Burnout Among Parents of Infants: Associations with Parental Self-Care Practices, Infant Negative Emotionality, and Couple Satisfaction

by

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Abstract

While the phenomenon of parental burnout has gained more attention in research and popular media in recent years, missing from the literature is an understanding of the associations between parental burnout and characteristics of the parent, child, and family social context, particularly among parents of infants. The current study addresses this gap by examining direct and indirect associations between parents' (n = 128) engagement in self-care practices, parents' perceptions of infant temperament, couple relationship satisfaction, and parental burnout. Meditation and moderation models were tested to determine how multiple factors within the family system may interact to explain parents' risk of experiencing burnout. Findings revealed a strong, direct association between parents' perceptions of infant negative emotionality and burnout. Moreover, parents who perceived their infants' temperament as more negative reported engaging in more frequent self-care practices. This research provides needed information about the experiences of parental burnout in parents of infants, a previously understudied group. Implications for clinical intervention and future research are discussed.

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Chapter 1: Introduction

For many people, being a parent is a rewarding role that fosters a sense of fulfillment and satisfaction with one's life (Ryan & Padilla, 2019). However, parenthood also comes with challenges, doubts, and stressors. The stresses of parenting can weigh heavily on an individual's well-being, as being a parent often involves changes to one's career trajectory, sleep schedule, adult relationships, and daily responsibilities (Nelson-Coffey & Stewart, 2019). For some, the chronic effects of this stress and the difficulty of tasks associated with parenting can pile up such that parents feel a sense of exhaustion with their parental role (Gillis & Roskam, 2019; Roskam et al., 2017). This exhaustion might cause parents to feel as if they have used up all of their emotional, social, and mental resources on their children. These feelings of exhaustion and overwhelming stress related to one's parental role are collectively known as parental burnout (Roskam et al., 2017).

Parental burnout is a construct that emerged in response to a question: Can parents burn out, just as individuals in the workforce can become so overworked and exhausted that they experience job burnout? Recent research has demonstrated that parental burnout is an actual phenomenon and is distinct from both depression and job burnout (Mikolajczak et al., 2020; Roskam et al., 2017). Parental burnout is characterized by emotional exhaustion, emotional detachment from one's children, being displeased with one's parental role and parental accomplishments, and a sense of guilt and shame surrounding parenting (Roskam et al., 2018).

Parental burnout can have damaging, long-term consequences for parents, children, and families. For example, parents who report greater burnout may experience increased escape ideation in the form of suicidal thoughts, increased child abuse or neglect potential, sleep problems, and negative consequences for partners or spouses due to an increase in the frequency

and intensity of couple conflict (Hansotte et al., 2020; Mikolajczak, Brianda, et al., 2018; Mikolajczak et al., 2019). Additionally, unlike job leave, one cannot simply take a leave from the parenting role (Mikolajczak et al., 2019). Therefore, it is critical for parents and professionals who work with parents to understand the risk factors that contribute to parental burnout and what protective factors may inform education and intervention efforts.

Although parental burnout is a newly studied construct, decades of research have suggested that parental functioning is multiply influenced by characteristics of the parent, child, and family social context (Belsky, 1984; Taraban & Shaw, 2018). In 2018, Taraban and Shaw revisited Belsky's (1984) classic process model of the determinants of parenting. Their updated model included expanded attention to parent-level, child-level, and contextual variables, such as parent personality, parent depression, marital quality, social support, and child negative emotionality (NE). (Taraban & Shaw, 2018). Using a similar individual, relational, and contextual approach to understand parents' well-being, Nelson et al. (2014) developed a model which highlights factors related to an increase in parent well-being, such as having one's personal needs met, and factors that are associated with a decrease in parent well-being, such as strain in the partner relationship (Nelson et al., 2014; Nelson-Coffey & Stewart, 2019). Thus, based on previous research and theory, the key to predicting parental burnout and buffering against its negative effects may be examining burnout from multiple levels—the parent level, child level, and the level of the family and social environment.

Parental-level factors that appear to exacerbate parental burnout include parent neuroticism (Le Vigouroux et al., 2017), poor stress-management strategies (Le Vigouroux et al., 2017), aiming to be a perfect parent (Kawamoto et al., 2018), and having poor child-rearing practices (Mikolajczak, Raes, et al., 2018). Risks for parental burnout include being a woman,

being a single parent, working part-time, being a stay-at-home parent, or having at least three children still living in the home (Mikolajczak & Roskam, 2018). Additionally, recent evidence suggests that parents who live in countries rated as more individualistic experience higher rates of parental burnout (Roskam et al., 2021).

Parental factors which may protect against parental burnout include high emotional intelligence and parental self-compassion (Mikolajczak & Roskam, 2018). Self-compassion is positively associated with health behaviors such as exercise and eating well and negatively associated with parental stress and depression (Neff & Faso, 2015). Self-compassion is also linked to increased resilience and coping behaviors in response to stressors such as trauma or divorce (Neff & Faso, 2015). However, despite existing evidence which links increased self-compassion and health behaviors to lower parental stress, and higher resilience, no study to date appears to have examined the association between the frequency of engagement in self-compassion behaviors, such as self-care, and parental burnout.

Moreover, although parent risk and protective factors have been identified, much less is known about how child characteristics relate to parental burnout. One study by Mikolajczak, Raes, et al. (2018) examined child-related correlates of parental burnout; however, only 15% of the children in their sample were younger than two-years-old, and the authors chose to focus only on children with a disability, chronic illness, or behavioral problems. Therefore, what is needed is research measuring other child characteristics in relation to parental burnout. Parents of infants may be an important group to study in relation to burnout, as parenting infants is a particularly challenging period of stress and transition for parents (Ryan & Padilla, 2019), and recent evidence suggests child age is inversely associated with parental exhaustion (Le Vigouroux et al., 2022). Additionally, parents' perceptions of a more difficult or fussy infant

temperament may contribute to an increase in parenting stress (Prino et al., 2016). Infant temperament may also have an important connection to the marital relationship, especially during periods of developmental transition when a new infant enters the family system (Burney & Leerkes, 2010; Cox & Paley, 2003).

Finally, the process of understanding parental burnout would be incomplete without examination of socio-contextual factors, including characteristics of the family and social environment. Based on theoretical models of the determinants of parenting and parental well-being (Nelson et al., 2014; Taraban & Shaw, 2018), the quality of the couple or marital relationship is critical in understanding parents' mental and emotional experiences. Limited evidence suggests that poor coparenting and poor marital relationship quality predict parental burnout (Mikolajczak, Raes, et al., 2018). However, much less is known about how the quality of the dyadic couple or marital relationship for partnered individuals relates to parental burnout in couples of young infants. Previous research suggests that parents in poor-quality marital relationships face additional stress that may exacerbate the difficulty of coping with a fussy infant (Schoppe-Sullivan et al., 2007). Therefore, parents in more unsatisfying relationships with more difficult infants may be expected to experience increased stress, and, subsequently, higher burnout.

In summary, the study of parental burnout is in its infancy, gaining momentum only in the past decade. While the number of published articles on parental burnout has increased in recent years, there is still much to learn regarding what parent-level, child-level, and other family-level factors relate to this phenomenon, particularly in parents of infants. Examining understudied factors from multiple levels of the family system will help family scientists and clinicians better contextualize, understand, and prevent parents' experiences of burnout.

Chapter 2: Literature Review

From Job Burnout to Parental Burnout

Unlike parental burnout, job burnout is a phenomenon that has been studied for many decades, but the concept itself existed long before researchers gave it a name (Roskam et al., 2017). Job burnout became an increasingly salient issue in the lives of many individuals during the 1970s due to fundamental changes in the nature of human services work (Maslach & Leiter, 1997; Roskam et al., 2017). Maslach (1976) provided a conceptualization of job burnout and developed the Maslach Burnout Inventory (MBI) based on three dimensions: overwhelming exhaustion with one's work (the core feature of burnout), a sense of detachment from the beneficiaries of one's work, and a feeling of reduced efficacy or lack of achievement at work (Maslach, 1976; Maslach & Jackson, 1981; Roskam et al., 2017). One paper published in 1989 assessed the validity of the MBI with exhausted parents (Pelsma, 1989), but the subject of parental burnout received little attention until the phrase "parenting burnout" appeared in European media in the 2000s (Roskam et al., 2017).

Several sociocultural changes that took place in Europe in the early 21st century placed increased pressure on parents, and these changes mirrored those experienced by the U.S. human services workforce in the 1970s (Roskam et al., 2017). Firstly, European society raised its standards of parenting when the Council of Europe outlined several characteristics of "positive parenting" in 2007, and many parents felt that they could not live up to this ideal (Daly, 2007). Second, state involvement in matters such as spanking emphasized children's rights and deemphasized parental authority (Richards, 2010; Roskam et al., 2017). Finally, as more women entered the workforce, it became increasingly difficult for parents to juggle their parenting and work responsibilities (Roskam et al., 2017). These societal shifts resulted in parents experiencing

elevated levels of stress and exhaustion, i.e., parental burnout (Roskam et al., 2017). The idea of studying burnt-out parents appeared in several publications in the 2000s and early 2010s, but a validated measure specific to parental burnout did not appear until Roskam et al. used the MBI to develop the Parental Burnout Inventory (PBI) in 2017.

Parent Factors

Following the conceptualization of parental burnout and the validation of the PBI to measure this construct (Roskam et al., 2017), researchers began studying parental factors that may be related to burnout. In 2018, Mikolajczak and Roskam developed a theoretical framework for understanding why some parents burn out, and others do not. The Balance Between Risks and Resources (BR^2) theory suggests that parental burnout develops due to a chronic imbalance between a parent's risk factors and available resources (Mikolajczak & Roskam, 2018). Although the authors suggest that risk and resource factors may come from any level in a person's environment, more distal factors affect parental stress through their impact on parents' cognitions and behaviors (Mikolajczak & Roskam, 2018). For example, policy changes that subsequently raise societal standards of parenting, such as those imposed by the Council of Europe in the early 2000s, increase parental stress by giving parents a sense of frustrated idealism (Mikolajczak & Roskam, 2018; Roskam et al., 2017). Therefore, Mikolajczak and Roskam (2018) suggest that the effects of these broader systemic factors which occur outside of the immediate family system can be studied through their impact on who parents are, how they think or feel, and what they do.

Two subcategories of parent characteristics have been examined in relation to parental burnout: who parents are, or qualities related to identity and personality, and how parents think or feel, or their cognitions and emotions (Kawamoto et al., 2018; Le Vigouroux et al., 2017; Lin

et al., 2021). In addition to the sociodemographic risks noted in the introduction, current evidence suggests that high neuroticism, low conscientiousness, low agreeableness, poor self-efficacy beliefs, and parent perfectionism are significant risk factors for parental burnout (Kawamoto et al., 2018; Le Vigouroux et al., 2017; Lin et al., 2021; Mikolajczak, Raes, et al., 2018; Sorkkila & Aunola, 2019). As for parent-level resources, research suggests that parents high in emotional intelligence and self-compassion may be at a reduced risk of developing parental burnout (Mikolajczak, Raes, et al., 2018; Lin et al., 2021). However, even after researchers have established a relationship between these parent risk and resource factors and parental burnout, what remains unclear is how parents' reports of their own self-care behaviors might be related to an increased or decreased risk of burnout. In other words, the information reviewed thus far addresses the questions of why parents may be at an increased or decreased risk of burnout based on who they are and how they think or feel, but how is parental burnout related to parents' reports of their own behavior?

Parent Self-Care

While evidence suggests that parents' *feelings* of kindness and compassion towards themselves decrease their risk for developing parental burnout, what is less clear is how parents' kind and compassionate *behaviors* towards themselves impact parental burnout. When individuals are actively aware of their physiological and emotional needs and then attend to those needs accordingly, they are behaving in a self-compassionate way (Cook-Cottone & Guyker, 2018). The practice of recognizing and attending to one's needs is often referred to as self-care (Cook-Cottone, 2015; Cook-Cottone & Guyker, 2018). Self-care may include making adjustments to one's daily routine, relationships, or environment to enhance overall mental, physical, and emotional well-being (Cook-Cottone & Guyker, 2018). Research suggests that

engaging in self-care protects individuals against developing the symptoms of mental illness, increases productivity, and prevents and decreases job and school burnout (Cook-Cottone, 2015). Thus, given the evidence that self-care decreases other forms of burnout, engaging in acts of self-care could be a potential resource for parents who are approaching or experiencing elevated levels of parental burnout.

The concept of self-care has appeared both in media and in published research for decades, and many different instruments have been developed to measure this phenomenon. However, because the term self-care is inherently vague, instruments to assess and quantify it vary widely in their scope and applicability. Some measures are designed to measure a person's *beliefs* or *feelings* about performing acts of self-care, while others measure a person's frequency of engagement in self-care *behaviors*. For example, one scale developed by Cook-Cottone and Guyker (2018), addresses self-care behaviors in multiple domains: nutrition, exercise, mindful awareness of one's thoughts and emotions, relaxation, relationships, self-compassion, and spirituality. Using this scale, researchers have demonstrated that the frequency of engagement in self-care practices reduces job burnout among healthcare professionals and hospice workers (Hotchkiss, 2018). However, there is a significant gap in the literature on the relationship between the frequency of engagement in self-care practices and parental burnout. Based on evidence that feelings of self-compassion towards oneself as a parent are negatively associated with parental burnout and parental stress (Bohadana et al., 2019; Gouveia et al., 2016; Mikolajczak & Roskam, 2018; Neff & Faso, 2014), it is reasonable to investigate the potential link between compassionate behaviors, or self-care, and parental burnout.

Child Factors

As noted previously, child characteristics have been understudied in relation to parental burnout. When parents are experiencing burnout, parents and children may be influenced reciprocally by one another's characteristics through their interactions (Le Vigouroux & Scola, 2018). Thus, understanding the relationship between child characteristics and burnout is necessary to develop a more complete picture of parental burnout (Le Vigouroux & Scola, 2018). In their study of French-speaking families, Mikolajczak, Raes, et al. (2018) examined three child characteristics in relation to parental burnout: whether the child displays behavioral problems, whether he or she has a disability or chronic illness, and whether he or she was an adopted or foster child. However, their results indicated that these factors were not significant correlates of parental burnout (Mikolajczak, Raes, et al., 2018). These findings may reflect the strength of the methodology used to measure child characteristics, as the researchers asked parents to report whether their children had any of these characteristics, but they did not account for the severity of these child characteristics and did not include any validated instruments to measure child dispositional factors.

Following this study, Le Vigouroux and Scola (2018) revisited the link between child demographic or dispositional factors and parental burnout. In their study of parents from various regions of France with children ages 0 to 35 years, they found that parents reported higher levels of burnout when children were perceived as lower on dimensions of emotionally stability, agreeableness, and conscientiousness. While these findings provided much-needed information about the possible role of child characteristics in relation to parental burnout, there is still a need to assess the relationship between these factors more thoroughly, especially among parents of young infants. For example, LeVigouroux and Scola noted that they did not measure personality traits for the children in their study who were under 3 years of age due to concerns with validity

of such assessment. However, given their finding of an association between higher burnout among parents who perceived their children's emotional reactions as more negative, investigation of infant temperament, specifically negative emotionality, may be an important area of research inquiry among parents of children younger than 3 years.

Infant Negative Emotionality

Temperament, or the way that a child experiences and reacts to the world, is made up of multiple factors, such as responsiveness, effortful control, and willingness to explore (Putnam et al., 2014; Rothbart, 1981). However, an infant's level of negative emotionality may be a critical factor in relation to understanding parental stress, and, subsequently, parental burnout. Negative emotionality refers to a child's tendency to react to environmental stimuli with negative emotions, and infants with high levels of negative emotionality are generally perceived as more fussy, irritable, and difficult to soothe (Paulussen-Hoogeboom et al., 2007). Moreover, negative emotionality has been highlighted as a strong correlate of parenting behavior and later child behavioral problems (Paulussen-Hoogeboom et al., 2007). Furthermore, multiple studies have linked infant negative emotionality with elevated levels of parental stress (Casalin et al., 2014; Fernandes et al., 2021; Prino et al., 2016). Since parental burnout is a stress-related condition (Mikolajczak & Roskam, 2018; Roskam et al., 2017), it follows that infant negative emotionality may be related to the development of burnout, suggesting a need to study burnout among parents of infants as most studies thus far have included few parents with children under two-years-old (Mikolajczak, Raes, et al., 2018).

Family Social Context Factors

In addition to expanded focus on parent and child characteristics in their updated process model of parenting, Taraban and Shaw (2018) also highlight the family social context as a broad

factor which influences parenting. The family social context may encompass both sources of stress and sources of support for parents (Taraban & Shaw, 2018), much like Mikolajczak and Roskam's (2018) BR^2 model views parental burnout as hinging on the relationship between a parent's risk factors and resources, many of which may be present not in the parent or child, but in their surrounding environment. Factors in the family social context have received limited attention in relation to parental burnout; however, those which have been studied thus far include marital satisfaction, coparenting perceptions, and family disorganization, all of which appear to be correlates of burnout (Mikolajczak et al., 2018). Yet, further evidence is needed to understand the relationship between marital or couple satisfaction and parental burnout, as Belsky and others have punctuated the couple relationship as the "principal support system" for parents (Belsky, 1984; Taraban & Shaw, 2018).

The Couple Relationship

Marital and couple satisfaction have an established association with parenting (Fincham & Hall, 2005). One explanation for the relationship between parenting and couple satisfaction is the spillover hypothesis, which states that parents in satisfying romantic relationships with their partners or spouses have more emotional resources at their disposal to be warm and nurturing parents (Easterbrooks et al., 1994; Engfer, 1988). Further, research suggests that there is a reciprocal association between martial satisfaction or dissatisfaction and parental stress (Erel & Burman 1995; Krishnakumar & Buehler 2000; Kwok et al., 2015; Robinson & Neece, 2015). Drawing upon these findings and the BR^2 model (Mikolajczak & Roskam, 2018), a satisfying marital or couple relationship can be viewed as a resource for parents, and an unsatisfying marital or couple relationship may be a significant stressor. Therefore, the couple relationship

may be an essential component of the family social context in relation to understanding parental burnout.

A Note About Parental Burnout during a Global Pandemic

Families worldwide have collectively felt the impact of the COVID-19 pandemic since it began to disrupt many aspects of daily life. A global event of such proportions has an undeniable effect on parent stress levels and, subsequently, parental burnout. For many parents, the onset of COVID-19 meant facing the threat of unemployment, financial strain, and social isolation from external support networks (Brown et al., 2020; Griffith, 2020; Mikolajczak & Roskam, 2020; Prikhidko et al., 2020). Other parents have struggled to balance childcare responsibilities, homeschooling, and working from home as daycares and schools closed and forced both children and parents to quarantine in their homes (Griffith, 2020).

Not surprisingly, parental burnout is a prominent concern during this time of widespread social and economic turbulence (Brown et al., 2020; Griffith, 2020; Mikolajczak & Roskam, 2020; Prikhidko et al., 2020). As noted previously, Mikolajczak and Roskam (2018) developed a theory that posits that parental burnout is the result of a chronic imbalance between parents' risks and resources. The COVID-19 pandemic has led to drastic changes in the number and quality of available resources for struggling families. Families may experience a lack of economic support, a lack of free time, a lack of separation from their work and personal lives, and a disconnect from sources of support (Griffith, 2020). Based on the BR^2 theory, the combination of increased stress and diminished resources for parents during the pandemic increases the likelihood that parents will develop stress-related conditions like parental burnout (Brown et al., 2020; Griffith, 2020; Mikolajczak & Roskam, 2018; Mikolajczak & Roskam, 2020; Prikhidko et al., 2020). Therefore, it is critical to situate the current study within this historical context to understand why levels of

parental burnout might be even more elevated in the present than reported in the existing literature, as parents may be struggling to navigate both normal and novel parenting challenges during this unusual time (Griffith, 2020).

The Current Study

The current study aimed to advance the literature on parental burnout by examining this construct in relation to three understudied factors: parent self-care, infant negative emotionality, and couple relationship satisfaction. Six research questions (RQs) guide this inquiry. Three corresponding hypotheses are indicated for the first three research questions (RQ1, RQ2, RQ3). The last three RQs (RQ4, RQ5, RQ6) are exploratory.

RQ1) Is the frequency of parents' engagement in self-care practices associated with parental burnout?

H1) Parents who report engaging in more frequent self-care practices will report lower burnout scores.

RQ2) To what extent is infant negative emotionality related to parental burnout?

H2) Parents' reports of higher infant negative emotionality will be associated with higher parental burnout.

RQ3) To what extent is couple relationship satisfaction related to parental burnout?

H3) Lower relationship satisfaction will be associated with higher parental burnout.

RQ4) Is the relationship between infant negative emotionality and parental burnout explained by or moderated by the frequency of parents' engagement in self-care practices?

RQ5) Is the relationship between couple satisfaction and parental burnout explained by or moderated by the frequency of parents' engagement in self-care practices?

RQ6) Is the relationship between infant negative emotionality and parental burnout explained by or moderated by couple relationship satisfaction?

Chapter 3: Method

Participants

Participants (n = 128) in this study were recruited as part of a larger research project (LAPIS; Learning About Parents and Infants Study) focused on the well-being of parents of infants aged 3-12 months. To qualify for participation, parents had to be at least 18 years of age, identify as a mother or father of an infant age 3-12 months, be English-speaking U.S. residents in a romantic or intimate partner relationship, and be coparenting their 3–12-month-old infant with their romantic or intimate partner. Both first-time parents and parents of multiple children qualified to participate.

The sample for the study consisted of 69 individuals who identified as mothers (53.9%) and 59 who identified as fathers (46.1%). Parents also reported on their infants' sex; 54.7% of the children were male and 45.3% were female. Parental age ranged from 24-59 years (M_{age} = 31.9, SD = 7.0), and average infant age was 7.6 months (SD = 2.33). The majority of the parents in the study described themselves as White/Caucasian (94.4%), with some identifying as Black/African American (3.9%), American Indian or Alaskan Native (3.1%), and Asian (0.8%). Most parents in the study identified as their infant's biological parent (93%), with eight parents identifying as their infant's adoptive parent and one parent in the sample identifying as a foster parent. Parents' education levels range from a high school diploma (4.7%), some college (2.3%), a bachelor's degree (79.7%), trade/technical/vocational training (1.6%), some graduate school (1.6%), to completed graduate school (10.2%). Most of the parents in the sample had a reported income between $50,000 and $75,000 per year (42.2%).

The parents in the study were asked to report information about their current partnered relationship. Parents described their relationship status as married (87.5%), committed (but not

engaged/married) (9.4%), or engaged to be married (2.3%). One participant chose not to answer. One hundred twenty-five couples reported that they are in a different-gender relationship (97.7%), while three couples in the sample reported they are in a same-gender relationship (2.3%). Most of the parents in the study reported that they (91.4%) and their partners (90.6%) were both employed full-time.

Procedure

Participants were recruited through Amazon's Mechanical Turk (MTurk). MTurk is a crowdsourcing platform that allows for efficient (Berinsky et al., 2012; Mason & Suri, 2012) and valid (see Buhrmester et al., 2011) data collection (Lovett et al., 2018). Through MTurk, individuals are prompted to complete a Human Intelligence Task, or HIT, and they then receive payment for completing the task. Participants meeting inclusion criteria were directed to an online consent form and Qualtrics survey which asked questions about their beliefs, emotions, and experiences as a parent, their perceptions of their relationship with their infant and their romantic or intimate partner, and their infant's behavior. Participation was entirely voluntary, and parents could exit the survey at any time. Following completion of the online consent form and survey, participants were compensated with $4.00. Compensation for completing the study was distributed through MTurk. The study received institutional IRB approval.

Initially, the survey received 220 responses. Data cleaning involved multiple steps including examining duplicate responses, cases identified as potential bots by Qualtrics, data for participants who failed one or more of the attention checks in the survey, and data with evidence of uniform responding. After cleaning the data and filtering out these responses, the final analytic sample included 128 valid cases.

Instruments

Parental Burnout Assessment (PBA)

Parents' feelings of parental burnout were assessed using a total sum score on the Parental Burnout Assessment (PBA; Roskam et al., 2018). The PBA was developed and validated by Roskam et al. as an open-access alternative to the Parental Burnout Inventory (PBI; Roskam et al., 2017), a scale of parental burnout adapted from a corresponding measure of job burnout, the Maslach Burnout Inventory (MBI). Participants used a 7-point Likert scale (0 = *never* to 6 = *every day*) to respond to each of 23 items on the PBA. Sample items include, "When I get up in the morning and have to face another day with my child, I feel exhausted before I've even started," and "I'm in survival mode in my role as a parent." The PBA shows good convergent validity with the PBI (Roskam et al., 2018). This measure shows high internal consistency in this sample (Cronbach's $\alpha = 0.97$).

Couple Satisfaction Index (CSI-16)

To assess relationship satisfaction, parents completed the Couple Satisfaction Index, a 16-item measure designed to measure one's overall happiness, enjoyment, and degree of satisfaction in their relationship (CSI; Funk & Rogge, 2007). Some items measure relationship conflict (e.g., "In general, how often do you think that things between you and your partner are going well?"), while others target one's general feelings towards their relationship (e.g., "How rewarding is your relationship with your partner?"). Participants rate the degree to which they agree with each statement on a 6-point Likert scale (0 = *never/not true at all* to 5 = *all the time/completely true*). The first question of the CSI measures one's overall degree of happiness within the relationship on a 7-point Likert scale (0 = *extremely unhappy* to 6 = *perfect*). Scoring

is kept continuous across all items, including the first question which is measured on a different scale. This measure evidenced high internal consistency in this sample (Cronbach's $\alpha = 0.88$).

Infant Behavior Questionnaire – Revised Very Short Form (IBQ-R Very Short)

Parents completed the Negative Affect subscale of the Infant Behavior Questionnaire – Revised Very Short Form to assess infant negative emotionality (IBQ-R Very Short; Putnam et al., 2014). This subscale has 12 items. Participants rated how often they observed their infant doing each behavior on a 7-point Likert scale (1 = *never* to 7 *always*). Parents could select *NA* if the described behavior does not apply to their child. Sample items include, "When introduced to an unfamiliar adult, how often did the baby cling to a parent?" and "After sleeping, how often did the baby cry if someone doesn't come within a few minutes?" This measure shows high internal consistency in this sample (Cronbach's $\alpha = 0.92$).

Mindful Self-Care Scale – Brief (MSCS-Brief)

Parents completed the Mindful Self-Care Scale – Brief (MSCS-Brief) to assess the frequency of their self-care practices within the past seven days (Cook-Cotone & Guyker, 2018). Participants rated the frequency of their behavior on a 5-point Likert scale (1 = *never or 0 days* to 5 = *regularly or 6 to 7 days*). The total MSCS-Brief scale includes 24 items to address the frequency of mindful relaxation behavior (4 items), physical care (5 items), self-compassion and purpose (4 items), supportive relationships (4 items), supportive structure (4 items), and mindful awareness (3 items). Sample items include, "I did something to relax (e.g., drew, played instrument, wrote creatively, sang, organized)," and "I exercised at least 30 to 60 minutes." The MSCS-Brief shows good internal consistency overall (Cronbach's $\alpha = 0.89$). (Cook-Cotone & Guyker, 2018). In the current sample, a total composite score on the measure was used to

measure parents' engagement in mindful self-care practices and evidenced high internal consistency (Cronbach's $\alpha = 0.82$).

Analytic Plan

The present study aimed to examine the direct and indirect associations between parental burnout, parents' reports of their self-care practices, parents' perceptions of infant temperament, and parents' reports of couple satisfaction. The preliminary analyses and exploratory models for this project were conducted using SPSS version 27 (IBM Corp., 2020), while the final analytic path model was fit using Mplus version 8.4 (Muthén & Muthén, 2019).

After cleaning and filtering the data, composite scores were computed for all of the main variables (i.e., PBA, IBQ-R, CSI-16, and MSCS-Brief). Missing data were addressed using mean replacement for the PBA and CSI-16 before sum scores were calculated. Scores were averaged to create composites for the IBQ-R and MSCS-Brief. Descriptive statistics were then calculated, including measures of central tendency, standard deviations, and skewness statistics to assess the qualities of the dataset. Next, histograms were created to assess the distributional properties of the data. Pearson product-moment correlations were computed to assess the associations between all variables in the study. Lastly, parent gender, infant sex, and infant age were examined to determine if there were any differences in the various associations between parental burnout and other factors based on demographic characteristics.

To test the hypotheses, three sets of analyses were conducted. The first set tested the proposed moderation effects of parent self-care and couple relationship satisfaction on the association between infant negative emotionality and parental burnout. In this model (i.e., Model 1) parental burnout was regressed onto parent self-care (**RQ1**), parents' perceptions of infant negative emotionality (**RQ2**), and couple relationship satisfaction (**RQ3**). Then, parental burnout

was regressed onto two-way interactions between parents' perceptions of infant negative emotionality and parent self-care (**RQ4**), parents' perceptions of infant negative emotionality and relationship satisfaction (**RQ6**), and a three-way interaction between parents' perceptions of infant negative emotionality, relationship satisfaction, and self-care. All continuous predictor variables were mean-centered prior to regression analyses.

The second set of analyses tested the proposed moderation effect of parent self-care on the association between couple relationships satisfaction and parental burnout. In this model (i.e., Model 2), parental burnout was regressed onto couple relationship satisfaction and the interaction between couple relationship satisfaction and parent self-care (**RQ5**). All continuous predictor variables were mean-centered prior to regression analyses.

The final set of analyses tested the proposed indirect effects of infant negative emotionality on parent burnout through parent self-care and couple relationship satisfaction, and the indirect effect of couple relationship satisfaction on parent burnout through parent self-care using a path analysis (i.e., Model 3) with bootstrapping and maximum likelihood imputation. Model fit was evaluated using a chi-square test of model fit, as well as other fit statistics to examine how the model fit compared to a baseline model (CFI $\geq$ .95; Xia & Yang, 2018) a perfect model for the data (RMSEA < .08; Schreiber et al., 2006; Xia & Yang, 2018), and the absolute fit of the model (SRMR < .08; Kenny, 2020; Schreiber et al., 2006). However, it should be noted that these fit indices are highly sensitive to sample size and may not be accurate for sample sizes of less than 200 (Kenny, 2020; Kenny et al., 2015).

Specifically, this analysis tested the direct effects by regressing parent burnout onto parent self-care (**RQ1**), infant negative emotionality (**RQ2**), and couple relationship satisfaction (**RQ3**). The main effects were tested by regressing parent self-care onto infant negative

emotionality and couple relationship satisfaction. Lastly, the model tested the indirect effects of parents' perceptions of infant negative emotionality on parental burnout through parent self-care (**RQ4**) and couple relationship satisfaction (**RQ6**). The proposed indirect effect of couple relationship satisfaction on parental burnout through parent self-care was not tested as this path did not meet the assumptions for mediation.

Chapter 4: Results

Preliminary Analyses

Table 1 shows a summary of descriptive statistics. The scores on the PBA (M = 60.11, SD = 34.29, Skew = -.44) had small, negative skew, and the CSI scales (M = 54.32, SD = 11.60, Skew = -.78) had moderate, negative skew. However, since the PBA is an indicator of mental health, it is expected to present an asymmetric distribution (Manrique-Millones et al., 2022; Roskam et al., 2018). Additionally, because the skewness and kurtosis statistics of the PBA and CSI are all between -2 and +2, they are considered within an acceptable range to assume a normal distribution (George & Mallery, 2010). Therefore, no transformations on the variables were conducted prior to regression analyses. The IBQ-R Negative Affect subscale scores (M = 4.19, SD = 1.23, Skew = -.16) and MSCS-Brief scores (M = 3.23, SD = .48, Skew = -.12) appear to be normally distributed. The histograms suggest a normal distribution, and the mean and median values are similar. Independent-samples t-tests revealed there were no significant differences between mothers and fathers on any of the variables being tested (all ps > .10), nor were there any significant differences based on infant gender or infant age (all ps > .10). Therefore, analyses were conducted for the whole sample.

Pearson product-moment correlation coefficients were computed to assess the relationships between all variables in the study. Parents' perceptions of infant negative emotionality were significantly positively correlated with their scores on the PBA (r = .74, p < .001) and MSCS-Brief (r = .44, p < .001). A scatterplot showing the relationship between the PBA and IBQ-R scores shows a strong, positive, linear relationship. Parents' frequency of engagement in self-care was also significantly positively correlated with their scores on the PBA (r = .37, p < .001) and their scores on the CSI-16 (r = .38, p < .001).

Primary Analyses

The first model (all statistics presented in Figure 1), testing moderation in answer to research questions 4 and 6, accounted for 75% of the variance in parental burnout when including infant negative emotionality, parent self-care, couple relationship satisfaction, and their interactive effects in the model. However, analyses indicated that neither parental self-care, b = .37, p = .93, nor couple relationship satisfaction, b = -.03, p = .87, moderated the association between infant negative emotion and parental burnout. Likewise, the three-way interaction between parents' perceptions of infant negative emotionality, parents' engagement in self-care practices, and relationship satisfaction was not associated with parental burnout, b = .10, p = .75. Since research questions 4 and 6 were exploratory, and there was no significant moderation, this model was not considered as the final analytic model.

The second model (all statistics presented in Figure 2), testing moderation in answer to research question 5, accounted for 44% of the variance in parental burnout when including both couple relationship satisfaction and parent self-care in the model. However, because there was not a significant interactive effect of couple relationship satisfaction and parent self-care on parental burnout, b = -.91, p = .11, and research question 5 was exploratory, this model was also not considered as the final analytic model.

The third model (all statistics presented in Figure 3), selected as the final analytic model, testing the direct, main, and indirect effects in answer to research questions 1-6, showed marginal fit for the data, $\chi^2(1) = 20.94$, $p < .001$, CFI = .87, RMSEA = .40, SRMR = .10. This model may have been underpowered due to the small sample size, resulting in a poorer model fit (Kenny, 2020; Kenny et al., 2015). The tested model accounted for 57% of the variance on parental burnout scores. Consistent with expectations, parents who perceived their infant's

temperament as more negative reported higher burnout scores than parents who perceived their infant's temperament as less negative (i.e., Hypothesis 2; path c'), $b = 19.46$, $p < .001$. Parents who perceived their infant's temperament as more negative also reported engaging in more frequent self-care practices (i.e., Research Question 4; path a_1), $b = .16$, $p < .001$. However, parents who reported engaging in more frequent self-care practices did not report lower burnout scores compared to parents who reported engaging in less frequent self-care practices (i.e., Hypothesis 1; path b_1), $b = 8.66$, $p = .14$, nor was there an indirect effect of infant negative emotionality on burnout scores through parents' engagement in self-care practices (i.e., Research Question 4), $b = 1.42$, $p = .17$.

The direct effect of infant negative emotionality and parental burnout was also not explained by couple relationship satisfaction. There was no significant relationship between parents' reports of infant negative emotionality and couple relationship satisfaction (i.e., Research Question 6; path a_2), $b = .70$, $p = .38$, and the association between higher relationship satisfaction and parental burnout (i.e., Hypothesis 3; path b_2) was only marginally significant, $b = -.45$, $p = .07$. The indirect effect of parents' perceptions of infant negative emotionality on burnout scores through couple relationship satisfaction was not significant (i.e., Research Question 6), $b = -.31$, $p = .43$.

Chapter 5: Discussion

While the research surrounding parental burnout is still emerging, it is clear that this phenomenon has been and continues to be a real and challenging experience for many parents. For example, in a recent survey of working parents in the U.S., 66% of the sample reported feeling burnt out with their role as a parent (Gawlik & Melnyk, 2022). Therefore, it is critical that family scientists and clinicians understand how and why parents experience burnout and are aware of how to assess and reduce parents' risk of experiencing burnout. The primary goal of the current study was to explore associations between parent engagement in self-care, parents' perceptions of infant temperament, couple relationship satisfaction, and parental burnout. Although previous studies have examined other sociodemographic correlates of parental burnout (Mikolajczak, Raes, et al., 2018), this study is among the first to survey parents of infants, a group which may experience unique stress due to the developmental transitions brought on by this stage of parenthood (Ryan & Padilla, 2019). The findings of this study address a gap in the literature by providing evidence of a strong association between parents' perceptions of infant negative emotionality and their experiences of burnout. Further, the results highlight significant relations between parents' perceptions of higher infant negative emotionality and their engagement in more self-care, as well as a potential connection between increased satisfaction with one's romantic relationship and decreased experiences of burnout.

Infant Negative Emotionality and Parental Burnout

A key finding from this study is the strong, positive association between parents' perceptions of infant temperament and their reports of burnout. Results revealed that parents in the sample who perceived their infant as more difficult or fussy reported higher burnout scores than parents who perceived their infant as less difficult, with parents' burnout scores increasing

by 19.46 points for every one-point increase in their perceptions of infant negative emotionality. This finding points to the significant role that parents' perceptions of their infants may play in understanding parental burnout. Further, these results are consistent with previous evidence of a link between child characteristics and parental burnout (Le Vigouroux & Scola, 2018; Le Vigouroux et al., 2022) and address a need stated in past studies to explore the relationship between very young children's dispositional factors and burnout (Le Vigouroux & Scola, 2018). Given the evidence which suggests that parenting an infant is a stressful task in and of itself (Prino et al., 2016; Ryan & Padilla, 2019), results from the present study suggest that parents may benefit from understanding how their perceptions of their infants may relate to burnout. However, it is also possible that parents who experience higher burnout may perceive their infants as fussier and more difficult. Longitudinal examinations of the interplay between parents' perceptions of infant temperament and burnout are clearly necessary to better understand the nature of this relationship.

Parent Self-Care and Parental Burnout

Although parents' frequency of engagement in self-care practices was positively correlated with parental burnout, parent self-care did not predict parental burnout in the final analytic model. This result differed from expectations, particularly in light of previous research, which has suggested that Cognitive Behavioral Therapy (CBT) or mindfulness-based interventions may effectively reduce stress and other types of burnout for parents (Anclair et al., 2017). Interestingly, however, results of the final model indicate that parents who perceived their infants as more difficult reported engaging in more frequent self-care. This result suggests that parents of more difficult infants may be aware of the stress they feel when their infant is difficult to manage or soothe, and they may be acting to reduce this stress accordingly via engagement in

self-care. However, even when parents are aware of and attending to their needs, doing so is not necessarily reducing their feelings of burnout. It may be the case that for parents who are already feeling stressed out, engaging in frequent meditation, exercise, relaxation, and other forms of self-care is not enough to reduce burnout significantly. While individual self-care is a vital component of personal well-being (Cook-Cottone, 2015), positive coparenting and external social support may be more important for understanding parental burnout, as suggested in Mikolajczak and Roskam's (2018) BR^2 model and other recent literature (Favez et al., 2022).

Lastly, although increased frequency of engagement in self-care was not a statistical predictor of parental burnout in the tested model, the positive bivariate correlation between the two variables points to the need to understand possible longitudinal and cross-lag associations in this relationship. For example, what factors underly change or stability in parents' reports of self-care and burnout over time? Furthermore, how does self-care at time 1 relate to burnout at time 2, which in turn, relates to subsequent self-care at time 3?

Couple Relationship Satisfaction and Parental Burnout

The association between parents' relationship satisfaction and parental burnout approached significance in the final model, indicating the possibility that parents who feel more satisfied in their romantic relationships may experience less burnout. Perhaps relationship satisfaction did not have a stronger association with burnout because other factors which may be more important were not accounted for in the current study, such as social support or partner involvement in parenting. Although more research is needed to understand the relation between these factors, the present findings may reflect a reciprocal association between a person's experience in a romantic relationship and their experience as a parent, such that satisfying

relationships may be a source of stress relief while unsatisfying relationships may exacerbate existing stress (Kwok et al., 2015; Mikolajczak & Roskam, 2018; Robinson & Neece, 2015).

Additionally, while parents experiencing burnout may feel as though they have used up all of their emotional resources on their children, a loving and satisfying romantic relationship with one's partner can replenish a person's cache of emotional resources (Easterbrooks et al., 1994; Engfer, 1988; Lindström et al., 2011; Mikolajczak, Raes, et al., 2018). The couple relationship, in turn, may help parents to feel less burnt out and more emotionally available for their children. Therefore, although the relationship between couple satisfaction and parental burnout was only marginally significant in the current study, decades of research highlighting the impact of marital and couple satisfaction on parenting (Erel & Burman 1995; Krishnakumar & Buehler 2000) and emerging research suggesting a link between couple dissatisfaction and parental burnout (Prandstetter et al., 2022) indicate that this construct may warrant further investigation. Including observations of couple interactions in future research may also be a valuable next step.

Limitations and Future Directions

Although the present study presented an opportunity to address a gap in the parental burnout literature, it does have a few notable limitations. First, because this research inquiry was specifically focused on understanding how satisfaction or dissatisfaction in the couple relationship relates to parental burnout, the sample was limited to parents in committed relationships who were coparenting their infants with their romantic partners. Therefore, this study does not highlight experiences of burnout in other types of family structures, such as single-parent homes. Single-parent households may be a particularly interesting group to study in relation to parental burnout due to the additional social, emotional, and financial burdens placed

on single parents (Lipman et al., 1997). Second, because only individual participants were recruited for this study, rather than couples, parents' individual and shared perceptions of infant temperament could not be compared in relation to parental burnout. Previous research has indicated that evaluating unique and shared perceptions in family systems may be key to understanding aspects of family functioning (Broderick, 1993; Dyer et al., 2014).

A third limitation is that this study captured infant negative emotionality through the lens of parents' reports of their infants' emotions and behaviors. Other methods, such as direct observation of infant behavior, (e.g., Lab-TAB; Goldsmith & Rothbart, 1996) could provide additional insight into the relationship between infant temperament and parental burnout. However, how parents perceive their infants' temperament is arguably more important in determining parental burnout risk than how outside observers perceive their infants, particularly due to the potential impact of parent expectations and parent perception of negative intentionality on stress and burnout (Arikan & Kumru, 2021; Arikan et al., 2019; Feldman, 2006; Feldman & Reznick, 1996; Flykt et al., 2014; Ghera et al., 2006). In other words, if parents believe that their infants are intentionally crying or fussing to annoy them (Arikan & Kumru, 2021), or if they expect their babies to be easily soothed and find that they are not (Flykt et al., 2014; Ghera et al., 2006), these expectations and perceptions could increase feelings of stress and frustration for parents, thus increasing their experiences of burnout (Mikolajczak & Roskam, 2018).

Fourth, this study does not account for a few key factors which may help to explain additional variation in parental burnout. In particular, the tested model does not account for parental stress. Parental burnout is a stress-related mental health condition (Mikolajczak & Roskam, 2018; Roskam et al., 2017), so understanding parents' stress levels could help to explain how stress interacts with other factors to predict burnout. For example, if parents are

especially stressed out or overwhelmed, they may be at greater risk of developing burnout, regardless of their attempts to practice self-care. As Mikolajczak and Roskam (2018) posited, parental burnout is simply an imbalance between parents' risks and resources, so too much stress may be the risk factor that tips the scale towards burnout. Additionally, previous literature has found support for a link between trying to be a perfect parent and an increased risk of developing burnout (Kawamoto et al., 2018), but the current study did not examine parent perfectionism. This construct, too, may have implications for the relationship between parent engagement in self-care and burnout. If parents with perfectionistic tendencies are trying to have the perfect diet, exercise routine, or sleep schedule to prove to themselves or others that they can do it all, their efforts may be depleting their emotional, mental, and physical resources rather than helping them recharge (Sorkkila & Aunola, 2020). In other words, self-care, though often performative, would not be expected to have an impact on burnout unless it is truly restorative.

Finally, while not measured in the present study, other constructs may be important for understanding burnout from a research and clinical perspective including parental mental health (Pesonen et al., 2004; Priel & Besser, 2000) and adult attachment representations (Pesonen et al., 2003, 2004; Priel & Besser, 2000). For example, researchers and clinicians should consider the role of parent mental health when understanding how parents view their infants' emotionality, as there is strong evidence supporting the association between parent depressive and anxiety symptoms and perceptions of infants as negatively reactive (Pesonen et al., 2004; Priel & Besser, 2000). Parents who are experiencing pre-existing mental health difficulties or mothers who suffer from postpartum depression or anxiety may benefit from early intervention targeting their perceptual processing of infant behavior (Pesonen et al., 2004).

In addition, although the current study did not find strong evidence of an association between increased couple satisfaction and lower parental burnout, studying the couple relationship may still have utility due to the influence of adult attachment schemas on parents' perceptions of temperament. Prior research has demonstrated that parents with a more insecure attachment style in their romantic relationships are more likely to perceive their infants' behavior as negative compared to parents with a more secure attachment style (Pesonen et al., 2003; Pesonen et al., 2004; Priel & Besser, 2000). Therefore, future research and interventions which target attachment in the couple relationship may indirectly impact parents' perceptions of infant temperament and, subsequently, reduce their risk of parental burnout. Indeed, previous research has highlighted the benefits of attachment-based couple therapy for future parent and child outcomes, particularly when integrated with an intergenerational perspective on attachment (Seedall & Wampler, 2013; Wampler et al., 2003).

Clinical Implications

One goal of this research study was to identify potential intervention targets to help clinicians working with parents and families reduce parents' experiences of parental burnout. Based on the evidence provided in this study that parents' perceptions of infant temperament have a highly relevant connection to parental burnout, it follows that clinicians can work with parents to explore and process these perceptions. In their paper examining sociodemographic correlates of parental burnout, Mikolajczak et al. (2018) note that the maneuverability of clinicians is more limited if burnout is related to child characteristics. Despite this assertion, current knowledge of the links between parent mental health, adult attachment representations, and parents' perceptions of infant temperament (Pesonen et al., 2004; Priel & Besser, 2000) would suggest that there is ample room for clinical intervention in this area.

Further, parents may benefit from simply having a space to discuss and process the difficulties they are experiencing with their children (Elliott et al., 2013). Research suggests that psychotherapy may help to alleviate parental stress and can have positive, long-term impacts on parent mental health, infant mental health, and parent-infant attachment (Fonagy et al., 2016; Lieberman & Pawl, 1993). Parents may experience reduced confidence in their parenting abilities when they perceive their infants as more difficult (Fulton et al., 2012), and interventions that teach parents self-regulation strategies and increase their sense of parenting self-efficacy may positively impact parental well-being and parent-infant relationships (Anclair et al., 2017; Gilkerson et al., 2020). Finally, clinicians may support parents by empathizing with their perceptions of their infants' temperament while empowering them to view themselves as capable and their infants' behavior as manageable (Gilkerson et al., 2020).

Conclusion

In conclusion, this study adds much-needed information to the growing parental burnout literature about the experiences of parents of infants, highlighting that parents' perceptions of infant temperament are significantly associated with their risk of burnout. By examining parental burnout through the lens of individual, relational, and contextual factors, this research expands understanding of what may co-occur with caregivers' sense of overwhelming exhaustion with the parenting role. Future research examining parental burnout and other relevant factors from a more systemic approach may continue to advance knowledge of this construct.

Table 1

Descriptive Statistics and Bivariate Correlations for Parents' Scores on the PBA, IBQ-R, CSI-16, and MSCS-Brief

Variable	Mean	SD	Median	Minimum	Maximum	1	2	3	4
1. MSCS-Brief	3.23	.46	3.25	1.67	4.25	-	-	-	-
2. CSI-16	54.32	11.60	56.00	5.00	75.00	.38***	-	-	-
3. IBQ-R	4.18	1.23	4.25	1.45	6.33	.44***	.07	-	-
4. PBA	60.11	34.29	69.00	0.00	118.00	.37***	-.06	.74***	-

Note. $^{***}p < .001$

Note. MSCS-Brief = Mindful Self-Care Scale, CSI-16 = Couple Satisfaction Index, IBQ-R = Negative Affect Subscale of Infant Behavior Questionnaire-Revised, PBA = Parental Burnout Assessment

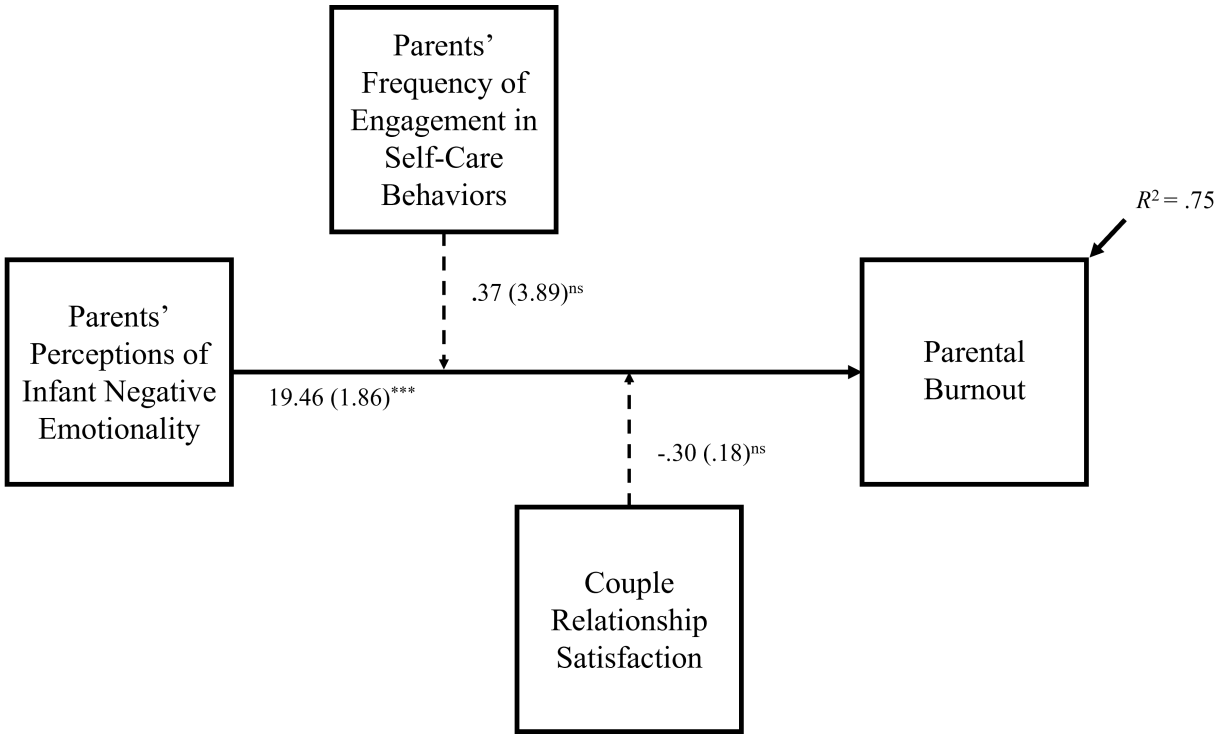

Figure 1. Exploratory moderation model regressing parental burnout onto parents' perceptions of infant negative emotionality, parent self-care, couple relationship satisfaction, the emotionality x self-care interaction, the emotionality x relationship satisfaction interaction, and a three-way interaction between predictor and moderators. Significant associations are indicated by a solid line, and non-significant associations are indicated by a dashed line.

Note. $^{***}p < .001$, $^{ns}p > .05$

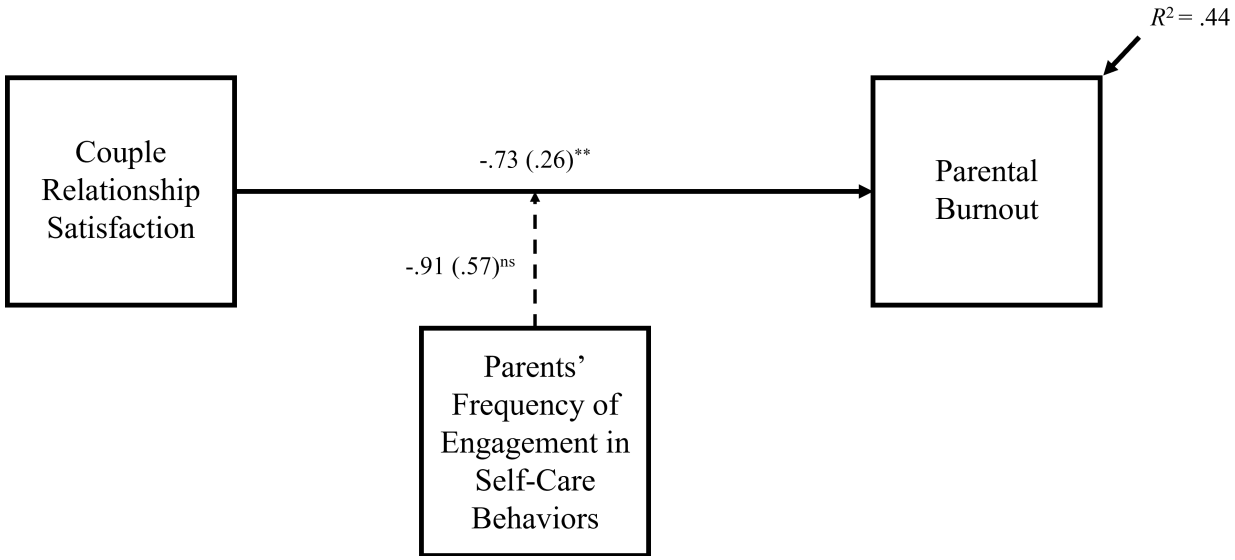

Figure 2. Exploratory moderation model regressing parental burnout onto couple relationship satisfaction, parent self-care, and a two-way interaction between predictor and moderator. Significant associations are indicated by a solid line, and non-significant associations are indicated by a dashed line.

Note. $^{**}p < .01$, $^{ns}p > .05$

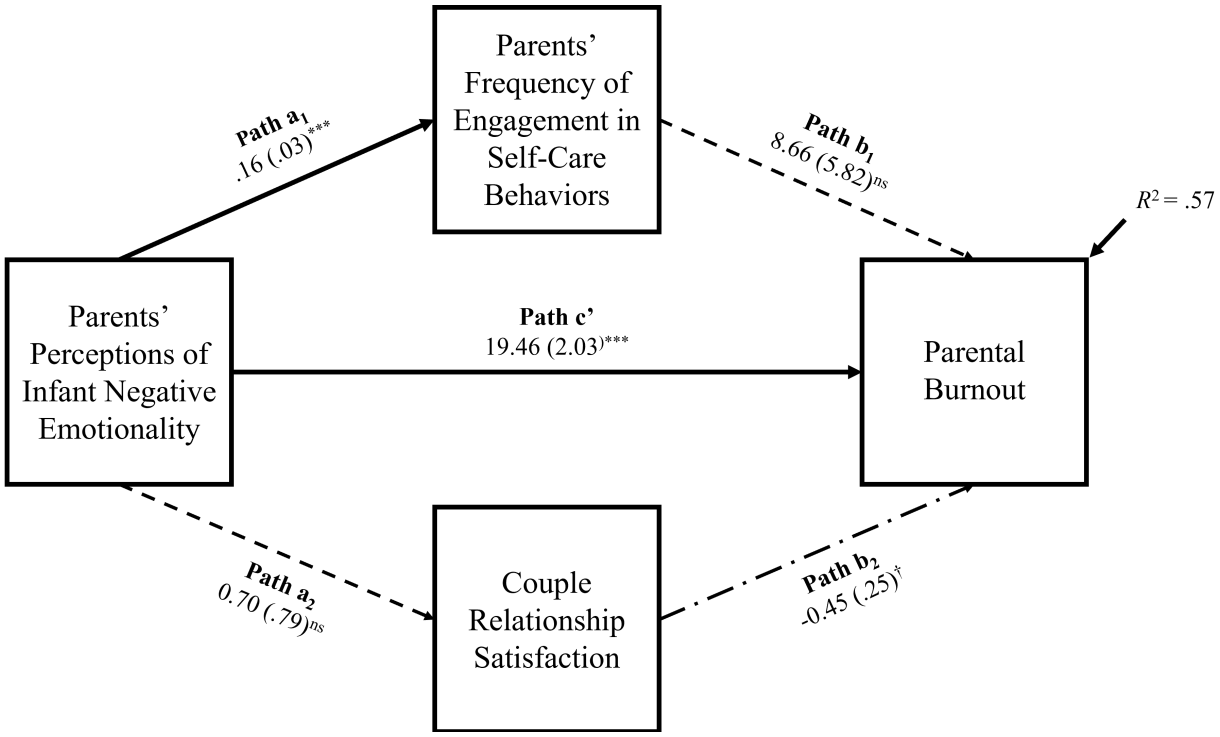

Figure 3. Final analytic path model testing for direct and indirect associations. Significant associations are indicated by a solid line, marginally significant paths are indicated by a dot-and-dash line, and non-significant associations are indicated by a dashed line.

Note. $^{***}p < .001$, $^{\dagger}p < .07$, $^{ns}p > .07$

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