Prospectus

Association of Mindfulness Class with Mindfulness, Parental Stress, and Childhood Behavioral Reactivity

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Doctor of Philosophy in Psychology, General Psychology

Walden University
Prospectus: Association of Mindfulness Class with Mindfulness, Parental Stress, and Childhood Behavioral Reactivity

Problem Statement

Parents of elementary aged children are certainly not without daily stressful experiences, which can negatively impact the quality of parent-child interactions. Parental stress management and adaptability are positively linked to family wellness, changes in childhood behavior, and strongly influences parents’ belief in their own capability to fulfill their parental role (Baker, Seltzer, & Greenberg, 2011; Barker, Hartley, Floyd, Greenberg, & Orsmond, 2011). The affective quality of the parent-child relationship and parent reactivity are both linked with child outcomes such as adjustment and disclosure (Lippold, Duncan, Douglas, Nix, & Greenberg, 2015). Mindfulness meditation practice has been shown to support positive outcomes in parent-child wellness including decreased emotional reactivity, rumination, and stress as well as increased empathy, availability, mindful parenting practices, and awareness of parental needs (Bailie, Kuyken, & Sonnenberg, 2011; Shapiro, Oman, Thoresen, Plante, & Flinders, 2008). Meditative practice has been correlated with many positive health outcomes including reduced anxiety and stress (Boellinghau, Jones, & Hutton, 2013; Pace et al., 2009; Shapiro et al., 2008) along with enhanced social connection and compassion (Chiesa & Serretti, 2009; Holis-Walker & Colisimo, 2010). Mindful parenting classes differ from skill-based parenting classes because they include the use of contemplative practices (Townshend, 2016). Leading mindfulness researchers Duncan, Coatsworth, and Greenberg (2009) proposed a model of mindful parenting identifying five dimensions involved in mindful parenting: listening, nonjudgmental acceptance, emotional awareness, self-regulation, and compassion. They suggested that the quality of parent-
child relationship is enhanced by improving these dimensions of mindful parenting (Duncan et al., 2009).

Many studies in the area of mindfulness and parenting include narrow clinical populations (Bögels, Hellemans, van Deursen, Römer, & van der Meulen, 2013; Parent, McKee, Rough, & Forehand, 2016), fail to include both parent and youth outcomes (Harnett & Dawe, 2012), or only explore mindfulness as an addition to skill-based parenting classes rather than as an independent class for parents. After completing a meta-analysis of mindfulness studies involving children and families, Harnett and Dawe (2012) suggested that future research include exploration of factors outside of, or encompassed by, the broadly defined concept of mindfulness such as parent coping, parent emotion regulation, and impact in the family including childhood behavior or emotional health. Duncan et al. (2009) have focused their research on parents of adolescents, and suggested future researchers extend to other developmental stages. More research is needed to understand what influence a mindful parenting class has on (a) the five dimensions of mindful parenting, (b) perceived parent stress, and (c) childhood behavior reactivity. Research is also needed to explore which of the five dimensions of mindful parenting are most associated with changes in perceived parental stress and childhood behavioral reactivity after completion of a mindful parenting class.

**Purpose**

The first purpose of the proposed study is to explore what influence participation in a mindful parenting class has on each dimension of mindful parenting, perceived parental stress, and childhood behavioral reactivity. A second purpose is to examine which dimensions of mindful parenting, as proposed by leading mindful parenting researchers Duncan et al. (2009), are most associated with decreased parental stress and decreased child behavioral reactivity after
a mindfulness parenting class. The proposed study will fill a gap in the literature by exploring mindful parenting as an independent class, not as an addition to an existing skill-based parenting class. The proposed study is also unique in that it will focus on parents of elementary aged children, which is a developmental stage that has not been represented in mindfulness research to date.

**Significance**

Current research findings show that mindfulness practice is associated with positive health outcomes such as reduced anxiety and stress reduction; however, further exploration is needed to explore how mindfulness practice may benefit various subgroups of the population (Boellinghaus et al., 2013; Pace et al., 2009; Shapiro et al., 2008). Parents of elementary-aged children have been selected for this study because the child-rearing stage is known to be a demanding, and at times, a stressful period in a parent’s life. Positive wellness and parenting strategies are needed to support healthy parent-child relationships and promote the ability of parents to cope with the stress of child rearing. It is important to look for new strategies that are effective and easy to use in the everyday life of parents. The efficacy of traditional positive parenting programs, which teach parenting strategies rather than parent coping or self-regulation, are often limited by parents’ challenges in consistent application of their new skills due to emotional reactivity felt during daily parent-child interactions (Duncan et al., 2009).

Practitioners supporting family wellness are cautioned against wasting resources by blindly applying mindfulness intervention to populations without understanding if mindfulness intervention is appropriate to the specific population and for the presenting issue a client may bring forward (Bogels, Lehtonen, & Restifo, 2010). Understanding how mindfulness practice
effects change within the family unit will help scholar-practitioners to make informed intervention choices (Harnett & Dawe, 2012).

**Background**

Mindfulness is a term that is quickly losing meaning due to the varied way it has been used in both scientific and popular literature. There are many different types of mindfulness and meditation that have been studied through a vast number of associated variables and outcome measures. Koopman-Holm, Sze, Ochs, and Tsai (2013) explored the influence of Buddhist-inspired meditation on the value individuals place on emotional calmness as compared to the actual influence on emotional reactivity. Birx (2012) showed that meditative practice has different effects on health outcomes depending on whether focus was placed on individual experience or non-duality. Farb et al. (2007) compared narrative focused mindfulness training to experientially focused mindfulness in terms of the process itself and its influence on neural patterning and modes of self-referencing. Schoormans and Nykloek (2011) explored the difference between mindfulness meditation and transcendental meditation on self-reported measures of mindfulness and psychological well-being. Shapiro et al. (2008) compared mindfulness-based stress reduction to concentration-based meditation in terms of the influence each had on mindfulness, awareness, rumination, forgiveness, and perceived stress.

Studies are needed to determine if mindful parenting classes independent of skill-based parenting classes will effect positive change on intra- and inter-personal dynamics of parenting such as parent stress, parent mindfulness, and childhood behavior reactivity. Research is also needed to evaluate which elements of mindful parenting as depicted by Duncan et al.’s (2009) mindful parenting model are associated with positive changes within the family unit such as
decreased parental stress or decreased child behavior reactivity (Townshend, 2016).

**The Impact of Mindfulness Mediation on Health**

Research results of mindfulness practice and health outcomes have been positive; however, ongoing research is needed to continue building scientific understanding. Hoge et al. (2013) analyzed blood and genomic DNA samples from 15 meditators and 20 control group non-meditators and reported that the relative telomere length of the meditation group was significantly longer. Although the sample size is small, the results from this study demonstrated the possible connection between loving-kindness meditation and biophysical indicators of longevity. Holt-Lunstad, Steffan, Sandberg, and Jensen (2011) demonstrated through regression analysis that a higher level of spiritual connectivity was associated with lower cardiovascular risk independent of age, gender, or church attendance. More importantly, the researchers found that these results were independent of smoking, alcohol use, stress, smoking and depression (Holt-Lunstad et al., 2011). While the physical benefits of spirituality on blood pressure, fasting glucose, and inflammation were also seen, only marginal impact on blood lipids was reported (Holt-Lunstad et al., 2011). The results from this study were useful in that they allowed researchers to make specific identifications of the health benefits of spiritual connectivity. However, the research question itself is vague and leaves open the possibility of incorrect correlation because spiritual connection or spirituality may encompass many variables, including compassion, forgiveness, hope, or purpose. It could certainly be possible that these elements are present in spiritual connection; however, they may also have produced benefits outside of spirituality.

Meditation practice has been linked to positive shifts in physiological and immune response systems (Nyklíček, Mommersteeg, Van Beugen, Ramakers, & Van Boxtel, 2013). Pace
et al. (2009) examined self-report of stress and blood markers of stress response in participants who had undergone a 6 week training class in meditation ($n = 33$) compared to a health discussion control group ($n = 28$). The authors found that meditation group participants reported significantly less stress reactivity. Within the meditation group, increased meditation time was associated with decreased blood plasma levels of interleukin (IL)-6, indicating a reduced stress-induced immune response (Pace et al., 2009). Watford and Stafford (2015) found that participants who received 15 minute mindfulness intervention training showed improved heart rate variability, left brain activation, and self-reported stated of mindfulness compared to control group participants. Nyklíček et al. (2013) found participants randomly assigned to a mindfulness based stress reduction (MBSR) group showed a statistically significant decrease in heart rate, heart rate variability, and blood pressure compared to the control group participants. Mindfulness practice supports reduced physiological reactivity to stress (Pace et al., 2009), which is associated with positive health outcomes in individuals who face persistent environmental stressors (Conway, Rutter, & Brown, 2016).

Social scientists have also explored how meditation practice influences various psychological processes. Fredrickson, Cohn, Coffey, Pek, and Finkel (2008) examined the influence of loving-kindness meditation on psychological and physical resources. One hundred and thirty-nine participants were randomly assigned to begin loving-kindness meditation or a control group. The meditation group reported that over time they increased in positive mood, which lead to increased assessment of personal resources and a decrease in depressive mood (Fredrickson et al., 2008). Although Fredrickson et al. (2008) did not control for variability in meditative practice, they asserted that mind-training may exert effect through improved mood. Hollis-Walker and Colosimo (2011) found that mindfulness practice increased personal
Mindfulness in Parenting

Findings in the field of mindfulness research have many far-reaching claims and applications. Within the realm of parenting, much interest has been shown in understanding whether mindfulness could be beneficial to the parent population, a group which is traditionally considered to be dealing with frequent and repetitive stressors. Mindfulness has been studied in numerous parenting contexts with the general goal of reducing parent stress to improve coping, parental interaction, and childhood outcome. Parent self-reports from those who have received mindfulness training prior to giving birth suggest that a mindfulness intervention reduces stress and improves family relationships (Duncan & Bardacke, 2010). Fathers of children with developmental disabilities who were more mindful were found to have less avoidance and physiological arousal when providing care for their child (MacDonald & Hastings, 2010). The study by MacDonald and Hastings (2010) focused on the benefit of dispositional mindfulness; however, further research is needed to understand if mindfulness classes for parents would produce similar positive health effects, such as decreasing perceived parental stress. It is also important to identify if parental mindfulness is influenced by participation in a mindfulness class for parents. Studies are also needed to investigate whether any differences found after a mindfulness class are associated with improved child and parent outcomes, such as perceived parental stress and childhood behavioral reactivity.

Mindfulness practice may benefit subgroups of parent-child populations uniquely. Mindfulness intervention was examined by van der Oord, Bögels, and Peijnenburg (2012) who studied the efficacy of parent-child mindfulness training as an intervention for children.
diagnosed with attention deficit hyperactivity disorder (ADHD). Twenty-two families received mindfulness based cognitive therapy (MBCT) for the children and mindfulness based stress reduction (MBSR) for parents. Parents and teachers completed questionnaires rating the child’s ADHD and oppositional defiant disorder (ODD) symptoms. Parents also reported on their perception of parenting stress, mindfulness, permissiveness, and parenting over activity (parent symptoms of ADHD) before, immediately after, and eight weeks after treatment (van der Oord et al., 2012). Significant reductions in parent ratings of childhood behavior, parent ADHD symptoms, parent reactivity, and teacher ratings of child’s inattention were found in the mindfulness group compared to the waitlist control group; however, no decrease in behavioral challenges were identified by teachers (van der Oord et al., 2012). Further research is needed to identify which dimensions of mindfulness are associated with childhood behavioral outcomes such as decreased child reactivity or parental response to identify individuals who may be more likely to benefit from a mindfulness class. The results of this study also highlight the importance of using specific populations and well-defined protocol in future research.

Mindfulness training has also been studied within the population of families where a child has been diagnosed with a developmental disability. Benn, Akiva, Arel, and Roser (2012) completed a randomized control group study in which parents and educators (N = 70) of children with special needs were given a 5-week class in mindfulness. Compared to the wait list group, the mindfulness group participants showed significant reductions in anxiety and stress along with an increased sense of personal growth, self-compassion, and mindfulness (Benn et al., 2012). The researchers did not examine if there were any differences in childhood outcomes as a result of the parental changes. Neece (2014) explored the impact of mindfulness-based stress reduction on parental stress, depression, and life satisfaction (N = 46) and whether the differences in
parental stress, depression, and life satisfaction impacted child behavior outcomes for children with developmental disabilities. Compared to a wait list control group, the mindfulness group demonstrated significantly reduced parental stress and depression and decreased parental report of child’s ADHD and behavioral problems (Neece, 2014). Although a medium effect of mindfulness on childhood externalizing behaviors was found, the effect was nonsignificant (Neece, 2014). The results of Neece’s (2014) study demonstrated a relationship between parental stress and childhood behavior and that mindfulness intervention reduced parental stress; however, further investigation is needed to explore which factors of mindfulness within Duncan et al.’s (2009) mindful parenting model are most associated with decreases in parental stress as noted by Neece.

Coatsworth et al. (2015) studied the impact of mindfulness as an addition to the empirically supported Strengthening Families Program: For Parents and Youth 10–14 (SFP), compared to SFP 10-14 alone, or a minimally instructed at-home control group. Mindfulness plus SFP (MSFP) was as effective as SFP in supporting positive changes in parenting, including behavior management, relationship, and mindfulness (Coatsworth et al., 2015). The MSFP participants showed a higher level of sustained positive results at the 1-year follow-up (Coatsworth et al., 2015). Coatsworth et al. (2015) did not compare mindfulness alone to parenting skills strategies, which means that it is unknown if mindfulness training alone could produce equally effective results with this population. Greco, Bayer, and Smith (2011) noted that as the empirical support for mindfulness in parenting builds, there is an increased need to examine the process or mechanism through which mindfulness promotes positive change within the family unit.
Framework

Mindfulness, a technique heavily used in Western mind-body based approaches to wellness, is promoted as a means of accessing the practice of Buddhist philosophy in a way that removes the barrier of spirituality for the purpose of promoting wellbeing (Kabat-Zinn, Lipworth, Burney, 1985). Buddhist tradition promotes meditation with the intent of raising consciousness about the interconnected nature of things in order to decrease people’s false sense of separation from each other and nature (Ekman, Davidson, Ricard, & Wallace, 2005). The ability to hold focus on the present, the world, and nature of life are foundations of meditation that are thought to be interdependent (Hofmann, Grossman, & Hinton, 2011). Each quality of mental balance promotes wellness, insight, and release from suffering. Human development of wellness should be accessible through each of the four elements although it is not yet understood how the form of meditative practice influences the development of each.

Miller’s (1978) living systems theory is a framework for seeing the complex relationships that develop between individuals in repeated contact such as an intimate relationship. Specifically, the theory suggests that biological systems become increasingly organized in relationships (Corning, 2014). In this way, patterns of reactivity and stress reactions develop, and those patterns, which repeat over time, influence the child's developmental trajectory. The neurosequential model (Perry, 2002) emphasizes the sequential unfolding of development through critical phases, in both continuous and discontinuous fashion. Within this model the reactivity and consistency with which caregivers attend to and enrich their children’s lives is influential in brain development. Perry (2002) suggested that interruptions to secure environment and relationship disturb basic neural processes, altering children’s behavior and subsequent development.
Development is understood to occur within context, over time, and in a bidirectional relationship between a child and all facets of experience including, experience, biology, people, and environmental factors (Bjorklund & Ellis, 2014). An evolutionary perspective can be used as a metatheory to help guide the identification of both proximate and remote causes of behavior overarching a developmental systems perspective that highlights the adaptive ontogenesis as a reciprocal process between organism and environment (Bjorklund & Ellis, 2014). Ellis and Boyce (2011) noted that children have distinct autonomic and adrenal context responses to environmental input, and that these differences may reflect an actual difference in some children’s sensitivity to both positive and negative environmental context. It is critically important to consider differences in order to prevent errors in research and intervention strategies that are based on assumptions that all children are impacted by stimulus in the same way. Ellis and Boyce (2011) noted that a significantly higher number of poor health outcomes are found in reactive children and adolescents raised in conflictual contexts. This finding highlights the correlation between environmental stress and childhood outcomes, and the importance of effective parenting strategies.

Duncan et al. (2009) developed an integrated model of mindful parenting in an effort to operationalize the term and identify the interpersonal and intra-personal mechanisms through which mindfulness relates to parenting, development, and parent-child relationships. This model includes attention, acceptance, self-regulation, emotional awareness, and compassion as mechanisms that may affect parent well-being, parenting practices, and multiple youth outcomes. Duncan et al. (2009) focused their research efforts primarily on parent-adolescent relationships recognizing that there is a need to extend the model of mindful parenting to other developmental stages. Furthermore, the recent development of a sound testing measure of these mechanisms has
opened the door for measurement of the model. Townshend (2016) noted the need for researchers to examine the processes of mindfulness, as proposed by Duncan et al. (2009), that promote positive outcomes.

**Research Questions**

I intend to measure the influence of a community mindfulness parenting class on measures of the five dimensions of parental mindfulness, perceived parental stress, and child behavior reactivity. I will also explore which dimensions of parental mindfulness are most associated with changes in perceived parental stress and childhood behavior reactivity.

Research Question 1: To what extent are there differences between the five dimensions of mindful parenting, perceived parental stress, and ratings of childhood behavior reactivity before and after participation in a mindfulness parenting class?

Research Question 2: After participation in a mindful parenting class, which dimensions of mindful parenting are most associated with changes in perceived parental stress and ratings of childhood behavior reactivity?

**Nature of the Study**

This study will explore the influence of participation in a community mindfulness parenting class on dimensions of mindful parenting (listening, nonjudgmental acceptance, emotional awareness, self-regulation, compassion), perceived parental stress, and childhood behavior reactivity. Data collection will occur prior to the class (pre-test), immediately following the class (post-test), and at an eight week follow up. The nature of this study will be a nonexperimental design in which participants’ scores on dimensions of mindful parenting (listening, nonjudgmental acceptance, emotional awareness, self-regulation, compassion), perceived parental stress, and ratings of child behavioral reactivity will be compared before,
immediately after class completion, and at eight weeks post participation. This comparison will allow for exploration of the influence of mindful parenting class on the dependent variables of perceived parental stress, mindful parenting, and childhood behavior reactivity. This study will also explore which dimensions of mindful parenting are most associated with changes in perceived parental stress and childhood behavioral reactivity.

The mindfulness parenting class is offered through a local community agency, the Young Women's Christian Association (YWCA), as a component of their community wellness programs. Participants self-select for the class, and will be invited to participate in the proposed study through written invitation given to them during the class enrollment process. The wellness program includes a multi-week class teaching mindfulness in parenting to reduce parental stress, help manage emotions, and practice being fully present. Class registration is approximately 15-20 participants each session, and each class is taught by a professional experienced in mindful parenting practices. Participants will be given information on the purpose of the study, the estimated time commitment, confidentiality, the voluntary nature of the study, and contact information for myself and the appropriate contact at Walden University.

Possible Types and Sources of Information or Data

Data will be obtained from participants’ scores on subjective measures of mindful parenting, perceived parent stress, and ratings of child behavioral reactivity before, immediately after class participation, and eight weeks after class completion. Self-reports of mindful parenting have been found to match observed scores (Duncan, Coatsworth, Gayles, Geier, & Greenberg, 2015).
**Dimensions of Mindful Parenting**

The five dimensions of mindful parenting will be assessed using the Interpersonal Mindfulness Meditation in Parenting scale (IM-P; Duncan, 2007). The IM-P consists of 31 items rated on a 5-point Likert scale. The IM-P provides a global measure of mindful parenting, along with five subscales that reflect various mechanisms of mindfulness: (a) listening with full attention, (b) present-centered emotional awareness, (c) non-judgment of child’s experience, (d) self-regulation during parenting, and (e) compassion (Duncan et al., 2009). The IM-P has demonstrated internal consistency ($\alpha = .85$) and good internal and discriminatory validity against several general mindfulness measures in American and Dutch populations (De Bruin et al., 2014; Duncan, 2007). De Bruin et al. (2014) reported the IM-P total score was positively correlated with the Freiburg Mindful Inventory (FMI), $r = 0.445$, $p < .001$. Coatsworth, Duncan, Greenberg, and Nix (2010) utilized the IM-P as a measure to detect treatment effects of mindfulness in parenting.

**Perceived Parental Stress**

The Brief Symptom Inventory (BSI) is a self-report Likert-type scale that measures general psychological distress (Meijer, de Vries, & van Bruggen, 2011). The target of the scale is indicators of distress reflected in physiological symptoms associated with stress reactivity. In this study, it will be used to measure perceived parental stress. Prelow, Weaver, Swenson, and Bowman (2005) reported that the Cronbach’s alpha of the BSI is high ($\alpha = 95$). The BSI has demonstrated good internal reliability and conceptual validity for the general population (Schwannauer & Chetwynd, 2007).
Child Behavior Reactivity

The Eyberg Child Behavior Inventory (EBCI; Eyberg & Ross, 1978) consists of 36 items that rate the occurrence and intensity of problem behavior in children as observed by a parent. The EBCI is established as a reliable parental measure of childhood (36 items; α = .93) in studies measuring parental ratings of childhood behavior (Axberg, Hanse, & Broberg, 2008; Sweenie, Mackey, & Streisand, 2014). Hotly and Fox (2012) found the EBCI to have good discriminate validity and demonstrated internal consistency (.92). The EBCI has demonstrated test-retest consistency (.88) and no significant differences between mother and father’s reports on the scales (Axberg et al., 2008). Furthermore, the ECBI is significantly better at discriminating between problem inattention and hyperactivity than the Strength and Difficulties questionnaire, which is a parallel test often used in research studies (Axberg et al., 2008).
References


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