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Parental Stress Coping and Middle-School Students' Grades and Behavioral Conduct

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Abstract

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MPhil, Walden University, 2019

MA, Texas Woman's University, 2006

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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Abstract

According to Bronfenbrenner's ecological systems theory, factors such as parental stress influence family functioning and affect children's adaptive development. This quantitative study was conducted to better understand the association of parental stress coping skills with two dependent measures: the grades and behavioral conduct of middle-school students. Sixty-six parent/guardians completed the Coping Skills Assessment 2nd Revision (COSA R2), an assessment of parental stress coping skills and a brief questionnaire to collect data on their middle-school-aged children's grades and conduct, along with demographic variables of race/ethnicity, age, family income level, number of children in the household, and partner status. No significant difference was found for grades based on COSA R2 scores; however, there was a significant interaction with parental age. When coping skills were low, the children of younger parents had lower average grades compared to older parents. When coping skills were high, the children of younger parents had higher average grades. The demographic covariate of age of guardian explained 13.5% of the variance in grades. While COSA R2 scores were significantly related to parental race, neither COSA R2 nor race of guardian was a significant predictor of conduct. The implications from this study provide evidence that future research is warranted considering factors that may be associated with parental stress, especially with a larger and more diverse participant pool. Thus, this study has implications for positive social change and future studies and adds to the existing body of knowledge regarding parental factors that affect middle school aged children's grades and behavioral conduct.

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Dedication

To my beautiful and strong grandmothers, Bessie Lou Funches and Myrtle Fairley: You are my heroes. Every story you shared with me about your hopes and dreams for an education and the struggles that prevented those hopes and dreams from manifesting inspired me to do what you were not able to do. Earning this degree was not easy, and I wanted to give up several times. Each time I thought of you, and that was all the motivation I needed to keep going. I wish you were here to celebrate this accomplishment with me, but I know that you both are surely smiling down on me from Heaven and beaming with pride.

Acknowledgments

Completing this dissertation was quite the journey, and one that would have been next to impossible to complete on my own. It would be remiss of me to not acknowledge several people who have either assisted me or encouraged me as I worked to overcome obstacles along the way.

First, my spirit impels me to thank God, for only by his grace am I ever able to accomplish anything. Second, I thank my family who consistently believed in me. Third, I thank my friends, who despite the amount of time it has taken since I started this journey, have continuously encouraged me. I also want to thank my dissertation chairperson, Dr. Rhonda Bohs, and my committee member, Dr. Elizabeth Essel, for their patience, guidance, and commitment to my success. Last, but not least, I would like to thank Dr. Richelle Lyon for helping me through my statistical struggles and for her mentorship.

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Chapter 1: Introduction to the Study

Introduction

Researchers have increasingly recognized daily stress as an important risk factor associated with the mental well-being of individuals (Schonfeld et al., 2016). Parental stress is one aspect of parenting that has garnered a substantial amount of attention. Moreover, high levels of parental stress have been linked to high levels of conduct difficulty in children (Broadhead et al., 2009). The potential association between parental stress and the learning and development of a child poses much concern regarding how it might also influence a child's school performance at the middle-school level. This study was performed to determine if the stress coping skills used by parents are associated with middle-school student grades and behavioral conduct. No previous studies have been performed specifically addressing this matter.

Several theories regarding family systems suggest that family functioning contributes significantly to the adaptive and maladaptive development of a child (Guajardo et al., 2009). Parental stress is one among several factors that contribute to family functioning as it relates to the approaches used and the effectiveness of parenting (Guajardo et al., 2009). For example, family functioning, along with other factors, influences how receptive a child will be to explore the types of processes that naturally occur in a learning environment (Stelter & Halberstadt, 2011). O'Malley et al. (2015) uncovered evidence that implies both home and school environments have a direct influence on how a child will perform in school and their potential for long-term success.

Further exploration of parental stress coping skills highlights the relevance of investigating the relationship between factors related to family functioning and the behavioral conduct and academic outcomes of their children. This chapter includes background information explaining the research problem and supporting the purpose and significance of the study, while also addressing the nature of the study and its theoretical foundation. In addition, definitions of relevant terms, the assumptions being made, the scope and delimitations involved in the process, and the limitations are included. The chapter ends with a summary of the topics presented and a brief discussion of the contents that can be found in the next chapter.

Background

Bronfenbrenner's (1979) ecological systems theory implies that family functions play a large role in the development of a child and supports that the way a family functions factors heavily into the adaptive and maladaptive development of children. Bronfenbrenner's theory indicates that factors, such as how a parent copes with stress, impact the approaches and actions employed and the effectiveness of their parenting style (Guajardo et al., 2009). A major hypothesis of Bronfenbrenner's ecological systems theory is that a child's own personal biology is the most prevalent microenvironment that nourishes their development (Harkonen, 2007). Bronfenbrenner surmised that a growing person's environment, circumstances, relationships, and interactions with their parent(s) impact the person's development and how they present and behave in life. Belsky's (1984) conceptual framework on the determinants of parenting and the family stress

model (Conger et al., 2000) both support Bronfenbrenner's ecological systems theory. In addition, both describe the negative impacts of poor or disruptive parenting practices on child development.

Several researchers have explored the dynamics of parenting practices and parental stress as they relate to establishing secure parent–child relationships and how they influence the child's emotional understanding (Caslin et al., 2014; Guajardo et al., 2009; Mesman et al., 2012; Minuchin & Fishman, 1981; Stelter & Halberstadt, 2011). According to Engert et al. (2010), parental care received in early life contributes to stress responsivity displayed into adulthood. Similarly, Hackman et al. (2013) suggested that the impact of early parenting influences how adolescents react to stress. The authors found that lower levels of response from the parent may lead to the down regulation of adolescent responsivity and place them at risk for socioemotional difficulties. Additionally, Schneider et al. (2001) proposed that the security or lack of security resulting from the early child–parent relationship can be observed in the interpersonal relationships of a child across their entire span of life.

Maternal parenting and child social competence also influence each other and have a reciprocal relationship (Barbot et al., 2014; Mantymaa et al., 2012). According to Barbot et al. (2014), negative maternal parenting behaviors, such as hostility, rejection, and neglect, that result from stress-induced depression, anxiety, or physiological problems, are a predictor of externalizing problems in children's behavior. This supports the theory of a reciprocal relationship because, as the Barbot et al. (2014) have

maintained, externalizing problems observed in child behavior can then influence either the warmth or hostility the parent shows toward the child. Parental stress and various other aspects of family functioning also influence children's academic self-regulation (Xia et al., 2015), their school readiness, their perception of the school climate, and how they perform academically over time (O'Malley et al., 2015). According to Mackler et al. (2015), this type of intricate association found between parent and child variables validates the significance of developing interventions directed at reducing parent stress to improve parent–child relationships. A sufficient body of research supports the need for effective parental stress coping skills to mitigate potential negative effects and inadequate responses to learning and behavior that may impede student performance in school.

Problem Statement

Parental stress is one aspect of parenting that has garnered a substantial amount of attention. High levels of parental stress have been linked to high levels of conduct difficulty in children (Broadhead et al., 2009). Xia et al. (2015) suggested that interactions within the family between a child, their parents, and other family members throughout development are among the factors that influence school attachment, academic self-regulation, and academic success. Maguire-Jack and Wang (2016) maintained that high stress levels of parents and caregivers could increase potential for the omission of sufficient care toward children's basic physical, health, safety, and emotional and supervisory needs. The potential association between parental stress and the learning and development of a child poses much concern regarding how it might

influence a child's school performance at the middle-school level. Various researchers have looked at the dynamics of parenting practices and parental stress as they relate to establishing secure parent–child relationships and how they influence the child's emotional understanding (Caslin, et al., 2014; Guajardo et al., 2009; Mesman et al., 2012; Minuchin & Fishman, 1981; Stelter & Halberstadt, 2011). The findings from these studies indicate that parental stress, among other factors, has the potential to influence parenting practices and how a child learns to relate to their parent and socially. Barbot et al. (2014) and Mantymaa et al. (2012) addressed how maternal parenting and child social competence influence each other. The findings from these studies reinforce Okado et al.'s (2014) research indicating that parental stress, along with factors such as demoralization and support of learning opportunities at home, has a significant effect on the school readiness of a child.

These resources, taken together, support the importance of effectively managing parental stress to mitigate potential negative implications on children's learning and behavior performance in school. To date, there are few studies that examine if parental stress coping skills are linked to the school performance and behavioral conduct of middle-school-aged children and whether the use of effective or ineffective parental stress coping skills makes a difference in this relationship. Therefore, further investigation is needed into the possible associations between parental stress coping skills and the grades and conduct of middle-school students.

Purpose of the Study

The purpose of this study was to determine if parental stress coping skills, whether effective or ineffective, are associated with the grades and conduct of students in middle school. According to Stelter and Halberstadt (2011), if parents are less likely to be supportive, especially in stressful situations where their children are displaying negative emotions, the way they respond to their child can affect the establishment of a secure parent–child relationship. The formation of positive parent–child relationships is key in helping children develop positive schemas of their parents, themselves, and others, which ultimately influences how receptive they will be to explore naturally occurring processes in settings such as school (Stelter & Halberstadt, 2011). Additionally, Xia et al. (2015) argued that interactions within the family between a child, their parents, and other family members throughout development eventually influence the child's academic success.

It is also essential to consider the relationship between learning and the context in which it takes place. Cole (2010) suggested that an increased understanding of the polarization between the learner and the context of learning may lead to the production of knowledge that can be applied to explanations regarding one's life circumstances and demeanor in various settings. An evaluation of how parental stress coping skills affect the grades and behavioral conduct of middle-school students leads to a more comprehensive understanding of the potential effect that the use of ineffective parental stress coping skills can have on the school performance and behavior of students during their adolescent years.

Comparisons have also been made between regarding child development and the formation of psychological schemas. According to Stelter and Halberstadt (2011), family functioning and other factors related to the development of negative or positive schemas influence how receptive a child will be to explore the types of processes that naturally occur in a learning environment. Therefore, helping parents to understand the potential effects their use of effective verses ineffective stress coping skills may have on their child could lead to efforts that improve use of effective stress coping techniques for parents, which may inspire better school performance, particularly for children at the middle-school level. In this quantitative study, I employed a correlational approach to analyze the extent to which parental stress coping skills are related to how middle-school students perform in school. I deemed it most appropriate to use a correlational approach for this study because of the assumptions that were proposed regarding the potential negative effects of the independent variable (parental stress coping skills) on the dependent variables (academic grades and behavioral conduct). This approach also allowed for exploration of potential covariate influencers, such as participant income level, family role, age, marital status, race/ethnicity, and number of children, along with child's age, gender, and race/ethnicity.

Research Questions and Hypotheses

Previous researchers have found that parental stress can be responsible for consequent and lasting effects on childhood outcomes. The existing literature on parent stress and the influence it can have on child development led to questions about the

effects parental stress might have on the grades and behavioral conduct of students in middle school if parents use ineffective coping skills. To examine if ineffective parental coping strategies have a negative effect on the grades and behavioral conduct of middle-school students, the following research questions and hypotheses were derived. For all research questions, the dependent variables (DVs) were children's grades or behavioral conduct, measured on an interval scale as a continuous number. For RQ1, the independent variable (IV) was ineffective parental coping strategy, operationalized as two categories: high (Coping Skills Assessment 2nd Revision [COSA R2] scores 55 and above) or low scores below 55. This enabled a comparison of the mean differences in grades and behavioral conduct based on two groups (high parental stress coping skills and low parental stress coping skills). For RQ2 and RQ3, the IV of COSA R2 scores was operationalized as a continuous number. This enabled an analysis of the relationship and systematic variance between the variables of parental stress coping skills and each DV. A more extensive explanation of the nature of this research study can be found in Chapter 3. The research questions were answered by addressing each of the following hypotheses.

RQ1: Are there differences between the grades and behavioral conduct of middle-school students in a group of parents classified with effective parental stress coping skills compared to a group of parents classified with ineffective parental stress coping skills?

$H_0$1: There is no significant difference between the grades and behavioral conduct of middle-school students in a group of parents classified with effective parental stress coping skills compared to a group of parents classified with ineffective

parental stress coping skills.

H_a1: There is a significant difference between the grades and behavioral conduct of middle-school students in a group of parents classified with effective parental stress coping skills compared to a group of parents classified with ineffective parental stress coping skills.

RQ2: Are parental stress coping skills, as measured by total stress scores, associated with grades of middle-school students?

H_02): Parental stress coping scores, as measured by total stress scores are not associated with grades in middle-school students.

H_a2: Lower total stress coping scores are associated with poorer grades in middle-school students, whereas higher total stress coping scores are associated with better grades of middle-school students.

RQ3: Are parental stress coping skills, as measured by their total stress scores, associated with behavioral conduct of middle-school students?

H_03: Parental stress coping scores, as measured by total stress scores are not associated with behavioral conduct in middle-school students.

H_a3: Lower total stress coping scores are associated with poorer behavioral conduct in middle-school students, whereas higher total stress coping scores are associated with better behavioral conduct of middle-school students.

Theoretical Foundation

According to Bronfenbrenner's (1979) modeled explanation of family systems, family functioning factors heavily into the adaptive and maladaptive development of a child. A key component to Bronfenbrenner's theory may be related to the idea that factors, such as parental stress, impact the approaches a parent will employ and the effectiveness of their parenting style (Guajardo et al., 2009). Harkonen (2007) informs that, over time, newer models explaining Bronfenbrenner's family systems theory have been presented using more explicit terminology and including, more specifically, the roles and rules that strongly influence development.

Belsky's (1984) conceptual framework on the determinants of parenting, as well as the family stress model (Conger et al., 2000), support Bronfenbrenner's ecological systems theory. High levels of parental stress can affect parents in ways that are directly related both to the parent–child relationship and a children's social-cognitive development (Guajardo et al., 2009). Further, parental stress causes higher levels of mental distress and punitive parenting, which may lead to problem behaviors in children (van Mourik et al., 2018). Guajardo et al. (2009), Belsky (1984), and van Mourik et al. (2018) have each offered literature describing factors that depict the negative impacts of what can often be seen as stress-induced poor and disruptive parenting practices as they relate to the development of a child.

Minuchin and Fishman's (1981) family systems theory suggests there are broader factors affecting the parent that can influence the dynamics within the parent–child

relationship. Hackman et al. (2013) proposed that parenting in the early years directly affects how adolescents respond to stress. Additionally, Engert et al. (2010) added that parenting care received in early life contributes to stress responsivity that develops and is displayed even into adulthood.

Each of these theories implies that parental stress has the potential to negatively impact children and, in some way, lends itself to Bronfenbrenner's notion that family functioning has an influence on how a child develops. Hence, previous research has indicated that the impact of sustained parental stress has the potential to affect how students behave and perform academically throughout their years of educational attainment; therefore, Bronfenbrenner's (1979) ecological systems theory is acutely relevant to the idea that unmanaged parental stress can have a possible and significantly negative influence on the performance of middle-school students. A more detailed explanation connecting these and other current major theoretical propositions to this research study will be found in Chapter 2.

Nature of the Study

This study was designed for the purpose of acquiring a better understanding of the potential associations of effective versus ineffective parental stress coping skills with the academic and behavioral conduct of students in middle school. I sought to determine if deliberate efforts to use effective parental stress coping skills might positively contribute to the grades and conduct of middle-school students. In this quantitative study, I employed a correlational approach to analyze the extent to which parental stress coping

skills are related to how middle-school students perform in school. I deemed it most appropriate to use a correlational approach for this study because of the assumptions being proposed regarding the potential negative effects of the independent variable (parental stress coping skills) on the dependent variables (grades and behavioral conduct). Use of an approach which shows comparisons is appropriate for determining relationships between variables (Frankford-Nachmias & Nachmias, 2008).

In this analysis, measurement of the IV was determined by the results of a self-administered survey, the COSA R2 (Psychtests AIM Inc., 2017), that establishes whether parents frequently use effective stress coping skills or ineffective coping skills. For RQ1, an overall COSA R2 score within the range of 55 and above was considered high and indicated usage of effective stress coping skills. COSA R2 cores ranging 54 and below were considered low and indicated the use of ineffective stress coping skills. For RQ2 and RQ3, COSA R2 scores were used as a continuous measure. The DVs for all research questions were student grades and behavioral conduct, obtained from parents based on district reports.

Grades and behavioral conduct scores were reported by parent participants based on what teachers assigned on the 9-week report card. In the Independent School District (ISD) for this study, students' grade point averages (GPAs) and behavioral conduct scores are assigned based on the following ranges: A (4 points) = 100–90, B (3 points) = 89–80, C (2 points) = 79–70, and F (0 points) = 68–0. For this study, students' grades were totaled then averaged to determine individual GPAs. In addition, various

demographic variables were considered to explore what, if any, effect they may have on the outcome of the analysis: income level, family role, age, marital status, race/ethnicity, number of children, type of stress coping skill used, along with the child's age, gender, race/ethnicity, grades, and conduct scores, all of which were reported by the parent.

A series of statistical tests were conducted to compare the mean values of the two levels COSA R2 scores (*t*-tests and one-way analysis of variance) to determine whether there were covariates among the demographic variables and to control for their influence on the DVs of children's grades and behavioral conduct. Demographic variables included family role of the reporter (mother, father, or guardian), age of reporter, race/ethnicity of reporter, marital status, number of children, income level age of child being assessed and child's race/ethnicity.

Definitions

Academic self-regulation: Skills related to setting learning goals, using effective learning strategies and persisting on academic tasks until they are completed (Xia et al., 2015).

Age: Parent's number of years since birth to the date of data collection falling within the following ranges: 25-44 years, 45-59 years, or older than 60 years.

Avoidance: Tendency to avoid thinking about a problem and doing what needs to be done (PsychTests AIM Inc., 2017).

Behavioral conduct: Based on student citizenship, service, responsibility, integrity, cooperation, and respect as determined by the teacher of the class in the ISD.

Coping skills: Coping methods used to deal with life's hardships (PsychTests AIM Inc., 2017).

Coping skill type: Problem-focused coping where action is taken to improve the stressor, emotion-focused coping entails learning how to deal with a stressful situation emotionally, and hang-ups which entail using empty strategies that are not helpful in dealing with stress (PsychTests AIM Inc., 2017).

Effective stress coping: Problem-focused coping using methods that deal with taking action or learning how to deal with situations emotionally to improve the stressor (PsychTests AIM Inc., 2017).

Emotional regulation: Using relaxation techniques or finding healthy outlets for negative emotions (PsychTests AIM Inc., 2017).

Ethnicity: Cultural group to which one belongs: White or Caucasian, Black or African American, Hispanic/Latin American, two or more ethnicities, or other.

Exosystem: The linkages and processes taking place between two or more settings where at least one does not contain the developing person, but in which events occur that influence processes in the setting that does contain the developing person.

Family functioning: The ways in which members of a family behave and interact with each other and socially based on what they believe (Harkonen, 2007).

Gender: Defined herein as male or female.

Grade point average (GPA): The cumulative total of a student's grade for each subject area averaged. For this study, grades will be tallied as falling within the following

range: A = 100-90, B = 89-80, C = 79-70, and F = 68-0.

Helplessness: Accepting defeat and not taking responsibility for a situation (PsychTests AIM Inc., 2017).

Human development: The process through which a growing person acquires a more extended differentiated and valid conception of the ecological environment and becomes motivated and able to engage in activities that reveal the properties of, sustain, or restructure that environment at levels of similar or greater complexity in form and content (Bronfenbrenner, 1979).

Income level: The annual amount of income that a family has access to as defined by the following ranges: less than $25,000; $25,000 to $50,000; $50,000 to $75,000; $75,000 to $100,000; and more than $100,000.

Ineffective stress coping: Hang-ups that entail empty coping strategies that are generally not be helpful in dealing with stressful situations (PsychTests AIM Inc., 2017).

Information seeking: Seeking out knowledge to increase understanding of the situation (PsychTests AIM Inc., 2017).

Macrosystem: Societal blueprint for a particular culture, subculture, or other broader social content.

Marital status: Defined herein as partnered or non-partnered.

Mesosystem: The linkages and processes taking place between two or more settings containing the developing person.

Middle school: Years during adolescence when children typically undergo various

cognitive, developmental, physical, social, and environmental changes (Xia et al., 2015).

Negotiation: Compromising goals, mindset, or behavior to better fit within the constraints of a stressful situation (PsychTests AIM Inc., 2017).

Number of children: The total number of children under the care of the parent(s) defined herein as one, two, three, four, or five or more.

Opposition: Tendency to lash out at others or to place the blame elsewhere (PsychTests AIM Inc., 2017).

Parent–child relationship: The early attachment that develops between a parent and child that shapes a child's expectations about relationships (Steele et al., 2016).

Parental stress: The aversive psychological reaction resulting from a mismatch between perceived parenting demands and available parenting resources (Deater-Deckard, 2005; as cited in Mackler et al., 2015). For this study, defined in terms of level experienced in the following ways: none, mild, moderate, or extreme.

Problem solving: Looking for ways to improve a stressful situation (PsychTests AIM Inc., 2017).

Positive cognitive restructuring: Making changes to the way you think about a stressful situation to feel better about it (PsychTests AIM Inc., 2017).

Rumination: Thinking obsessively about a source of stress (PsychTests AIM Inc., 2017).

Social-cognitive development: The knowledge a child develops to become a member of the society (Harkonen, 2007).

Socially organized subsystems: Also referred to as *microsystems* (Bronfenbrenner, 1994), they are systems presenting a pattern of activities, roles, and relationships with material and physical features and in which other people with unique personalities and beliefs are experienced in a face-to-face setting by the developing person (Harkonen, 2007).

Social support: Emotional support from loved ones or friends (PsychTests AIM Inc., 2017).

Social withdrawal: Tendency to avoid all contact with the outside world and to avoid dealing with others (PsychTests AIM Inc., 2017).

Assumptions

This study included several assumptions. For example, it was assumed that participation in this study was completely voluntary, with the understanding that consent to participate could be withdrawn at any time with no penalty and that the identity of all participants would be kept confidential. No identifying information regarding any participant, or their child, was provided to the ISD. It was assumed that each participant would complete the online survey fully and would accurately report all data (e.g., COSA-R2 and demographic items regarding themselves and their child). It was assumed that the COSA-R2 (Psychtests AIM Inc., 2017) would provide a valid and reliable measure of parental stress coping skills and that children's grades and conduct scores would provide an appropriate measure of the designated variables. Finally, it was assumed that by assessing coping skills of the parents of middle-school students' district-wide, the

generalizability of the results would be increased.

Scope and Delimitations

An announcement of the opportunity to participate in this study was placed on the Parent-Teacher Association (PTA) Facebook pages of each middle school in the designated school district. The study's sampling frame included all interested parents or guardians from those schools. The only exception was the exclusion of participants with children attending the school where I am employed, to avoid any potential ethical conflicts (i.e., conflicts of interest or potential compromise of confidentiality). Enough information was provided in the announcement for each participant to voluntarily consent to the study and access the online survey.

This study was designed such that all parents and guardians of sixth-, seventh-, and eighth-grade students enrolled in middle schools within the ISD were eligible to participate in the study to strengthen external validity. However, the school district restricted posting the invitation for participation on the PTA Facebook page. This restriction potentially created selection bias because, as Yazdani et al. (2020) have reported, strong parent-teacher relationships are associated longitudinally with greater academic success for students. Therefore, it is reasonable to assume that parents involved in PTA may be more highly involved with their child's grades and behavioral conduct as compared to parents who do not participate in PTA. However, despite the probability that many participants in this study were PTA parents, access to the ISD PTA Facebook pages is not limited to PTA members; the site is freely accessible from each school's Facebook

page. The implications of the restriction in sampling on the results of this study are discussed in later chapters.

After providing consent, participants completed the COSA-R2 (Psychtests AIM Inc., 2017) and provided demographic data related to themselves and their child. If there were two or more middle-school students living in one household, the parent participant was asked to provide data related to the youngest child. A convenience sampling technique was used, which allowed for recruiting a naturally-formed group of parent/guardian volunteers (Creswell, 2009). From among the parents or guardians of sixth-, seventh-, and eighth-grade students in the school district who consented to participate in the study, I initially planned to use a table of random digits and select a simple random sample of 100 participants to combat the possibility of problems that could occur due to unanticipated dropouts. An a priori GPower 3 analysis resulted in a minimum recommended sample size of $n = 88$ participants. However, the final sample was comprised of $n = 66$ participants. Participants were then split into two groups based on their COSA-R2 score, where 55 or above indicated high/effective parental stress coping skills and below 55 indicated low/ineffective parental stress coping skills.

An exploratory research design using multiple linear regression (MLR) was what I initially sought to use to learn more about the relationship between the study variables and whether it was reasonable to assume that the use of ineffective parent stress coping skills has a negative effect on the grades and conduct of students. However, this method of analysis did not entirely answer the research questions. The research hypotheses and

types of questions the study was designed to answer led to the choice of analysis of co-variance and individual linear regressions for each DV (grades and behavioral conduct). These statistical tests allowed me to include the demographic variables (parental and race/ethnicity) that I found to be significant covariates. Concerns regarding construct validity were addressed by using evaluation instruments for this study that had been proven to display good psychometric properties when used with similar samples.

Limitations

Kukull and Ganguli (2012) have discussed how the design of a study should include consideration of factors that affect internal validity, such as the method of data collection and the type of statistical analysis chosen. This is because a study's internal validity is related to how broadly it can be generalized to other settings, samples, and populations (Kukull & Ganguli, 2012). Multiple issues related to generalizability were considered for this study. First, a strength related to generalizability was that the sampling frame was intentionally wide (i.e., all parents of students in the targeted ISD regardless of PTA membership status). Limitations were that a convenience sampling method was employed and the invitation to participate only reached parents who accessed the ISD Facebook pages.

Furthermore, the generalizability of this study is limited to adolescents in the middle-school grades; the results may not apply to students who are younger or older. Because potential participants were parent/guardians districtwide from various backgrounds and circumstances, measures were taken to ensure the study results would

be generalizable across races/ethnicities and socioeconomic groups. One district middle school was excluded from participation in the study to diminish the possibility for bias and ethical dilemmas; therefore, several potential participants were left out. Additionally, the assessment was administered at various specific times and may not have fully captured parental use of effective/ineffective coping skills over time and the consistency thereof. Similarly, the grades and conduct scores of students were only collected at a few specific times and may not have fully captured the consistency of students' performance over time. Further, parent participants were asked to self-report their child's age, race/ethnicity, gender, grades, and behavioral conduct scores. As a result, consideration was given to possible inaccuracy in reporting.

Significance of the Study

There exists a need for more research geared specifically toward fostering a greater understanding of associations between parental stress coping skills and the grades and conduct of students at the middle-school level. Existing research has shown that parental stress has an apparent effect on the development and behavior of children (Barbot et al., 2014; Guajardo et al., 2009; Mackler et al., 2015; Steele et al., 2016; Zaiden & Gaisler-Salomon, 2015). Families provide their children with the ability to learn the skills necessary for meaningful relationships (Hill, 2012). The early attachments established between a parent and their child shape the development of what the child comes to expect in relationships (Steele et al., 2016) and consequentially have a great deal of influence on the child's development and interactions in social settings. Research

has shown links between a child's social cognitive skills and the social competence they display at home, at school, and in other places (Guajardo, 2009). Practices promoting effective parenting may mediate the relationships that have been observed between parental stress and the emotional understanding that a child develops (Guajardo, 2009). Further, Koch et al. (2010), Masarik and Conger (2017), and van Mourik et al. (2018) maintained that parenting stress has far-reaching effects on the well-being of the parent and child and the parenting practices used and child behavioral outcomes. This study sought to provide knowledge that will foster efforts aimed at supporting the need for parents to use effective stress coping skills to be healthier and happier and for the purpose of improving the school performance of children.

Children who are better equipped to function well in the school environment will be better equipped to perform adequately in areas typically used to measure school performance, such as grades, test scores, and conduct. Students who perform well in school generally achieve more success (Xia et al., 2015). The results of this study indicate that parental stress coping skills do not appear to be associated with the grades or the behavioral conduct of middle-school students. However, demographic similarities seen among the participants may have presented some biases that did not allow for a broader perspective on whether various unexamined factors related to parental stress would have yielded different results.

Although the results of the study based on the primary variables of interest do not reach statistical significance, this study arguably provides results that expand knowledge

regarding the subject matter and adds more empirical data to the existing literature regarding the potential benefits of effective parental stress management. For example, this study indicates that parent/guardian age may have a significant impact on the grades and behavioral conduct of middle-school students, and as such, the need for further investigation into this matter cannot be negated. More research, perhaps with a larger and more diverse sample or that examines more closely how the age of the parent/guardian impacts student grades and conduct, is recommended as this invaluable information has the potential to affect social change in several ways. It could positively influence parenting practices, while also improving student outcomes at the middle and upper grade levels. Additional benefits might include the provision of research data for parents, schools, and physicians to support and encourage effective parent stress management as well as the potential for increased student achievement which may lead to more success in preparing students to become productive citizens with positive life outcomes.

Summary

A substantial amount of research establishes a need for more understanding of the potential link between ineffective stress coping skills used by parents and an adolescent's performance in school, both academically and behaviorally. Parental stress appears to influence several factors related to the development and behavior of children, how they learn to respond and relate in their social worlds (Barbot et al., 2014; Guajardo et al., 2009; Mackler et al., 2015; Steele et al., 2016; Zaiden & Gaisler-Salomon, 2015), and how prepared they are to be successful when they begin school (Okado et al., 2014).

According to Bronfenbrenner (1979), family functioning and components like parent stress factor heavily into the adaptive/maladaptive development of a child and have the potential to affect the relationship that develops between the parent and child and the child's social–cognitive development. Families provide children with the ability to learn the skills necessary for meaningful relationships (Hill, 2012). The early attachments established between a parent and their child shape the development of what the child comes to expect in relationships (Steele et al., 2016) and influence the child's development and interactions in social settings like school.

Guajardo (2009) suggested that practices promoting effective parenting could mediate the relationships observed between parental stress and the emotional understanding a child develops. This assertion is made relevant based on the premise that children who are better equipped to function well in the school environment will likely perform better, and students who perform well in school are generally believed to achieve more life success (Xia et al., 2015).

Chapter 2 contains a review of the existing literature on parent stress and child related factors and recent research suggesting potential influences that parental stress has on child outcomes. The chapter begins with a literature review intended to show how researchers are increasingly embracing the need to better understand how parenting stress is linked to children's development. Also included is a description of Bronfenbrenner's (1979) family systems theory, which provided the theoretical framework for this study, because it lends itself to the idea that factors such as parental stress are associated with

family functioning and consequently how a child learns to understand, relate, and behave in the world. The ways in which a child learns to behave and relate become relevant in social settings such as school. There is also a discussion of how the literature used for this study was extracted, details about the factor of parental stress and how it shows up in a child's home and school environment, and parental stress coping. The chapter ends with a discussion on the associated implications of mismanaging parental stress.

Chapter 2: Literature Review

Introduction

In this literature review, I sought to substantiate the need for further exploration of the potential association between parental stress coping skills and the grades and behavioral conduct of students at the middle-school level. Researchers have increasingly recognized that daily stress is an important risk factor associated with the mental well-being of individuals (Schonfeld et al., 2016). Koch et al. (2010), Masarik and Conger (2017), and van Mourik et al. (2018) maintained that parenting stress has far-reaching effects on the well-being of the parent and child, along with the parenting practices used and child behavioral outcomes. Maguire-Jack and Wang (2016) proposed that the stress levels of parents and caregivers can be increased by everyday demands and the responsibilities associated with parenting, often increasing the potential for the omission of sufficient care toward their child's basic physical, health, safety, emotional and supervisory needs.

When parents are stressed, they are less likely to be supportive, especially in situations where their children display negative emotions. The way in which parents respond to this stress could potentially affect the establishment of secure parent–child relationships (Stelter & Halberstadt, 2011). Research shows the formation of positive parent–child relationships is a key to helping children develop positive schemas of their parents, themselves, and others (Stelter & Halberstadt, 2011). This in turn influences how receptive children are to exploring naturally occurring processes in various settings such

as those presented within a learning environment.

Cole (2010) suggested that an increased understanding of the polarization between the learner and the context of learning may lead to the production of knowledge that can be applied to explanations regarding one's life circumstances and demeanor in various settings such as school. Therefore, an evaluation of how parental stress coping skills are associated with the grades and behavioral conduct of middle-school students may lead to a more comprehensive understanding of the potential effect that the use of ineffective parental stress coping skills can have on the school performance of students during their adolescent years. This chapter includes a discussion of the strategy used in the exploration and accumulation of literature addressing parental stress as it relates to child development and parent-influenced outcomes. Bronfenbrenners's (1979) ecological systems theory is discussed, including a detailed explanation of how the concept of the theory has been applied in more recent studies, how the theory connects to the premise of this study, and why it therefore served as the theoretical foundation for this study. Additionally, the chapter contains a review of current literature on parenting stress and how it influences children. The chapter ends with a summarization of the literary themes introduced and a description of how this study extends knowledge regarding the potential influence that parental stress may have on how adolescent children perform in school.

Literature Search Strategy

The information provided in this dissertation was derived primarily from peer-reviewed journals and resources that resulted from performing a search through Walden

University's library search engine. I began the search at the Walden University library home page. Upon accessing the library home page, I selected articles by topic and then selected either psychology or health. Psychology was selected most often. I continued to choose either PsychInfo or MEDLINE as the database, after which several combinations of key search terms were entered to direct the search. The following search terms were used in various combinations: *stress, parent, parental, children, parental stress, effects of parental stress, parent stress, school, behavior, effect on children, student performance, stress, coping, management,* and *stress coping*.

Literature supporting this dissertation was carefully considered and selected over a period of approximately 4 years. Although a few pieces of literature chosen were published beyond 5 years of the date of this study, most of the articles selected were peer-reviewed and current. My search for literature used for this dissertation resulted in approximately 10 articles describing the experience of parental stress and how the ways that students cope with stress are related to academic performance. Because this study was designed to examine specifically whether parental stress coping skills can be linked to the grades and behavioral conduct of adolescent students, none of the aforementioned articles were deemed relevant and used for support. Additionally, during the search for literature, I also located approximately 14 articles addressing how parental stress and parent coping behaviors affect the development, behavior, and adjustment of children. I attempted to show how the claims presented in these articles lend themselves in support of the claims presented in the current research study. No literature directly connecting

parent stress coping skills to the grades and behavioral conduct of middle-school students was found, indicating a need for further exploration.

Theoretical Foundation

According to Bronfenbrenner's (1979) ecological systems theory, family functioning strongly influences into the adaptive and maladaptive development of a child. A key component to Bronfenbrenner's theory is that factors, such as how a parent copes with stress, impact the approaches a parent will employ and may also affect the effectiveness of their parenting style (Guajardo et al., 2009). Bronfenbrenner's ecological systems theory is believed to be his most important accomplishment (Harkonen, 2007). In the 1950s and 1960s, Bronfenbrenner visited the Soviet Union and China where he observed children and their surroundings. Harkonen (2007) reported that the theorist was especially interested in how the kindergarten systems of the Soviet Union and China were operated. The kindergarten programs offered children daycare services and an educational environment in which the children were well-fed and were provided with opportunities for rest and participating in diverse activities. From these experiences, Bronfenbrenner (1974) reported that the United States had fallen short in terms of helping children to develop a sense of social responsibility by not enforcing a more unified system of adult society norms and allowing liberties that were too far reaching. As a result, Bronfenbrenner determined that more active participation from parents and other adults in the family was needed in the lives of children in the United States.

The major hypothesis of Bronfenbrenner's ecological systems theory is that a

child's personal biology is the most prevalent microenvironment that nourishes their development (Harkonen, 2007). According to Harkonen (2007), Bronfenbrenner described the ecological system in terms of four smaller systems: (a) the microsystem, (b) the mesosystem, (c) the exosystem, and (d) the macrosystem. Bronfenbrenner (1989) maintained that the microsystem consists of patterns of activities, roles, and relationships experienced by the growing individual in face-to-face situations within a specific environment and involve other people with distinct characteristic temperaments, personalities, and beliefs. Harkonen (2007) contended that Bronfenbrenner believed society plays a major role in influencing the development of children; therefore, he maintained that the setting and conditions in which a child is reared shapes their outcome. Bronfenbrenner (1989) explained that the mesosystem consists of links and processes between two or more settings in which a person develops, such as that of the home and the school environments. Additionally, Harkonen (2007) offered that a mesosystem is basically a system of microsystems. Bronfenbrenner's assumptions regarding the effects of a growing person's environment, circumstances, and relationships supports the notion that parent–child interactions impact the development of a child and how a child presents and behaves in life.

Another key component to Bronfenbrenner's theory is that factors, such as parental stress, impact the approaches a parent will employ and the effectiveness of their parenting style (Guajardo et al., 2009). Further, high levels of parental stress can affect parents in ways that are related to the parent–child relationship and their children's

social–cognitive development (Guajardo et al., 2009). Belsky's (1984) conceptual framework on the determinants of parenting, as well as the family stress model (Conger et al., 2000), supported Bronfenbrenner's ecological systems theory. Belsky (1984) maintained that there are links between parenting practices and a child's externalizing problem behaviors. According to Conger et al. (2000), emotional distress associated with parenting, among other factors, may contribute to externalizing problems in the behaviors of children. Both Belsky (1984) and Conger et al. (2000) have offered literature describing factors that depict the negative impacts of what can often be seen as stress-induced poor and disruptive parenting practices as related to children's development. Minuchin and Fishman's (1981) family systems theory further suggests there are broader factors affecting the parent that can influence the dynamics within the parent-child relationship. Hackman et al. (2013) proposed that parenting in the early years directly affects how adolescents respond to stress. Additionally, Engert et al. (2010) added that parenting care received in early life contributes to the development of stress responsivity and is displayed even into adulthood.

Bronfenbrenner's ecological systems theory (1974) was selected as the primary theory for this study based on the premise that families provide their children with the ability to learn the skills necessary for the establishment of effective socialization (Hill, 2012). Consequently, families have a great deal of influence how their children develop and interact in social settings. Research has shown links between a child's social cognitive skills and the social competence they display at home, at school, and in other

places (Guajardo et al., 2009). Hence, the influence of the mesosystem on a child's development was thoroughly emphasized as links between parental stress and school performance were being examined.

Each of the aforementioned theories implies that parental stress coping skills could possibly have significant impact on children and, in some way, relate to Bronfenbrenner's theory regarding child development. Hence, the impact sustained from the types of parental stress coping skills used has the potential to significantly affect how students perform throughout their years of educational attainment, which may inevitably influence the grades and behavioral conduct of students at the middle-school level. I therefore specifically proposed that use of ineffective parental stress coping skills could have a negative effect on the grades and behavioral conduct of students in middle school.

Conceptual Framework

The following theories and studies about child development were assessed while considering the most appropriate conceptual framework for this research. Sage (1998) depicted a family system model based on Bronfenbrenner's theory in which the child is seen as the target. Harkonen (2007) pointed out that the model focused on how the child relates to the mother, father, siblings, and other family members—all of which make up the child's microsystem. Sage (1998) also applied Bronfenbrenner's theory to a classroom system model in which the child is again the target, but the relationships being observed are between the child and teachers and/or peers. Tonttila (2006) also made use of Bronfenbrenner's theory, applying it to the disabled child and family. According to

Harkonen (2007), Tonttila's model describes four microsystems that include the family proper, kindergarten, school, and the immediate environment. The model presented articulates pictures to show reciprocal relationships between the interactions among those involved (Harkonen, 2007). While Tonttila's model includes four microsystems in the same model, it is important to note is that one model could only include one person's microsystem and not the systems of different people at the same time. In Tonttila's model, the family is considered the ecological reference framework; however, only the mother and father, not the entire family, are considered (Harkonen, 2007).

Based on Bronfenbrenner's theory, Saarinen et al. (1994) presented a pattern in which they proposed the mesosystem is a system of microsystems and argued that the impact of the mesosystem can only be observed when comparisons are made between the developing individual and other developing individuals who are growing up in different societies (Harkonen, 2007). According to Harkonen (2007), Hujala et al. (1998) used Bronfenbrenner's theory of development as the basis for several studies regarding issues of education. One such example is the contextual growth model which attempted to look from the child's perspective of what it is like to grow up in a family and in daycare (Hujala et al., 1998).

Harkonen (2007) used Bronfenbrenner's theory in the articulation of several pieces of work related to education. Traces of Bronfenbrenner's systems theory ideology can be observed throughout much of Harkonen's work, most recently with a recommendation for the use of the model in *Understanding Early Childhood Education*

(Penn, 2005). While Bronfenbrenner (1974) may have designed the original theory, others have used his theory as the basis for developing additional means of explaining how a person's environment influences their development. Harkonen (2007) maintained that newer models have been presented over time using more explicit terminology such as change, development, history, time, and life course. These models include specific roles and rules that strongly influence development and that may be helpful in supporting more clearly defined explanations in the study's results. In addition, Harknen (2009) offered that several other models display roles and relations in their entirety which have the most impact on development (Harkonen, 2007).

Literature Review Related to Key Variable and/or Concepts

Parental Stress

There is also research that supports the reciprocal nature of the relationship between parents and children. For example, in their study of parenting stress, parental reactions, and externalizing behavior from ages 4 to 10, Mackler et al. (2015) found that reciprocal effects could be seen between parenting stress and externalizing behaviors. While parental reactions did not appear to be a factor related to externalizing behavior, evidence was found to support that parenting stress is both affected by and affects the parent's and child's behavior (Mackler et al., 2015). Mackler et al. (2015) reported that research indicated child behavior problems are generally taxing for parents, resulting in increased levels of parenting stress, which inhibit parenting practices.

Barbot et al. (2014) proposed that, although it is widely believed that being a

mother is challenging, not much is known about the shaping of women's parental stress and efficacy. The authors explained that there is sufficient evidence of how children's beliefs about their parents shape their own adjustment. However, they also stated that studies to explain reverse associations, particularly regarding how the mother's feelings about their child's adjustment affected their own welfare, are lacking.

Barbot et al. (2014) employed a multivariate approach to examining longitudinal and bidirectional links between aspects of maternal parenting and what the mother perceives about her child's adjustment. They gathered data from 361 low-income mothers, focusing on parent behavior, parent stress, and the children's adjustment over a period of 5 years. The researchers developed measurement models to determine four specific constructs related to parenting: (a) involvement, (b) control, (c) rejection, and (d) stress. The following three child adjustment constructs were examined in the model: (a) internalizing problems, (b) externalizing problems, and (c) social competence (Barbot et al., 2014). Barbot et al. (2014) maintained that major findings derived from this 5-year study of mothers with school-aged and adolescent children indicate that maternal stress is associated with the internalizing and externalizing behaviors of children and a mother's perceptions of her child's adjustment have long-term effects on how she feels about her role as a parent. This supported previous research demonstrating that a child's social competence is negatively associated with parental stress (Barbot et al., 2014). Barbot et al. (2014) therefore concluded that the adage about mothers only being as happy as their least happy child is accurately stated.

Barbot et al. (2014) demonstrated that mothers likely benefit when they believe their children are socially competent. Barbot et al. (2014) explained that the mother's perceptions become generalized to various domains of parenting over time, and as a result, they experience less parental stress, and they are more likely to increase in their effective limit setting, exhibit more parental involvement, and experience increased feelings of devotion toward their children. The authors offered that a larger sample size would be useful in future research on this topic to identify pathways of associations across groups. The authors also divulged concerns about the generalizability of the study to other samples. Barbot et al. (2014) stated that an additional limitation to be considered when looking at their study is that all the variables were based upon the reports of mothers only. They suggested that as a result, their findings should be considered a preliminary look into bidirectional links between dimensions of parenting from the viewpoint of a mother.

Zaidan and Gaisler-Salomon (2015) argued that studies for both animals and humans indicated that responses to stress are hereditary, based on their investigation of how pre-reproductive stress affected the offspring of adolescent female rats. Zaidan and Gaisler-Salomon (2015) reported that exposing the mother to pre-reproductive stress leads to behavioral changes that can be observed throughout first-, second-, and third-generations. These findings have implications for how pre-reproductive stress affects offspring, particularly in areas related to anxiety and fear learning. Zaidan and Gaisler-Salomon (2015) admitted that not all underlying causes of the observed behavioral

consequences posed by parental experiences are understood in totality. However, they offered that their findings implied that the resulting effects of stress and trauma are a convoluted mass of both potential and retrospective interactions relating to a combination of factors such as behavior type, sex, or developmental timeframe. The effects of adverse environmental exposure likely have lasting consequences on behavior, health, and endocrinal functioning, and several human studies have indicated that stress during or prior to pregnancy has the potential to be reproduced in future generations (Zaidan & Gaisler-Salomon, 2015).

Steele et al. (2016) argued that further exploration geared toward more clearly understanding reasons associated with parenting stress is needed to lesson childhood maltreatment and ensure healthier developmental pathways for children. The authors admitted that limitations to their study included not including low socioeconomic status (SES) or a nonclinical group to compare their findings. Thus, there was an inability to account for ongoing exposure to trauma as an adult, lack of information regarding individual characteristics such as personality or temperament of the parent or child, and a lack of information regarding how many of the parents in the middle SES comparison group had overcome poverty (Steele et al., 2016). Steele et al. (2016) further maintained that despite limitations, this study supported the need for more thorough screenings for adverse childhood experiences in pediatric and prenatal services to identify possible risks associated with parenting difficulties.

Parental Stress Linked to School and Home Environments for Children

For this study, it was essential to consider how parental stress is linked to school and home environments. Xia et al. (2015) examined reciprocal influences between family climate, school attachment and academic self-regulation as related to school success during the middle school years. In this study, the researchers also tested to determine how the domains of school attachment and academic success related to their transition at the high school level. Measures were taken to control for family income, parent education, and adolescent gender (Xia et al., 2015). The researchers used a cross-lagged structural equation model, applying it to longitudinal data collected from 979 sixth-grade students and their families. The data were measured on five different occasions spanning from their sixth-grade year through ninth grade (Xia et al., 2015).

Xia et al. (2015) found that family climate and school attachment were connected to academic self-regulation, which is a strong predictor of successful academic performance. Along that same vein, O'Malley et al. (2014) maintained that both home and school typify certain microsystems that shape a child's development and outcome. Each of the microsystems includes its own set of potential threats to development as well as its own factors promoting and protecting a child's wellbeing (O'Malley et al., 2014). O'Malley et al. (2014) further described promotive factors as being internal and external assets in the home such as supportive adult relationships. Protective factors were described as positive relationships found within the school setting. As a result of this research, Xia et al. (2015) concluded that family function and school attachment did not

appear to directly affect school adjustment or academic success much, if at all. According to Xia et al. (2015), there were a few limitations for the study such as a somewhat biased sample, in that it consisted primarily of white rural families. and that the measurement approach used relied on mono-informant assessments. The authors suggested that the research could be expanded by including additional factors such as peer relationships to determine how school success is impacted during the adolescent years (Xia et al., 2015).

According to O'Malley et al. (2014), unidirectional studies have long been used to investigate the relationship between the school and home microsystems resulting in a collective agreement by scholars that family structure is one of the main factors affecting the academic performance of youth. Students afforded more advantages regarding their family, and who have more resources at home, generally perform well in school (O'Malley et al., 2014). Based on these findings, O'Malley et al. (2014) determined that decades of research indicating that stable home environments promote successful educational outcomes for students are valid.

Despite this, O'Malley et al. (2014) admitted that various limitations to their study must be considered. For example, self-reported data and cross-sectional analytic approaches make it difficult to prove unbiased casual inferences. In addition, the authors offered that because SES was not controlled for in the study, it is not possible to know how it may have affected what was observed in the study. O'Malley et al. (2014) also noted no screening items used to verify the validity of student answers and parental involvement and family structure were not accounted for, so some interaction effects may

have been overlooked (O'Malley et al., 2014). One important conclusion derived from this study was that adolescents who experience more family disadvantage are likely to require more intense social and emotional support in school to be successful (O'Malley et al., 2014).

To delve further into the findings from existing research supporting that demoralization and support for learning influence children's school readiness, Okado et al. (2014) conducted a study to determine the degree to which this association is true. Okado et al. (2014) explained that research performed overtime has substantiated the existence of several specific child readiness skills that, when measured at the time a child enters school, predict how the child will adjust to and achieve at school. The authors suggested that the ability to participate in the classroom cooperatively, follow directions, control their attention, and remain involved in a task until completed are all regulatory skills that foster learning. Furthermore, these skills paired with oral language and emerging literary competence help support reading, classroom engagement, and the types of self-regulatory skills needed to learn in school (Okado et al., 2014).

Okado et al. (2014) further stated that other bodies of research, such as that of O'Malley et al.'s (2014) declaration of stable home environments promoting successful educational outcomes for students suggested that early parent-child interactions play a significant role in developing the skills necessary for school readiness. The authors shared that previous research inspired the development of several parent-focused interventions designed to enhance parent skills in support of child preparation for school.

Recruitment and retention of parents in the intervention programs has been a challenge because school readiness delays are most seen in low incomed families and the most notable parent-focused interventions are geared towards families with children growing up in poverty. It is also the case that low-income parents often encounter multiple other stressors with a limited number of available resources to help them cope (Okado et al., 2014).

Okado et al. (2014) suggested that previous interventions for school readiness did not pay sufficient attention to parent attitudes and feelings, particularly regarding emotional distress that might affect parent efforts to support young children's learning. The authors explored this issue by investigating the association between school readiness for kindergarten and low parent support or high parent demoralization (Okado et al., 2014). They recruited 117 kindergarten students with low language skills and asked their parents to report on their personal symptoms of depression, parenting difficulties, the frequency of communication with their child at home, and their attitudes about learning activities. Teachers observed the classroom behavior, approaches to learning, and literacy skills of the students, and rated them accordingly (Okado et al., 2014).

One significant finding was that parent demoralization negatively affects how prepared a child is to begin school (Okado et al., 2014). Also, among low–incomed families who have children at risk for learning disabilities, both parental demoralization and support for learning influence school readiness. Okado et al. (2014) surmised that when parents experience depression or are overwhelmed by the challenges of being a

parent they may be less responsive to their children. The authors argued that this might, consequently, affect the parent–child relationship, along with other effects contributing to challenging behavior and inadequately developed language skills. This idea is like those expressed by Mackler et al. (2015), and Steele et al. (2016) in which they maintained that stress of any type is prone to affecting parent–child relationships and the social–emotional development of children, but parenting stress at high levels is a problem particularly because it directly affects child outcomes. Okado et al. (2014) asserted that their findings have supported the need for consideration of parent feelings and attitudes when developing interventions that focus on enhancing school readiness for children.

Okado et al. (2014) revealed that in addition to several strengths in their study that helped to validate their claims, there were some limitations. First, the sample was small and specific, which presents concerns regarding generalizability. Second, there were concerns about the concurrent nature of the data since parent and child data were collected at the same time (Okado et al., 2014). Therefore, it is unclear whether the same results would be observed over time. Finally, Okado et al. (2014) suggested that further evaluation validating the measures used for the study may be necessary.

Stress Coping in Parents

Various researchers have addressed parent stress and the relevancy of making efforts geared towards preventing stress due to its potential influence on child development. According to Koch et al. (2010), parenting stress is likely relevant to child adjustment, with long term effects that leave children extremely vulnerable to stressful

experiences. Likewise, Masarik and Conger (2017) asserted that parental distress over a continuous period can be disruptive to parenting processes and threaten the well-being of children. The researchers argued that continued research on family stress has the potential to make positive differences in the lives of parents and children.

Schonfeld et al. (2016) contended that more than ever, daily stressors, in general, are being recognized as major risk factors to mental well-being and a large body of research has revealed relationships between self-efficacy and various mental health aspects. Schonfeld et al. (2016) shared that some research identified self-efficacy as a possible mediator between stressful life occurrences, such as those that are typically experienced by parents, and depression. Additional research revealed that the strength of the relationship between stress and mental health was dependent upon the characteristics of and strategies used by different individuals (Schonfeld et al., 2016). To better understand the relevance of positive characteristics, such as self-efficacy, in the prevention of health problems and in supporting mental well-being Schonfeld et al., (2016) conducted a study to examine how perceived self-efficacy relates to daily stress regarding both positive and negative facets of mental health using a sample of 1,031 male and female German participants ranging in age from eighteen to eighty-seven. All participants were screened for positive mental health, negative mental health, daily stressors, and general self-efficacy. Schonfeld et al. (2016) divided mental health into two dimensions and defined them in the following way: positive mental health as a general feeling of well-being and optimal psychological performance and negative mental health

as damaging characteristics such as health problems, psychopathology, and psychiatric disorders. The results of this study indicated that self-efficacy does, in fact, mediate the effect daily stressors have on mental health (Schonfeld et al., 2016).

Schonfeld et al. (2016) further contended that this was the first study to offer transnational confirmation for different stress buffering effects on mental health. However, the study included various shortcomings such as no possible conclusion of causality due to the cross-sectional nature of the study, and the sole reliance of questionnaires in data collection (Schonfeld et al., 2016). The researchers suggested use of a clinical sample for a clearer differentiation of healthy versus impaired people, and a more inclusive model that accounts for multiple resources and considers both sides of mental health to acquire a more complete understanding. No information was provided to indicate whether any of the subjects included in the sample were parents.

In prior research, Krieger et al. (2015) sought to identify if there were associations between positive/negative affect and the way that individuals react to daily stress, and traits such as self-esteem and self-compassion. In this study, the authors focused on two key concepts: global self-esteem (defined as a positive or negative orientation towards oneself) and self-compassion (defined as being open and moved by one's own care and positive self-regard). Krieger et al. (2015) maintained that global self-esteem and self-compassion are important components of health and well-being. The authors argued that a large body of research performed over the last decade has proven this to be true. Krieger et al. (2015) also asserted that previous research suggests self-compassion is

extremely relevant when dealing with challenging situations as it helps with stress coping and self-regulation. They shared that according to Allen and Leary (2010), people who are self-compassionate respond to unfavorable feelings with a more open and kinder attitude. This type of coping promoted the type of positive thinking that allows for more proactive and non-avoiding ways of dealing with adverse encounters, and stress (Krieger et al., 2015) such as that which may at times be experienced by parents.

In a related study, Krieger et al. (2015) administered questionnaires regarding perceived stress and affect via smart phones to 101 subjects twice daily for a total of 14 consecutive days. The results indicated that self-compassion appeared to buffer the effect of stress on negative affect. Krieger et al. (2015) proposed that based on these findings, recommendations for interventions that help to increase self-compassion for clinical and non-clinical individuals to reduce stress reactivity are justifiable. From their study, Krieger et al. (2015) were able to determine, that among other things, that there is a link between self-compassion and daily well-being.

Despite their findings, Krieger et al. (2015) acknowledged several limitations to their study. For one, they revealed that because their study only covered a short interval, more studies that investigate long-term effects are needed. Second, they suggested future studies should look objectively at daily hassles and life events rather than subjectively. Additionally, they were not able to establish the direction of causality because of how they assessed affect and perceived stress. Lastly, Krieger et al. (2015) implied that because they sampled highly educated Caucasians, the generalizability of their findings

needs further exploration. Finally, as related to the current study, there is no clear indication as to whether any of the subjects sampled were parents.

Together, these studies have indicated that stress is linked to overall well-being, but more specifically, parental stress has long lasting effects on the well-being of both the parent and child which directly influences parenting practices, family dynamics and child behavior. Van Mourik et al. (2018) informed that parental stress causes higher levels of mental distress and punitive parenting which may lead to problem behaviors in children. They suggested that their research findings support the importance of intervention that addresses coping with stress and helpful emotions for parents.

Implications Associated With Parent Stress

Evidence has also been found of the complex relationship between parent variables and children (Mackler et al., 2015), which supports the relevance of finding ways to reduce parental stress and improve parent child relationships. Although a significant limitation to their study was missing data due to an unforeseen event that potentially biased the results, the findings are still worthy of interpretation due to the study design (Mackler et al., 2015). Despite the limitations presented, the study gives clarity to current bodies of literature that conflict regarding the ideas posed about parenting stress (Mackler et al., 2015). A major contribution of this study was to add to the existing body of literature that shows the value of studying processes transactionally to account for reciprocal relationships of one variable to another over time (Mackler et al., 2015).

Based on the findings of Mackler et al. (2015), Steele et al. (2016) implied that stress of any type is prone to influencing parent–child relationships and the social–emotional development of children, but that parenting stress at high levels is a particular problem because it directly affects child outcomes. Steele et al. (2016) maintained that various studies have indicated children of parents who experience stress have a higher chance of being mistreated, experiencing less stimulating parent–child relationships, and being punished more punitively. Children exposed to parenting stress during the early years of life are not only prone to internalizing and externalizing behaviors but may also be lacking in school readiness (Steele et al., 2016). Furthermore, additional studies indicated that adverse childhood experiences during the first 18 years of a person's life can lead to adverse medical and mental health in adulthood (Steele et al., 2016).

Mantymaa et al. (2012) examined whether emotional and behavioral problems seen at age two remain at age five, the time at which many children are enrolled in early education programs or are close to entering school. They also looked at child and parental factors during the infancy and toddler stages as possible predictors of emotional and behavior problems seen in 5-year-old children. Mantymaa et al. (2102) performed a longitudinal study which included 96 children and their families. They assessed the following three categories of risks: (a) child risks related to health, temperament, and early emotional behavior symptoms, (b) parent risks related to parental psychopathology, parenting stress, and perception of the child, and (c) family risks regarding SES, difficulties in parent's marriage, and family violence. The participants were examined at

three points in time: at ages 4 through 10 weeks old, at age 2, and again at age 5.

Mantymaa et al.'s (2102) study revealed several findings. Among the most significant conclusions related to this study were that parenting stress when a child is four to 5-years-old was associated with internalizing problems at around age 11. This aligns with Steele et al.'s (2016) more recent determination that children exposed to parenting stress during their early years of life are prone to internalizing and externalizing behaviors. Mantymaa et al. (2102) claimed that parenting stress may impair a parent's ability to attend to the needs of their child, which may result in psychological problems for the child caused by neglect. Mantymaa et al. (2102) determined that there is a transactional, reciprocal relationship between child, parent, and family risks. Even though it is difficult to determine the starting points at which it occurs, each of the three indicated risk factors influences the others. Although children with internalizing and externalizing problems at age five were at higher risk than other children, there was no indication that cumulative risks predicted later problems (Mantymaa et al., 2102). Furthermore, the indirect information gathered during the interviewing process may have been biased (Mantymaa et al., 2102).

Quas et al. (2016) proposed that emotions intensify what a person remembers, and memories formed in an emotional state are recalled most clearly. These researchers observed the effect stress has on memory accuracy and errors in children and confirmed that stress experienced at encoding and the emotional content of the information being remembered can impact memory across the developmental stages of one's life (Quas et

al., 2016). This may help explain Mackler et al.'s (2015) and Steele et al.'s (2016) notion that stress of any type directly affects child outcomes. Quas et al. (2016) further suggested that models more complex than those currently being used need to be employed to examine true and false memory formations more closely.

In a related study on adults involving emotion, stress and memory, Quas et al. (2016) found consistent trends. The first was that memory is enhanced when the information recalled is more emotional as opposed to neutral; however, false recognition of negatively combined, related information may also be recalled more readily than neutral information (Quas et al., 2016). Second, more stress at the time of encoding strengthens memory, and this is particularly true when the information to be remembered is emotional rather than neutral in the face of psychological stressors (Quas et al., 2016). Also, studies by Corson and Verrier (2007) and Payne et al. (2002) have demonstrated that there are apparent links between higher levels of stress and false memories.

Quas et al. (2016) informed that the trends mentioned earlier have mostly been observed in studies including adults but suggest there is reason to believe that similar patterns exist for children. Among the reasons offered are that age significantly affects the overall memory and accuracy regardless of the severity of stress experienced or the emotional confines of the information to be remembered (Quas et al., 2016). As accuracy increases, error tends to decrease due to improved encoding capabilities, better retrieval strategies, and resistance to accepting what is socially un-agreeable (Quas et al., 2016). The authors suggested that several studies have indicated that adolescents recall neutral

information rather than negative information while adults generally remember emotional information better than neutral information (Quas et al., 2016). Various other studies indicated similar results for adults and children, implying that children can, in fact, remember emotional information such as striking or evocative images.

Apart from studies addressing children's memory for emotional information, many studies have examined the effect stress has on memory and been designed to test the accuracy of children's memories after a stressful experience. Quas et al. (2016) explained that in these types of studies, the stressful experience is the information to be remembered and developmental studies assessing the effects of stress on memory often find associations between them. Quas et al. (2016) claimed that theirs was the first study that experimentally controlled stress while information to be remembered was encoded. They further proposed that stress and emotional occurrences play an important role in various cognitive experiences over the course of one's life. Consequently, it is imperative that we develop a precise understanding of the effects on memory during childhood is essential (Quas et al., 2016). This provides an argument in favor of additional research on the significance of stress and valance in memory combined with current research findings to gain more insight into different ways arousal and valence affect a sizeable range of mnemonic abilities (Quas et al., 2016).

Summary and Conclusions

Schonfeld et al. (2016) and Krieger et al. (2015) indicated there is evidence linking daily stress with potential negative effects on the physical and mental health of

individuals. The authors concluded that self-efficacy and self-compassion are two important components of health and well-being. Parental stress has the potential to strain family relationships, disrupt parenting, and consequently to threaten the well-being and behavior of children (Koch et al., 2010; Masarik & Conger, 2017; van Mourik et al., 2018). These notions are extremely relevant to parents who experience stress, because according to Barbot et al. (2014), maternal stress is associated with the internalizing and externalizing behaviors of children, and the social competence of children is negatively associated with parental stress.

Mackler et al. (2015) asserted that parental stress both affects and is affected by parent and child behavior. Similarly, Mantymaa et al. (2102) offered that there appears to be a transactional, reciprocal relationship between child, parent, and family risks. Additionally, Mantymaa et al. (2102) argued that parenting stress experienced when a child is about four to five years old, leads to internalizing problems at around age 11. Steele et al. (2016) proposed that there is a need for more research to better understand the reasons behind parental stress to increase efforts that support healthier developmental pathways for children. Zaiden et al. (2015) suggested that one reason for parental stress is that it may be hereditary.

Parental stress has been linked to several other important factors relating to the development of children. Mackler et al. (2015) demonstrated that parental stress impacts the relationship that develops between a parent and child. Quas et al. (2016) surmised that exposure to stressful or adverse experiences as a child can have significant and long-

lasting effects on their emotional memory. Both Steele et al. (2016) and Okada et al. (2014) suggested that parental stress influences how prepared a child is to begin school. Steele et al. (2016) explained that a child's experiences with parents during their early years impacts their social–emotional development and how they relate to the world. In studies performed by O'Malley et al. (2014), and Xia et al. (2015), evidence was found supporting that both home and school environments have a direct influence on how a child will perform in school, and their potential for long-term success.

There exists an abundance of research indicating the possible effects that parental stress has on the development and behavior of a child; however most has focused on the effects of parental stress on children during early childhood. Krieger et al. (2015) noted that recent research pinpoints self-compassion as being extremely relevant when dealing with challenging situations, because it helps with stress coping and self-regulation. The authors argued that according to Allen and Leary (2010), people who are self-compassionate respond better to unfavorable feelings. Research performed by Krieger et al. (2015) further suggested that type of coping may promote positive thinking, which allows for more proactive and non-avoiding ways of dealing with stress and the difficult situations that a parent might often encounter.

These findings discussed in this chapter support the theory that there is a need to validate the potential effects of effective coping skills for facilitating positive thinking and more efficient ways of handling the stress that often experienced by parents. Based on a review of the research, I found little to address potential effects specific to

adolescent children, especially as related to their academic performance or behavioral conduct in school. As a result, this study was designed to examine if ineffective parent stress coping skills is negatively associated with the grades and conduct of middle school-aged students. The next chapter describes the methodology, sample selection, instrumentation and data analysis that were utilized in the implementation of the study.

Chapter 3: Research Method

Introduction

The purpose of this study was to determine if effective or ineffective parental stress coping skills are associated with the grades and conduct of students in middle school. According to Xia et al. (2015), school success during adolescence, as indicated by academic achievement and school adjustment, is a strong indicator of future income, mortality, and quality of life in adulthood. However, when addressing the implications for student success, family climate must be considered because there exists a reciprocal relationship between these two factors (Xia et al., 2015). All aspects of the family climate influence how the family functions (Xia et al., 2015). This aligns with Bronfenbrenner's (1997) assertion that family functioning factors heavily into the development of a child. Various family systems theories support this notion, further implying that family functioning contributes significantly to the adaptive and maladaptive development of a child (Guajardo et al., 2009). Guajardo et al. (2009) argued that parental stress is one among several factors that contributes to family functioning as it relates to the parenting approaches used and the overall effectiveness of one's parenting. In this study, I

addressed the need for more research on the possible associations between parental stress coping skills and the grades and behavioral conduct of middle-school students.

This chapter includes a description of the design, sample, instrumentation, data analysis, threats to validity, and ethical considerations used in determining whether parental stress coping skills influences the grades and conduct of students in middle school. A thorough discussion of the study's design explains why this type of design was selected for this study. Information regarding the size and characteristics of the sample selection is provided. In addition, the chapter includes a description of the instruments I used to collect the data, followed by an explanation of the data-collection process, data analysis, and how threats to validity were handled. The chapter ends with a discussion of ethical considerations addressed throughout and a summary.

Research Design and Rationale

This study was designed for the purpose of acquiring a better understanding of the potential relationship between parental stress coping skills and the academic performance and behavioral conduct of students in middle school. I sought to determine if deliberate efforts to use effective parental stress coping skills might be positively related to students' grades and behavioral conduct or whether ineffective parental stress coping skills have a negative association with these factors. I also examined if there is a significant difference between the grades and behavioral conduct of middle-school students whose parents practice effective stress coping skills compared with students whose parents practice ineffective stress coping skills.

Parental stress coping skills were assessed based on responses to the COSA R2 (Psychtests AIM Inc., 2017), which was part of the self-administered online survey used to collect the data. The variable of parental stress coping skills, which served as the IV for all research questions, was operationalized in two ways. For RQ1, scores of 55 and above were considered high and indicated the use of effective stress coping skills. Scores of 54 and below were considered low and indicated the use of ineffective stress coping skills. For RQ2 and RQ3, COSA R2 scores were treated as continuous numeric data to assess the relationship between the DVs of children's grades and behavioral conduct.

The COSA R2 instrument includes several specific behavioral constructs, including problem solving, information seeking, negotiation, social support, positive cognitive restructuring, and emotional regulation. These behaviors are considered effective and useful stress coping skills when confronting hardships and difficult situations (Psychtests AIM Inc., 2017). High scores for the use of techniques, such as rumination, avoidance, helplessness, social withdrawal, and opposition, are deemed ineffective stress coping skills (Psychtests AIM Inc., 2017).

Participants for the study were selected from a sample of parents or guardians of students in sixth, seventh, and eighth grades. The DVs, student grades and behavioral conduct scores, were operationalized as measures self-reported by each parent participant regarding their middle-school-aged child. All data were obtained within a short time frame after district-wide reporting, specifically as reported by the teacher on the 9-week student report card. Data for grades were obtained from parents in the form of each

student's GPA on a scale of 0 (F) to 100 (A). Behavioral conduct scores were tallied similarly based on the ISD 4.0 grading scale of 0 (F) to 100 (A). Various demographic variables were also considered to explore potential effects, including the family role, age, marital status, and race/ethnicity of the reporter (mother/father/guardian), family income level, and number of children in the household. Participants were also asked to provide data for the age, gender, and race/ethnicity of their middle-school student.

Some specific considerations regarding time constraints and resource availability had to be addressed during this study. For example, the research had to be conducted within the timeframe designated by the ISD as the active academic school year. This was the best viable option for obtaining the participants because it was also essential to collect data within a short window after district-wide grade reporting to promote accuracy in the parental reporting of student grades and conduct scores.

The primary analysis for this study employed both a quasi-experimental design and a correlational approach. I assigned participants to one of two groups for effective or ineffective coping skills based on high or low COSA R-2 scores and to assess if there were significant differences in children's grades or conduct. I also conducted linear regression analysis to determine if COSA R-2 scores, as continuous numeric data, were associated with children's grades or conduct. These approaches were deemed the most appropriate types of research design due to the hypotheses. As Frankfort-Nachmias and Nachmias (2008) have recommended, to demonstrate that two variables are related, an approach that shows comparisons is necessary.

The conceptual framework for this study was Bronfenbrenner's (1994) ecological model, which suggests that a relationship exists between a growing person and the immediate aspects of their environment. This includes their experiences with several socially organized subsystems like family and school because they guide and support how the individual develops. Bronfenbrenner's theory supports the relevancy of this study and the need to determine the potential effects of parental stress coping skills on the grades and conduct of middle-school students because a parent's ability to handle stressful situations has the potential to not only influence their parenting skills but also likely has long-term consequences on the parent–child relationship and some bearing on social and emotional outcomes for their children.

Role of the Researcher

The approach attempted for the data acquisition for this study was authoritarian. Frankfort-Nachmias and Nachmias (2008) maintained that the authoritarian mode is used when knowledge is being obtained from individuals who are socially or politically considered to be qualified producers of the information being sought. In this study, the parent/guardian was assumed to be qualified to provide the information (i.e., data on their own coping skills and the demographics of themselves and their child) that was necessary for addressing the research questions and determining if parental stress coping skills are related to children's grades and conduct. Therefore, I acquired the data and performed this study to examine whether there are explanations that support the predicted probability of a relationship between parental stress coping skills and the grades and

behavioral conduct of middle-school students.

Methodology

Population

The ISD used for this study serves families within several Texas communities located in the northern geographic region of the state. There is a tremendous amount of diversity represented within the population in this region across ages, ethnicities, incomes, genders, and family types. The target population for this study was consenting parents and legal guardians of the roughly 5,617 students in grades six, seven, and eight enrolled in six of the ISD's seven middle schools. The school where I am currently employed was excluded to avoid any potential conflict of interest.

Sampling and Sampling Procedures

Before collecting data, an a priori power analysis was conducted in G*Power with the specifications of a fixed model, R^2 increase from 0, effect size of .15, alpha = .05, and power = .90. The initial proposal for this study was to conduct MLR to assess the relationship between parental stress coping skills and children's grades and behavioral conduct; therefore, the *F* test was used as the basis for the preliminary a priori power analysis. The result of the power analysis indicated a critical *F* value of 3.11, a numerator $df = 2$, a denominator $df = 79$, and predicted a sample size of at least $n = 88$ participants needed to yield an actual power of .90 for the study. G*Power 3 is an established analysis program used regularly in social and behavioral research (Faul et al., 2009).

As Uttley (2019) has pointed out, parametric statistical tests are common in

research; however, there is a lack of testing for the assumptions that underlie these tests that not only can lead to the inappropriate use of a particular statistical test but has the potential to increase the possibility of conducting Type I or Type II errors. Furthermore, there is a lack of the reporting of effect size. As Barry et al. (2016) discovered during a review of 1,245 published research articles that contained quantitative data analyses, fewer than half (n = 597, 47.9%) reported an effect size detracts from the accumulation of scientific data (Uttley, 2019). In alignment with Uttley's (2019) recommendations, a power analysis was conducted for the current study to determine the appropriate sample size with the intention that it would help improve the evidential value of the research.

A convenience sampling technique allowed me to recruit participants from a naturally formed group of parent/guardian volunteers (Creswell, 2009). The potential for selection bias should be noted given that the invitation to participate was restricted to the ISD's PTA Facebook pages. The data collection process proceeded as planned; however, the desired sample size was not obtained. The final sample size for this study was n = 66; all were the parents or guardians of sixth-, seventh-, and eighth-grade students in the ISD. From this sample, for RQ1, I assigned each participant to one of two groups based on scores calculated from their responses to the COSA R2. High COSA (≥ 55) were designated as effective parental coping skills. Low COSA (≤ 54) were designated as ineffective parental coping skills. For RQ2 and RQ3, all scores were treated as continuous data. Participants who showed interest in the study but who failed to complete the online survey were excluded.

After a careful review of the research questions and levels of measurement for the variables, there was a reassessment of the most appropriate type of statistical test for the objectives. The two DVs, middle-school students' grades and behavioral conduct, were numeric, continuous, and measured on an interval scale. The IV of parental coping skills (i.e., COSA-R2 scores) was assessed in two distinct formats. First, COSA-R2 scores were used to assign participants to independent groups, resulting in a categorical variable with two levels measured on a nominal scale (high scores or low scores), which were used to assess if there was a statistically significant difference in grades or conduct based on effective or ineffective parental coping skills. Second, COSA-R2 scores were treated as a numeric, continuous variable measured on an interval scale and used as a predictor for regression analyses.

The research questions and type of variables used in this study provided the basis for choosing the correct statistical test for the primary analysis of the data using IBM SPSS Statistics 27.0 (SPSS). General guidelines from the Institute for Digital Research at the University of California, Los Angeles (n.d.) were consulted based on the number of DVs and the nature of the predictors. This confirmed that the appropriate parametric tests were analysis of variance and regression (University of California, Los Angeles, n.d.).

Procedures for Recruitment, Participation, and Data Collection

Several steps were carried out to complete this study. First, approval was obtained from the Walden University Institutional Review Board (see appendix A). Consenting participants were selected based on the following: (a) they were an accessible population;

(b) they were of an age to provide informed consent; (c) they were presumed to operate in the role of parent or guardian of a middle-school student; and (d) they were presumed to have the ability to read, understand, and complete the full questionnaire.

The study was introduced via an announcement placed on the PTA Facebook pages of all except one middle school in the target ISD. A copy of the announcement is provided in Appendix B. The study announcement included a brief background of the study and an explanation of the study's purpose. Also included was a link to a consent form that provided a brief explanation of the procedures, how participants' confidentiality would be maintained, the voluntary nature of the study, potential ethical concerns, and a statement with information that the survey was only available in English. Within the announcement, a disclosure statement was also included informing participants that by emailing *yes* or any other indication of interest to the email address provided, they were providing consent to participate in the study and that within 24 hours they would receive a personal access code with instructions on how to participate. The announcement informed participants that an incentive to participate was offered as a token of appreciation for their effort, in the form of a $5.00 Starbucks gift card sent to the address they provided within 30 days of participation. Participants were informed that providing an address to receive the incentive was completely voluntary and optional and the information would be used exclusively for the purpose of providing the incentive.

The study's sampling frame included all interested participants from the specified ISD who voluntarily used the information provided in the announcement to provide

consent and to access and complete the brief demographic questionnaire and COSA-R2 assessment (Psychtests AIM Inc., 2017). This instrument included questions that identified participants' use of effective or ineffective parental stress coping skills and the frequency of use. The demographic questionnaire can be found in Appendix C. It included items designed to obtain personal demographic information about each participant and their child, such as whether they were the mother, father, or guardian of the child and their age, race/ethnicity, income level, marital status, and the number of children currently in their household.

All parents and guardians of sixth-, seventh-, and eighth-grade students in the ISD were eligible to participate in the study. The invitation to participate was posted on the ISD Facebook pages. Those who desired to participate were able to access the study from any computer at their leisure. Parents or guardians who did not have access to a computer but were interested in participation were able to participate via cell phone, or from any public use computer at their child's middle school. The Facebook study announcement was made accessible at the end of each 9-week grading period from March 2019 through December 2019, after which I extracted the data that had been acquired from the 66 parent/guardian participants. Once all necessary data sources were obtained, analysis of the data was performed using SPSS.

Once the demographic questionnaire and self-administered assessment were completed, participants were notified that they had reached the end of the survey and were thanked for their participation. Participants were also reminded that those who

provided an email address would receive a $5.00 Starbucks gift card as a token of appreciation for their participation. In addition, participants could request a summary report outlining how they had scored on the assessment, at no cost to them, along with some research-based suggestions for effective coping skills. Participants were not only able to view their personal results upon completion of the survey but were offered the option to print or have their personal coping skills results summary report emailed to them. I provided an email address at which I could be reached by participants with questions regarding their participation. Otherwise, no additional follow-up with participants was necessary.

Instrumentation

Coping Skills Assessment Second Revision

The instrument used to measure parental stress coping skills was the COSA-R2 (Psychtests AIM Inc., 2017), a self-reporting instrument designed to assess a person's coping skills and the method they predominantly use to cope with stress. In this study, the COSA-R2 (Psychtests AIM Inc., 2017) was used to identify parents' use of effective or ineffective stress coping skills and types of coping skills used. It also provided data about the frequency of coping skill use and was used to assess possible covariates with the demographic data. The COSA-R2 (Psychtests AIM Inc., 2017) is one of several assessments offered through ARCH profile, a subsidiary of the well-established Psychtests organization which serves as a resource for psychological measures, scales, and instrumentation tools for research. The COSA-R2 (Psychtests AIM Inc., 2017)

contains 64 questions, and is currently only available in English. The recommended age for completing the assessment is 18 years and older. The estimated completion time is 15 minutes. I obtained permission and purchased a license to use the COSA-R2 (Psychtests AIM Inc., 2017) from the publisher.

The COSA-R2 (Psychtests AIM Inc., 2017) categorizes coping skills into the following three groups: (a) problem-focused coping, (b) emotion-focused coping, and (c) hang-ups. Each of these three groups are comprised of subgroups that further define them. Problem-focused coping skills include problem solving, information seeking, and negotiation. Emotion-focused coping skills include social support, positive cognitive restructuring, emotional regulation, and distraction (Psychtests AIM Inc., 2017). Both problem-focused coping and emotional-focused coping are considered healthy and effective coping methods. Hang-ups include rumination, avoidance, helplessness, social withdrawal, and opposition. These are all considered unhealthy and ineffective ways to cope with stress (Psychtests AIM Inc., 2017). In this study, an overall score falling within the range of 55 and above on the COSA-R2 (Psychtests AIM Inc., 2017) indicated the use of effective coping skills more than half of the time. Scores ranging 54 and below indicated the use of ineffective coping skills approximately half of the time or less. The COSA-R2 was validated on a sample of 8998 with high reliability based on Cronbach's Alpha of 0.94 (Psychtests AIM Inc., 2017).

Parent Self-Reports

This study included a brief questionnaire which asked consenting parents to

provide the grades and behavioral conduct scores for their child as recorded on their most recently obtained school report card. The reports were only offered in English. Parents were also asked to identify the age, gender, and race/ethnicity, of their child. The grading scale for middle school students in the ISD (2013) is as follows: A = 100-90, B = 89-80, C = 79-70, and F = 68-0. The district uses a 4.0 grading scale to determine GPAs in which A equals 4 points, B equals 3 points, C equals 2 points, and F is equal to 0 points.

Behavioral conduct scores for students in the ISD are based on citizenship, service, responsibility, integrity, cooperation, and respect as determined by the teacher. It is recorded on the district report card by the grade assigning teacher as A, B, C, or F. For this study, conduct grades were measured as: A = 100-90, B = 89-80, C = 79-70 and F = 68-0. Grades averages or conduct scores totaling 70 and above was indicative of passing, and grade averages or conduct scores of below 70 indicated a failing grade. Individual scale rankings were identified separately in the following way for grades and conduct: passing = 100 through 70 and failing = 0 through 69. The information gathered from the self-reports was used with participants' assessment results to analyze the data. For the purposes of this study, grades and behavioral conduct scores were the DVs.

Research Questions and Hypotheses

The research questions were answered by addressing each of the following hypotheses.

RQ1: Are there differences between the grades and behavioral conduct of middle-school students in a group of parents classified with effective parental stress coping skills

compared to a group of parents classified with ineffective parental stress coping skills?

$H_0$1: There is no significant difference between the grades and behavioral conduct of middle-school students in a group of parents classified with effective parental stress coping skills compared to a group of parents classified with ineffective parental stress coping skills.

H_a1: There is a significant difference between the grades and behavioral conduct of middle-school students in a group of parents classified with effective parental stress coping skills compared to a group of parents classified with ineffective parental stress coping skills.

RQ2: Are parental stress coping skills, as measured by total stress scores, associated with grades of middle-school students?

$H_0$2): Parental stress coping scores, as measured by total stress scores are not associated with grades in middle-school students.

H_a2: Lower total stress coping scores are associated with poorer grades in middle-school students, whereas higher total stress coping scores are associated with better grades of middle-school students.

RQ3: Are parental stress coping skills, as measured by their total stress scores, associated with behavioral conduct of middle-school students?

$H_0$3: Parental stress coping scores, as measured by total stress scores are not associated with behavioral conduct in middle-school students.

H_a3: Lower total stress coping scores are associated with poorer behavioral

conduct in middle-school students, whereas higher total stress coping scores are associated with better behavioral conduct of middle-school students.

Data Analysis

Upon completing data collection, I extracted the data from Survey Monkey that was acquired from the COSA-R2 provided by Psychtests AIM Inc. (2017). I also extracted the data on participants' self-reported age, gender, race/ethnicity and for the demographic variables, academic grades and behavioral conduct scores for their students. After identifying complete responses, I sent the incentive (i.e., $5.00 Starbucks gift card) to all participants who voluntarily provided a mailing address for that purpose.

Results of the COSA-R2 (Psychtests AIM Inc., 2017) were based on electronic scores provided in an export as part of the purchase of the module from Psychtests AIM Inc. (2017). The export module remained available for a total of three months. Once all the data were extracted from both the COSA-R2 and Survey Monkey reports, it was cross-referenced and organized into an Excel spreadsheet. The spreadsheet was checked for duplicate and/or incomplete information and the responses were organized into two groups separated according to a determined use of effective stress coping skills or use of ineffective coping skills. The data were then uploaded into SPSS for analysis. For effective and ineffective stress coping skills, a MANOVA was performed to compare differences between these two groups for each DV. Separate linear regressions were performed to evaluate the relationship between the predictor variables (COSA R2 scores and demographics) and each of the DVs (grades and behavioral conduct).

An exploratory research design using a MLR analysis was intended initially. However, this method of analysis did not entirely answer the research questions. Upon further consideration of the operationalization of the study variables and the specific research questions and hypotheses, I determined that the appropriate statistical tests were analysis of variance and linear regression. Specifically, MANOVA was deemed an appropriate means of answering the first research question, whether there are differences in children's grades or conduct (two continuous numeric variables) between independent groups of parents who use effective versus ineffective coping skills, a single categorical variable (Laerd Statistics, 2017c). I also intended to use two simple linear regressions to analyze the additional research questions, to determine if there was an association between COSA-R2 scores and children's grades or conduct (Laerd Statistics, 2015b).

During a preliminary analysis of the data, the following demographic variables were explored to determine if their potential influence: reporter or family role (mother, father, or guardian), age of reporter, race/ethnicity of reporter, income level, marital status, number of children, age of child being assessed, child's gender, and child's race/ethnicity. Hypothesis tests were evaluated as significant when *p*-values less than .05 were obtained. The regression coefficients and R^2 were interpreted to establish the nature of the significant relationships based on the magnitude of the effects of parental stress coping skills on grade and behavioral conduct scores and the amount of variance that was explained by the predictors.

Threats to Validity

External Validity

Threats to external validity may arise when conclusions drawn from studying one population are incorrectly inferred regarding other groups with characteristics dissimilar to that which was studied (Creswell, 2009). To maximize external validity in relation to sampling for this study, and to reach a diverse population across ethnicities, incomes, marital statuses, genders, and number of children, equal opportunity for participation was offered to all parents/guardians of students in middle school within the ISD. However, a nonprobability, convenience sampling method was used because it allowed for the collection of data from individuals which were accessible to the researcher (Lavrakas, (2008). Also, the assessments used were only available in English, and this information was included in a disclosure statement to inform potential participants. There are various cultural differences between each middle school and surrounding neighborhood throughout the ISD; however, the study's findings may not be generalizable to the entire student population within the ISD since the invitation to participate was only accessible through the ISD's PTA Facebook pages. Therefore, parents with no PTA affiliation may have been excluded and this study and the results may include selection bias.

Internal Validity

Internal validity can be threatened when participants' experiences are affected by the experimental procedures or treatments to the degree that the researcher is unable to draw adequate conclusions about the data (Creswell, 2009). Internal validity was

addressed in several ways. Each participant was asked to participate by individually accessing the link to complete the same brief questionnaire and COSA-R2 (Psychtests AIM Inc., 2017) assessment that was offered for the study. The parent/guardians were ensured confidentiality as they were in no way asked to identify themselves or their children. Also, each parent participant was provided an individual access code with which to complete the online brief questionnaire and COSA-R2 within their own personal accounts. Although the participants were divided into groups of parents utilizing effective or ineffective stress coping skills depending on how they responded, members of neither group were asked to do anything extra or different. Despite measures taken to minimize threats to internal validity, there was some evidence of selection bias as the number of participants assigned to each of the groups was not equal. Based on COSA R2 scores, more parents with coping skills classified as effective were included in the sample. Finally, a one-way ANOVA analysis and independent sample *t*-test were conducted to identify possible covariates and control for them.

Based on the a priori G*Power analysis, the recommended minimum sample size was 88 participants. The final analysis only included 66 participants, which does not necessarily invalidate the results but should be acknowledged as a limitation. I had initially planned to randomly select an initial sample of 100 participants to combat the possibility of problems that may occur due to unanticipated dropouts. However, since the desired sample size was not obtained, there are a few aspects of internal validity that may have been compromised. For one, most of the parent participants reported grades of A or

B for all subjects, which may have been presented inaccurately due to participant bias. Or it could be that only parents or guardians of high performing students participated in the study. Additional research using a larger, more diverse sample is suggested for further exploration of the study variables.

Construct Validity

Construct validity is often determined by relating the theoretical framework and measuring instrument to each other (Frankfurt-Nachmias & Nachmias, 2008). I ensured construct validity by using evaluation instruments that had been proven to display good psychometric properties when used with samples like that in this study. I also considered statistical construct validity, an important phase of construct validation that has generalized applicability to the social sciences because it is related to the reliability of the instrument(s) used along with attention to convergent validity and discriminant validity (Ahire & Devaraj, 2001). Reliability in research refers to the level of consistency in measuring a construct (Carmines & Zeller, 1979). For this study, the COSA R2 was chosen because it has been demonstrated to be a reliable measurement of parental stress coping skills (Psychtests AIM Inc., 2017). Convergent validity refers to whether there is consistency in multiple measurements of a construct (Campbell & Fiske, 1959) while discriminant validity is how a construct is differentiated from other constructs (Long, 1983). According to the publisher of the COSA R2, the instrument has a Cronbach's alpha of .94, which indicates strong reliability. This instrument also appears to have strong convergent and discriminant validity, in measuring three distinct underlying

constructs related to stress defined as problem-focused, emotion-focused, and empty coping strategies (Psychtests AIM Inc., 2017).

Ethical Considerations

I received approval on March 5, 2019, to post my study announcement on the PTA Facebook pages of seven middle schools. I acquired permission from Walden University's IRB to perform the study on February 6, 2019 (IRB # 12-21-18-0366631). The nature of this study and the effect that it could have on the participants was carefully considered. Although the data collected concerned minors, the source of the data was parents who were assumed to be of consenting age, authorized to give consent on behalf of their child, and competent. Upon accessing the link, participants were provided with information about how to learn more about the study and a notice of consent, to which they had to agree by emailing 'yes' or to the email address provided. I considered an emailed 'yes' as consent and willingness to participate.

The notice included information regarding the purpose and benefits of the study, confidentiality, participant rights, and procedures for participation. Participants were informed that once they had consented to participate in the study, they would receive a personal access code and instructions about how to proceed with 24 hours. Prior to the beginning of the brief questionnaire and COSA-R2 (Psychtests AIM Inc., 2017), participants were reminded that consent implied willingness to participate in the study and to complete the demographic questionnaire and assessment. Clearly stated within the consent was the assurance that all records in the study will remain confidential and only

be accessible to the principal researcher. Interested participants were assured that if they became uncomfortable with the completion of any part of the study, there was no obligation to continue. They were free to withdraw from the study at any point without consequence to them or their child. In addition, they were informed that a decision to decline participation in the study would have no effect on them or their child in the school district. Participation in the study did not involve any physical or emotional risks to any parties, nor were there any physical or emotional benefits to be expected.

To protect indemnity and confidentiality, at no time was any information that would specifically identify who the parent/guardian participants were requested by the researcher or provided to the school district. Participants were at no time asked to provide their name or the name of their child. Each participant was identified for research purposes with a code assigned after they gained access to their individual assessment. Furthermore, I have no personal ties to any ISD middle schools, except the one where I am employed, which was excluded from the study. I have and have not had any personal connection to any parent or student at any of the middle schools that were sampled, and there was nothing to gain or lose by any participant in the study or their child.

Once the data were collected, it was only accessible to me. All data will be kept stored on a portable electronic device labeled confidential and secured in a locked filing cabinet located in my office for 5 years. An additional encrypted electronic copy of the research data marked confidential is kept in a secure lock box at my home. Instructions regarding the procedural rights to disclose research results to participants, along with

details reminding of the date to be discarded are kept along with the copy. Both copies of the data will be destroyed after 5 years. Following the analysis, a brief written summarization of the study results was made available to interested stakeholders.

Summary

This quantitative study used data obtained from the COSA-R2 (Psychtests AIM Inc., 2017) and participants' self-reports of demographic variables for themselves and their child enrolled in either the sixth, seventh, or eight grades in a north Texas ISD. This study examined the relationship between parental stress coping skills and students' grades and behavioral conduct. Participants were recruited through an announcement placed on the ISD PTA Facebook pages. The final sample consisted of 66 parents/guardians of students in the ISD. I analyzed the data using SPSS, and the results of the analysis were interpreted and used to test the hypotheses for this study. The parametric statistical tests used for the primary analysis were analysis of covariance and linear regression. Tools with good reliability and validity were utilized for collection and measurement purposes and statistical tests (e.g., independent sample *t*-tests and one-way analysis of variance) were conducted to identify possible covariates regarding the demographic variables. A review of the study's result is detailed in chapter four.

Chapter 4: Results

Introduction

Daily stress has increasingly been recognized by researchers as an important risk factor associated with the mental well-being of individuals (Schonfeld et al., 2016). Parental stress is one aspect of parenting that has garnered a substantial amount of attention. According to Bronfenbrenner's (1979) modeled explanation of family systems, family functioning factors heavily into the adaptive and maladaptive development of a child. A key component to Bronfenbrenner's theory may be related to the idea that factors, such as parental stress, impact the approaches a parent will employ and the effectiveness of their parenting style (Guajardo et al., 2009). High levels of parental stress have been linked to high levels of conduct difficulty in children (Broadhead et al., 2009).

Xia et al. (2015) suggested that interactions within the family between a child, parents, and other family members throughout development are among the factors that influence school attachment, academic self-regulation, and academic success. According to Stelter and Halberstadt (2011), family functioning, along with other factors, influences how receptive a child will be to explore the types of processes that naturally occur in a learning environment. Further, O'Malley et al. (2014) and Xia et al. (2015) uncovered evidence that implies both home and school environments have a direct influence on how a child will perform in school and their potential for long-term success. Existing research consistently indicates that parental stress can be responsible for consequent and lasting effects on childhood outcomes. After reviewing the existing literature on parent stress

and the effects on child development, it brought to question what association parent stress coping skills has with the grades and conduct of students in middle school.

The purpose of this quantitative study was to determine if parental stress coping skills is associated with the grades and conduct of students in middle school. The parents' stress coping skills score, as determined by the COSA-R2 (Psychtests AIM Inc., 2017), was the IV. The DVs, students' grades and behavioral conduct scores, were reported by the parent/guardian participants. This chapter includes a presentation of the results of this study, which was conducted consistent with an exploratory methodology. Also presented in this chapter are descriptive statistics of the sample demographics, results of the preliminary analysis for significant demographic variables/covariates, and the results of the statistical analyses as related to each research question.

For RQ1, ANCOVA was used to determine if there were significant differences between the grades or behavioral conduct of middle-school students whose parents use effective or ineffective parental stress coping skills. For RQ2 and RQ3, MLR was used to determine if there was a relationship between parental stress coping skills and the grades or behavioral conduct of middle-school students. These designs were chosen based on the types of variables, scales of measurement, and assumptions that were the foundation of the research questions.

Data Collection

I acquired partial approval from Walden University's IRB to conduct research in an ISD in northern Texas on December 18, 2018. After meeting with the school district's

director of assessments to inquire if the proposed guidelines would ensure my chances for approval, and after 3 months of waiting for approval or denial of my request after submitting my application for research approval, I was unable to obtain approval for my study. I then sought approval to perform my research study in the ISD. With the approval of my Walden University dissertation committee chair, I then completed the ISD process for approval to collect data within the school district.

I submitted my request for permission on February 5, 2019. I requested permission to post my study announcement on the PTA Facebook pages for seven of the ISD's eight middle schools. Due to ethical guidelines and the potential of a conflict of interest, I excluded the school where I am employed, from my research. On March 5, 2019, I received approval to post my study announcement on the PTA Facebook pages through the end of May 2019. I then submitted an amended request to Walden University's IRB to approve data collection in the ISD.

I received notification of approval of my study from the IRB on February 6, 2019 (IRB # 12-21-18-0366631). Because I had not obtained the desired number of study participants by the end of May 2019, I was required to submit a new request for research approval to continue conducting research into the next school year. My request was submitted on July 9, 2019. District approval to continue research was received on August 21, 2019. On November 5, 2019, I was notified by the IRB that approval for my study would expire on December 20, 2019. I then submitted a request for approval continuation to the IRB on November 20, 2019. I received approval to continue my research on

December 6, 2019. Approximately 1 week after the end of each grading period, the study announcement flyer inviting all parents and guardians of middle-school students in the ISD was posted on the PTA Facebook pages of the seven approved schools; however, the study could only be advertised during the school year. As a result, I was only able to post the Facebook announcement for the final grading period of the school year on March 8, 2019, through June 7, 2019.

After receiving district approval on August 21, 2019, for a second time to continue my research, I posted the Facebook announcement at the end of grading periods from September 2019 through December 2019. The initial response to my study announcement was consistently promising as I had several potential participants email a response to me to indicate interest, as was required to as part of the process of providing informed consent. Parents and guardians interested in participating in the study were required to email with an indication that they wanted to participate to the email address that was provided in the announcement.

Consenting participants were emailed a copy of the study consent form and access codes to the Psychtest mainframe where they were directed to log into their personal accounts to complete the parent questionnaire and assessment. It was quickly apparent that most of these participants, despite having indicated an interest in the study, were not likely to follow to completion of the survey, and the sample size that was obtained was less than projected or anticipated. Participants who actively completed the survey were informed they had reached the end of the study and were offered a free summary report

outlining how their scores from the assessment with research-based suggestions for effective stress coping skills. The actual time frame for data collection was approximately 8 months. Following an exploratory method design, the data were collected so that they could be analyzed to observe the effects of the variables and emerging themes that would increase my understanding of whether parent stress coping skills influences student performance in school.

Prior to data collection, an a priori analysis was conducted in G*Power for a MLR fixed model R^2 with alpha of .05, power of .90 and effect size of .015. The recommended sample size was $n = 88$ participants. However, several unanticipated difficulties over time with data collection lowered the size of the obtained sample after it became clear this goal would not be achieved within a reasonable time frame. Although there was no shortage of participants with interest in the study after each announcement of the opportunity was posted (as demonstrated by emailing me or through another indication of willingness to participate), actual rates for follow through of the online survey were consistently low. Completion rates of the assessment remained an issue through the entire data collection process despite a $5 Starbucks gift card incentive offered to each participant. The final sample size obtained was $n = 66$ participants.

All participants in this study were the parent or primary guardian of at least one student attending a middle school in the ISD. Personal demographics collected included each participant's family role, race/ethnicity, age, annual income level, marital status, and number of children at home. Participants who completed the COSA-R2 were

immediately provided the results, including an overall score indicating their level of coping with parental stress. Participants with COSA scores 55 or greater were considered to have high coping skills, which was labeled as effective parent stress coping skills (*n* = 54, 82%), while participants who scored below 55 were considered to have low/ineffective stress coping skills (*n* = 12, 18%).

Demographic results for the parents/guardians in the sample are presented in Table 1. Sixty-six parent/guardians of middle-school students completed the COSA-R2 assessment to determine their level of coping skills, along with a brief survey to collect data on demographic variables and for their children's grades and behavioral conduct. Fifty-five of the participants (83%) reported the parental role of mother. Most of the 66 participants were White/Caucasian (64%), followed by Black/African American (17%), Hispanic/Latin (11%), and other ethnicities (9%). Most participants were ages 22–44 years (56%) or 45–59 years (41%). Only two participants were 60 years or older. Most participants were partnered (74%), Approximately 23% reported having two children at home; 35% had three children, and 24% had four children. Only 18% of the participants reported having five or more children at home. The most common annual family income was between $50,000 and $75,000 (36%).

Table 1

Participant Demographics

Factor	N	%
Parental role/position		
Father	7	10.6
Grandparent	2	3.0
Guardian	2	3.0
Mother	55	83.3
Race		
White/Caucasian	42	63.6
Black/African/AA	11	16.7
Hispanic/Latin American	7	10.6
Other	6	9.1
Age		
22–44 years	37	56.1
45–59 years	27	40.9
Older than 60 years	2	3.0
Relationship status		
Partnered	49	74.2
Not partnered	17	25.8
Number of children at home		
2	15	22.7
3	23	34.8
4	16	24.2
5+	12	18.2
Income		
< $25,000	8	12.1
$25,000–$50,000	7	10.6
$50,000–$75,000	24	36.4
$75,000–$100,000	9	13.6
< $100,000	18	27.3

Demographics for the children/students for this study are presented in Table 2. The children of the participants were ages 11 years (26%), 12 years (27%), 13 years (38%), or 14 years (9%). Most of the children were reported by their parents as White/Caucasian (58%), followed by Hispanic/Latin (20%), Black/African American

(18%), or other ethnicity (5%). There was a fairly even distribution of male children (59%) and female children (41%).

Table 2

Student Demographics

Factor	N	%
Gender		
Female	27	40.9
Male	39	59.1
Race		
White/Caucasian	38	57.6
Black/African American	12	18.2
Hispanic/Latin American	13	19.7
Other	3	4.5
Age		
11 years	17	25.8
12 years	18	27.3
13 years	25	37.9
14 years	6	9.1

Preliminary Analyses

Researchers often choose to conduct comparisons between specific groups of interest before examining the results of the primary analysis. For example, I was interested in the difference in children's grades and conduct based on the demographic variables of income level, family role, age, marital status, ethnicity, number of children, type of stress coping skill used, along with the child's age, gender, race/ethnicity in relation to the DVs, a type of comparison known as a planned contrast (Laerd Statistics, 2017b). A series of tests were conducted to assess the effect, if any, of the demographic variables on the study variables to determine if they were significant covariates. One-way

ANOVAs were carried out to evaluate the effects of each demographic variable with more than two groups (e.g., family role, guardian race, number of children at home, family income, student age, and student race) to determine their effects on the study variables (e.g., grades, conduct, and COSA). Tukey's HSD and Games Howell post hoc tests were run for significant ANOVAs to determine which groups significantly differed from another. Independent sample *t*-tests were carried out for each demographic variable with two levels to determine if there were significant mean differences between the groups. This was the correct type of analysis because all demographic variables were classified as categorical/nominal and COSA, grades, and conduct scores were numeric.

Cohen's *d* and eta squared are measures of effect size for the strength of a relationship between variables often used to evaluate the standardized mean difference of an effect (Lakens, 2013). These statistics produce a standardized average across levels of the IV with values between zero (all means are equal) to values that are indefinitely large an increase as the standard deviation of the means increases relative to each group (Salkind, 2010). Guidelines to evaluate the effect size for *t* tests were based on Cohen's (1992) guidelines for between groups (.10 = small, .25 = moderate, and .40 = large). Guidelines for interpreting effect sizes related to ANOVA were based on Cohen's (1988) recommendations (.01 = small, .06 = medium, and .14 = large) with the assumption that the predictors were planned/fixed (Uanhoro, 2017). See Table 3 for a summary of *F*-statistics obtained for all one-way ANOVAs conducted between demographic variables and the DVs of children's grades and behavioral conduct. No demographic variables had

a significant effect on children's conduct and the only significant factor for children's grades was age of guardian.

Table 3

Grades and Conduct Scores by Demographic Variable

Demographic variables	Grades	Behavioral conduct
Family role	1.56	1.55
Age of guardian (25–44/45+)	7.58**	1.42
Race/ethnicity of guardian	2.15	0.86
Number of children at Home	1.66	1.12
Income level	1.34	0.75
Age of student	2.10	1.39
Race/ethnicity of student	2.59	2.58

Note. * $p < .05$; ** $p < .01$

As described in Chapter 3, the study's sampling frame included all interested parent or primary guardians with children enrolled as students in the ISD middle schools. Based on an a priori G*Power analysis, the recommended minimum sample size was $n = 88$, based on parameters of alpha .05, power equal to .90 and effect size of .15. After receiving approval from Walden University's IRB, I used a convenience sampling method to recruit parents/guardians from the target population. The final valid sample size obtained for the analysis was $n = 66$.

After providing consent to the study, participants voluntarily completed a questionnaire starting with a brief set of demographic questions that I created to collect data on their income level, age, marital status, specific family role (i.e., parent, grandparent, or guardian), race/ethnicity, number of children in the household, and their child's age, gender, and race/ethnicity. Data were then collected on participants' parental

stress coping skills, as measured by the COSA-R2 (Psychtests AIM Inc., 2017), which served as the IV. Finally, data were collected on the academic grades and behavioral conduct of the participants' children, which served as the DVs.

Before addressing the research questions directly, a preliminary review of the data was performed in SPSS. This consisted of (a) analyzing descriptive statistics to provide a thorough account of the demographic characteristics of the sample and (b) conducting a series of statistical tests to determine if any of the demographic variables were significant covariates for the study variables (e.g., COSA-R2 scores, and children's grades or conduct). To establish a reference point for effective or ineffective parental stress coping skills, parents were assigned to one of two groups based on their responses to the COSA-R2. Ineffective (low) parental stress coping skills were indicated by a cutoff score of 54 or lower. Effective (high) parental stress coping skills were indicated by a cutoff score of 55 or greater. This provided data used to both classify parental coping skills as effective or not (for research question one), and to assess if scores on the COSA-R2 were related to overall scores for children's grades and conduct (for research questions two and three). Students with parents in the low/ineffective parent stress coping skills group had slightly lower grades ($M = 91.33$, $SD = 5.33$) than students with parents in the high/effective group ($M = 92.80$, $SD = 5.80$). Students with parents in the low/ineffective parent stress coping skills group had slightly higher conduct ($M = 96.17$, $SD = 3.66$) than students with parents in the high/effective group ($M = 95.17$, $SD = 5.60$). See Table 4 for grade and conduct scores by COSA group.

Table 4

Grades and Conduct Scores by Demographic Variable

Factor		*M*	*SD*	N
Grade	COSA low	91.33	5.331	12
	COSA high	92.80	5.800	54
	Total	92.53	5.706	66
Conduct	COSA low	96.17	3.664	12
	COSA high	95.17	5.602	54
	Total	95.35	5.293	66

Race of guardian had a significant effect on overall COSA scores, $F(3, 62) = 2.945$, $p = .040$ (see Table 5). Levene's test for homogeneity of variance was conducted, and the data passed the assumption ($p = .417$). Significantly higher COSA scores (i.e., more effective parental stress coping styles) were observed for Black/African American parents ($M = 74.73$, $SD = 6.67$) as compared to White/Caucasian parents ($M = 65.26$, $SD = 12.02$), with a mean difference of -9.47 and 95% CI [1.87, 17.06]. Cohen's $d = .847$, a large effect size (Cohen, 1992). No significant difference was found ($p = .070$) for COSA scores between Black/African American parents and Hispanic/Latin parents ($M = 61.86$, $SD = 10.51$). No significant difference was found ($p = .141$) between Black/African American parents and parents with other ethnicity ($M = 61.50$, $SD = 11.81$). No significant difference was found ($p = .863$) between White/Caucasian parents and Hispanic/Latin parents or between White/Caucasian parents and parents of other ethnicity ($p = .883$). However, the finding of statistical significance between COSA scores for Black/African American and White/Caucasian parents indicates that race of guardian is a covariate with COSA scores.

Table 5

ANOVA: Parental Race and COSA

	SS	df	Mean square	*F*	Sig.
Between groups	1101.12	3	367.04	2.95	.040*
Within groups	7726.66	62	124.62		
Total	8827.77	65			

Note. * $p < .05$; ** $p < .01$

Age of guardian and children's grades was significant, $F(1, 64) = 7.58$, $p = .008$, (see Table 6). Cohen's $d = .683$, a medium effect size (Cohen, 1992). There was an increase in grades for children of the younger (aged 25 to 44) group of parents ($M = 94.16$, $SD = 5.56$) as compared to children of the older (45+) group of parents ($M = 90.45$, $SD = 5.28$), with a mean difference of 3.714 and 95% CI [1.020, 6.408]. Levene's test for homogeneity of variance was conducted, and the data passed the assumption ($p = .772$). No significant difference was found for children's grades between parents aged 45-60 with either younger or older parents; however, the finding of statistical significance between the youngest and oldest parents indicates that age of guardian may be a covariate with children's grades.

Table 6

ANOVA: Parental Age and Children's Grades

	SS	df	Mean square	F	Sig.
Between groups	224.24	1	224.24	7.58	.008**
Within groups	1892.20	64	29.57		
Total	2116.44	65			

Note. *$p < .05$; **$p < .01$

Research Question 1

For research question one, analysis of covariance (ANCOVA) was used to

determine if there were significant differences between either the grades or behavioral conduct of middle school students based on effective or ineffective parental stress coping skills. For research questions two and three, MLR was used to determine if there was a relationship between parental stress coping skills and either children's grades or conduct. These were the appropriate types of analyses based on the research design, variables, scales of measurement and assumptions that were the foundation of the research questions.

Participants for this study were categorized as four distinct types of race/ethnicities: Black/African American, Hispanic/Latin, White/Caucasian, or other. Most of the participants in this study self-reported their parental role as mother, and most were White/Caucasian, followed by Black/African-American, Hispanic/Latin, and other ethnicity (9%). Most participants were aged 25-45 years old, or 45 to 59 years old. Only two participants were more than 60 years old.

The first research question asked if there are differences between the grades and behavioral conduct of middle school students in a group of parents classified with effective parental stress coping skills as compared to a group of parents with ineffective parental stress coping skills. The null hypothesis stated that there is no significant difference between the grades and behavioral conduct of middle school students in a group of parents classified with effective parental stress coping skills compared to a group of parents classified with ineffective parental stress coping skills.

The alternative research hypothesis stated there is a significant difference between

the grades and behavioral conduct of middle school students in a group of parents classified with effective parental stress coping skills compared to a group of parents classified with ineffective parental stress coping skills. To test the effects of parental stress coping skills, participants' COSA scores were dichotomized into high/effective and low/ineffective, thus creating a factor with two levels that served as an IV to define two independent groups.

The DVs were children's grades and children's conduct; both variables were numeric and continuous. Due to the finding of significance for the demographic variables of age of guardian with children's grades and race of guardian with children's conduct, the appropriate statistical test to address the research questions was ANCOVA, which produces a general linear model that compares the means from multiple experimental groups with additional predictors, referred to as covariates (Field, 2018). This parametric test reduces within-group error variance and predicts the outcome of a dependent measure by assessing any statistically significant difference between group means which have been adjusted to account for the potential effects of a covariate (Field, 2018). For this study, one ANCOVA was run to explore the effects of parental stress coping skills on students' grades, using the demographic variable of age of the guardian as a covariate, and a second ANCOVA was run to explore the effects of parental stress coping skills on students' conduct, using the demographic variable of race of the guardian as a covariate. It should be noted that, for this sample, there were no African American parents who were scored as having low COSA scores (see Table 7).

Table 7

COSA Frequencies by Age and Race of Guardian

		COSA low	COSA high	Total
Guardian age				
	25 to 44 years old	8	29	37
	45 and older	4	25	29
Guardian race				
	African American	0	11	11
	Hispanic/Latin	2	5	7
	Other ethnicity	2	4	6
	White	8	34	42
Total		12	54	66

Statistical Assumptions of ANCOVA

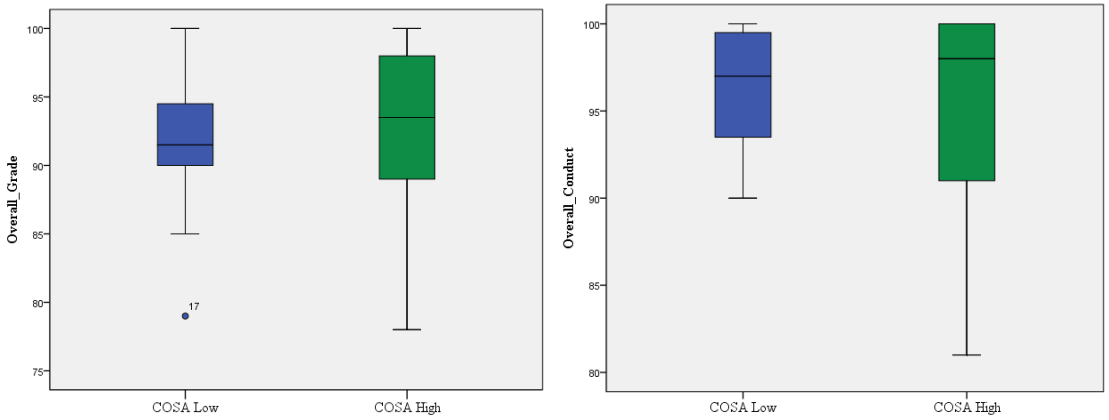
The data were tested for a series of assumptions to ascertain the validity of the analyses. A primary assumption for ANCOVA is the independence of observations, which occurs when participants are assigned to discrete groups (i.e., test conditions) based on the different levels of the IV. Although all participants are evaluated on the same dependent measure, there is no relationship between the observed scores on the IV because each participant is assigned to only one group (Laerd, 2017a). This research design varies from within subjects designs where all participants are included in all test conditions (Glen, 2021). Given that the grouping variable for the ANCOVAs was based on parental COSA levels (high and low), and each participant was assigned to only one of these conditions, the assumption for independence of observations met.

To assess the assumption of normality and to determine if the data included univariate or multivariate outliers, boxplots in SPSS. For the variable of grades, most

observations ranged from 85-100; a single outlier was observed for the low COSA group (x = 79) but was not extreme enough to warrant removal from the data. For the high COSA group, the range was consistent with a minimum of 78 to a high of 100 and no outliers were observed. For the variable of conduct, the observations ranged from 81-100, and no outliers were observed for either group (see Figure 1).

Figure 1

Boxplots: Grades and Conduct by COSA Group



Based on both a visual inspection of the boxplots, and the results of the Shapiro-Wilks test, the data did not pass the assumption for multivariate normality for either the variable of grades (p = .004) or conduct (p < .001). For a parametric test, such as ANCOVA, values of the DV should be approximately normally distributed for each group. The violation of the assumption of normality for this analysis is noted but does not necessarily invalidate the results since ANCOVA is considered robust in relation to deviations from normality (Laerd Statistics, 2017a). Another key assumption for ANCOVA is homoscedasticity, or homogeneity of variance. This assumption is related to

a research design where different groups of cases are evaluated in relation to each other, and it is assumed that they are derived from the same populations with equivalent variances; variance of the DV should be consistent across levels of the independent or grouping variable (Field, 2018). The assumption for homogeneity of variance passed for the analysis of the effects of parental stress coping on children's grades based on Levene's test of equality of error variances in SPSS (p = .957). A similar result was obtained for the analysis of the effects of parental stress coping on children's conduct (p = .784).

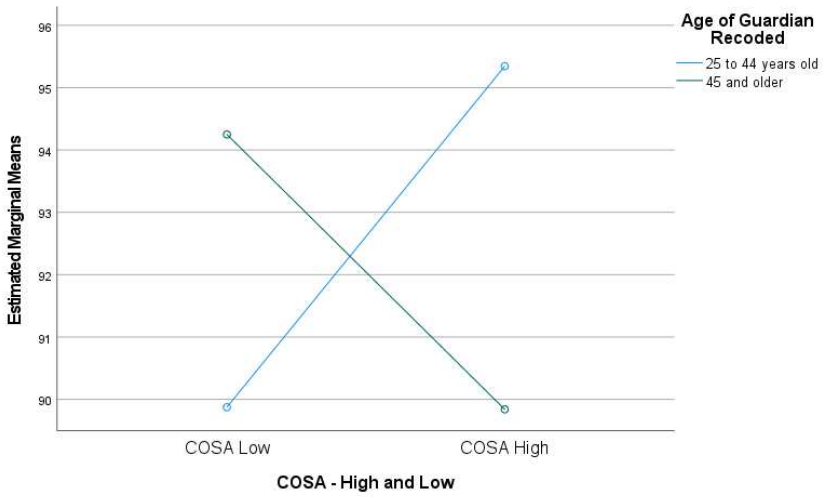
For RQ1, there was insufficient evidence to support the claim that there is a significant difference between the grades of middle school students in a group of parents classified with effective parental stress coping skills as compared to those in a group of parents classified with ineffective stress coping skills, $F(1, 62) = .095$, $p = .759$. When considering only the mean difference in children's grades based on high coping skills of the parents (M = 92.80, SD = 5.80) or low coping skills (M = 91.33, SD = 5.33), no statistical significance was found.

However, there was a statistically significant interaction between parental coping skills and age of the guardian, where children's grades were dependent upon both of these factors, $F(2, 52) = 7.315$, $p = .006$, $\eta^2 = .117$. For this analysis, the effect size was strong (Cohen, 1988). For parents with low coping skills, younger parents (i.e., aged 25 to 44 years old) had children with lower average grades (M = 89.88, SD = 5.44) as compared to older parents (i.e., aged 45 and above) (M = 94.25, SD = 4.27). For parents

with high coping skills, younger parents had children with higher average grades (M = 95.34, SD = 5.07) as compared to older parents (M = 89.84, SD = 5.23). Figure 2 demonstrates the effects of parental coping skills on children's grades with age of guardian as a covariate.

Figure 2

Estimated Marginal Means of Grades

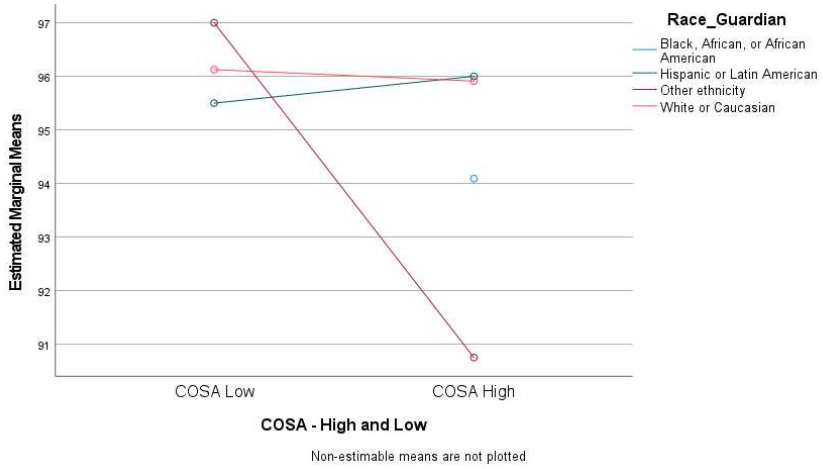


Again, there was insufficient evidence to support the claim that there is a significant difference between the conduct of middle school students in a group of parents classified with effective parental stress coping skills as compared to a group of parents classified with ineffective parental stress coping skills, $F(1, 59) = .771$, $p = .383$. When considering only the mean difference in children's conduct based on high coping skills of the parents (M = 95.17, SD = 5.60) or low coping skills (M = 96.17, SD = 3.66), no statistical significance was found. In addition, there was no statistically significant interaction between parental coping skills and race of the guardian on children's conduct

scores, $F(2, 59) = .765$, $p = .470$. Figure 3 demonstrates the effects of parental coping skills on children's conduct with race of guardian as a covariate.

Figure 3

Estimated Marginal Means of Conduct



Research Questions 2 and 3

The second research question was: Are parental stress coping skills, as measured by total stress scores, associated with grades of middle school students? Age of the parent was included as a covariate. The third research question was: Are parental stress coping skills, as measured by their total stress scores, associated with behavioral conduct of middle school students? Race of the parent was included as a covariate. The null hypotheses stated that parental stress coping scores, as measured by total stress scores will not be associated with grades or behavioral conduct in middle school students.

The research hypotheses stated that lower total stress coping scores will be associated with poorer grades and poorer behavioral conduct in middle school students, whereas higher total stress coping scores will be associated with better grades and better

behavioral conduct of middle school students.

Statistical Assumptions of Linear Regression

The data were tested for the MLR assumptions to ensure validity of the analyses. The outcome variables (e.g., children's grades and conduct) were both numeric and continuous, and the assumption for scale of measurement for the dependent measures was met. Predictors/independent variables for MLR may be either continuous or categorical. Polytomous independent variables (i.e., predictors with at least three levels) must be transformed into dummy variables before entering them into a multiple regression analysis in SPSS; however, dichotomous variables (i.e., predictors with only two levels) do not require transformation (Laerd, 2015a). The covariates of parents' age and race were included as predictors for the regression analysis, and both were categorical variables with two levels using a nominal scale of measurement. Therefore, the assumption for MLR regarding the scale of measurement for all predictors was also met.

To assess the validity of the linear regressions, a series of procedures were conducted in SPSS. Multicollinearity was evaluated with VIF and tolerance statistics. Homoscedasticity, linearity, and outliers were assessed through a visual inspection of plots of studentized residuals versus unstandardized predicted values and a histogram of the standardized residuals. The assumption of normality was assessed with Q-Q plots. Durbin-Watson statistics were generated as a measure of the independence of the residuals. The expected value of the Durbin-Watson statistic ranges from 0 to 4, where

values close to 2 indicate non-autocorrelation. Values close to zero indicate positive correlation and values close to 4 indicate negative correlation (Laerd Statistics, 2015b).

For research question two, the model based on the predictors of parental stress coping skills and parental age (as a covariate) for grades of middle school students was significant, $F(1, 64)= 4.12$, $p = .010$. Based on R^2, approximately 13.5% of the variance in students' grades was explained by this model; however, there is insufficient evidence to conclude that grades are associated with parental stress coping skills (see Table 8). The only significant predictor was age of guardian ($p = .004$); COSA scores were not a significant predictor of children's grades ($p = .150$).

Table 8

Summary of Regression Analysis for Grades

	B	SE(B)	β	t	p	LL	UL
Constant	92.83	4.01		23.13	.000**	84.81	100.85
Age of guardian	–4.15	1.37	–.36	–3.03	.004**	–6.88	–1.41
COSA	.09	.06	.18	1.46	.150	–.03	.20

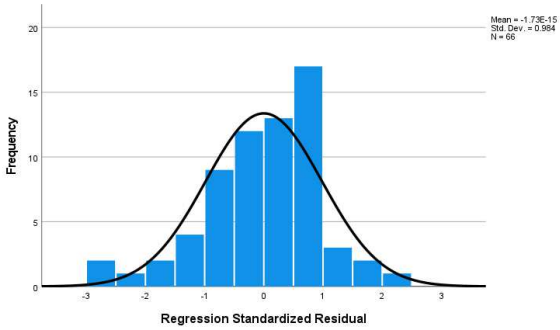
Note. *$p < .05$, **$p < .01$. $N = 65$. Dependent variable: Children's grades. Model = "Enter" method in SPSS Statistics; *B* = unstandardized regression coefficient; CI = confidence interval; *LL* = lower limit; *UL* = upper limit; *SE B* = standard error of the coefficient; β = standardized coefficient; $R^2 = .135$

Based on the Durbin-Watson statistic of 1.102, there was some evidence of positive correlation between the residuals. A visual inspection of a histogram of the standardized residuals for students' grades indicated that the residuals were

approximately normally distributed despite a slight negative skew and the assumption for normality was passed (see Figure 4).

Figure 4

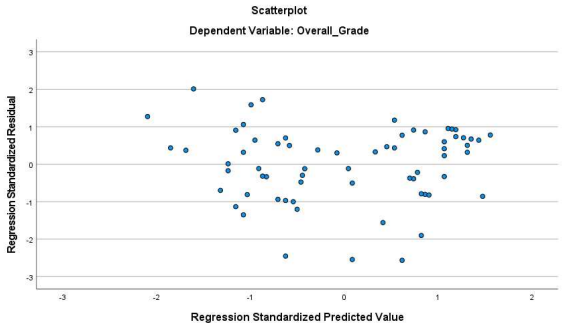
Histogram of Standardized Residuals for Grades



The VIF statistic for the predictors was 1.049 with a tolerance statistic of .953; this provides evidence of no concern for multicollinearity. Based on a visual inspection of a scatterplot of the standardized residuals, the assumptions for heteroscedasticity and linearity were met (see Figure 5).

Figure 5

Scatterplot of Standardized Residuals for Grades



For research question three, the model based on the predictors of parental stress coping skills and parental race (as a covariate) for the conduct of middle school students

was not significant, $F(1,50)= .761$, $p = .472$. Based on R^2, only .03% of the variance in students' conduct was explained by this model and there is insufficient evidence to conclude that conduct is associated with parental stress coping skills (see Table 9). Neither of the predictors included in this analysis, COSA scores ($p = .488$) nor race of guardian ($p = .239$) was significant for children's conduct.

Table 9

Regression Analysis for Conduct

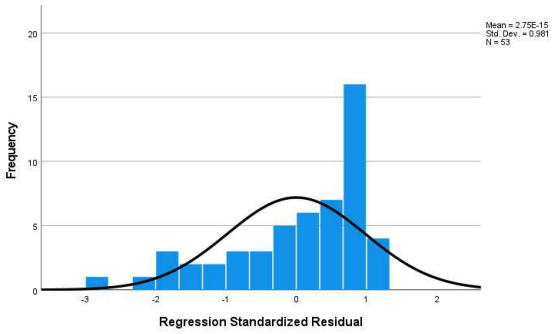
	B	SE(B)	β	T	p	LL	UL
Constant	88.25	6.62		13.34	.000**	74.96	101.54
Race of guardian	2.31	1.94	.18	1.19	.239	–1.59	6.20
COSA	.05	.07	.10	.70	.488	–.09	.18

Note. *$p < .05$, **$p < .01$. $N = 53$. Dependent variable: Children's conduct. Model = "Enter" method in SPSS Statistics; *B* = unstandardized regression coefficient; CI = confidence interval; *LL* = lower limit; *UL* = upper limit; *SE B* = standard error of the coefficient; β = standardized coefficient; $R^2 = .030$

Based on the Durbin-Watson statistic of 0.811, there was evidence of positive correlation between the residuals. This result, showing autocorrelation of the residuals, indicates that values of the residuals may be predicted by adjacent residuals. Violations of the for independence of residuals invalidates the regression model and the results of the test of significance (Field, 2018). A visual inspection of a histogram of the standardized residuals for students' grades again demonstrated a violation of normality, a key assumption for MLR, with a distribution that was negatively skewed (see Figure 6).

Figure 6

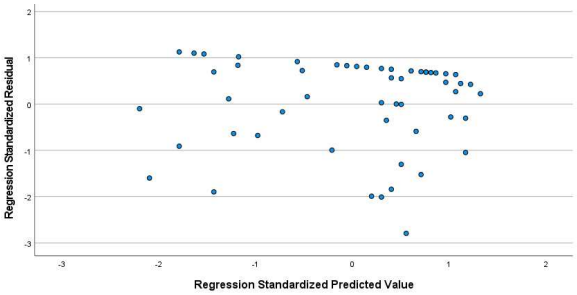
Histogram of Standardized Residuals for Conduct



The VIF statistic for the predictors was 1.123 with a tolerance statistic of .891; this provides evidence of no concern for multicollinearity. Based on a visual inspection of a scatterplot of the standardized residuals, the assumptions for heteroscedasticity and linearity were met (see Figure 7).

Figure 7

Scatterplot of Standardized Residuals for Conduct



Summary

This study was conducted to better understand the potential influence of effective parental coping skills versus ineffective parental stress coping skills on two dependent measures: the grades and behavioral conduct of students in middle school. Sixty-six

parent/guardians of middle school students completed the COSA-R2 assessment to determine their level of coping skills, along with a brief survey to collect data on their children's grades and behavioral conduct. Most of the participants self-reported the parental role of mother, and most were White/Caucasian, followed by Black/African American, Hispanic/Latin, and other ethnicity (9%). Most participants were aged 25-45 years old, or 45 to 59 years old. Only two participants were more than 60 years old.

Most participants were partnered and most reported having 2 children at home. The ages of the children of the participants ranged from 11 years old to 14 years old, with approximately equal groups from 11 to 13 years old and relatively fewer children aged 14. Most of the children were reported by their parents as White/Caucasian, followed by Hispanic/Latin, Black/African-American, or other ethnicity. The genders were fairly evenly distributed with slightly more male children than female children. The most frequently reported annual family income was between $50,000 to $75,000.

A quantitative approach was used to analyze if there was an association between parental stress coping skills and school performance of middle school students. Parental stress coping scores were determined by the COSA. For the first research question, the participants were categorized into two groups: a score of 55 and above was assigned to the high group (i.e., effective coping skills) and a score of 54 was assigned to the low group (i.e., ineffective coping skills). These groups were then used as two levels of an IVs to determine if there was an effect on the DVs of children's grades and conduct.

The research design for research question one was quasi-experimental, which is appropriate when investigating the effect of a categorical, IV on continuous, numeric DVs using ANCOVA. COSA scores were used as a continuous variable in separate MLR analyses to determine if there was a relationship between parental stress coping skills and children's grades or conduct. This research design for research questions two and three was correlational, which is appropriate when investigating the relationship between the dependent and IVs using MLR. These designs were appropriate based on the types of variables, scales of measurement and assumptions that were the foundation of the research questions.

The first ANCOVA explored the effects of parental stress coping skills on the grades of middle school students, with the demographic covariate of age of guardian was significant (p = .759) but did not result in a rejection of the null hypothesis for research question one because there was no statistically significant difference in children's grades based on high or low COSA alone; however, there was a significant interaction between high and low COSA scores and the covariate of parental age and COSA score for children's grades (p = .006). When coping skills were low, the children of younger parents had lower average grades as compared to the children of older parents. When coping skills were high, the children of younger parents had higher average grades as compared to the children of older parents.

The second ANCOVA explored the effects of parental stress coping skills on the conduct of middle school students and again the null hypothesis was not rejected (p =

.383). Similarly, the interaction between race of the parent and COSA scores was not significant for the dependent measure of children's conduct (p = .470). Each ANCOVA analysis should be considered valid as all major test assumptions were met.

The first MLR conducted for this study explored the relationship between parental stress coping skills and the grades of middle school students, with the demographic covariate of age of guardian, and was significant (p = .010) with the model explaining approximately 13.5% of the variance in children's grades. However, COSA scores were not a significant predictor (p = .150). The only significant predictor of children's grades was age of the guardian (p = .004). This MLR analysis should be considered valid; all major test assumptions, including multicollinearity and multivariate normality were met, although there was some evidence of a positive correlation between the residuals which indicates that the significance test for the regression and the accompanying standard errors for the regression model are not valid. As a result, the estimates of the model parameters may be valid, but the estimates made by the parameters are not optimal (Field, 2018).

The second MLR explored the relationship between parental stress coping skills and the conduct of middle school students, with the demographic covariate of race of guardian. For this hypothesis, the null hypothesis was not rejected (p = .472). Neither COSA (p = .488) nor race of guardian was a significant predictor of children's conduct (p = .239). The validity of this MLR analysis is questionable based on the finding that there was positive correlation between the residuals and the assumption for multivariate

normality was violated. Again, there was no concern for multicollinearity, but there was evidence of positive correlation between the residuals. It is also likely that the lower-than-expected sample size for this study reduced statistical power. This likely increased the probability of type two error, or the finding of a false negative result, for the non-significant findings in this study. A comprehensive discussion of the results of this study, along with the implications related to current and suggestions for future research are addressed in chapter five.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The theoretical framework for this study was Bronfenbrenner's (1979) ecological systems theory, which provided a basis for the hypotheses that parental stress is related to children's grades and behavioral conduct. As Bronfenbrenner (1979) made clear, environmental factors such as dysfunctional family functioning are likely to negatively affect children's adaptive development. For this reason, I hypothesized that parental stress, as a factor that is associated with how a family functions, would relate to how children perform and behave in a social setting such as middle school. As established in a thorough review of the literature, the far-reaching effects of daily stress have long been recognized as an important risk factor associated with the mental well-being of individuals (Koch et al., 2010; Schonfeld et al., 2016). In particular, high levels of parental stress are linked to the well-being of both parents and children (Masarik & Conger, 2017; van Mourik et al., 2018). Dysfunctional family functioning not only negatively affects children's adaptive development (Bronfenbrenner, 1979), but can lead to behavioral conduct difficulties (Broadhead et al., 2009). In contrast, the formation of a positive parent–child relationship is the key to helping children develop positive schemas of their parents, themselves, and others, which then influences their receptiveness to exploring naturally occurring processes in various settings such as those presented within a learning environment (Stelter & Halberstadt, 2011).

According to Bronfenbrenner's (1979) ecological systems theory, research on issues affecting children should take into consideration factors related to a child's environment, such as their family and community (Gal, 2017). Cole (2010) has proposed that it may be possible to explain children's demeanor in a variety of settings, such as school, by understanding the polarization between learners' life circumstances and the context in which they experience learning. Children's life circumstances include the environment that results from their parents' ability to effectively manage stress. Therefore, the purpose of this study was to explore the association between parental stress coping skills and the variables of students' academic grades and behavioral conduct scores, particularly at the middle school level. A correlational approach was used to assess the relationship between these variables.

Interpretation of Findings

This study included three research questions:

RQ1: Are there differences between the grades and behavioral conduct of middle-school students in a group of parents classified with effective parental stress coping skills compared to a group of parents classified with ineffective parental stress coping skills?

RQ2: Are parental stress coping skills, as measured by total stress scores, associated with grades of middle-school students?

RQ3: Are parental stress coping skills, as measured by their total stress scores, associated with behavioral conduct of middle-school students?

The study population was parents/guardians of sixth-, seventh-, and eighth-grade student attending middle school in a north Texas ISD. Sixty-six parents/primary guardians completed the COSA-R2 assessment to determine their level of coping skills, along with a brief survey to collect demographic information and data on their children's grades and behavioral conduct. COSA R2 scores were dichotomized into a categorical variable (high and low) for analyses of covariance and were used as a continuous variable for regression analyses. Based on the findings of the preliminary analysis, the demographic variable of age of guardian was included as a covariate for children's grades, and race of guardian was included as a covariate for children's conduct. I ensured strong construct validity by relating Bronfenbrenner's framework to a survey instrument with strong psychometric properties that has been used to sample populations similar to this study (Frankfurt-Nachmias & Nachmias, 2008). Another strength of this study was high validity based on the finding that all major test assumptions (e.g., equality of variance, normality, lack of highly influential outliers) were deemed adequate.

For RQ1, no effect was found for parental stress coping skills on either students' academic grades ($p = .759$) or behavioral conduct scores ($p = .383$). However, significant results were found for the demographic factors of parent/guardian age and race. Also, one significant interaction was found between parental coping skills and age of the guardian ($p = .006$) with a strong effect size ($\eta^2 = .117$). For parents with low coping skills, the children of older parents had the highest grades. On the other hand, for parents with high coping skills, the children of younger parents had the highest grades (see Figure 2).

Two main effects were found. It is interesting to reiterate that the age of the parents/guardians was a significant covariate with children's grades (p = .008) with a medium effect size (Cohen's d = .683). Younger parents, ages 25 to 44, had children with grades that were on average higher than children of older parents, ages 45 and above, with a mean difference of 3.714 and 95% CI [1.020, 6.408] (see Table 6). I also discovered that the race of the parent/guardian was a significant covariate on overall COSA scores (p = .040; see Table 5), and that Black/African American parents had significantly higher COSA scores (+9.47) compared to White/Caucasian parents (p = .040) with a large effect size (Cohen's d = .847). This indicates the use of more effective parental stress coping scores for Black parents; no other significant differences were found between any other racial/ethnic groups (p > .05). As Hill and Palacios (2020) have recommended, more research on this topic is required to address culturally-specific factors related to parenting for Black, Hispanic, and Asian children combined with research on the development of children's self□regulation abilities. This is based on prior studies such as Harris and Graham (2014), who found that, for Black children specifically, self□regulation skills may be associated with factors such as racial identity, religious beliefs, or standards of moral development.

Although there is a substantial amount of research suggesting that parental stress coping skills are linked to various vital outcomes for children's development, insufficient evidence was obtained from this study to conclude that significant predictions could be made for either children's grades or behavioral conduct based on parental stress coping

skills alone. To some extent, these findings appear to diverge from prior research, which has found that children are less likely to achieve high academic success when their parents are highly stressed from grappling with the pressures and anxieties resulting from the everyday demands and responsibilities associated with parenting (Broadhead et al., 2009; Jones et al., 2021; Kremer et al., 2016; Maguire-Jack & Wang, 2016; van Mourik et al., 2018). However, the current study did not address levels of parental stress per se, but rather the effectiveness of coping skills that parents use to address stress.

These findings also fail to support Bronfenbrenner's (1979) ecological systems theory, which was used as the theoretical framework of this study. Despite this, it is likely that a parent's ability to cope with stress is related to the effectiveness of parenting style (Guajardo et al., 2009), and it is difficult to refute Bronfenbrenner's conclusion that the active participation of parents in a family is needed to promote the healthy development of children. In fact, research has consistently shown a direct link between parental stress and difficulties in children's conduct (Broadhead et al., 2009). Household chaos moderates the relationship between parenting behaviors and problematic behaviors in children, and demographic factors such as family income and education level of the parents have mediation effects (Mills-Koonce et al., 2016). There is also a significant positive relationship between parental stress, conflict in families, and children's behavioral conduct, where parental stress acts as a partial mediator and suggests a causal link between these factors (Jones et al., 2021).

These studies are related to my research because I hypothesized that parental stress was related to differences in children's behavioral conduct scores, and it has been demonstrated that children with behavior problems are overall less likely to achieve academic success (Kremer et al., 2016). There are many known effects of parental stress on various aspects of children's development, such as academics. For example, highly stressed parents may place less value on reading competence (Respler□Herman et al., 2012), which leads to lower levels of reading achievement for their children (Conger et al., 2002; Oxford & Lee, 2011). Also, the indirect, negative effects of parental stress on reading achievement appear to be consistent across race and ethnicity (Hill & Palacios, 2020).

Parental stress may also have negative effects such as depriving a child of opportunities for positive parent–child interactions and/or destabilizing the family system (Hill & Palacios, 2020). This may help explain why high parental stress is associated with maladaptive adjustment in children (Conger et al., 2002; Hou et al., 2016; Raver et al., 2007). In a meta-analysis of research on parenting factors and children's conduct, Hoeve et al. (2009) found substantial evidence indicating a significant relationship between strong parenting practices and reductions in the delinquency of children. In general, delinquency refers to conduct outside the accepted parameters of behavior (Merriam-Webster, n.d.). In terms of children's conduct specifically, delinquency refers to behavior that is disobedient, indecent, or immoral (U.S. Legal, n.d.). Children who learn to exercise self-regulation of their behavior build foundational skills associated with

positive outcomes through adolescence up to adulthood, and the effectiveness of parenting plays a key role in children's capacity for building self-regulatory behavior (Morawska et al., 2019). Children's ability to regulate their own behavior is also associated with interpersonal interactions among family members (Li□Grining, 2012).

These findings align with Bronfenbrenner's original (1979) theory, which describes the multifaceted impact of a child's environment on their development. Examining the relationship between parental stress and children's self-regulation might be an important avenue to further explore as it seems to play an integral role in children's academic achievement and behavioral conduct. Despite the lack of significant results from this study on the relationship between parental stress coping methods and children's grades and behavioral conduct, it is reasonable to assume that high parental stress decreases parents' abilities to provide sufficient care for children's basic physical, health, safety, and emotional and supervisory needs (Maguire-Jack & Wang, 2016). Therefore, parenting factors, such as a parent's ability to cope with stress, should be considered in relation to children's behavioral conduct.

It is also essential to note that the means obtained for the grades and behavioral conduct of children from this sample were higher than might be expected. For example, the average grade was 92.5/100 while the average conduct score was 95.35/100. This may be reflective of northern Texas in terms of children's academic achievement. According to the College Board (2020), the current national average for SAT scores is 1051. Yet, as the Texas Tribune (2020) reported, during the 2019-2020 school year,

students within the ISD used for this study, students performed higher than the national average, earning an average SAT score of 1091 (n = 30,682) and 96.9% of the students in the graduating class of 2019 received high-school diplomas, with a dropout rate of only 0.3%. Alternative explanations for why high academic and behavioral conduct scores were observed for the children of participants in this study are bias resulting from self-reported data, demand characteristics of the sample, or non-response bias. In research involving psychology, participants will sometimes alter their behavior (i.e., how they self-report data) to fit into some interpretation they have formed regarding the purpose of the research and/or expectations of the researcher (Ome, 2009).

When participants are asked to self-report on characteristics that may be interpreted as undesirable (such as poor grades or behavioral conduct), the data obtained is prone to measurement error (Sakshaug et al., 2010). Consequently, participants in this study may have, intentionally or not, exaggerated their children's academic grades and behavioral conduct scores. Another source of bias that should be considered based on the results of this study is nonresponse error, which is even more likely to affect data obtained on socially desirable characteristics (Burkell, 2003; Sakshaug et al., 2010). Thus, these findings may be a function of the inequity between the sample sizes of parents with effective (n = 54) and ineffective (n = 12) given that more parents of students with high scores participated in the research.

After carefully reviewing the literature, I concluded there has been a lack of research on the relationship between parental age and children's academic success. My

finding of a significant difference in children's grades based on parental age contributes knowledge regarding the potential relationship between these factors. My study also provides additional evidence that parents' abilities to cope with stress should be considered along with race. This study was original in that I am unaware of any prior studies that specifically address the relationship between these variables. Although no significant results were found for either children's grades or behavioral conduct based on the difference between high and low COSA R2 scores, and these scores were not a significant predictor of either outcome variable, the findings of several prior studies provide a logical rationale for exploring the potential association between parental stress coping skills and the grades and conduct of middle school students. For example, Stelter and Halberstadt (2011) established that parental behavior affects the establishment of secure parent–child relationships and that positive parent–child relationships are related to children's ability to develop positive schemas of their parents, themselves, and others.

The quality of the parent–child relationship also influences how receptive children are to exploring naturally occurring processes in various settings such as those presented in a learning environment (Stelter & Halberstadt, 2011). Furthermore, Xia et al. (2015) asserted that school success during adolescence, as indicated by academic achievement and school adjustment, is a strong indicator of future income, mortality, and quality of life in adulthood. When addressing the implications for student success, family climate must be considered because there exists a reciprocal relationship between these two factors (Xia et al., 2015).

Limitations

I proposed that this study would show that utilization of effective parental stress coping skills would have a positive association with the grades and conduct of middle school students. There were several noted limitations to this study that may have affected the finding that there was no relationship between these variables. The data were collected by the online COSA-R2 (Psychtests AIM Inc., 2017) assessment and brief parent survey via Survey Monkey. Hence, there was likely limited access for potential participants with no access to internet–capable devices.

It is also possible that the instrument chosen for this study did not relate to the intended construct as it was hypothesized. For example, other instruments or procedures could be used in future studies to measure parental stress. Roskam et al. (2017) found strong psychometric properties and high reliability for the Parental Burnout Inventory, ranging from alpha 0.89 to 0.94. This measure includes 22 items and measures burnout syndrome in parents for factors such as exhaustion, inefficacy, and emotional distancing. Miles et al. (2007) developed and established the reliability of the Parental Stressor Scale. Although its original usage was intended for parents with infants undergoing neonatal intensive care, it represents another well-established measure of parental stress. This instrument (and other similar instruments) could be normed and validated with a middle-school population which would provide additional options to explore the effects of parental stress on children.

The data for this study was collected as reported at one particular point in time. There was no consideration given for grades or conduct scores made by students over time. There was also no consideration given for parent stress coping scores over time, and whether their responses might have changed given a change in their circumstances. A longitudinal study would be appropriate for assessing changes that might occur in parent stress coping, student grades, and conduct scores over time. Further, the study invitation, and the data collection instruments were only offered in English. Additionally, the study announcement was only approved to be placed on the district middle school PTA Facebook pages. There is the chance that many potential parent/guardian participants do not use Facebook, and/or were not members of the PTA. As a result, they might never have been aware of the study.

It should also be noted that parents who are members of the PTA are more likely to be highly involved in their children's education, which may explain the potential bias seen regarding the overall high mean grade and conduct scores that were reported for the students. Parent/guardian participants self-reported children's grades and conduct scores. Efforts were made to strategically post the study invitation within two weeks of grade reporting by the school district; however, there is the possibility that some participants may not have reported accurately which could have altered the study results. Whether due to extremely involved and supportive parenting, or inadequate reporting, there was a tendency to report that students only made A's and B's.

Moreover, demographic groupings, or the size thereof seen within the study sample may have presented additional biases that did not allow for a broader perspective. For example, there were no Black/African American parents who scored as having low COSA scores indicating that all Black/African American parents who participated have effective parental stress coping skills. Additionally, the results of data analysis indicated that when compared to White/Caucasian parents, Black/African American parents have higher parental stress coping skills. However, it is acknowledged that there was a sample size imbalance. First, the number of White/Caucasian parent participants was significantly larger than the number of Black/African American parent participants. This disparity due to lack of response from Black/African American participants quite possibly may have led to bias as the acquired sample size may not be fully representative of the population. Additionally, the group classified with low (i.e., less effective) parental stress coping skills included fewer participants (n = 12) as compared to those with high skills (n = 54).

The statistical test of ANCOVA was used to address research question one. Prior to the analysis, G*Power was used to determine the minimum recommended sample size for all research questions using parameters of alpha .05, power equal to .90 and effect size of .015. The recommended minimum sample size was 88 participants. The final analysis included 66 participants. While this does not necessarily invalidate the results, it is acknowledged as a limitation.

Despite the violation of normality for the distribution of overall grades and conduct scores, ANCOVA is known to be robust regarding such violations and the results are not invalidated on this basis (Laerd Statistics, 2017b). The assumption for homogeneity of variance, another key assumption for ANCOVA (Field, 2018) was met for both grades (p = .957) and conduct (p = .784). For the MLR predicting children's grades, some evidence of correlation between the residuals was found, but there was only evidence of a slight negative skew (See Figure 4) and there did not appear to be any concern of multicollinearity (see Figure 5). For the MLR predicting children's behavioral conduct, again some evidence of autocorrelation between the residuals was found in terms of slight negative skew (see Figure 6) and there did not appear to be any concern of multicollinearity (see Figure 7). This is a key limitation to consider since violations this assumption can invalidates the results of a regression model (Field, 2018).

Internal measurement–validation studies are susceptible to selection bias when an additional burden is placed on study participants, such as filling out further questionnaires; participants who agree to this additional burden of completing more questionnaires are likely different from those participants who refuse, and that these differences possibly lend to the size of the measurement errors characterized by the validation sub-study (Lash et al., 2014). Since the power analysis requirements of this study were not met, it is reasonable to believe that given a larger sample the findings may have been more statistically significant. Despite efforts to minimize threats to internal validity, and due to the smaller overall sample size from which to select, selection bias

was present as there were far more parents with effective stress coping skills than there were with ineffective stress coping skills. Consequently, parents with effective coping skills were overrepresented, which may ultimately have affected the study results.

One additional limitation is that since the research was performed using a sample of parent/guardians of middle school students, the generalizability of this study may be limited to adolescents in the middle school grades and may apply less to students who are either younger or older. Finally, since a large majority of the study participants were white, married, mothers with incomes above $50,000 a year, consideration might also be given as to the generalizability of the study.

Recommendations

Acknowledging potential associations between parental stress and the grades and behavioral conduct of middle school students is necessary. As previously stated, existing research emphasizes that when parents are stressed they are less likely to be supportive, and that the way in which they respond is key in helping children develop positive schemas that will influence how receptive they are to exploring naturally occurring processes in various settings such as those presented within a learning environment (Stelter & Halberstadt, 2011). Further, school success during adolescence, is a strong indicator of future income, mortality, and quality of life in adulthood (Xia et al., 2015).

An abundance of existing research supports that parental stress is an important topic that has been proven to have potential and lasting effects on the development of children, and how they behave in social settings such as school. Although this study did

not reveal that parental stress coping skills affects the grades and conduct of students at the middle school level, several implications can be derived from the results which suggest a need for further exploration into the matter.

Lash et al. (2014) suggested that pointing out the largest sources of uncertainty and provides an opportunity is offered for discussion of productive avenues to improve research. This includes more accurate measurements, more validation studies, or more confounder measurements that may be advantageous. Results from this study suggest that parental stress is not associated with grades and behavioral conduct of students in middle school, however, it does not consider if similar results would be seen in a larger, more diverse sample, or for children prior to or beyond middle school or in other jurisdictions.

The IV (parental stress coping skills) and significant covariates (age of guardian and race of guardian) were tested for associations with grades and behavioral conduct of middle school students, but there are likely several other factors such as students' coping abilities, or student involvement, which may affect these variables, but which were not considered in this study. Therefore, it is acknowledged there are other factors that may serve as better indicators for measuring the potential associations between parental stress and student performance. Also, it should be noted that selection bias seen among participants presented limitations in this study which may have significantly influenced the study results. Similar studies performed on larger, more diverse samples with reasonably equivalent participant groups may yield different results, and those results

could also serve to advise parents, educators and practitioners on the possible and lasting effects parental stress might have on their adolescent children.

Future research with a larger sample should be conducted to increase the generalizability of the study results. Conducting a study in several different school districts with varying geographical locations and including more diverse samples of individuals might also prove advantageous. Another suggestion is to obtain parental consent for gathering data on students' grades and behavioral conduct directly from the academic institutions that they attend, to eliminate the bias often seen in self-reported data. Finally, a longitudinal study across several grading periods throughout the years in middle school could be beneficial in exploring whether the student grades and behavioral conduct scores, or the participants stress coping skills would remain consistent over time, and whether their report and results would remain the same.

Implications

Several models and theories have been offered to explain the significant impact of parental stress on children (Broadhead et al., 2009; Koch et al., 2010; Masarik & Conger, 2017; van Mourik et al., 2018). Although the results of this study do not confirm that parental stress coping skills are associated with middle school student grades and behavioral conduct, several studies suggest that parents' consistent use of ineffective stress coping skills could impose negative and lasting consequences for their children. According to Bronfenbrenner's theory, factors within the family structure such as parental stress impact the approaches a parent will employ, and the effectiveness of their

parenting style (Guajardo et al., 2009). The collective agreement between scholars that family structure is one of the main factors affecting the academic performance of youth (O'Malley et al., 2014) supports a need for exploration into potential effects of parental stress.

This study was performed with the intention of adding to existing research that addresses how parental stress affects children. By focusing on middle school students, I sought to expand our knowledge beyond what was already known as shared in the numerous bodies of work regarding the effect of parental stress on younger children. While the results of this study did not confirm the research hypothesis, they do however indicate that the study design was appropriate for addressing the research problem. It is acknowledged that while this study focused on grades and behavioral conduct scores of middle school students, there may be other components that are better indicator for measuring the potential associations of parental stress.

This study will bring about social change as it will inform future studies, and future study designs regarding the topic of parental stress. It might also present as a guide for researchers and practitioners informing of an exhaustive number of factors to be considered when examining associations between parental stress and child outcomes. This may lead to the production of more empirical data promoting parental stress management, good parenting habits, healthier parent–child relationships, and subsequently more success in overall well-being and academic outcomes for children.

Conclusion

This quantitative study was conducted to better understand the potential influence of effective parental coping skills versus ineffective parental stress coping skills on two dependent measures: the academic grades and behavioral conduct of students in middle school. It was hypothesized that parental stress coping methods would be related to middle school children's grades and conduct. This study included three research questions. The first research question was, are there differences between the grades and behavioral conduct of middle school students in a group of parents classified with effective parental stress coping skills compared to a group of parents classified with ineffective parental stress coping skills? The second and third research questions were, are parental stress coping skills, as measured by total stress scores, associated with grades or behavioral conduct of middle school students? The study population was parents/guardians of students in the sixth, seventh, and eighth grades attending middle school in a northern Texas ISD.

Most participants (64%) were White/Caucasian had the parental role of mother and were aged 22-44 years old. Most were partnered with 2-4 children at home and an annual family income of $50,000 through $75,000. All participants completed the online COSA-R2 (Psychtests AIM Inc., 2017) to determine if they had effective or ineffective stress coping skills and were asked to report their middle-school aged child's academic grade and behavioral conduct scores, along with the child's age, gender and race/ethnicity. The student population was mostly male and White/Caucasian and aged 13

years old. The parent stress coping scores and student information were cross-referenced and analyzed to observe whether relationships could be determined. After conducting statistical analysis of the 66 records of data collected, it was determined that parental stress coping skills do not appear to be associated with grades nor behavioral conduct of middle school students. Although no significant differences were found in children's grades or behavioral conduct based on parental stress coping skills, the results suggest that the age of the parent may influence children's grades and the race/ethnicity of the parent may have a significant effect on a parent's ability to effectively manage parental stress.

Despite the lack of findings on the relationship between parental stress and children's academic outcomes and behavioral conduct of middle school students in this study, this does not negate the need for a continued evaluation of how parental stress coping skills are associated these variables. Future studies may lead to a more comprehensive understanding of the potential effect that the use of ineffective parental stress coping skills can have on the school performance of students during their adolescent years. As evidenced by the numerous studies performed addressing how factors within the family structure, such as parental stress, potentially affects children, a need for investigation has been established.

The findings of my study further underscore the importance of continued research on the potential effects of culturally-specific parenting practices on children's ability to self□regulate their behavior. For example, Contreras et al. (2002) theorized that the

construct of children's self□regulation is consistent with values that are emphasized in Hispanic populations. such as cooperation. Chen and Rubin (2011) have noted that children in Asian American families tend to encourage self□regulation as part of the socialization process to promote well□being and academic performance.

The results of this study confirm prior research which theorized that parental stress is a known risk factor for children's academic development and self□regulation in African American families (Conger et al., 2002). Prior studies have demonstrated some enduring discrepancies over time in measures such as lower reading scores (Kremer et al., 2016) and lower math scores (Conwell, 2021) for Black children as compared to white children. O'Malley et al. (2014) has argued that scholars collectively concur that family structure is one of the main factors affecting the academic performance of youth. Parent et al. (2015) maintained that positive parental behaviors, such as the practice of mindfulness, reduce stress and can improve situational affective responses as they are directly associated with parenting practices and youth internalizing and externalizing symptoms. Further, Kochanova (2018) has advocated that exploring the influence of parenting stress on adolescent externalizing problems is crucial as it will inform best practices for how to parent adolescents, help in reducing risks of deviant behaviors in adolescents, and promote successful transitions into adulthood.

Although the results of this study do not confirm that parental stress coping skills are associated with middle school student grades and behavioral conduct, several existing studies suggest parent's consistent use of ineffective stress coping skills could impose

negative and lasting consequences for their children. Further, the study results indicate that the parent/guardian age may have a significant impact on children's grades, and parent/guardian race may have a significant impact on conduct of students in middle school. As such, the need for further investigation into this matter cannot be negated. The implications derived from this study provide additional evidence that future studies are warranted which consider the following: other factors that may be associated with parental stress, grades and conduct of students before or beyond middle school, the relationship between parent/guardian age and student grades and parent/guardian race and conduct, and more research with a larger and more diverse participant pool. Thus, this study unequivocally adds to the existing body of knowledge regarding the subject.

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Appendix A: IRB Approval

Parental Consent for Participation

Dear Parent/Guardian:

You are being invited to participate in a research study to determine if parental stress coping skills influences the grades and conduct of middle school students. All parents/guardians who have a studentattending a Carrollton/Farmers Branch school in grades, six, seven or eight meet the criteria for participation in this study. This form is part of a process called informed consent, which allows you the opportunity to understand the study before making a decision to participate. This study is being conducted by Stephanie Buckner who is a doctoral student at Walden University for the purpose of supporting a doctoral degree. This study is not related to any official programs offered in CFBISD.

Background Information:

Your participation in this study would include a one□time completion of the COSA□R2 coping skills assessment which takes about 15 minutes to complete. You will also be asked to complete a brief questionnaire, which may take approximately 2 minutes to complete, in order to provide your child'sage, gender, ethnicity, most recent report card grades and conduct scores from the school district. While all parents/guardians of 6th, 7th, & 8th grade students are invited to participate, both the COSA R2and brief questionnaire will be available in English only.

Here are examples of the types of questions that you will be asked□

- When there is a great deal of stress in my life I set goals to help improve the issue: (Always Often Sometimes Rarely Almost Never)
- When there is a great deal of stress in my life I just stay in bed because I don't want to deal withmy problems: (Always Often Sometimes Rarely Almost Never)
- When there is a great deal of stress in my life I find reasons to laugh: (Always Often Sometimes Rarely Almost Never)

Voluntary Nature of the Study

Participation in this study is voluntary. If you choose not to participate or to withdraw from this study atany time, there will be no penalty as it will not affect you personally, it will not affect your child's grade,and it will cause no disruption to your child's educational experience. In the event that you begin participating, but at some point decide not to continue, any information that has already been collectedwill be discarded.

Risks and Benefits

There are minimal risks associated with participation in this study. The results of this study will not causeharm to you or others. While you will be asked to provide your student's age, gender, ethnicity, grades and conduct scores, at no point will you be asked to provide yours, or your student's name. The researcher will not ask the district for the student's name or any additional information. No compensation is being offered for participation.

It is possible that this research study may offer no direct benefit to you or your child. However, the possible benefit of your participation is that the study results may unveil implications that will adviseparents, educational institutions, and other health professionals on the importance of parents using effective stress management skills to stay mentally fit, maintain good health, and have a positive relationship with their child to support optimal performance in middle school.

Privacy

All records in the study shall remain confidential. You and your child's identity will be kept anonymousthroughout your participation in the study. The findings derived from this research study may be published; however, no information that would identify you or your child will be used. The researcherwill electronically store confidential data for the study's findings on a portable device labeled confidential and secure it in a locked filing cabinet located in their office of occupation for 5 years. An additional encrypted electronic copy of the research data marked confidential will be provided to the district's director of assessment and accountability. Both copies of the data will be destroyed after 5 years. This research has been approved by the Walden University Institutional Review Board.

Contacts and Questions

For any questions that you may have concerning this research study, or your participation in it, you may contact me now or later at 214□505□5023. You may also email me at [redacted]. If you want to talk privately about your child's rights as a participant, you can call the Research Participant Advocate at my university at 612□312□1210. Walden University's approval number for this study is **12□21□18□0366631** and it expires on **December 20, 2019**.

Obtaining your Consent

If you feel you understand the study well enough to make a decision about it, please indicate your consent by checking the box below. You are consenting to participate in the research study. Your consent below and your active completion of the brief questionnaire and Coping Skills Assessment willbe considered as willingness for participation. To keep a copy for your records, please print this form before advancing.

___ *I give my consent for participation in the study described above.*

Click on continue to gain access to the coping skills assessment and complete the brief questionnaire.

2018.12.21
18:02:25 -06'00'

Parental Consent for Participation

Dear Parent/Guardian:

You are being invited to participate in a research study to determine if parental stress coping skills influences the grades and conduct of middle school students. Parents/guardians of Denton ISD middle school students in grades, six, seven or eight meet the criteria for participation in this study. This form is part of a process called informed consent, which allows you the opportunity to understand the study before making a decision to participate. This study is being conducted by Stephanie Buckner who is a doctoral student at Walden University for the purpose of supporting a doctoral degree. This study is not related to any official programs offered in Denton ISD.

Background Information:

Your participation in this study would include a one□time completion of the COSA□R2 coping skills assessment which takes about 15 minutes to complete. You will also be asked to complete a brief questionnaire, which may take approximately 2 minutes to complete, in order to provide your child's age, gender, ethnicity, most recent report card grades and conduct scores from the school district.
While all parents/guardians of 6th, 7th, & 8th grade students are invited to participate, both the COSA R2 and brief questionnaire will be available in English only.

Here are examples of the types of questions that you will be asked□

- When there is a great deal of stress in my life I set goals to help improve the issue:
- (Always Often Sometimes Rarely Almost Never)
- When there is a great deal of stress in my life I just stay in bed because I don't want to deal with my problems:
- (Always Often Sometimes Rarely Almost Never)
- When there is a great deal of stress in my life I find reasons to laugh:
- (Always Often Sometimes Rarely Almost Never)

Voluntary Nature of the Study

Participation in this study is voluntary. If you choose not to participate or to withdraw from this study at any time, there will be no penalty as it will not affect you personally, it will not affect your child's grade, and it will cause no disruption to your child's educational experience. In the event that you begin participating, but at some point decide not to continue, any information that has already been collected will be discarded.

Risks and Benefits

There are minimal risks associated with participation in this study. The results of this study will not cause harm to you or others. While you will be asked to provide your student's age, gender, ethnicity, grades and conduct scores, at no point will you be asked to provide yours, or your student's name. The researcher will not ask the district for the student's name or any additional information. Upon completion of the COSA R2 assessment and the brief questionnaire, a $5 Starbucks gift card will be mailed to the address provided.

It is possible that this research study may offer no direct benefit to you or your child. However, the possible benefit of your participation is that the study results may unveil implications that will advise parents, educational institutions, and other health professionals on the importance of parents using effective stress management skills to stay mentally fit, maintain good health, and have a positive relationship with their child to support optimal performance in middle school.

Privacy

All records in the study shall remain confidential. You will not be required to disclose your or your child's identity at any point throughout your participation in the study. The findings derived from this research study may be published; however, no information that would identify you or your child will be used.

The researcher will electronically store confidential data for the study's findings on a portable device labeled confidential and secure it in a locked filing cabinet located in their office of occupation for 5 years. An additional encrypted electronic copy of the research data marked confidential will also be kept in a secure lock box at the researcher's home. Instructions regarding the procedural rights to disclose research results to participants, along with details reminding of date to be discarded will be kept along with the copy. Both copies of the data will be destroyed after 5 years. This research has been approved by the Walden University Institutional Review Board.

Contacts and Questions

For any questions that you may have concerning this research study, or your participation in it, you may contact me now or later at 214□505□5023. You may also email me at [redacted]. If you want to talk privately about your child's rights as a participant, you can call the Research Participant Advocate at my university at 612□312□1210. Walden University's approval number for this study is **12□21□18□0366631** and it expires on **December 20, 2019**.

Obtaining your Consent

If you feel you understand the study well enough to make a decision about it, and would like to participate in the study, please indicate your consent by sending a 'yes' to the email address provided. By sending a 'yes' to the email address, you are consenting to participate in the research study. Your consent and active completion of the brief questionnaire and Coping Skills Assessment will be considered as willingness for participation. To keep a copy for your records, please print this form before advancing.

Click the link and type in 'yes' to participate: [redacted]

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Parental Consent for Participation

Dear Parent/Guardian:

You are being invited to participate in a research study to determine if parental stress coping skills influences the grades and conduct of middle school students. Parents/guardians of Denton ISD middle school students in grades, six, seven or eight meet the criteria for participation in this study.

This form is part of a process called informed consent, which allows you the opportunity to understand the study before making a decision to participate. This study is being conducted by Stephanie Buckner who is a doctoral student at Walden University for the purpose of supporting a doctoral degree. This study is not related to any official programs offered in Denton ISD.

Background Information:

Your participation in this study would include a one□time completion of the COSA□R2 coping skills assessment which takes about 15 minutes to complete.

You will also be asked to complete a brief questionnaire, which may take approximately 2 minutes to complete, in order to provide your child's age, gender, ethnicity, most recent report card grades and conduct scores from the school district.

While all parents/guardians of 6th, 7th, & 8th grade students are invited to participate, both the COSA R2 and brief questionnaire will be available in English only.

Here are examples of the types of questions that you will be asked□

- When there is a great deal of stress in my life I set goals to help improve the issue: (Always Often Sometimes Rarely Almost Never)

- When there is a great deal of stress in my life I just stay in bed because I don't want to deal with my problems: (Always Often Sometimes Rarely Almost Never)
- When there is a great deal of stress in my life I find reasons to laugh: (Always Often Sometimes Rarely Almost Never)

Voluntary Nature of the Study

Participation in this study is voluntary. If you choose not to participate or to withdraw from this study at any time, there will be no penalty as it will not affect you personally, it will not affect your child's grade, and it will cause no disruption to your child's educational experience.

In the event that you begin participating, but at some point decide not to continue, any information that has already been collected will be discarded.

Risks and Benefits

There are minimal risks associated with participation in this study. The results of this study will not cause harm to you or others. While you will be asked to provide your student's age, gender, ethnicity, grades and conduct scores, at no point will you be asked to provide yours, or your student's name. The researcher will not ask the district for the student's name or any additional information. Upon completion of the COSA R2 assessment and the brief questionnaire, a $5 Starbucks gift card will be mailed to the address provided.

It is possible that this research study may offer no direct benefit to you or your child. However, the possible benefit of your participation is that the study results may unveil implications that will advise parents, educational institutions, and other health professionals on the importance of parents using effective stress management skills to stay mentally fit, maintain good health, and have a positive relationship with their child to support optimal performance in middle school.

Privacy

All records in the study shall remain confidential. You will not be required to disclose your or your child's identity at any point throughout your participation in the study. The findings derived from this research study may be published; however, no information that would identify you or your child will be used.

The researcher will electronically store confidential data for the study's findings on a portable device labeled confidential and secure it in a locked filing cabinet located in their office of occupation for 5 years. An additional encrypted electronic copy of the research data marked confidential will also be kept in a secure lock box at the researcher's home. Instructions regarding the procedural rights to disclose research results to participants, along with details reminding of date to be discarded will be kept along with the copy. Both copies of the data will be destroyed after 5 years. This research has been approved by the Walden University Institutional Review Board.

Contacts and Questions

For any questions that you may have concerning this research study, or your participation in it, you may contact me now or later at 214□505□5023. You may also email me at [redacted]. If you want to talk privately about your child's rights as a participant, you can call the Research Participant Advocate at my university at 612□312□1210. Walden University's approval number for this study is **12□21□18□0366631** and it expires on **December 5th, 2020**.

Obtaining your Consent

If you feel you understand the study well enough to make a decision about it, and would like to participate in the study, please indicate your consent by sending a 'yes' to the email address provided. By sending a 'yes' to the email address, you are consenting to participate in the research study. Your consent and active completion of the brief questionnaire and Coping Skills Assessment will be considered as willingness for participation. To keep a copy for your records, please print this form before advancing.

Click the link and type in 'yes' to participate: [redacted]

This has been approved by the Institutional Review Board of
Date: 2019.12.06

WALDEN UNIVERSITY

as acceptable documentation of the informed consent process and is valid
for one year after the stamped date.
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Appendix B: Study Announcement

Online Study Announcement

Parents,

Are you stressed???

Find out how well you manage your stress, and how it affects your child's education.

Looking for parent/guardian participants of middle school students who will complete a fifteen-minute survey to determine how well they manage stress, and will also consent to providing information in response to a brief questionnaire regarding their child's age, gender, ethnicity, recent report card grades and conduct scores.

My name is Stephanie Buckner, and I am a PhD graduate student at Walden University. I am conducting a study for my dissertation to determine if parental stress coping skills influences the grades and conduct of middle school students.

Participation in this study is confidential and voluntary. There are no known risks for participation. All parents/guardians of 6th, 7th, & 8th grade students are invited to participate in the study; however, both the survey and brief questionnaire will only be available in English. This study has been cleared by the Walden IRB, and the CFBISD Department of Assessment and Accountability Division of Educational Services. Upon completing the brief survey to determine how you cope with stress, you will receive a personalized copy of your survey summery results. Click the link below for additional information and to begin taking the survey.

To thank you for your time and participation, I would like to offer you a chance to enter a drawing for a $100 gift card to Target. Please provide a phone number, which will be entered into the drawing. If your number is selected, you will be contacted at that number to request how you would like your prize delivered.

Stephanie Buckner

PhD Graduate Student

Walden University

Click here to begin: www.xxxxx.xxxx

Appendix C: Parent Questionnaire

Brief Parent Questionnaire

Please respond to question 1, and continue on to provide the following information about your student:

1) Please type in the access code that you were provided: _____
2) Age:
    a. 11
    b. 12
    c. 13
    d. 14
    e. Other
3) Gender
    a. Male
    b. Female
4) Ethnicity
    a. White
    b. Hispanic or Latino
    c. Black or African American
    d. Native American or American Indian
    e. Asian or Pacific Islander
    f. Other
5) English Grade:
    a. A
    b. B
    c. C
    d. D
    e. F
6) Math Grade:
    a. A
    b. B
    c. C
    d. D
    e. F
7) Science Grade:
    a. A
    b. B
    c. C
    d. D

    e. F
8) Social Studies Grade:
    a. A
    b. B
    c. C
    d. D
    e. F
9) English Conduct Grade:
    a. A
    b. B
    c. C
    d. D
    e. F
10) Math Conduct Grade:
    a. A
    b. B
    c. C
    d. D
    e. F
11) Science Conduct Grade:
    a. A
    b. B
    c. C
    d. D
    e. F
12) Social Studies Conduct Grade:
    a. A
    b. B
    c. C
    d. D
    e. F