
Domestic Partner/Living Together	37	13.7
Never Married/Living with Someone	14	5.2
Married	180	66.4
Divorced/Separated	16	5.9
Widowed	1	0.4
Number of Children		
2	104	39.0
3	95	35.6
4	40	15.0
5	19	17.1
6	9	3.4
Child Age		
6	60	22.1
7	45	16.5
8	28	10.3
9	26	9.6
10	33	12.1
11	21	7.7
12	32	11.8
13	27	9.9

Table 1 (continued)

Characteristic	N	%
Child Sex		
Female	139	51.1
Male	132	48.5

Measures

Participants completed a general demographic survey (see Appendix B).

Questions included parental age, ethnicity, education, relationship status, annual income, age and gender of the focus child (parents were asked to identify one child of interest in which they referred to when answering questions), and number of children living in the home. Participants were also asked if their focus child has been formally diagnosed with any medical, developmental, or mental health conditions, and if they had, they were asked to list the official diagnosis.

Hardiness

To measure the cognitive variable of hardiness, the current study used the *Dispositional Resilience Scale* (DRS-15; Bartone, 1991), which is a 15-item self-report measure that assesses the commitment, control, and challenge components of an individual's hardiness on a 4-point Likert scale ranging from *not at all true* (1) to *completely true* (4). The current study used the total score for interpretation. Scores can range from 15 to 60 with higher scores indicating higher levels of hardiness. The 15-item scale has adequate internal consistency ($\alpha = .83$) and demonstrated acceptable evidence of predictive and criterion-related validity in multiple samples, such as Army reservists deployed to the Gulf War zones and Army medical personnel, under high stress

conditions (Bartone, 1995). In particular, the hardiness scores predicted 17% of the variance in depression scores in a sample of Army medical personnel. Hardiness scores together with work stress predicted 19% of the variance in depression scores. Also, hardiness scores together with family stress predicted 24% of the variance in reported health symptoms (Bartone, 1995). Test-retest reliability for the total score over a three-week interval in a sample of undergraduate students in a military academy yielded a coefficient of .78 (Bartone, 2007). Test-retest reliability for the commitment, control, and challenge subscores in the same sample yielded coefficients of .75, .58, and .81, respectively (Bartone, 2007). Bartone (2007) recommends using the total score for interpretation due to the low reliability coefficient for the control subscale. In the current study, the DRS demonstrated good internal consistency reliability ($\alpha = .73$) for the total sample (both mothers and fathers).

Parenting Self-Efficacy

To measure domain-specific parenting self-efficacy, the current study used the *Parenting Sense of Competence Scale* (PSOC; Johnston & Mash, 1989), which is a 16-item, self-report measure that assesses parenting self-efficacy and satisfaction in the parenting role on a 6-point Likert scale, ranging from *strongly disagree* (1) to *strongly agree* (6). The PSOC can be broken down into two subscale scores: Satisfaction and Efficacy. The Efficacy subscale scores can range from 7-42, and the Satisfaction subscale scores can range from 9-54. The Efficacy subscale score was used in this study to assess domain-specific parenting self-efficacy. The Efficacy subscale demonstrated adequate internal consistency of $\alpha = .67$ (Sanders & Woolley, 2007). In the current

study, the Efficacy subscale demonstrated good internal consistency ($\alpha = .88$) for the total sample (both mothers and fathers).

Parenting Practices

To measure parent behavior, the current study used the *Alabama Parenting Questionnaire* (APQ; Frick, 1991), which is a 42-item self-report measure that assesses five dimensions of parenting practices including parental involvement, positive parenting, poor supervision or monitoring, inconsistent discipline, and corporal punishment, on a 5-point Likert scale ranging from *Never* (1) to *Always* (5). Two composite scores were calculated: a Positive Parenting composite (APQ_PPco) and a Negative Parenting composite (APQ_NPco) in order to create a latent variable of parenting practices. This was achieved by converting all five scales into z-scores using the transform variable function in SPSS, then the two positive subscales (positive parenting and involvement) were summed, which yielded a Positive Parenting composite, and the three negative subscales (inconsistent discipline, corporal punishment, and poor monitoring) were summed, which yielded a Negative Parenting composite. Other studies have utilized this procedure for creating composite scores (Barry, Frick, & Grafeman, 2008; Barry et al., 2009).

The APQ's reliability and validity were initially tested in a sample of primary caregivers of 160 children aged 6 to 13 referred to a clinic for children with behavioral problems (Shelton, Frick, & Wooten, 1996). Internal consistency for the subscales was adequate for parental involvement, positive parenting, and inconsistent discipline ($\alpha = .70$), but was low for poor monitoring and supervision, and corporal punishment ($\alpha = .40$) (Shelton et al., 1996). The APQ demonstrated adequate discriminant validity

across the clinic and volunteer samples (Shelton et al., 1996). Since this original study of the psychometric properties of the APQ, subsequent research using various child ages and clinical versus community samples has demonstrated that the APQ has adequate reliability and validity (Clerkin, Marks, & Policaro, 2007; Dadds, Maujein, & Fraser, 2003; Essau, Sasagawa, & Frick, 2006; Hawes & Dodd, 2006). In the current study, the APQ positive parenting composite demonstrated good internal consistency reliability ($\alpha = .87$) for the total sample (both mothers and fathers). The APQ negative parenting composite demonstrated good internal consistency ($\alpha = .85$) for the total sample (both mothers and fathers).

Parenting Stress

To measure parenting stress, the current study used the *Parental Stress Scale* (PSS; Berry & Jones, 1995), which is an 18 item self-report measure that assesses parenting stress on a 5-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5). Scores can range from 18 to 90 with higher scores indicating higher levels of parenting stress. The scale can be used to assess parenting stress in both mothers and fathers and in parents of children who have or do not have clinical problems (Berry & Jones, 1995). The PSS demonstrated good internal consistency reliability ($\alpha = .83$) for the total sample (both mothers and fathers) and test-retest reliability ($r = .81$), as well as adequate evidence of convergent validity given high positive correlations with measures of stress and role satisfaction (Berry & Jones, 1995). Separate coefficient alphas for mothers and fathers were not reported. Results of discriminant analyses show the scale's ability to differentiate between parents of children with and without developmental and behavioral problems (Berry & Jones, 1995). In the current study, the PSS demonstrated

good internal consistency reliability ($\alpha = .87$) for the total sample (both mothers and fathers).

Research Questions and Hypotheses

1. Will parenting stress partially mediate the relationship between parental cognitions, as measured by the DRS-15, PSOC, and parenting practices, as measured by the APQ?
 - a. Parenting stress partially mediated the relationship between parental cognitions, as measured by the DRS-15, PSOC, and parenting practices, as measured by the APQ.
2. Does the proposed parenting model fit differently for mothers and fathers?
 - a. The proposed model fit significantly different for mothers and fathers.

CHAPTER III – RESULTS

Means and standard deviations for all measures are provided in Table 2. For this sample, the mean hardiness score, as measured by the DRS-15, was within one standard deviation of a sample of adults (Bartone et al., 2007). The mean parenting stress score, as measured by the PSS, was consistent with scores of previous samples of mothers and non-clinical samples of parents (Berry & Jones, 1995; Caldwell, Horne, Davidson, & Quinn, 2006). Given that the scores were converted to z-scores prior to analyses, both parenting practice composites were within one standard deviations of the normal distribution curve. The mean parenting self-efficacy score, as measured by the Efficacy subscale of the PSOC scale, are greater than two standard deviations from previous samples of mothers (Gilmore & Cuskelly, 2012), indicating that the current study's parents reported a greater sense of parenting self-efficacy. Overall, it seems that participants in the present study are reporting similar levels of hardiness, parenting stress, and parenting practices as other adults in the literature and a greater sense of parenting self-efficacy.

Bivariate correlations were calculated between demographic variables (parent age, family income, parent education, and child gender) and the parenting practices dependent variables (APQ Positive Parenting Composite and Negative Parenting Composite). Only child gender (which was coded as 1= males and 2= females) had a significant correlation with the Negative Parenting Composite of the parenting practice latent criterion variable ($r = -.130, p = .035$), therefore it was included in final analyses as a covariate.

Additional bivariate correlations were calculated to determine the relationships among independent and dependent variables (see Table 2). Given the present study's focus on gender differences, separate correlation tables are provided for mothers (see Table 3) and fathers (see Table 4) below. All correlations between the APQ Positive Parenting Composite and Negative Parenting Composite and DRS-15 and the PSOC Efficacy subscale were found to be significant at the $p < 0.01$ level. Specifically, parenting stress was negatively correlated with positive parenting practices, hardiness, and parenting self-efficacy, while hardiness and parenting self-efficacy were positively correlated with positive parenting practices. Further, parenting stress was positively correlated with negative parenting practices, while hardiness, parenting self-efficacy, and positive parenting practices were negatively correlated with negative parenting practices.

Table 2

Means, Standard Deviations, and Bivariate Correlations of Study Measures (N = 272)

Variable	M	SD	1	2	3	4	5	6
1. DRS-15	36.61	5.02	-	.187**	-.327**	.335**	-.082**	-.059
2. PSOC_Eff	32.32	5.66		-	-.528**	.372**	-.356**	.087
3. PSS	35.39	9.55			-	-.397**	.482**	-.047
4. APQ_PPco	65.16	7.65				-	-.345**	.091
5. APQ_NPco	31.82	8.41					-	-.130*
6. Child Gender								-

Note: DRS-15 = Dispositional Resilience Scale; PSOC= Parenting Sense of Competence Scale; PSS=Parental Stress Scale; APQ_PPco= Alabama Parenting Questionnaire Positive Parenting Composite; APQ_NPco= Alabama Parenting Questionnaire Negative Parenting Composite

Table 3

Means, Standard Deviations, and Bivariate Correlations of Study Measures for Mothers

Variable	M	SD	1	2	3	4	5	6
1. DRS-15	39.71	4.81	-	.155	-.343**	.300**	-.109	.021
2. PSOC_Eff	32.27	5.99		-	-.457**	.358**	-.314**	.013
3. PSS	35.15	9.42			-	-.293**	.387**	.084
4. APQ_PPco	66.21	7.22				-	-.288**	.056
5. APQ_NPco	31.07	7.68					-	-.020
6. Child Gender								-

Note: DRS-15 = Dispositional Resilience Scale; PSOC= Parenting Sense of Competence Scale; PSS=Parental Stress Scale; APQ_PPco= Alabama Parenting Questionnaire Positive Parenting Composite; APQ_NPco= Alabama Parenting Questionnaire Negative Parenting Composite

Table 4

Means, Standard Deviations, and Bivariate Correlations of Study Measures for Fathers

Variable	M	SD	1	2	3	4	5	6
1. DRS-15	40.03	4.46	-	.240*	-.310**	.406**	-.057	-.167
2. PSOC_Eff	32.39	5.22		-	-.639**	.405**	-.421**	.208*
3. PSS	35.73	9.76			-	-.514**	.583**	-.210*
4. APQ_PPco	63.75	8.01				-	-.387**	.069
5. APQ_NPco	32.86	9.25					-	-.266*
6. Child Gender								-

Note: DRS-15 = Dispositional Resilience Scale; PSOC= Parenting Sense of Competence Scale; PSS=Parental Stress Scale; APQ_PPco= Alabama Parenting Questionnaire Positive Parenting Composite; APQ_NPco= Alabama Parenting Questionnaire Negative Parenting Composite

Hypotheses 1 and 2

The first hypothesis predicted that parenting stress would partially mediate the relationship between parental cognitions, as measured by the DRS-15, PSOC, and parenting practices, as measured by the two APQ composite scores that created a latent variable. To test the first hypothesis, a mediation analysis within a structural equation model (SEM) framework was performed using Mplus 7.4 to determine the extent to which parenting stress partially mediated the relationship between parenting self-efficacy and hardiness and parenting practices (see Figure 1). The mediation model included parenting self-efficacy and hardiness as predictor variables, parenting practices as the latent criterion variable from the two APQ composite scores, and parenting stress as the mediator variable. As recommended by Preacher and Hayes (2004), a bootstrapping technique was used to correct for any skewed data. The bootstrapping approach involved the extraction of 5,000 resamples with the mediational effect being calculated for each of these resamples. Model fit was examined using a chi-square difference test, the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean square of error approximation (RMSEA). Adequate CFI and TLI include values $>.90$, and adequate RMSEA includes values $<.05$. Testing of the mediation model resulted in a significant chi-square value ($\chi^2(4) = 18.403, p = .001$), and marginally acceptable fit indices (CFI = .94; TLI = .819; RMSEA = .117).

Standardized estimates using maximum likelihood estimation revealed significant indirect effects for hardiness [$\beta = .167$; 95% CI (0.039, 0.248)] and parenting self-efficacy [$\beta = .337$; 95% CI (0.101, 0.405)], therefore indicating significant mediations. The relationship between hardiness and parenting practices was not significant in the

presence of parenting stress, indicating a partial mediation ($\beta = .167, p = .120$). The strength of the relationship between parenting self-efficacy and parenting practices ($\beta = .579, p < .001$) was reduced in the presence of parenting stress ($\beta = .337, p = .001$), indicating a partial mediation. Therefore, consistent with the first hypothesis, parenting stress partially mediated the relationships between hardiness, parenting self-efficacy, and parenting practices. The percent mediated (the percent of variance in the outcome variable, parenting practices, that was accounted for by the mediator, parenting stress) was calculated for each mediated relationship (Preacher & Hayes, 2004). Approximately forty-one percent of the total effect of hardiness on parenting practices was accounted for by parenting stress. Approximately 41% of the total effect of parenting self-efficacy on parenting practices was accounted for by parenting stress.

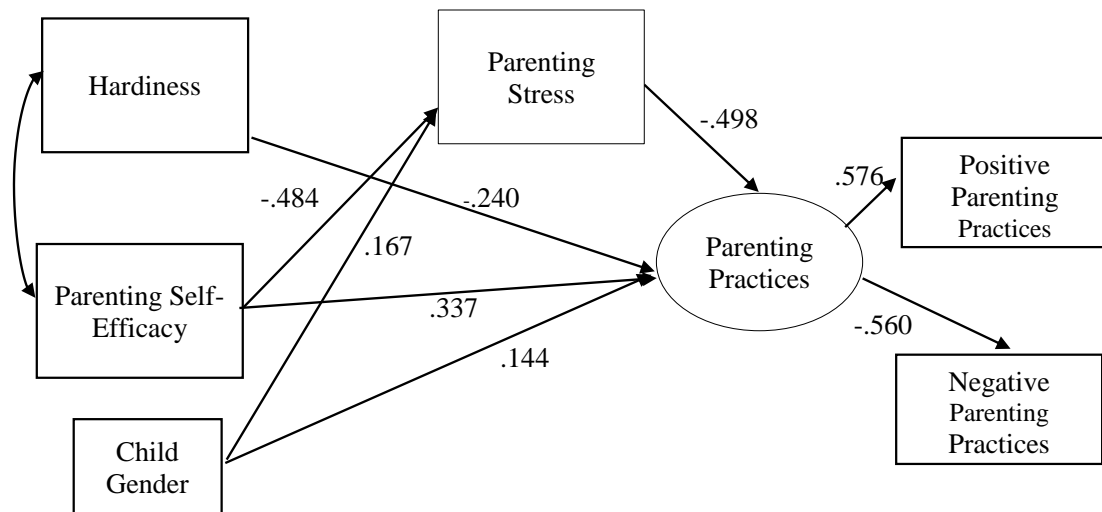


Figure 2. Mediation Model of Hardiness, Parenting Self-Efficacy, Parenting Stress, and Parenting Practices.

The second hypothesis predicted that the model would fit significantly different for mothers and fathers. To test the second hypothesis, invariance testing was conducted using Mplus 7.4 to determine if the partial mediation model fit significantly different for mothers and fathers. Model fit was examined using a chi-square difference test, the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean square of error approximation (RMSEA). Adequate CFI and TLI include values $>.90$, and adequate RMSEA includes values $<.05$. A chi-square difference test was conducted between the constrained and unconstrained versions of the original model, in order to determine if the mediation model differed across parent gender. The chi-square value of the constrained model ($\chi^2 (16) = 38.12, p = .12$) was significantly greater ($\Delta\chi^2_6 = 14.31, p <.05$) than the value of the unconstrained model ($\chi^2 (10) = 23.81, p = .008$), indicating that the model differed across parent gender. Consistent with the second hypothesis, the partial mediation model fits significantly different for mothers and fathers.

Post Hoc Analyses

Post hoc analyses utilizing invariance testing were run to determine where the mediation model differed across parent gender. Only when the observed indirect path of hardiness was constrained, did model fit get significantly worse. The chi-square value of the more restrictive model with the indirect path of hardiness constrained ($\chi^2 (15) = 71.10, p <.001$) was significantly greater ($\Delta\chi^2_4 = 47.29, p <.05$) than the value of the less restrictive model with the direct path of hardiness constrained ($\chi^2 (11) = 23.81, p = .014$). Standardized estimates using maximum likelihood estimation revealed hardiness ($\beta = .071, p <.05$) to be significant predictor of parenting stress for mothers but not

necessarily for fathers ($\beta = .089, p = .05$) and parenting stress ($\beta = .145, p < .05$) to be a significant predictor of parenting practices for fathers but not necessarily for mothers ($\beta = .178, p = .05$). This suggests that the relationships between hardiness, parenting stress, and parenting practices are slightly different across genders.

CHAPTER IV – DISCUSSION

The current study examined a theoretical model that intended to describe how parental cognitions influence parenting practices via the mediational influence of parenting stress. As predicted, parenting stress partially mediated the relationships between the parental cognitions, hardiness and parenting self-efficacy, and parenting practices. Also, the mediation model significantly differed across parent gender as predicted. The present findings provide information about variables that affect parents' ability to successfully implement parenting practices that promote healthy child development.

Hypothesis 1

The first hypothesis examined the extent to which parenting stress partially mediated the relationship between hardiness and parenting self-efficacy and parenting practices. As predicted, parenting stress partially mediated these relationships, suggesting that parenting stress is an important mechanism in understanding how hardiness and parenting self-efficacy impact parenting practices. The finding that parenting stress is likely an important mechanism for understanding the relationship between parental cognitions and parental behaviors (i.e. parenting practices) supports the theoretical framework of this study. Essentially, the way parents think about themselves and conceptualize problems is likely to impact their stress level. Parents' stress level then affects the way parents respond to their child in their parenting role. Therefore, understanding how the way parents think about themselves and conceptualize problems provides a point of intervention. In other words, these findings suggest that a focus solely on parents' stress level related to fostering healthy parenting behaviors that

contribute to healthy child development does not provide a whole picture. Rather, these findings suggest that understanding the unique relationships among parents' cognitions, stress, and behaviors provides a fuller picture and may lead to more positive outcomes overall.

The present findings extend the understanding of the role of hardiness to parents of typically developing children within the parenting literature. Hardiness had not yet been directly linked to parenting practices or parenting stress in such a population. In the current study, hardiness was positively associated with positive parenting practices and negatively associated with negative parenting practices. Support for these relationships in the current study builds on previous research that indicated that hardiness is negatively associated with stress (Dolbier et al., 2007; Maddi & Kobasa, 1984) and other psychological strains (Eschleman et al., 2010) in nonparent populations, and predictive of successful adaptation to stressful circumstances and lower levels of stress-related conditions in mothers of children with autism or mental retardation (Weiss, 2002). In the current study, hardiness was negatively associated with parenting stress as predicted. This finding is consistent with previous research in nonparent populations that suggests that hardy individuals tend to be more positive and confident about their ability to manage stressful situations (Allred & Smith, 1989; Delahaij, Gaillard, & van Dam, 2010; Florian, Mikulincer, & Taubman, 1995; Funk, 1992; Westman, 1990). It seems possible that the parents in the present study may perceive situations or circumstances as less stressful and manageable instead of overwhelming. Consistent with hardiness theory, this finding may indicate that parents with higher levels of hardiness are more likely to feel a higher sense of commitment and involvement in their parental role, view

experiences as a parent as worthwhile, and feel a sense of control in how they choose to respond to various parenting situations despite the presence of parenting stress (Kobasa et al., 1982). Thus, parents with higher levels of hardiness may then experience less parenting stress. Previous research with adult business professionals has also suggested that hardiness may buffer against the effects of stress (Dolbier et al., 2007; Maddi & Kobasa, 1984). This may be another possible explanation for the present finding. It seems plausible that hardiness may act as a buffer for parents when faced with potentially stressful parenting challenges with their children.

The present findings also extend the understanding of the role of parenting stress in parents of typically developing children within the parenting literature. Overall, the results indicated that parenting stress appears to be an important characteristic for parents in understanding how their cognitions, specifically resilient thinking and self-efficacious thoughts in the parental role, influence their parenting practices. Results demonstrated that parenting stress partially explains the “how” in the relationship between parent cognitions and parent practices. Specifically, the relationship between hardiness and parenting practices was not significant in the presence of parenting stress whereas the relationship between parenting self-efficacy and parenting practices was still significant but reduced in strength.

The current study’s findings for this hypothesis build on previous research that suggested that parenting stress serves as a mediator between parenting variables (i.e., social support and depressive symptomology) and parenting practices (Bonds et al., 2002; Gerdes et al., 2007). In the current study, it was demonstrated that parenting stress served as a mediator between parenting variables (parents’ resilient thinking and parental

self-efficacy) and parenting practices. The present findings that parenting stress partially explains the relationship between positive parenting cognitions, such as hardiness and parental self-efficacy, and the ways in which parents respond and interact with their children (i.e., parenting practices) have important implications for prevention and intervention efforts. For example, the findings of the current study can be used to inform prevention efforts related to educating parents about parenting stress, its impact, and ways to manage it. The findings can also be used to inform general psychoeducation efforts about the relationships between parents' cognitions, stress, and behaviors/practices in their parenting role. Prevention programs aimed at increasing parents' awareness of the importance of factors or variables specific to their role as parents, such as hardiness, stress, and self-confidence as a parent, in their child(ren)'s overall development may also be warranted. The current study's findings can also inform prevention programs and campaigns aimed at educating parents about the impact of parenting variables like hardiness, parenting stress, and self-efficacy and its relevant research. Additional implications include interventions efforts aimed at identification of parents' problem areas within the current study's theoretical model (ex. low hardiness, low self-efficacy, or increased parenting stress) and the necessary relevant training (such as hardiness training, skills to increase parenting self-efficacy, skills training related to parenting practices) to address the identified problem areas. For example, the American Psychological Association implemented a school-based campaign that focused on teaching the skills of resilience for problems based on hardiness training from the Hardiness Institute (American Psychological Association, 2003). A similar campaign or training program for parents of school-aged children (similar to the sample of parents in

the current study) that focuses not only on hardiness, but parenting stress and parenting self-efficacy, may be one avenue of intervention efforts stemming from the findings of this study.

Hypothesis 2

The second hypothesis examined the hypothesis that the mediation model would differ across parent gender. Consistent with this hypothesis, the mediation model fit significantly different for mothers and fathers, suggesting that the relationships between parenting cognitions, hardiness and parental self-efficacy, parenting stress, and parenting practices do vary across parent gender. Results of the post hoc analyses provided more information as to how these relationships differ across parent gender. The results indicated that hardiness was a significant positive predictor of parenting stress for mothers, but not as much so for fathers. It is important to note that the significance for fathers was at the cut-off point for 95% confidence ($p=.05$). This finding may suggest that hardiness affects mothers differently than how it affects fathers. Previous research that included mothers of children with autism or mental retardation and parents of typically developing children demonstrated that hardiness was a positive predictor of successful adaption to various stress-related conditions such as anxiety, depression, and depersonalization (Weiss, 2002). Similarly, this current finding demonstrates that hardiness serves as a positive predictor of a stress in the parenting role for mothers of typically developing children.

Results also indicated that parenting stress was a significant predictor of parenting practices for fathers, but not as much so for mothers. It is important to note that the significance for mothers was at the cut-off point for 95% confidence ($p=.05$). Previous

research has suggested that parenting stress is a significant predictor of parenting practices for mothers more so than fathers (ex. Elgar, Mills, McGrath, Waschbusch, & Brownridge, 2007) and that there were few differences in perceived levels of parenting stress between mothers and fathers (Deater-Deckard & Scarr, 1996; Wanamaker & Glenwick, 1998). Therefore, it may be possible that this particular finding in the current study suggests that parenting stress affects fathers differently than how it affects mothers rather than suggesting that parenting stress is greater for fathers than mothers.

Limitations

The findings of the present study must be interpreted with some caution and in consideration with a few limitations. First, one methodological limitation on the present study is that participants were able to self-select which child (if they had more than 1 child) they would consider as their “focus child” and the current study did not gather data on that process. As a result, participants may have selected the most or least stressful child. Since questions were not asked about the method of selection of the focus child, there may not be consistency in how participants selected their focus child. Therefore, results of the current study should be viewed in light of the relatively low level of parental stress reported by the participants.

Second, the generalizability of the current sample is also a concern. Participants included predominantly White, college-educated, married, 25-34-year-old parents from a middle socioeconomic status background in the United States, which may not generalize to younger or older parents from various socioeconomic, cultural and racial backgrounds. Given the link between the level of education (Kelley, Power, & Wimbush, 1992), income (Elgar, Mills, McGrath, Waschbusch, & Brownridge, 2007), spousal support

(Simons, Beaman, Conger, & Chao, 1993), social support (Brynes & Miller, 2012) and parenting practices, this limitation may be especially relevant for the present study. Additionally, it should be noted that the participants in the current study were recruited online through Amazon Mechanical Turk and potentially from various regions in the United States. However, the current study did not collect information about the geographic location of the participants who completed the study measures. Therefore, conclusions cannot be made regarding geographic differences of the findings in the current study.

Areas for Future Research

In the current study, child gender was accounted for in the mediation model. Future research may consider the inclusion of child gender in the model in light of previous research that demonstrated child gender to be a predictor of parenting stress (Viana & Welsh, 2010) and parenting practices (Elgar, Mills, McGrath, Waschbusch, & Brownridge, 2007). Additionally, just as the current study explored differences in the mediational model across parent gender, future research may consider exploring potential differences across child gender. Similarly, given that child behavior has been found to be a predictor of parenting stress (Mash & Johnston, 1990; Shin, Nhan, Crittenden, Flory, & Ladinsky, 2006; Warfield, 2005), parental self-efficacy (Meunier & Roskam, 2009), and parenting practices (Burke, Pardini, & Loeber, 2008), future research may also consider the inclusion of child behavior into the overall model.

In considering the current study's finding that parenting stress affects fathers differently than mothers, researchers may benefit from exploring factors that may influence the way in which fathers are affected by parenting stress. For example,

previous research has demonstrated that the relationship with one's spouse (Viana & Welsh, 2010) and marital satisfaction (Deater-Deckard & Scarr, 1996) are predictors of parenting stress. Similarly, research has demonstrated that marital satisfaction was strongly associated with parenting stress for fathers and had a greater impact on parenting practices (such as discipline) than it did for mothers (Deater-Deckard & Scarr, 1996). Given that previous research has suggested that the impact of parenting stress on parental behaviors may be moderated by marital satisfaction differentially for mothers and fathers, an area of future research may be exploring the potential moderating effect of marital or relationship satisfaction on mothers and fathers' experience of parenting stress. It is possible that marital/relationship satisfaction plays an important role in how fathers are affected by parenting stress. Another area of future research that will expand the current study's findings is to examine if parenting stress moderates the relationships between parental cognitions (hardiness and parental self-efficacy) and parenting practices. More specifically, future research may consider exploring whether the effects found in the current study are more pronounced for high or low parenting stress conditions.

Conclusion

In conclusion, the current study examined a theoretical model that begins to shed light on how parental cognitions affect parents' ability to successfully implement parenting practices that promote healthy child development. As predicted by the first hypothesis, parenting stress partially mediated the relationships between the parental cognitions, hardiness and parenting self-efficacy, and parenting practices. As predicted by the second hypothesis, the current study's mediation model significantly differed across parent gender. These findings suggest the importance of parental cognitions such

as hardiness and parenting self-efficacy, and parenting stress in effective parenting practices, and that these relationships vary for mothers and fathers. Specifically, post hoc analyses suggest that parenting stress affects fathers differently than how it affects mothers. Future studies are encouraged to strive to address the limitations of the present study, as well as explore the role of child gender and child behavior. Future studies should also explore factors that may influence the way in which parents are differentially affected by parenting stress as well as the potential moderating role of parenting stress between parental cognitions (hardiness and parental self-efficacy) and parenting practices.

APPENDIX A – IRB Approval Letter



INSTITUTIONAL REVIEW BOARD

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NOTICE OF COMMITTEE ACTION

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

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

PROTOCOL NUMBER: 15041505

PROJECT TITLE: The Role of Parental Self-Efficacy, Hardiness, and Parenting Stress in Predicting Parenting Behaviors

PROJECT TYPE: New Project

RESEARCHER(S): Erica Smith

COLLEGE/DIVISION: College of Education and Psychology

DEPARTMENT: Psychology

FUNDING AGENCY/SPONSOR: N/A

IRB COMMITTEE ACTION: Expedited Review Approval

PERIOD OF APPROVAL: 05/05/2015 to 05/04/2016

Lawrence A. Hosman, Ph.D.

Institutional Review Board

APPENDIX B – Demographics Information Form

The following questions are used to gather information about the types of people participating in this study. Please take a few moments to describe yourself and your family.

YOUR Gender: _____ Male _____ Female

YOUR Age: _____

YOUR Race/Ethnicity:

- _____ African American/Black
- _____ Caucasian/White
- _____ Hispanic/Latino
- _____ Native Hawaiian/Pacific Islander
- _____ American Indian/Alaska Native
- _____ Asian
- _____ Other (specify) _____

YOUR number of years of education: (Please circle last grade completed)

6 7 8 9 10 11 12 13 14 15 16 17+

Graduate/ _____ Graduated _____ Graduated
Professional _____ High School _____ College
School _____

School

Marital Status: _____ Never married/living alone _____ Divorced/Separated
_____ Never married/living with someone _____ Widowed
_____ Married

If divorced, are you the child(ren)'s primary guardian? _____ Yes _____ No

If divorced, indicate the number of hours you spend weekly with your child(ren)? _____

Annual Income: _____ less than \$10,000 _____ \$10,000-\$20,000
_____ \$21,000-\$30,000 _____ \$31,000-\$40,000
_____ \$41,000-\$50,000 _____ \$51,000+

Number of children living in the home: _____

Number of adults living in the home: _____

The person completing this form is:

_____Mother _____Father _____ Other (please specify): _____

I am the child's primary caregiver: YES NO

Please select **one child** who is between the ages of 6 and 13. This child will be the "focus child" for this study. Please refer to this child when completing the rest of the forms.

CHILD Age: _____

CHILD Gender: _____Boy _____Girl

Has your child been formally diagnosed by a licensed professional with any of the following?

Intellectual disability YES NO

If yes, please list:

Learning disability: YES NO

If yes, please list:

Medical Condition: YES NO

If yes, please list:

Psychiatric Condition: YES NO

If yes, please list:

Developmental Condition: YES NO

If yes, please list:

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