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Parental Characteristics and Parent-Child Relationship Quality in Families with Disabled Children

Tammy Young
Walden University

Walden University

College of Social and Behavioral Sciences

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Tammy Young

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Review Committee
Dr. Anthony Perry, Committee Chairperson, Psychology Faculty
Dr. Elisha Galaif, Committee Member, Psychology Faculty
Dr. Michael Johnson, University Reviewer, Psychology Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2017

Abstract

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by

Tammy T. Young

MA, Houston Baptist University, 2005

BA, Mississippi University for Women, 2002

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Parenting can be very challenging, especially when raising a disabled child. Children with disabilities require more supports and are more likely to be abused. The parent-child relationship is an important factor in ensuring child welfare. Little research has focused on identifying the impact of parenting characteristics on raising a child with a disability. The purpose of this study was to examine whether parenting style, parenting competence, and parenting stress were predictors of parent-child relationship quality in parents of children with disabilities ages 3 to 12 years. This study was quantitative and used multiple linear regression to identify predictor variables of the quality of the parent-child relationship. A convenience sample of 244 parents identified through a Qualtrics participant pool completed online surveys. Minuchin's structural family theory was used to guide this research and identify how challenges, such as raising a child with a disability, can cause distress when families are unable to adapt and parents are unable to maintain authority. Parenting factors were assessed using the Parenting Stress Index-4 Competence subscale, the Parenting Stress Index-4 SF, and the Parenting Styles and Dimensions Questionnaire. The quality of the parent-child relationship was assessed using the Parent-Child Relationship Inventory. The results of this study indicated that all parenting factors examined were significant predictors of the parent-child relationship quality. Age of the child was not a predictor. These findings have positive social change implications and can be used to increase practitioner knowledge of the impact of these parenting characteristics on parent-child relationship quality. Modification of treatment models could improve parenting behaviors, reduce parental stress and incidents of child abuse, and assess for the most conducive parenting styles for raising a disabled child.

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Dedication

I dedicate this to my son so that he will know that through faith and perseverance, all things are possible. May you always remember to believe the unbelievable, to think the unthinkable, and to obtain the unobtainable. Just because you cannot see it does not mean it is out of reach. I love you.

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I would like to give thanks to everyone who has helped me along the way, whether it was through words of encouragement, belief in my abilities, or advice and wisdom. I thank God for many blessings and for not allowing me to give up. Thank you to my parents, siblings, and extended family, to friends, and to inspirational classmates. In addition, I would like to thank my chair, Dr. Anthony Perry, for his guidance throughout this process.

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Chapter 1: Introduction to the Study

The focus of this research was to identify if parenting characteristics were predictors of parent-child relationship quality in families that have a child with a disability. In this study, I explored the parenting characteristics stress, style, and competence. Prior researchers have suggested that children's relationships with their parents can have an effect on their overall physical, emotional, and mental development. Shams (2007) found that family conflicts, hostility, and rejection have all been linked to a later diagnosis of depression in children. They also found that deficits in family communication were also related to substance use, suicidality, depression, low self-esteem, and maladaptive eating patterns. Dixon, Graber, and Brooks-Gunn (2008) also reported that conflictual parent-child relationships can lead to familial problems and poor emotional outcomes.

These effects can be even more impactful on children who have disabilities or impairments. Fenning, Baker, Baker, and Crnic (2014) found that children with borderline intellectual functioning had more difficult and challenging behaviors if their parent/parents were not engaging and were negative and intrusive. In children with chronic pain, the emotions and behaviors of the parent can impact pain management by affecting the child's perception of pain (Palermo, Valrie, & Karson, 2014). Parents of children with disabilities often have more difficulty in their functioning as well. Smith and Grzywacz (2014) found that middle-aged parents of children with special health needs reported more depressive symptoms and reductions in completing daily activities than parents of children without special health needs.

Despite the current empirical research identifying the importance of the relationships between parents and children, there is still limited data applying this to children with disabilities. In addition, the research that does focus on this relationship does not adequately examine parenting characteristics as a determinant of the quality of the parent-child relationship. Parenting styles, particularly, have been largely overlooked regarding their effect on the relationships parents have with their disabled child. The results of this study uniquely identified whether parenting style, parenting stress, and parenting competence were characteristics that significantly predicted the quality of the parent-child relationship when a disabled child was involved. By determining the influence of these parenting factors, implications for positive social change included the improvement of family service and parent training models to assist families and reduce abuse and maltreatment of children with disabilities through educating providers and families.

In this chapter, I review the background for this study and identify previous areas of research that have influenced this topic. I also formally identify the problem, as well as explain the overall purpose of this research. Following this, the research questions and hypotheses are outlined. The theoretical framework is then discussed, in addition to the nature of the study and the defining of relevant constructs. I address research assumptions, note the scope and delimitations of the study, and discuss additional limitations. The significance of the study is also included, followed by a summary that will provide an overview of this chapter.

Background

National Findings

Children with disabilities are often considered to be at a greater risk for child abuse and maltreatment than their nondisabled counterparts (Center for Disease Control [CDC], 2016; Leeb, Bitsko, Merrick, & Armour, 2012). However, the causal relationships between maltreatment and disability, type of disability, and direction of risk are still unclear (Leeb et al., 2016). In spite of this, the CDC (2016) has identified factors that may contribute to this increased risk. For example, parents may become more stressed due to the demands of raising a child with a disability. In addition, parents who have a child with behavioral issues may become frustrated with challenging behaviors and exhibit more aggressive behaviors toward the child. Children who require additional care due to lack of independent living skills, may be neglected by overwhelmed parents (CDC, 2016). The U.S. Department of health and Human Services (2015) found that 12.6% of reported cases of child maltreatment involved a child with a disability. They also noted that children with disabilities are often undiagnosed, therefore allowing the possibility that the incidence rate could be higher than reported.

The Child Abuse Prevention and Treatment Act of 2010 (CAPTA) provided regulations regarding the protection, safety, and well-being of all children. This Act identified congressional findings regarding issues of maltreatment and how to implement protective services. One of the findings is that the best way to ensure the welfare of the child is through supporting the family (CAPTA, 2010). It also identified the need for coordination of services between families and outside agencies or professionals. This is a

critical element for children with disabilities considering that families often rely on additional services to aid in the education, care, and developmental needs of these children (Dyson, 2010).

The most recent U.S. census established that there are almost 3 million children ages 5-17 years living with a disability in the United States (Brault, 2011). This number accounts for 5.2% of the entire U.S. population. National laws identify families as having the primary responsibility for the rearing, protection, and development of their children (CAPTA, 2010). With this responsibility, rising numbers of diagnosed children, additional challenges that families with a disabled child often face, and the increased risk for maltreatment of disabled children, it is appropriate that there has been an increasing amount of research regarding parenting children with disabilities. Much of this research has focused on the evaluation of intervention-based programs, but there has been little research that has identified parenting factors as predictors of the quality of parent-child relationships among children with disabilities. The CDC even noted that safe and nurturing parent-child relationships are an important factor in ensuring the protection and welfare of a child. Findings from this research study will help to identify the impact that parenting style, stress, and competence have on the parent-child relationship with children with disabilities. This data can be used to identify ways to improve programs that are aimed at assisting families of children that have disabled children, thereby improving relationships and decreasing incidents of maltreatment.

Parenting Characteristics

Parents are allowed to raise children according to their own beliefs and values (CAPTA, 2010). These personal views, in addition to their own rearing, are likely to influence their parenting behaviors and characteristics. Parenting characteristics or parenting factors play an important role in the quality of parent-child relationships (Ghanizadeh & Shams, 2007). It is these relationships that impact the development of the child, and the well-being of both parents and children. For this research study, parenting style, stress, and competency will be examined.

To date, very little research has been conducted that examines parenting styles and raising a child with a disability. In general, the authoritative parenting style is seen as the most effective style for raising a child because it not only encourages autonomy and independence, but also uses less physical punishment and allows for reasoning and justification of rules between the parent and the child (Baumrind, 1966; Dixon et al., 2008). Shur-Fen Gau and Chang (2013) found that mothers of children with ADHD were more controlling and overprotective, and that the mother-child relationship was impaired. However, more research is required that specifically links parenting behaviors to specific parenting styles among children with disabilities.

Both parent and child are impacted by parenting stress. Palermo et al. (2014) identified how raising a child with a disability, such as chronic pain, could cause increased stress levels and that a parent's emotions, behaviors, and personal health all have an impact on the development of that child. Previous researchers have also shown that parents of children with behavioral issues and developmental delays also experience

greater levels of parenting stress (Bender & Carlson, 2013; Neece, 2012). Neece (2012) also found that parenting stress was a predictor of conduct problems in children. Research has also shown that there are health risks that are associated with raising a child with a disability. Resch, Elliott, and Benz (2012) found that parents who reported higher levels of parenting stress while raising a child with a disability were more likely to develop symptoms of depression. This is significant due to the presumption that caregiver disability may be a risk factor for abuse and maltreatment of children with disabilities. In fact, 36 states identify caregiver or parent disability as a possible ground for termination of parental rights (Lightfoot, Hill, & LaLiberte, 2010).

Parenting competence or parental self-efficacy affects the parent-child relationship as well. Parents who feel more competent about their parenting report less dysfunctional parenting behaviors, while those who feel less competent report more dysfunctional parenting (Morawska, Winter, & Sanders, 2009). In regard to parenting a child with a disability, Meirsschaut et al. (2010) found that parents reported more stress regarding their perceived parenting competence for their disabled child than their nondisabled or typically developing child. This confirms that parenting a child with a disability has additional challenges that can have significant impacts.

The parenting characteristics of style, stress, and competency have all been examined through previous research independently, but there is a gap in literature that explores all three of these factors simultaneously. More specifically, an even larger gap exists in research that explores these characteristics in relationship to raising a disabled child. This research fills the gap in literature on identifying parenting factors as predictors

of parent-child relationship quality for families of children with disabilities, thereby providing increased knowledge that may be used to reduce the abuse rates of these children.

Problem Statement

Children with disabilities face unique challenges and are often found to be at increased risk for child abuse and maltreatment (CDC, 2016). The relationship that parents have with their disabled child could be an important factor in determining how that child will be treated. In fact, this relationship is often examined as a factor in making child custody determinations (Hynan, 2013). Prior research on parenting, such as that conducted by Friesen et al. (2013), has focused mainly on typically developing children and failed to identify the specific influences of parental characteristics on the quality of the parent-child relationship when raising a child with a disability. This research study fills in the gap by identifying the impact of parenting competence, style, and stress on relationship quality. Addressing these variables together provided relevant research needed to enhance therapeutic and developmental methodologies that are applied to this unique family system.

Purpose of the Study

The purpose of this study was to determine whether parenting factors or characteristics were predictors of parent-child relationship quality when raising a child with a disability. This research could help to improve the support and programs available to parents of children with disabilities, thereby reducing parenting stress and enhancing the parent-child relationship. This, in turn, helps to improve parenting behaviors, reduce

incidents of maltreatment, and enhance the overall functioning and resiliency of the child. This study will be quantitative in nature. This study sought to examine the influence of the independent variables parenting style, competence, and stress on the dependent variable quality of the parent-child relationship, and the implications for families with a disabled child. In addition, demographic variables including the age of the child, age of the parent, and parent's ethnicity, gender, and educational level were examined as independent variables to determine if they are predictors of the parent-child relationship.

Research Questions and Hypotheses

Research Question 1: Is parental competence**,** as measured by the Parenting Stress Index (using the Competence subscale)**,** a predictor of the quality of the parent-child relationship**,** as measured by the Parent Child Relationship Inventory?

$H_0$1: Parental competence is not a significant predictor of the quality of the parent-child relationship.

H_a1: Parental competence is a significant predictor of the quality of the parent-child relationship.

Research Question 2: Are parenting styles (authoritarian, authoritative, permissive)**,** as measured by the Parenting Styles and Dimensions Questionnaire**,** predictors of the quality of the parent-child relationship**,** as measured by the Parent Child Relationship Inventory?

$H_0$2: Parenting styles are not significant predictors of the quality of the parent-child relationship.

H_a2: Parenting styles are significant predictors of the quality of the parent-child relationship.

Research Question 3: Is parental stress**,** as measured by the Parenting Stress Index-Short Form (using Parental Distress, Parent-Child Dysfunctional Interaction, Difficult Child, and Total Stress), a predictor of the quality of the parent-child relationship**,** as measured by the Parent-Child Relationship Inventory?

H_03: Parental stress is not a significant predictor of the quality of the parent-child relationship.

H_a3: Parental stress is a significant predictor of the quality of the parent-child relationship.

Research Question 4: Is the age of the child a predictor of the quality of the parent-child relationship**,** as measured by the Parent-Child Relationship Inventory?

H_04: The age of the child is not a predictor of the quality of the parent-child relationship.

H_a4: The age of the child is a predictor of the quality of the parent-child relationship.

Theoretical Framework

Salvador Minuchin's structural family theory was the framework for this research study (Minuchin, 1974). Structural family theory examines the structure of families, identifies patterns, and works to redefine relationships among members of the family. This theory defines family structure as the established rules that guide a family in addition to the organization or way in which the family relates. This includes the patterns

of relating and interactions that the family develops over time. In addition, structural family theory also looks at the influence of systems inside and outside of the family, including community agencies, such as support agencies, and other outside resources (Minuchin, 1974). Minuchin viewed the family as a social group within itself that could influence and be influenced by its internal and external social contexts. Structural family theory asserts that the family can influence its members, such as children having psychological symptoms as a response to stressors on the family (Minuchin, 1974).

Structural family therapy looks at the individual, the family, and the systems within which they live and are a part of (Minuchin, 1974). Structural family theory argues that normal families do have problems, but healthy families are able to restructure when necessary and adapt to changes and stress (Minuchin, 1974; Vetere, 2001). Distress may develop in the family when it is unable to make required adaptations that are made necessary by internal or external changes. Vetere (2001) argued that structural family theory could be applied to many populations, including distress and conflict in couples, child conduct disorders, aggression in children diagnosed with ADHD, obesity in children, and chronic physical illness in children. Structural family theory guided my research by helping to identify how the stress of raising a child with a disability and maladaptive parenting behaviors can have an impact on the health of the family-child relationship quality and potentially lead to child abuse and neglect when families are unable to make appropriate adaptations.

Nature of the Study

Quantitative

This study was quantitative in nature. Quantitative research methods can be used to infer relationships between two variables and between groups (Rudenstam & Newton, 2007). The quantitative method is consistent with other research that has examined parent-child relationships (Coleman & Karraker, 1998; Respler, Mowder, Yasik, & Shamah, 2012). Quantitative results from this study provided numerical data that was used to compare parenting style, competence, and parental stress with the quality of the parent-child relationship. This data allowed the researcher to make predictions across demographic and socioeconomic areas. Scores from the Parenting Stress Index-4 SF, the Competence subscale of the Parenting Stress Index-4, the Parenting Styles and Dimensions Questionnaire, and from subtests of the Parent-Child Relationship Inventory were used to provide the quantitative data needed for this study (Abidin, 2012; Gerard, 1994; Robinson, Mandleco, Olson, & Hart, 2001). Surveys were completed electronically via Qualtrics by parents of children from ages 3 to 12 years with diagnosed disabilities, then analyzed using SPSS upon data exportation to Excel.

Definitions

Child disability: A physical or mental impairment that substantially limits one or more of an individual's major life activities (Americans With Disabilities Act [ADA], 1990).

Parent-child relationship quality: A measure of how positive the identified relationship is by measuring specific features and parenting skills. The quality of the

parent-child relationship can be determined by assessing parent's attitudes and behaviors towards their children **(**Gerard, 1994).

Parenting competence: A parent's perception of their ability to positively influence the behaviors and development of their child. Parenting competence is also often referred to as parenting self-efficacy (Coleman & Karraker, 1998; Slagt, Deković, De Haan, Van Den Akker, & Prinzie, 2012).

Parenting style: The emotional environment in which parent-child interactions occur. Baumrind's theory of parenting was the first to put parenting behaviors into types and established three parenting styles: authoritarian, authoritative, and permissive (Park & Walton-Moss, 2012).

Authoritarian parenting: Parenting characterized by an attempt to shape a child's behavior and attitudes through control in accordance with a set standard of conduct (Baumrind, 1966).

Authoritative parenting: Parenting in which reasoning and the provision of choices, along with reinforcement and discipline, are used to mold a child's behaviors and development of autonomy (Baumrind, 1966).

Permissive parenting: Parenting characterized by a lack of structure and nonpunitive measures that affirm a child's personal desires and impulses while making few demands on the child (Baumrind, 1966).

Parenting stress: The stress that a parent experiences that is directly related to child characteristics, parent characteristics, and experiences that are related to the parenting role (Abidin, 1995).

Gender: A more flexible definition of male and female that takes behaviors and social interactions into account (Kaiser, 2012).

Sex: A biological term identifying male or female based upon genes and/or hormones (Kaiser, 2012).

Race: Assigns individuals to a group based upon biological and genetic factors that imply homogeneity.

Ethnicity: Assigns groups based upon common culture, origin of birth, or heritage. Ethnicity takes many factors into account, but is often addressed narrowly for government or research purposes usually for identification as either Hispanic or non-Hispanic (Kaplan & Bennett, 2003).

Assumptions

Assumptions were made for this study in order to determine possible outcomes and minimize threats to validity. These assumptions were believed to be plausible based upon the population and methodology of this research study. I chose to use surveys as the methodology for this research. Surveys are self-report measures and therefore, lend themselves to the possibility of false reporting. I assumed that all parent/guardian participants will answer the survey questions in an honest and forthcoming manner. A statement requesting that respondents answer all questions as truthfully as possible was included with the survey.

The researcher provided participants with a statement of confidentiality regarding the protection of their information. All participants completed a consent form indicating their agreement to participate in the study. Therefore, it was assumed that all participants had a

desire to participate in this study and did not have any objections to answering questions regarding their parenting behaviors or aspects of their relationship with their child.

Participation in this study required that the respondent be the parent or guardian of a child with a disability. It is possible that participants may have had more than one child in the household or a child in the household who did not have a disability. I assumed that the participant would answer the survey questions based upon their relationship with their child with a disability. A statement was included in the survey that directed respondents to answer questions based upon their relationship with the child they identified as having the diagnosed disability.

The surveys for this study were administered in the English language only. I assumed that all participants were able to read and understand English in order to appropriately respond to survey questions. Understanding the survey questions was critical to participant responses reflecting the construct that the item purported to measure.

Scope and Delimitations

The focus of this study was to examine parenting characteristics as predictors of the quality of the parent-child relationship in families of children with a disability. There is research that focuses on the parent-child relationship in families with typically developing children (Chan & Chan, 2011; Griffin, Samuolis, & Williams, 2011). However, not as much attention has been given to those families raising a child with a disability, specifically research has not sufficiently empirically investigated how parenting factors or characteristics may impact this relationship (Roux, Sofronoff, &

Sanders, 2013). Therefore, the scope of this research was limited to families of a child with a disability and did not examine parent-child relationships for typically developing children.

Another delimitation of this research was that it only investigated parents of children between the ages of 3 and 12 years old. This age range was selected in order to identify children during significant developmental periods and to align with assessment measures age ranges for applicability. In addition, the age was selected to ensure that the child had been in the care of the respondent for at least 2 years. Therefore, results of this study may not be generalizable to children of other ages. In addition, the child had to have a disability that was previously diagnosed. This provided delineation between children with a medical or professional diagnosis, as opposed to children with typical behavioral issues or minor health concerns. As defined by ADA (1990), the condition limited one or more major life activities. Parents who did not have children who met this criterion, or who self-diagnosed their child, were not included in this study. Also, the parent or caregiver reporting on the child must have maintained guardianship of the child for at least 2 years. Another delimitation was that the children identified in this research did not participate in the study, therefore only parent/guardian reports were used.

Structural family theory (Minuchin, 1974) was chosen to guide this research. This theory looks at the structure of families, including patterns, as well as the influence of systems inside and outside of the family (Minuchin, 1974). This theory identifies healthy families by their ability to reorganize or restructure when there is a need for change and to adapt while still remaining consistent (Vetere, 2001). Structural family theory also

identifies the importance of child autonomy, while still maintaining a heirarchy in the family where parents are the authority. This theory can be applied to families that have children with disabilities because of the frequent changes that these families experience and adaptions that often have to be made. This theory also addresses the importance of parenting in which authority is provided, while allowing independence for the child. In addition, the theory examines roles or patterns of interaction that family members have, which are often changing or multiplying for families of children with disabilities.

Other psychological/social theories such as family systems theory, family development theory, social exchange theory, and human ecology theory were not used for this study. Family systems theory examines boundaries, rules, and expectations in a family, but does not address outside systems (Powell & Cassidy, 2007). Human ecology theory looks at influences inside and outside of the family, but does take into account the makeup of the family or interactions of family members (Powell & Cassidy, 2007). Social exchange theory addresses family behaviors in terms of costs and benefits to individual family members, but does not look at the family as a system or address continuation of behaviors when there is no reward. It also does not specifically address parenting issues (Myers-Walls & Myers-Bowman, 1999; Powell & Cassidy, 2007). Family development theory proposes that families develop in predictable. This theory, however, does not take into account external systemic influences or maladaptive parent or child behaviors stages (Myers-Walls & Myers-Bowman, 1999; Powell & Cassidy, 2007). Therefore, none of these theories could be used to address the specific needs and challenges that are experienced by families of children with disabilities.

Another delimitation of this research was the participant pool. Participants included a convenience sample that was recruited from Qualtrics' participation pool. The generalizability of this research was limited based upon the lack of diversity of the respondents that chose to participate. In addition, language may have been a delimitation, as the surveys were only provided in English. Additional limitations of this study are discussed in the following section.

Limitations

The methodology for this research study was survey design, which requires participant self-reports. Though all of the surveys being utilized have built-in validity scales, self-report measures do have limitations. One potential limitation is response bias, such as social desirability bias or 'faking good'. This results in participants responding to questions in a way that makes themselves appear more favorable. Participants were asked to respond to questions about their parenting behaviors and the relationships that they have with their child. This could have led to participants feeling the need to respond in a more positive manner, resulting in elevated scores on the surveys. Another type of response bias that may be a limitation is demand characteristics. Demand characteristics involve a participant anticipating or being aware of what the researcher is attempting to investigate, and thereby responding in a manner that they think will be favorable for the study or the researcher (McCambridge, de Bruin, & Witton, 2012). Though it was requested in the directions for survey completion, there was no way for the researcher to guarantee that participants would answer questions truthfully. In addition, recall bias may

be a limitation. Participants responded to survey questions based off of memory, which may at times be inaccurate (Hassan, 2005).

Another limitation is that the sample is not a random sample. The sampling method utilized for this research study was a nonprobability or convenience sample in which participants were self-selected. Therefore, results from this study may have limits of generalizability to the broader target population. In addition, this research study used a multiple regression analysis model, which allowed the researcher to identify relationships between the independent variables and dependent variable in order to make predictions. This type of methodology does not identify causation; therefore, causality cannot be determined. It is not the goal of this researcher to identify causality; therefore, the multiple regression model is appropriate for this study. Confounding variables that may have affected research results include participants being involved in previous or current parent training, family therapy, or other service delivery modalities. An additional confounding variable may be the number of children in the household with a disability, as this could potentially have either an adverse or a positive impact.

Findings from this research were limited by the reliability of the assessment measures used. Though careful consideration was given to each survey/questionnaire that was included, and all of the assessments involved have very good reliability, there are still limits to reliability. Since no assessment measure is completely reliable, this would be a limitation regardless of which surveys the researcher chose to use. In order to reduce effects, such as response bias, the researcher made efforts to ensure confidentiality. Surveys were completed electronically and did not require any identifying information,

such as name or date of birth. In addition, raw data is password protected and secured in electronic format.

Significance

This research fills a gap in the literature by focusing solely on the parental experience and parenting characteristics in families of children who have any type of physical, mental, or emotional disability. This increases the body of knowledge on the link between parenting factors and the parent-child relationship quality. It is significant in that it addresses the needs of an underserved population of families who require additional supports and services, as well as highlights the challenges of an at-risk population. The results of this study provide insight into the impact that a parent's style of child-rearing, parental stress, and perceived level of competence in raising a child with a disability can have on the overall relationship that they have with that child. In addition, additional research was required to adequately determine if these parenting characteristics are related to the quality of the parent-child relationship when the child has some type of disability and is not typically developing.

Results from this study may aid private and governmental agencies serving families and communities in addressing the unique needs of families that have a child or children with disability/disabilities. It may also pave the way for further research in identifying interventions to enhance parenting styles and competence among parents of children with disabilities. This leads to positive social change by identifying the relationship between parenting characteristics and the quality of the relationship between parents and their child with a disability, which will provide the opportunity to enhance

programs and training models aimed at serving this population and reducing incidents of maltreatment.

Summary

Children with disabilities are at an increased risk for child maltreatment and neglect (CDC, 2016). Factors that contribute to this include increased parental stress and challenging behaviors that may be exhibited by the child. These children, and their families, often face unique challenges that are not faced by families of typically developing children. The parent-child relationship has been found to be a critical factor in the development and behaviors of the child, as well as parenting behaviors (Ghanizadeh & Shams, 2007). In spite of this, little research has focused on parenting characteristics and their impact on the parent-child relationship in families of children with disabilities. The purpose of this study was to examine whether parental characteristics of stress, parenting style, and competence may predict the quality of the parent-child relationship. A contribution to the existing body of literature was made by filling the gap in addressing these parenting characteristics.

In this chapter, I provided background literature for this study, including legislation regarding the protection and safety of all children and its application to children with disabilities. I also identified the purpose of this research and the problem statement. Chapter 1 also described the research questions and hypotheses of this study, as well as the theoretical framework that will be used, which is Minuchin's structural family theory. The quantitative nature of this study was identified, along with definitions for constructs that were assessed.

The assumptions for this study were also provided, as well as the limitations of this study. Scope and delimitations were addressed, including (a) only families of children ages 3-12 years with disabilities will be included, (b) reports will be provided from parents/guardians only with no child responses, and (c) the theoretical framework of this study will be limited to structural family theory. This chapter concluded by addressing the significance of this study and its implications for social change.

Chapter 2 includes a review of the literature that addresses parenting characteristics, the importance of the parent-child relationship, and their application to children with disabilities. Important demographic factors are addressed, as well as the application of structural family theory to children with disabilities. The chapter concludes with a summary, as well as an introduction to Chapter 3.

Chapter 2: Literature Review

The most recent U.S. Census, conducted in 2010, reported that approximately 2.8 million children between ages 5-17 years have a disability (Brault, 2011). This accounts for 5.2% of the population. Continued improvements and advances in healthcare and technology have made it easier to identify and treat these disabilities, thereby increasing the number of reported cases (Wise, 2012). Therefore, it is no surprise that research regarding children with disabilities has begun to increase. However, little of this research has been focused on parenting children with disabilities. This chapter provides a review of the impact that parenting stress, competence, and style have on the quality of the parent-child relationship in families of children with disabilities. A review of the literature includes an assessment of these parenting factors and their impact on the development of these children, as well as on the quality of the resulting relationships.

Previous research on children with disabilities has often focused on the disabilities that are most often considered behavioral such as ADHD or disabilities that are intellectual such as Autism Spectrum Disorder (Cussen, Sciberras, Ukoumunne, & Efron, 2012; Silva & Schalock, 2012). This is likely due to the impact that this has on a child's academic abilities. Research examining parenting children with such impairments has included the quality of life of parents who have disabled children, parental satisfaction with parenting a disabled child, or parenting interventions to improve the behavioral patterns of the disabled child (Crowley & Kazdin,1998; Cussen et al., 2012; Roux, Sofronoff, & Sanders, 2013). However, little research has been done that focuses

on the quality of the parent-child relationship from the parental perspective and their perceived ability to parent their disabled child. The goal of this study was to identify how parental factors could predict the overall quality of the relationship between parents and their children with disabilities, thereby providing opportunities for advances in parent-training programs and other services designed to meet the needs of these families.

Content and Organization of the Review

Most of the research on parent-child relationship quality examines relationships of parents to their typically developing children. This literature review identifies and reviews the limited number of studies that have focused on parenting a child with a disability. Though the population of children included for this study focused on children ages 3-12 years with a disability, literature was included that provided data on children of all ages including adolescents/teens with a disability. In addition, some of the literature references include data collected on populations outside of the United States. Limitations regarding inclusion of these populations are noted when necessary. Some of the literature on parenting a child with a disability also contains data on parenting a typically developing child, which was included for comparison purposes. A review of the current literature that identifies the impact of the parent-child relationship on child development and family well-being, as well as literature regarding the challenges faced by families of children with disabilities is included.

This chapter begins with an overview of the topic, followed by the literature research strategy. The theoretical framework being used for this study is described in the subsequent section. I begin my discussion of the literature with a general review of

parent-child relationships and its impact on the development of the child. Researchers have shown that the parent-child relationship can have an impact on the overall development of the child (Ghanizadeh & Shams, 2007). These findings can be applied to the population of children with disabilities with even more significance due to the additional risk factors and special needs of this group. Literature in this area is lacking in identifying specific parenting factors that may contribute to the relationship quality.

The following sections review literature on the concepts of parenting competence, parenting stress, and parenting style. The relationship of these factors to the overall parent-child relationship is explored in detail. Definitions of these terms and related constructs are included in these sections. The review of literature on parent-child relationship quality includes demographic variables that are considered significant. Chapter 2 concludes with a summary of the literature review, as well as an introduction to what will be discussed in Chapter 3.

Literature Search Strategy

In conducting this review of the literature, I used Walden University Library's database system, retrieving articles from PsychINFO, PsychArticles, and Education Research Complete. In addition, I used Google Scholar to find additional articles or related articles that I was not able to identify through database searches. The search terms that were applied included: *parenting, parenting competence, parenting stress, parenting styles, parental competence, parental stress, parent-child relationships, parent-child relationship quality, relationship quality, disability, child disability, age of child,* and

parenting research demographics. These terms were searched individually, as well as in combination, such as *parent-child relationships* and *parenting stress*.

In addition to the terms listed above, the following related terms were searched: *parenting satisfaction, Baumrind parenting styles,* and *Americans with Disabilities Act*. *Parenting self-efficacy* was also searched in place of *parenting competence,* as this term was identified as a related term during the review of the literature. Most of the articles that were included were from peer-reviewed sources, including journals and other publications. Other publication types included in the search were published newsletters from professional organizations, academic textbooks, and professional manuals.

Primary, as well as secondary sources, including literature reviews, textbooks, and research studies were searched for this literature review. Seminal sources, including original articles or books regarding assessment measures, theories, or previous research models were also included. Peer reviewed, as well as nonpeer reviewed, resources were searched that provided additional information or contributed significantly to the topic. Research, reviews, and books published from the years 2011-2016 were searched, though cross-references were also made to include historical data that was relevant to this research study.

Theoretical Framework

Structural Family Theory

The theoretical foundation that guided this research was structural family theory. Structural family theory was developed Minuchin (1974) to be applied to families in need of family therapy. This theory looks at the structure of families, including patterns, and

works to redefine relationships among members of the family. Structural family theory also looks at the influence of systems inside and outside of the family, including community agencies and resources. Minuchin defined family structure as the rules and organization of the way that family members relate and includes the patterns of interactions that are developed over time (Minuchin, 1974). The strength of the family unit is determined by their ability to reorganize or restructure when either internal or external factors solicit the need for change (Vetere, 2001). Healthy families are therefore able to adapt to stressful situations while still maintaining consistency amongst the unit, and allowing room for restructuring (Vetere, 2001).

Minuchin (1974) held the belief that families help to mold a child's behaviors as well as their sense of identity. When there are consistent patterns of interactions in the family, children are able to develop their sense of belonging. Minuchin argued the importance of autonomy and proposed that needed separateness can be established when a child's growth is accommodated (Minuchin, 1974). Minuchin believed that families had to have a hierarchy and that different levels of authority had to be established, with parents having the highest level of authority.

Families of children with disabilities are faced with numerous concerns and challenges. Researchers have shown that these challenges can put a strain on the relationship between the parent and child (Algood et al., 2011). Vetere (2001) believed that structural family theory could be utilized in family therapy that would be beneficial to children with disabilities such as conduct disorder, ADHD, learning disabilities, obesity and other issues causing heart risk, aggression, and physical illnesses. According

to structural family theory, the absence or presence of problems does not identify a family as normal because dysfunctional behaviors are seen as a maladaptive response to changes in the environment or changes in requirements for further development (Vetere, 2001). Structural family theory takes the stance that normal families do have problems, but that they are able to adapt to changes and restructure themselves when needed (Minuchin, 1974).

Restructuring is often necessary for families that have children with disabilities. Dyson (2010) stated that parents reported instances of having to change schools to accommodate the needs of their disabled child, having to find sources of support outside of the home and school, and lack of time to rest due to efforts to meet the needs of the child with a disability. Also, other siblings often have to take on parental roles to assist with caring for a child with a disability. Sisters, especially, develop motherly behaviors and grow up faster as they become a source of support for their disabled sibling (Dyson, 2010).

There are also times when the hierarchy of the family is threatened. The stressors of raising a child with a disability often cause a strain on marital relationships between parents, and they find themselves pitted against each other (Dyson, 2010). The patterns of interactions in families with disabled children can also add stress to family relationships. Research conducted on children with autism spectrum disorder found that parents often take on the roles of caretaker, coach, or both (Zhou & Yi, 2014). They found that when too much emphasis was put on the role of coach, parents were less warm and more rigid, which had a negative impact on the parent-child relationship (Zhou & Yi, 2014).

Structural family theory will help guide this research by helping to understand the impact that parental factors, such as their ability to promote autonomy and maintain consistency while managing stress, can have on the healthy parent-child relationship that is needed to support a child with a disability. This theory aids in the identification of unhealthy parenting behaviors that may contribute to psychological stressors experienced by the family, as well as the possible need for restructuring when parenting styles do not meet the needs of the child with a disability. The research questions are related to structural family theory in that they address the structure of families of children with disabilities, including interaction patterns. They also build upon this theory by identifying competency as a potential factor that may mold those interactions, and contribute to the need to redefine the nature of the relationships between the parent and child.

Parent-Child Relationships

Family relationships can have influences over many aspects of children's lives, including their emotional, physical, and mental health (Ghanizadeh & Shams, 2007). For example, a lack in family communication can be connected to substance use, suicidality, depression, low self-esteem, and maladaptive eating patterns. Additionally, Ghanizadeh and Shams (2007) found that family conflicts, hostility, and rejection have all been linked to a later diagnosis of depression. Deficits in family communication were also related to substance use, suicidality, depression, low self-esteem, and maladaptive eating patterns (Ghanizadeh & Shams, 2007). Dixon et al. (2008) found that conflictual parent-child relationships can lead to familial problems and poor emotional outcomes. These conflicts

tend to be more severe in mother-daughter relationships due to them typically being close and interdependent (Dixon et al., 2008).

Although there are many negative outcomes associated with poor parent-child interactions, appropriate parent-child relationships can positively impact children. Connor and Rueter (2006) conducted a study of families to determine links between parental behaviors and adolescent suicidality. They studied several variables including adolescent emotional distress, parental hostility, and paternal warmth. The results of their study showed that adolescent distress was linked to suicidality. However, parental warmth was helpful in protecting children against psychopathology and increase overall well-being (Connor & Reuter, 2006). Simpkins, Weiss, McCartney, Kreider, and Dearing (2006) also examined parental warmth in a study of kindergartners and their mothers. These researchers found that maternal warmth and involvement had a significant impact on children's academic achievement. Warm and positive interactions also increase children's reading skills and values (Simpkins et al., 2006).

Risk-taking behaviors is another area that has been studied regarded the impact of the family relationship. Bronte-Tinkew and Moore (2006) utilized data from the National Longitudinal Study of Youth (1997) to study father-child relationships and its relationship to risky behaviors. Results of the study found that more positive father-child relationships led to reduced risk of involvement of risky behaviors. These findings help to suggest that the nature of the parent-child relationship can impact almost every aspect of a child's life.

Parent-Child Relationship Quality

Parent-child relationship quality refers to how positive the identified relationship is by measuring specific features and parenting skills. The quality of the parent-child relationship can be determined by assessing parent's attitudes and behaviors towards their children **(**Gerard, 1994). This construct is significant due to the impact that this relationship has on the child long-term. Parent-child interactions are the framework of the parent-child relationship and form the context for which their ongoing interactions and relationship develop (Dunsmore, Benson, & Bradburn, 2006). Friesen, Woodward, Horwood, and Fergusson, (2013) conducted a 30-year longitudinal study examining the quality of parent-child relationships. They found that adolescents who reported higher quality parent–child relationships also later reported higher levels of parental warmth, sensitivity, and effective child management, and lower levels of over-reactive parenting in their own adult parenting practices.

Ehrlich, Hoyt, Sumner, McDade, and Adam (2015) examined parent-child relationship quality as measured by children and its relationship to metabolic risk in adulthood. Metabolic risk was determined by examining blood pressure, blood glucose levels, and body composition. Sociodemographic variables were assessed including age, gender, race, ethnicity, and education level, which was used as a measure of socioeconomic status. Results from this study indicated that positive parent-child relationships were associated with reduced risk for females, but not for males. Mother-child conflicts were related to increased metabolic risk in males, but not females. Supportive father-child conflicts were found to be a protective factor for females, but not

for males. There were no significant findings based upon the age of the child or the other variables mentioned (Ehrlich et al., 2015).

Gerard (1994) identified five features that directly measured the quality of the parent-child relationship. One of those features is satisfaction with parenting, which is the level of fulfillment and pleasure that an individual gets from parenting. Another is parental involvement, which is defined by the level of interaction with and knowledge of the child. Communication is another factor and is the parent's perception of how well he or she communicates with the child. A fourth measure is limit setting which is characterized by the parent's experience with disciplining the child. Autonomy is the last area and assesses the ability of the parent to encourage independence (Coffman, Guerin, & Gottfried, 2006; Gerard, 1994).

Gerard found that age of the child accounted for significant differences in reported parent-child relationship quality (Gerard, 1994). The standardization sample consisted of over 100 parents. Children were classified into three age groups: 5 years and younger, 6 to 10 years, and 11 years and older. Significant differences for child's age were seen on all parenting domains, except for the promotion of child independence. Parents across all age groups reported similarly in their ability to encourage independence in their children. Parents of children 11 years and up reported feeling more in control as parents and more shared responsibility between mothers and fathers in parenting roles than parents of children 5 years and younger. However, parents of children 5 years and under reported receiving more help and support, feeling more enjoyment from being a parent, spending more time with their child and greater interest in the child's activities,

and greater ability to talk to their child than parents of children 11 years and older. Parents of children ages 6-10 years reported more positively in all of these areas of parenting than both of the other age groups (Gerard, 1994). Osborne and Reed (2010) also found significant differences related to the age of the child in their study on parenting stress and children with autism. Age groups were categorized as 2 to 3 years, 4 to 6 years, 7 to 11 years, and over 12 years. Results of this study indicated that parents of children with autism reported spending less time with their child than parents in the general population, as reported by previous research studies. However, the amount of time that parents spent with their autistic child did not change across any of the age groups. Parents of children with autism also reported feeling less in control as parents with difficulty setting limits, as well as feeling less able to talk to their child. The ability to verbally communicate with the child with autism did increase as the age of the child increased. Similar to reports from Gerard (1994), the parent's ability to promote independence in the child showed no differences across age groups or between children with autism and the general population. The Satisfaction with Parenting scale was not included in this study (Osborne & Reed, 2010).

When exploring the impact of substance abuse in mothers on parenting, Suchman and Luthar (2000) also found correlations between child's age and several scales of the PCRI. A significant negative correlation was found between age and involvement, with parents reporting less involvement as the child's age increased. There was also a negative correlation between limit setting and age. A positive correlation was found between

autonomy and age, suggesting that as age increased so did parent's reports of autonomy (Suchman & Luthar, 2000).

The race of the parents also had an impact on parent-child relationship quality (Gerard, 1994). White/Caucasian parents scored significantly higher in two areas of parent-child relationship quality compared to Black/African American parents (Parental Satisfaction and Autonomy). In addition, education level of parents also had an influence, with parents with some college scoring higher on the autonomy subscale than parents without a high school diploma (Gerard, 1994). The age of the parent was also significant to parent-child relationship quality. According to Gerard (1994), younger parents ages 18-24 scored significantly lower than older parents on parent-child relationship quality for scales measuring satisfaction, involvement, and autonomy. In regards to gender, mothers scored significantly higher on parent-child relationship quality for scales measuring involvement and communication, while fathers scored significantly more than mothers on the limit setting subscale.

Satisfaction with Parenting

Parental satisfaction expresses a parent's level of fulfillment with parenting and includes factors such as level of support from a spouse, parent-child relationship, family discipline, and parenting performance or competence (Gerard, 1994; Guidubaldi & Cleminshaw, 1985; Sacco & Murray, 2003). According to Guidubaldi and Cleminshaw (1985), parenting satisfaction seems to be highly correlated with parenting behaviors, including the utilization of reinforcement, punishment, and parent-child interactions.

Sacco and Murray (2003) found that children's behaviors could impact the level of parental satisfaction in mothers. When exploring parent-child dyadic relationships between a mother and an identified child, hyperactivity and conduct problems were associated with lower levels of parental satisfaction, more negative emotional reactions to the child's behavior, and more negative trait perceptions of the child (Sacco & Murray, 2003). These findings confirm previous research that child psychological issues can impact that parent-child relationship. Bradshaw, Donohue, Cross, Urgelles, and Allen (2011) supported these findings and found that dissatisfaction with parenting could lead to child maltreatment. When studying mothers that were referred for child neglect and assessing parental satisfaction, it was found that mothers were generally satisfied with their children overall. However, these mothers were least satisfied with matters related to discipline including following rules in the home, chore completion, responses to redirection and punishment, and obedience or compliance (Bradshaw et al., 2011). They also found that as satisfaction with parenting increased, the potential for child abuse decreased. This further supports the relationship between child behaviors and parental satisfaction. This also identifies how important parental satisfaction can be to the quality of the parent-child relationship.

Parental Involvement

A parent's level of involvement in their children's lives can be critical in their development. According to Nokali, Bachman, and Votruba-Drzal (2010), parental involvement is most often measured in relation to academics by a parent's level of

communication with teachers or involvement in school activities. Parental involvement has been shown to raise the achievement level of children who may be underperforming. This has led to educators, policy makers, and researchers encouraging parental involvement and including it as a major element of children's programs such as Head Start (Fan & Williams, 2010; Nokali, Bachman, & Votruba-Drzal, 2010). Spending time with children lets them know that they are loved and fosters open communication (Kelly, 2008).

Nokali, Bachman, and Votruba-Drzal (2010) concluded that parental involvement of first, third, and fifth graders was linked to improvements in behavioral issues as well as inclines in social skills. Findings indicated that increases in parental involvement over time resulted in large increases in the child's social skills and declines in behavioral problems. There were, however, no links between involvement and academic achievement (Nokali, Bachman, & Votruba-Drzal, 2010). Fan and Williams (2010) found that parental advising regarding academic concerns, as well as general issues or concerns, was linked to elevated self-efficacy and intrinsic motivation. This same study also found that parents' participation in extracurricular activities was linked to self-efficacy in math, as well as academic engagement. In addition to this, researchers have shown that when parents are more involved in their adolescent's daily lives, there are lower rates of depression, substance use, academic issues, and misbehavior (Darling, Cumsille, Caldwell, & Dowdy, 2006).

Though often measured according to educational outcomes, parental involvement also has an impact on behaviors at home. Padilla-Walker (2007) conducted a study on

adolescents and their mothers measuring perceptions of adolescent values and behaviors. The researcher found that adolescents must perceive and accept maternal values in order for them to internalize them. This gives support for the need of effective parent-child interactions in order to promote influence the development of positive values and behaviors (Padilla-Walker, 2007). Researchers have shown that adolescents who feel rejected, neglected, or unloved often act out behaviorally, including running away from home (Zajko, 2007). Also, when a greater level of involvement is shown at school, this can also reinforce the connection between home and school (Fan & Williams, 2010). This supports the view that parent participation in extracurricular activities can help build relationships between parents and children (Fan & Williams, 2010).

Parent-Child Communication

Communication between parents and children is very important and allows for opportunities for shaping children into their adolescent and adult years (Jerman & Constantine, 2010). Since most parents have opportunities to communicate with their children daily, they are critical in communicating expectations regarding educational goals and expectations, as well as educating children on key issues such as sex (Fan & Williams, 2010; Jerman & Constantine, 2010).

Poor family communication can lead to children feeling isolated and misunderstood (Zajko, 2007). On the other hand, close relationships with parents and positive communication decreases the risk of suicidal thoughts and attempts (Connor & Rueter, 2006). Open communication can also help children to develop social skills and increase self-esteem levels (Zajko, 2007). Fan and Williams (2010) found that following

information teacher contacts, parents were more likely to positively communicate with their children. This led to increases in the child's perceived competence, intrinsic motivation, and engagement. In addition, when parents' aspirations and goals for their children were communicated, academic self-efficacy, engagement, and intrinsic motivation in math and English was positively influenced suggesting that the communication of expectations leads to more confident and engaged children (Fan & Williams, 2010).

Levin and Currie (2010) conducted research on children in Scotland on communication between children and their mothers and fathers. Results from this study indicated that children reported greater levels of overall satisfaction with life when communication with their mothers or fathers regarding issues that bothered them was easy, with the highest levels of satisfaction being reported with easy communication with fathers. When communication was difficult, there were lower levels of life satisfaction reported (Levin & Currie, 2010). Further research shows that when parents communicate openly and effectively, risk-taking behaviors in children can be reduced (Jerman & Constantine, 2010).

Effective communication has been found to be important to parent-child relationship quality. Dixon et al. (2008) studied African American, European American, and Latina girls with (an average age of 8 years, 5 months) and their mothers. The researchers found that higher levels of discipline and good communication by mothers were related to a lower frequency of parent-child conflicts (Dixon et al., 2008).

Limit Setting

Parental control, which includes limit setting, identifies a parent's use of behavioral regulation through monitoring and the setting of expectations (Barber, 1996). Researchers have shown that setting limits and monitoring children serves as a protective barrier against behavioral problems and risk-taking behaviors, such as substance use (Griffin, Samuolis, & Williams, 2011). Setting limits prepares children for the real world and makes them feel safe and secure (Fay & Fay, 2010). Children who do not have limits set feel unloved and angry and grow up to be unhappy and demanding adults. They experience culture shock as they enter into the real world and find that they cannot always get things their way (Fay & Fay, 2010). Unfortunately, parents and children have reported declines in limit-setting during the adolescent years. This decline showed a decrease in the amount of parental control and was more evident in single parent families (Barber, Maughan, & Olsen, 2005).

Setting appropriate limits as external controls teaches children to develop their own internal controls (Fay & Fay, 2010). Children who are given boundaries with choices feel free to be imaginative, active, and perceptive. They learn to use their creativity within those limits and develop their personal identities (Fay & Fay, 2010). In addition, limit setting can influence children's health and well-being. Parents who use more limit setting and monitoring regarding diet have children who are healthier, more physically active, and less prone to obesity (Ayala, Elder, Campbell, Arredondo, Baquero, Crespo, & Slymen, 2010). This finding is confirmed by research done by Carlson, Fulton, Lee, Foley, Heitzler, and Huhman (2010) on limit setting of children's

screen-time to include recreational computer use, video games, and other electronic devises. These researchers found that consistent rules and limit setting was related to increased physical activity.

Child Autonomy

Autonomy is reflective of a child's level of independence (Gerard, 1994). Children have a need to be understood and to have their own curiosities encouraged. Encouraging autonomy helps children to develop a sense of self so that they know who they are. It also allows them to develop a sense of purpose for themselves (Kelly, 2008). Parent-child conflicts that arise during late-childhood to adolescence are often the result of children's need to develop a sense of independence and autonomy (Dixon et al., 2008).

Chan and Chan (2011) found that emotional autonomy from parents accounted for the relationship between maternal warmth and adolescents' susceptibility to peer pressure in areas such as misbehavior and level of school involvement. The facilitation of autonomy can also have long-lasting effects. Lima, Mello, Andreoli, Fossaluza, Araújo, Jackowski, and Mari (2014) found that healthy parental relationships in childhood, that include appropriate autonomy, can be a protective factor against Post-Traumatic Stress Disorder (PTSD) in adulthood.

Encouraging autonomy in parent-child relationships involves the promotion of independence in the child's ability to think, make decisions, and solve problems without the influence of parents (Soenens & Beyers, 2012; Soenens, Vansteenkiste, Lens, Luyckx, Goossens, Beyers, Ryan, 2007). Parents who encourage autonomy of actions encourage children to take initiative and to make choices that are based upon their own

unique preferences (Soenens et al., 2007; Soenens & Byers, 2012). There can be negative effects on the child's development when autonomy is discouraged (Soenens & Byers, 2012). Restricting children's autonomy in decision-making has been linked to depressive symptoms and poor psychosocial functioning (Manzi, Regalia, Pelucchi, & Fincham, 2012; Soenens & Beyers, 2012).

Parent-Child Relationship Quality and Child Development

Relationships between parents and children have an impact on several aspects of a child's life. Friesen, Woodward, Horwood, and Fergusson (2013) identified how this relationship can impact the child's future parenting behaviors as an adult finding that better parent-child relationships yielded more positive parenting in adulthood. Positive parent-child relationship quality has also been found to mediate the impact of peer stress and depressive symptoms in pre-adolescents and adolescents (Hazel, Oppenheimer, Technow, Young, & Hankin, 2014).

Parent-child relationships beginning in infancy have even been found to affect memory development. Peterson and Nguyen (2010) found that positive relationships with fathers was associated with an earlier age of the first memory. They also found that there was a relationship between both positive and negative relationships with mothers and the number of early life memories that were recalled in adulthood.

Behaviorally, children are greatly influenced by the relationships that they have with their parents. Choo and Shek (2013) found a significant relationship between the quality of the parent-child relationship and adolescent drinking behaviors. Findings indicated that children with positive relationships with their mothers drank less than those

with negative relationships. In addition, increased levels of family conflict resulted in increased alcohol consumption (Choo & Shek, 2013).

Emotion-related behavioral influences are also present in the parent-child relationship. Previous researchers have shown that parental psychological control can lead to aggressive adolescent behavior (Soenens, Vansteenkiste, Goosens, Duriez, & Niemiec, 2008). Soenens et al. (2008) found that parents who utilize psychological control in their parent-child relationships use manipulation, such as shaming and guilt, to influence child behaviors. Kuppens, Grietens, Onghena, and Michiels (2009) found that both maternal and paternal use of psychological control was positively related to adolescent aggression. Soenens et al. also identified a positive correlation between parental psychological control and aggression in adolescents. In addition, they found that adolescent aggression negatively impacted relationships with friends and was a predictor of adolescent feelings of loneliness.

The quality of the parent-child relationship can mediate this impact. Murray, Dwyer, Rubin, Knighton-Wisor, and Booth-LaForce (2014) found that when a parent used psychological control, the aggressive adolescent behavior could be reduced by a positive relationship with the other parent. For boys, this was only evident when there was a psychologically controlling mother but a high quality relationship with the father (Murray et al., 2014).

Issues Faced by Children with Disabilities

Children with disabilities often face very different and additional challenges than their nondisabled or typically developing peers. Dyson (2010) found that children with

learning disabilities are often not accepted by extended family members and often compared to their nondisabled relatives. In regard to education, it was found that they were often rejected, labeled, and burdened with unrealistic expectations by the school. Parents also reported that their children with learning disabilities often came home distressed due to lack of satisfactory experiences at school (Dyson, 2010). There are additional concerns for disabled children regarding whether they will graduate with a standard diploma from high school, be able to go to college, or to obtain paid employment. Even the type of disability that the child has can have an effect on their parent's expectations for their level of success, which can negatively impact a child whose parents have lower expectations for them based upon their impairment (Doren, Gau, & Lindstrom, 2012).

The level of special attention required can often negatively impact the parent-child relationship (Algood, Hong, Gourdine, & Williams, 2011). Adolescents with ADHD report higher levels of substance abuse and exhibited more problem behaviors than adolescents without ADHD (Walther et al., 2012). Walther et al. (2012) also found that these same adolescents had more conflictual relationships with their parents and reported parents who were less knowledgeable about their behaviors, less supportive, inconsistent. Cussen, Sciberras, Ukoumunne, and Efron (2012) had similar conclusions. They found that adolescents with ADHD had parents who reported less consistent parenting, lack of warmth, and more hostile parenting.

Disability in children has also been associated with more incidents of maltreatment (Skarbek, Hahn, & Parrish, 2009). In fact, research has indicated that

children with disabilities are 3.4 times more likely to be victims of sexual abuse than nondisabled children. This abuse is often perpetrated by someone they know and trust, such as a coach or teacher (Skarbek et al., 2009). Findings such as this confirm that children with disabilities are at an increased risk of negative interactions with those who are expected to care for them.

Parent-Child Relationships and Children with Disabilities

With additional challenges to face by both the parent and the child, the health of the family relationship can be even more impactful in families of children with disabilities. Though there have been conflicting research findings regarding the impact that a child's disability can have on the family in general and the parent-child relationship, researchers consistently determine that family functioning is effected greater in families of children with disabilities than those who only have typically developing children.

In a review of literature on chronic pain, Lewandowski, Palermo, Stinson, Handley, and Chambers (2010) found that the majority of studies found a significant relationship between chronic pain, level of disability or impairment, and family functioning. Chronic pain included migraines, abdominal pain or bowel disorders, and fibromyalgia. The impact on family functioning included less cohesiveness of the family unit, less structure, and greater family and parent-child conflicts. The researchers also found that the most consistent finding was a positive relationship been level of disability or impairment and family dysfunction (Lewandowski et al., 2010). In contrast, Beurkens, Hobson, and Hobson (2013) conducted a study on children with autism and found that

the severity of the autism had a negative impact on children's interactions with their parents, though not significantly on the overall quality of the parent-child relationship.

Branje, Hale III, Frijns, and Meeus (2010) reported significant findings regarding the parent-child relationship and depression. Branje et al. (2010) indicated that relationship quality with mothers was a predictor of more depressive symptoms reported in adolescents. Relationship quality with fathers also predicted depressive symptoms, but only for boys. The researchers attributed this to previous findings that girls typically have a better relationship with their mothers, therefore lending the father-daughter relationship to have less of an impact (Branje et al., 2010).

Further research has been conducted on children with ADHD exploring the parent-child relationship quality. Deault (2010) found that there was a relationship between ADHD symptoms in children, and conflictual parent-child relationships. This negative impact was increased when the child also had a diagnosis of a comorbid disorder, such as conduct disorder or oppositional defiant disorder (Deault, 2010). The impact of parenting behaviors on children with ADHD can even be identified when the parent is not the birth or biological parent. Research on adoptive mothers and their children with ADHD found that hostile parenting by mothers was associated with ADHD symptoms. The hostility was particularly seen when the ADHD child had very disruptive and impulsive behaviors, indicating that these behaviors may have been a trigger for mothers (Harold et al., 2013).

Additional research on parents of children with ADHD continues to substantiate the impact of parent behaviors on child development. Mikami, Jack, Emeh, and Stephens

(2010) examined peer relationships in children with ADHD and found that the parent's level of socialization with other parents, in addition to providing opportunities and encouragement for child peer interactions, impacted the peer relationships that were developed. In addition, parents of ADHD children were more critical of their peer interaction behaviors, provided fewer peer interaction opportunities for play, and reported lower levels of social skills themselves when compared to parents of non-ADHD children (Mikami et al., 2010).

Parenting Styles

Another major influence on parent-child relationships is parenting style. Parenting style is defined as the emotional environment in which parent-child interactions occur (Park & Walton-Moss, 2012). Parenting style can have a major influence on a child's development. The four primary parenting styles are authoritative, authoritarian, permissive, and uninvolved or detached (Zajko, 2007). Authoritative is considered to be the most effective style of parenting. Authoritative parents try to reason with their children, encourage independence, and tend to use less physical forms of punishment (Dixon et al., 2008). Children who are raised in authoritative homes have been found to have higher levels of self-confidence and self-esteem and develop more positive peer relationships (Zajko, 2007). Authoritative parenting has also been found to have a positive influence into college. Research conducted on college students regarding their perceived parenting style growing up found that authoritative parenting was associated with academic achievement (Chen, 2015).

Authoritarian parenting can also be considered restrictive and have a negative impact. Authoritarian parents are very cold and controlling (Zajko, 2007). Aside from parent supervision and family time spent, harsh parenting is the third leading factor that influences conduct problems in children (Thompson et al., 2003). Children who are raised under these circumstances are shown to be less secure, hostile, or regressive when faced with stressful situations. They may also become less popular and do not establish helpful peer relationships (Thompson et al., 2003). Parents who enforce strict practices usually have children who are fearful, apprehensive, and exhibit conforming behaviors (Dixon et al., 2008). These children may also develop low self-esteem, lack self-worth, and resent authority figures (Zajko, 2007).

Another parenting style is permissive. Permissive parents lack structure and give into their children's wills. They try to make every effort to ensure that the children are satisfied. Permissive parents do not offer guidance and lack control. The children who grow up in this type of home may become selfish and lack empathy. They may also require a lot of attention, become very demanding, and want everything their way (Zajko, 2007).

The fourth parenting style is uninvolved or detached. This parenting style has also been called neglectful, and was added to Baumrind's three original parenting styles by Maccoby and Martin (1983) as another dimension of permissive. Uninvolved parents are not actively involved in their children's development and take on a very nonchalant attitude in their lives (Zajko, 2007). These parents do not care about the children's activities and youth are allowed to make their own rules. Uninvolved parents do not make

any efforts to exhibit guidance or enforce their control. These children often end up getting into a lot of trouble, engaging in risky behaviors, and experimenting with drugs and alcohol (Bronte-Tinkew & Moore, 2006; Zajko, 2007). They also develop poor social, and later, poor parenting skills (Zajko, 2007).

Baumrind's Parenting Styles

Baumrind's theory of parenting was the first to put parenting behaviors into types and was believed to identify the most common parenting practices utilized for controlling child behaviors (Baumrind, 1966). She established three parenting styles: authoritarian, authoritative, and permissive. Baumrind's parenting styles have continued to be considered consistent and used as the main categories of identifying parenting attitudes and behaviors, and will thus be the guiding theory for use in this concept (Levin, 2011; Robinson, Mandleco, Olsen, Hart, 1995).

Authoritarian parents mold their child's behavior by establishing set rules and standards of behavior that are often guided by beliefs in a higher authority (Baumrind, 1966). Obedience is considered important and punished is used when felt necessary in order to regulate appropriate behaviors. The child's level of autonomy is limited and household responsibilities are given in order to teach work ethic. Structure is enforced and rules are not negotiated with the child. Authoritarian parenting was associated with more hostile behaviors in boys and lack of desire for achievement for both boys and girls (Baumrind, 1971).

Authoritative parents rationalize with the child and provide justification for rules and standards (Baumrind, 1966). They also allow the child to express their issues with set

rules. Autonomy is encouraged, but children are expected to be disciplined through use of a firm level of control. The child is not restricted and is allowed to express his or her interests. Power and reasoning are used to achieve desired behaviors and the child's uniqueness is affirmed. Decisions are not based on the child's individual desires or on group-induced expectations. Authoritative parenting was associated with children who are independent and purpose-driven, as well as socially responsible. Baumrind (1971) also concluded that authoritative parents were the most likely to raise children who were responsible and competent.

Permissive parents are accepting and affirming of their child's actions and desires. They make very few demands of the child regarding responsibilities or appropriate behaviors. They also give explanations for rules and consult with the child regarding decisions. The parent is not seen as a role-model for ideal behaviors, but as a resource to utilize. The child is expected to regulate their own behaviors and actions and no expectations are put forth for following rules outside of the home. Reasoning and manipulation are often uses, instead of power, to achieve desired outcomes from the child. Punishment is not seen as necessary to the benefit or raising of the child. Baumrind (1971) reported that boys and girls of permissive parents tend to be less independent than those of authoritative parents. Boys were also reported to be less purpose-driven or achievement-oriented than those of authoritative parents.

Parenting Styles and Parent-Child Relationship Quality

Though research in this area is limited, some findings do support that parenting style can have an impact on the parent-child relationship. As previously noted, research

has continued to support the notion that authoritative parenting is the most effective parenting style (Baumrind, 1971; Dixon et al., 2008; Chen, 2015). For example, Darling, Cumsille, Caldwell, and Dowdy (2006) studied parent-adolescent disagreements and found that adolescents who were raised by authoritative parents were less likely to lie and more likely to express their disagreements with parents' childrearing practices (Darling et al., 2006).

Thompson, Hollis, and Richards (2003) conducted a study utilizing data from the 1970 British Cohort Study to look at authoritarian parenting attitudes. The researchers found that the level of conduct problems in children ages 5 and 10 increases as the level of authoritarian style parenting increases. Bronte-Tinkew and Moore (2006) found that authoritarian parenting by fathers resulted in increases in adolescent risky behaviors and substance use (Bronte-Tinkew & Moore, 2006). This line of research shows that parenting style can have a significant effect on children's well-being and problematic behaviors that may impact the parent-child relationship.

Parenting Styles and Child Disabilities

Parenting style has also been found to have an impact on the development of children with disabilities. A study conducted on 37,777 Canadian youth demonstrated the relationship between parenting style and childhood obesity (Kakinami, Barnett, Séguin, & Paradis, 2015). These researchers found that when compared to authoritative parenting, authoritarian parenting was associated with a greater risk of obesity in children. On the other hand, authoritative and permissive parenting, which both provide high levels of warmth, were associated with better child health-related behaviors (Park & Walton-Moss,

2012). Monaghan, Horn, Alvarez, Cogen, and Streisand (2012) conducted a study with parents of children with Type 1 Diabetes. Their results determined that authoritative parenting style was associated with higher levels of adherence by children to their health needs, as well as less childhood stress (Monaghan, Horn, Alvarez, Cogen, & Streisand, 2012).

Shur-Fen Gau and Chang (2013) found that children with ADHD had mothers who were more controlling and overprotective as reported by both the parent and the child. Lack of family support was also reported, as well as impaired mother-child relationships (Shur-Fen Gau & Chang, 2013). A separate study conducted on children with ADHD found that these children experienced less consistent and more hostile parenting (Cussen, Sciberras, Ukoumunne, & Efron, 2012). In addition, Fenning, Baker, Baker, and Crnic (2014) found that parents of children with borderline intellectual disability had more negative-controlling behaviors than parents of nondisabled children. This could be related to the fact that children with borderline intellectual functioning also exhibited a significant amount of difficult behaviors compared to typically developing or nondisabled children (Fenning et al., 2014). Neither of these studies, however, categorized these parents into the most commonly used parenting styles. This, along with the lack of research in the area of parenting styles and disabilities, supports the need for more research in this area.

Parenting Competence

Parental competence, or parental self-efficacy, can be defined as a parent's perception of their ability to positively influence the behaviors and development of their

child (Coleman & Karraker, 1998; Slagt, Deković, De Haan, Van Den Akker, & Prinzie, 2012). Parenting competence can be impacted by many factors. For example, parental knowledge of child behaviors has been shown to improve children's development and parenting competence (Morawska et al., 2009). Morawska et al. (2009) also found that when parents were low in parenting competence and parenting knowledge, they were at an increased risk of dysfunctional parenting behaviors. They found that parents who were high in self-efficacy or parenting competence reported less dysfunction than those with low parenting competence.

Parenting competence is a factor even when children are infants. A study conducted by Spielman and Taubman-Ben-Ari (2009) found that the perceived temperament of infants was associated with mother and father levels of self-efficacy. Results indicated that the worse the infant's temperament or difficult level was, the lower parents perceived their own level of skill or parenting competence. However, higher levels of general self-esteem were associated with higher levels of parenting competence (Spielman & Taubman-Ben-Ari, 2009). Sevigny and Loutzenhiser (2010) supported this finding with results that indicated that maternal general self-efficacy, or feelings of personal competence, were significantly associated with their perceived level of parenting competency.

Parenting Competence and Parent-Child Relationship Quality

Bogenschneider, Small, and Tsay (1997) found that adolescents of competent parents reported higher academic achievement and psychosocial competence. The children also reported that competent parents were more responsive and less

psychologically controlling. Factors that impact parental competence include the closeness of the spousal relationship, which often lessen conflicts between a parent and child (Bogenschneider et al., 1997; Guidubaldi & Cleminshaw, 1989). More recent research on parenting competence has continued to show a link with child behaviors and parent-child relationships.

Slagt et al. (2012) found that children's problematic behaviors were predictors of parental competence, suggesting that a parent's sense of self-efficacy can be impacted by the behavioral patterns exhibited by the child. The researchers determined that parental competence, on the other hand, was not a predictor of the child's problematic behaviors. These results were supported by Meunier, Roskam, and Browne (2010) who also found that there was an indirect effect of children's externalizing problem behaviors on the parent's perceived level of self-efficacy, suggesting that a child's problematic behaviors can undermine a parent's feelings about their own level of competence. Previous research indicated that the perception of these problem behaviors appeared to be associated more with mother's perceived level of parenting competence than father's (Meunier & Roskam, 2009). Contradictory to these finding, Sevigny and Loutzenhiser (2010) found that in the case of toddlers, child difficulty was not significantly related to parenting competency. In this study, satisfaction with spousal relationships was more of a predictor of parenting competence. Also, higher levels of parental self-efficacy or parenting competence was linked to higher levels of satisfaction with marriage and positive family functioning. Higher parental competency was also associated with lower levels of maternal depression (Sevigny & Loutzenhiser, 2010).

In research examining personality and parenting, parenting competence has been found to mediate the relationship between personality and parental over-reactivity as well as the relationship between personality and parental warmth. Parenting competence has been linked to greater levels of parental warmth and involvement and lower levels of over-reactive parenting (de Haan, Prinzie, & Deković, 2009).

Intervention-based research has also identified the importance of parenting competence in child-rearing. Deković, Asscher, Hermanns, Reitz, Prinzie, and van den Akker (2010) studied whether the Home Start parenting support program would impact parenting competence in parents that were having difficulty with parenting. Mothers in the program received a visit from a trained volunteer once a week to provide supports including childcare, parenting information, and emotional support (Deković et al., 2010). This research found that mothers in the program did in fact report higher levels of parenting competence a year into the program than they did at onset. They also reported higher levels of parenting competence when compared to another group of mothers who did not complete the Home Start program, but reported a need for parenting support (Deković et al., 2010).

Parenting Competence and Child Disabilities

Though not a new concept, parental competence is a topic that has not been widely studied in its application to raising children with disabilities (Dempsey, Keen, Pennell, O'Reilly, & Neilands, 2009). Previous research on parental competence and children with disabilities has often been related to intervention-based research to determine effectiveness outcomes, but little attention has been given to the concept to

compare it to families with typically developing children. For example, Keen, Couzens, Muspratt, and Roger (2010) examined the impact of parent-focused interventions on the parenting competence and stress in families of children with autism spectrum disorder. Parents who received the intervention that included professional face-to-face visits reported less stress and higher levels of parenting competence (Keen et al., 2010).

Giallo, Wood, Jellett, and Porter (2011) conducted a study of mothers with children of autism spectrum disorder ages 2 to 5. When compared to mothers of children who did not have autism, these mothers reported significantly higher levels of fatigue mostly in the moderate range. High levels of fatigue were associated with lower levels of parenting satisfaction and parenting competency, as well as higher levels of stress and anxiety (Giallo, Wood, Jellett, & Porter, 2011). A similar study conducted on Australian parents yielded the same results. Cooklin, Giallo, and Rose (2012) examined fatigue and parenting in the general population. Findings confirmed that higher levels of fatigue were linked to lower levels of perceived parenting competence, higher levels of parenting stress, and strained parent-child interactions (Cooklin, Giallo, & Rose, 2012).

Parenting competence has also been found to be related to parenting stress. A study conducted on mothers of children with intellectual disabilities (ID) found that mothers who reported higher levels of parenting competence also had a greater internal versus external locus of control for their own parenting behaviors, which resulted in lower parenting stress levels (Hassall, Rose, & McDonald, 2005). Meirsschaut, Roeyers, and Warreyn (2010) found that mothers reported greater levels of stress regarding their parental competence in raising their child with autism compared to stress levels related to

raising their nondisabled child. In addition, the higher the level of parenting competence regarding their autistic child, the higher the level of parenting competence was regarding their nondisabled child (Meirsschaut et al., 2010).

A study done on a rare disorder found in children did provide comparisons for children with disabilities with typically developing children. Butcher, Wind, and Bouma (2008) conducted a study on parents of children with hemiparesis, a motor disorder where one side of the boy is severely weakened. This condition can also be accompanied with behavioral problems. Behavioral problems were shown to decrease parents' feelings of competence and social isolation. Parents of children with hemiparesis also reported significantly higher levels of stress than typically developing parents, which was associated with feelings of low parenting competence and lack of social support (Butcher et al., 2008). Research on parents of children with cerebral palsy also demonstrated negative impacts on parenting competence. Ketelaar, Volman, Gorter, and Vermeer (2008) found that maladaptive or challenging behaviors in these children were strongly related to a decreased sense of parenting competence.

Parenting Stress

Parenting stress is defined as the stress that a parent experiences that is directly related to child characteristics, parent characteristics, and experiences that are related to the parenting role (Abidin, 1995). Parenting stress can have an impact on a child's development. For example, research conducted by Cappa, Begle, Conger, Dumas, and Conger (2011) determined that parenting stress predicted a child's ability to cope. Lower

levels of parenting stress resulted in increased levels of social, emotional, and achievement-related coping competencies.

Bender and Carlson (2013) conducted research on at-risk preschool children who were in a Head Start program. They found that parents of children who had behavioral issues reported higher levels of parenting stress. Parents of children with more protective factors, such as good communication skills and appropriate attachment levels, reported significantly lower levels of parenting stress (Bender & Carlson, 2011). Findings by Neece, Green, and Baker (2012) on stress in parents of children with developmental delays and nondisabled children support these findings. They concluded that overall, parenting stress predicted behavioral problems in children and that behavioral problems in children was a predictor of parenting stress (Neece et al., 2012).

The stress of raising a child with a disability can also have an impact on the health of the parents. Resch, Elliott, and Benz (2012) found that parents who perceived their situation of raising a child with a disability to be stressful, reported more symptoms of depression. In fact, they found that nineteen percent of the participants met criteria for a depression diagnosis (Resch et al., 2012). Additional research by Smith and Grzywacz (2014) supported the Resch et al. (2012) findings. In a study of parents of children with and without disabilities, they found that parents of children with disabilities reported poorer overall mental health and more symptoms of depression (Smith & Grzywacz, 2014).

Parenting Stress and Parent-Child Relationship Quality

Parenting stress can be influenced by many factors that affect the quality of the parent-child relationship. Respler, Mowder, Yasik, and Shamah (2012) found that the more positive the parents' perceptions of parenting were, the less parenting stress was experienced (Respler et al., 2012). In parents of children with autism, the child's level of prosocial behaviors or positive interactions with others was a predictor of the level of stress in the parent-child relationship (Huang, Yen, Tseng, Tung, & Chen, 2014). Huang et al. (2014) also found that parents of children with mild to moderate autistic behaviors reported more stress in their parent-child relationships than those parents of children with severe autism or no disability. The researchers suggested that this may be due to the fact that these children have a greater ability to improve their symptoms and behaviors, therefore leading parents to put additional demands and expectations on them causing strain in the parent-child relationship (Huang et al., 2014).

Powers et al.'s (2002) study on parents of children with Type 1 Diabetes found that the illness increased parenting issues such as temper tantrums, rule implementation, and conflicts with siblings. However, Hvidoere Study Group (2011) found that positive family relationships have been linked to better control of diabetic symptoms in children**.**

Stress of Parenting a Child with a Disability

Past research has indicated that parents of children with disabilities experience more parenting stress. This stress can be related to the additional challenges that are experienced by these parents. In a study done of parents/caregivers of children with brain tumors, it was found that 51% of parents were experiencing clinically significant levels of

parenting stress (Bennett, English, Rennoldson, & Starza-Smith, 2013). Predictors of the amount of stress included the parent's coping styles, the child's behaviors, and the amount of time since the child's diagnosis.

Silva and Schalock (2012) studied parents of children with autism, parents of nondisabled or typically developing children, and parents of children with other developmental delays and motor disabilities. Results of this study showed that parents of children with Autism experienced more stress than the other two groups. In fact, these parents reported four times as much stress as parents of typically developing children and twice as much stress as parents of children with other developmental delays. Silva and Schalock (2012) determined that the increased amount of stress experienced resulted from the child's deficits in social and communication skills, co-morbid behavioral issues, and co-morbid physical symptoms (Silva & Schalock, 2012).

Additional research on autism has indicated that the severity of the disorder may be an indicator of the amount of parenting stress. Huang, Yen, Tseng, Tung, and Chen (2014) found that caregivers and parents of children with severe to moderate autism reported lower levels of parenting stress than those parents of children with severe autism. An interesting finding in this study was that the parents of children with mild to moderate autism also reported less parenting stress than parents of nondisabled children. The researchers suggested that this phenomenon may be due to the children having behaviors that were more high functioning and reflective of typically developing children, and thus the parents did not perceive their behaviors as a source of stress

(Huang et al., 2014). In addition, conduct problems were found to be a predictor of parenting stress (Huang et al., 2014).

A study looking at autism and ADHD further confirmed previous research findings that parents of children with autism report higher levels of stress than other disabilities or no impairment groups. Miranda, Tárraga, Fernández, Colomer, and Pastor (2015) found that parents of children with Autism, ADHD, and co-morbid Autism and ADHD reported more parenting stress than parents of children with no disability. In addition, the parents of children with autism exhibited more parenting stress in the areas of attachment or closeness and guilt or unhappiness than the other groups (Miranda et al., 2015).

Parenting stress related to ADHD does not appear to be related to the severity of symptoms. Graziano, McNamara, Geffken, and Reid (2011) found that the parent's perception in the areas of emotional, cognitive, and behavioral impairment was a better predictor of parenting stress than the child's behavior severity (Graziano et al., 2011).

Intellectual disabilities have also been examined in relation to parenting stress. Parents of children with mental retardation reported symptoms of anxiety, parenting stress, and depression (Karasavvidis, Avgerinou, Lianou, Prifitis, Lianou, & Siamaga, 2011). They determined that factors that were related to increases in parenting stress included issues in the marital relationship, the parents' approach to the intellectual disability, parental coping strategies to deal with the child's disability, and the child's behavioral issues (Karasavvidis et al., 2011).

Eanes and Fletcher (2006) found that when children with disabilities displayed more attention problems, stress levels increased, which resulted in a decreased feeling of parenting competence (Eanes & Fletcher, 2006). This demonstrates that there can be a mediating effect between these two variables. Research does not differ when it comes to physical impairments. In a study done by Ketelaar et al. (2008) on parents of children with cerebral palsy found that behavioral challenges increased the level of parenting stress and was a predictor of overall psychological well-being (Ketelaar et al., 2008).

Osborne and Reed (2010) also found that parenting stress was elevated in parents of children with autism. In addition, they found that the parenting stress scores were significantly higher for children in the youngest of the four age groups (ages 2-3). Scores for the older age groups were found to be lower (Osborne & Reed, 2010).

Summary and Conclusions

Minuchin's structural family theory looks at the influences of systems inside and outside of the family and identifies a normal family as one that is able to make adjustments when needed, not one that does not have problems (Minuchin, 1974). This theory can be applied to families of children with disabilities and will help to guide this research as the impact of parenting practices are applied to the parent-child relationship.

Previous research on parent-child relationships has failed to examine the parental perspective of parenting a child with a disability and the impact that this has on the relationship with that child. However, researchers have shown that parenting a child with a disability has its own set of challenges that can impact both the parent and the child (Huang, et al, 2014. In addition, though much research has been conducted on parenting

stress, parenting styles, and parenting competence independently, none has included all three variables nor adequately applied them to children with disabilities or impairments. This research will fill the gap in the literature by examining how parenting factors inclusive of style, competence, and stress predict the quality of the parent-child relationship for families raising a child with a disability.

Poor relationships with parents has been linked to things such as depression, high risk behaviors, maladaptive eating patterns, and suicidal risk in children (Ghanizadeh & Shams, 2007). However, positive parent-child relationships have been found to decrease risk, and even mediate the impact between peer stress and child depression (Hazel et al., 2014; Neece et al., 2012). This relationship quality, and associated benefits or detriments, is even more important when raising a child with a disability. Research such as that conducted by Deault (2010) on ADHD in children, have found that there is a relationship between child disability and conflictual parent-child relationships.

Gerard (1994) identified five features that he found could directly measure the quality of the parent-child relationship. Those features are satisfaction with parenting, parental involvement, communication, limit setting, and autonomy. Those variables are defined in this literature review and are being measured to get an overall picture of the quality of the parent-child relationship. The parental variables that are being examined in this study include parenting style, parenting stress, and parenting competence. Baumrind's parenting styles are being used to identify the behavioral patterns of the parents for this study. The three parenting styles according to Baumrind are authoritative, authoritarian, and permissive.

Findings from this study help to fill the gap in the literature by addressing how parental factors, including demographic variables, predict the parent-child relationship in families with a disabled child. Such research can be used to help identify needs for programs that help to support families of disabled children. Chapter 3 includes a review of the methodology that will be used to conduct this study, including instrumentation, sample size, data collection procedures, analytic strategy, and ethical considerations.

Chapter 3: Research Methods

In this research I examined parenting competence, style, and stress as predictors of the quality of the parent-child relationships in families of children between the ages of 3 and 12 with a disability. This chapter includes a description of this study's design, sample, instrumentation, data analysis, and ethical considerations. An overview of the study's design includes a rationale for why this particular research design was selected. The sample characteristics and size are presented as will a description of the instrumentation. The data collection process and analysis is also discussed.

Research Design and Rationale

This study used a quantitative nonexperimental design to determine how parenting stress, parenting style, and parenting competence predict the parent-child relationship quality. The survey method was utilized for this study including self-reports provided on the Parent-Child Relationship Inventory, the Parenting Stress Index, and the Parenting Styles and Dimensions Questionnaire.

The dependent variable for this study was parent-child relationship quality. Ten independent variables/predictor variables were assessed, including three parenting factors (competence, stress, and style) and age of the child. There were no parent/guardian participation restrictions regarding age. The identified child with a disability was between the ages of 2 and 12. This age range was selected in order to ensure that results would be valid according to the norming sample data for the surveys being utilized.

Methodology

Population

The participants of this study were both male and female parents or guardians of a child with a disability. Disabilities or impairments included, but were not limited to Autism, ADHD, Cerebral Palsy, Fibromyalgia, Bipolar Disorder, learning disorders, and other developmental delays, physical or health impairments, or behavioral or mental disorders. The disability had to meet guidelines according to the ADA, which defines disability a physical or mental impairment that substantially limits one or more of an individual's major life activities (ADA, 1990). Participants were selected for the following reasons: (a) they were an accessible population; (b) they were of an age to provide informed consent; (c) they were parents of children between the ages of 3 and 12 years with a disability; and (d) their educational background provided them with the necessary reading comprehension skills to complete the questionnaires. Parents who did not have the child in their custody or guardianship for at least two years were excluded from the study. In addition, parents who did not report a professionally diagnosed disability were excluded.

Sampling and Sampling Procedures

A nonprobability or convenience sample of participants was recruited for this study. A convenience sample consists of participants who are self-selected and accessible to the researcher. A power analysis was conducted using the G Power 3.1.9.2 software in order to determine the sample size (Faul, Erdfelder, Lang, & Buchner, 2007). With an alpha level of 0.05 and 10 predictor variables, given an estimated effect size of 0.10, it

was recommended that a sample of 254 participants be involved in this study. A small effect size is used in order to identify a real effect that is difficult to detect (Cohen, 1969).

Procedures for Recruitment, Participation, and Data Collection

Upon IRB approval, the researcher began recruitment of participants. An IRB approval number of 01-30-17-0045130 was provided identifying Walden University's approval of this study. Written information introducing the study was disseminated by Qualtrics. Participants were recruited from Qualtrics' participant pool. The informed consent form included brief background information on the study, the procedures for participation, a discussion of confidentiality, the voluntary nature of the study, and ethical concerns. An email address and phone number was provided to participants so that any additional questions regarding participation could be directed to the researcher.

A brief demographic form (see Appendix B) inquired as to the gender, age, educational background, and ethnicity of participants. Individuals who were interested in participation in the study were directed to a Qualtrics link where they were able to give written consent and complete all survey questions. Qualtrics is software that is HIPPA-compliant, and therefore offers confidentiality of data. This software is often used when conducting researching requiring survey use.

The first page of the Qualtrics survey requested consent for participation in the survey. The second page screened for eligibility. Participation in this study required at least a fifth grade education level or equivalency in order to ensure the participant's ability to read and comprehend the inventories. Participants were the parent or legal guardian of a child between the ages of 3 and 12 with a medically documented disability

or impairment. A question was included where participants provided a “yes” or “no” answer as to whether the identified child currently had a disability that had been diagnosed by a medical or mental health professional. Examples of possible diagnoses were provided. The identified child must have been in the care of the parent/guarding for a minimum of two years. A letter of explanation was provided electronically to individuals who indicated a desire for participation**,** but did not meet requirements. Participants who were deemed eligible were directed to the next page of the survey where they began with demographic questions (see Appendix A) before proceeding to the parenting questionnaires. Upon completion of the survey, the participant was directed to a “Thank You” page which also provided the researcher’s contact information for comments or questions.

The approximate completion time to answer all survey items for this study was approximately 40 minutes. The closing page of the survey thanked respondents for their participation, as well as provided researcher contact information should the participant have any questions or concerns regarding the survey. The number of respondents was limited to 254 participants.

Instrumentation

Demographic Questionnaire

A demographic questionnaire assessed basic information regarding the participants’ age, gender, educational level, and ethnicity (see Appendix A). The following choices were available for selection to identify demographic information:

- Age of Parent or Guardian:

- Gender of Parent or Guardian: Male or Female.
- Highest Level of Education: Did not complete High School, High School Diploma, College Degree, or Graduate Degree.
- Ethnicity: American Indian or Alaska Native, Asian, Black or African American, Hispanic or Latino, Mixed Ethnicity, Native Hawaiian or Pacific Islander, White or Caucasian, Other.
- Age of Child:
- Child Diagnosis/Disability:
- Child's Age at Initial Diagnosis of Disability:
- Number of Children in home with a Disability:

The Parent-Child Relationship Inventory (PCRI)

The Parent Child Relationship Inventory is an affective scale designed by Gerard (1994) to assess parents' attitudes towards parenting and towards their children. It assesses several features of parenting and the quality of the parent-child relationship. The PCRI is a 78-item Likert type scale with seven individual subscales. The PCRI was normed on over 1,100 parents across the United States. The PCRI is an appropriate instrument for this study as it specifically explores multiple facets of the parent-child relationship quality.

The reliability and construct validity of the PCRI have been established. Construct validity deals with the extent to which scores on an instrument examine the hypothetical construct the instrument is purporting to measure (Gerard, 1994). The construct validity

of this scale is considered to be good, though intercorrelations between the PCRI Satisfaction and Involvements scales (r = .64), the Satisfaction and Limit Setting scales (r = .65), and the Limit Setting and Autonomy scales (r = .64) suggest the possibility of redundancy in the constructs measured by these three scales (Gerard, 1994). The test-retest reliability determines the ability of the test to elicit similar responses from participants across administrations. The test-retest reliability of the assessment had a mean value of r = .81 (Gerard, 1994). Internal consistency is the extent to which the items in a scale reflect a common trait or dimension. The internal consistency of this scale as measured by Cronbach's alpha has a median value of .82 with the individual subscales as follows: Parental Support (α = .70), Satisfaction with Parenting (α = .85), Involvement (α = .76), Communication (α = .82), Limit Setting (α = .88), Autonomy (α = .80), and Role Orientation (α = .75) (Gerard, 1994).

There are two validity indicators for the PCRI. A social desirability scale was included to determine whether a respondent is 'faking good' or responding in a defensive manner. An inconsistency indicator is included to determine if a respondent is providing random responses or completing the questionnaire inattentively (Gerard, 1994).

The seven content areas of the PCRI are designed to explore specific aspects of the parent-child relationship. According to Gerard (1994), the Parental Support scale assesses the level of emotional and support a parent receives. The Satisfaction with parenting scale measures the amount of pleasure and fulfillment an individual gets from being a parent. The Involvement scale measures the parents' interaction with and knowledge of his or her child. The Communication scale assesses the parent's perception

of how effectively he or she communicates with a child. The Limit Setting scale contains 12 items that focus on a parents' experience disciplining a child. The Autonomy scale assesses the ability of a parent to promote the child's independence. Finally, the Role Orientation scale measures parents' attitudes about gender roles in parenting. The PCRI uses Baumrind's (1971) model of parenting and authority in its interpretation of the Limit Setting and Autonomy scales (Gerard, 1994).

The PCRI was not modified for this research. The PRCI contains the following 7 subscales: satisfaction with parenting (10 items), parental involvement (14 items), communication (9 items), limit setting (12 items), autonomy (10 items), parental support (9 items), and role orientation (9 items). This study will only include the first 5 subscales, as they directly assess the quality of the parent-child relationship (Coffman et al., 2006). The PCRI does not provide a total score. Higher scores on the subscales indicate more positive parent-child relationships. Answers to the survey are given on a 4-point Likert scale from Strongly Agree to Strongly Disagree. The average time for completion is 15 minutes, but there is no time limit. Reading of this form is at the fourth grade level. The PCRI was made available to the researcher at a per-use fee with a reduced graduate student rate. A licensing agreement was required for use of this assessment.

A review of the literature demonstrates that the PCRI has been used in numerous studies assessing parent-child relationship and appears to be one of the most known and widely used for this purpose, specifically for research involving child abuse and custody (Gerard, 1994). Fritz and MacPhee (1992) studied parents living at or below poverty level and disciplining practices. Using a shortened version of the original 107 PCRI

questions that were used to collect standardization data, they found that there were correlations between discipline practices and the constructs measured by the subscales of the PCRI. The Limit Setting Scale was negatively correlated with bribery, scolding, and spanking. The Communication scale was positively correlated with use of reasoning and negatively correlated with spanking (Fritz & MacPhee, 1992; Gerard, 1994).

Jacobsen, McKinney, and Hoick (2014) studied emotionally neglected children using dyadic music therapy to determine its effect on parenting stress, parent-child interactions, and parent-child relationships. The PCRI was used to assess the parent-child relationships in this study. Results indicated that parents in the music therapy group scored higher on the PCRI and reported better parent-child relationships in the areas of talking and communicating with their child (Jacobsen et al., 2014).

Thompson, McFerran, and Gold (2014) assessed the impact of family-centered music therapy on children with Autism Spectrum Disorder. The children involved in this study had no abilities in functional verbal communication. The PCRI was used to assess for changes in the parent-child relationship following the treatment. Results indicated that the parents reported positive changes in the parent-child relationship including changes in perceptions of the child, perceptions of the relationship, and responses to the child (Thompson et al., 2014).

Malee et al. (2011) used a cross-sectional data sample of children with HIV/AIDS acquired through mother-child transmission to examine mental health functioning. Caregiver reports were completed with the majority being from biological mothers. The PCRI was administered at six months to assess parent-child relationships. Content scales

of the PCRI that were predictors of mental health problems in these children included low scores on Limit Setting, Communication, Involvement, and Parent Support (Malee et al., 2011).

The Parenting Stress Index-4 Short Form (PSI-4 Short Form)

The Parenting Stress Index (PSI-4) was developed by Abidin (2012) to measure stress in parenting, while identifying dysfunctional parenting and adjustment problems in children. The Parenting Stress Index-Short Form (PSI-4 Short Form) was used to measure parental stress for this study (Abidin, 2012). The short form consists of 36 items and is divided into three domains: Parental Distress (PD), Parent-Child Dysfunctional Interaction (P-CDI), and Difficult Child (DC), which combine to form a Total Stress scale. The Parental Distress subscale measures the amount of stress experienced in the parenting role and measures competence, social support, depression, spousal conflicts, and restrictions felt by the parent. The Parent-Child Dysfunction subscale measures how the parent feels the child meets his or her expectations and how satisfied he or she is with the parent-child interactions. The Difficult Child subscale measures how difficult the parent perceives their child to be. The Total Stress score indicates the overall level of parenting stress. Total Stress scores in the 91st percentile or higher are considered clinically significant (Abidin, 2012). Only the Total Stress score was used for this study.

The PSI-4-SF uses a 5-point Likert scale from Strongly Agree to Strongly Disagree and was normed on over 1,000 parents using the same data from the full length PSI-4. Reading of this form is at the fifth grade level. Internal consistency as measured by Cronbach's alpha was found to be good. The Total Stress scale has $\alpha = 0.95$ and all

subscales have α = 0.88 to 0.90. Test-retest reliability for the Total Stress scale was *r* = 0.84 and for the subscales ranged from *r* = 0.68 to *r* = 0.85 over a 6-month time period. Since test items are taken directly from the PSI-4, validity is considered to be shared with correlations between the Total Stress scale of the PSI-4 and the PSI-4 SF being *r* = 0.98 (Abidin, 2012).

Like the original form, there is a validity scale included in the short form that measures defensive responding, or whether a participant is responding in a defensive manner. It is made of 7 items from the Parental Distress scale. The 36 items are taken directly from the 120 items in the original version. The three domains are based upon Castaldi's (1990) factor analysis which identified the presence of these three factors. Scores on the PSI-4 SF range from 36-180. Higher scores indicate higher levels of parenting stress with Total Stress scores in the 91st percentile or higher being considered clinically significant (Abidin, 2012). The average time for completion of the short form is 10 minutes. The PSI-4-SF was made available for online use by this researcher by the publisher at a discounted graduate student rate. A licensing agreement was required for use of this assessment.

The Parenting Stress Index-4 Competence Scale (PSI-4)

The Parenting Stress Index (PSI-4) was developed by Abidin (2012). The subscale "Competence" within the Parental Domain was used to measure parental competence. This scale measures the how comfortable and capable a parent is in the parenting role. The PSI-4 uses a 5-point Likert scale from Strongly Agree to Strongly Disagree and was normed on over 1,000 parents. The Competence subscale consists of 13

items. Internal consistency of the PSI-4 was found to be good with the Child subscales ranging from $\alpha = 0.78$ to $\alpha = 0.88$ and the Parent subscales ranging from $\alpha = 0.75$ to $\alpha = 0.87$. Reliability coefficients for the two domains (Parent and Child), as well as the Total Stress Scale, were $\alpha = 0.96$ or greater, which indicates high internal consistency. Test-retest reliability after one year was found to be $r = 0.70$ for the Parent domain and $r = 0.55$ for the Child domain (Abidin, 2012). The Competence subscale is included in the Parent domain of the PSI-4 and was found to have good internal consistency with Cronbach's alpha of $\alpha = .86$ (Abidin, 2012).

High scores on the Competence subscale may indicate lack of child development knowledge, feeling unfulfilled with parenting, or lack of support. Parents of children with mental disabilities often have higher scores (Abidin, 2012). Scores in the 90^{th} percentile or above are considered clinically significant. This survey was made available to the researcher by the publisher at a reduced graduate student rate.

The Parenting Stress Index has been used in several studies measuring parenting stress, including those measuring stress in parents of children with disabilities. Ketelaar, Volman, Gorter, and Vermeer (2008) examined parenting stress in parents of children with cerebral palsy. The researchers assessed whether functional skills and maladaptive behaviors contributed to parenting stress utilizing the Parenting Stress Index. Results from this study indicated that maladaptive behaviors significantly impacted parenting stress scores in the following parent domains: attachment, relationship with spouse, depression, and most of all, competence (Ketelaar et. al, 2008).

The Parenting Styles and Dimensions Questionnaire (PSDQ)

The Parenting Styles and Dimensions Questionnaire (PSDQ) was developed by Robinson et al. (1995). Reading of this form is at the fourth grade level. The original version consisted of 62 items, however, revisions resulted in a short version consisting of 32 items (Robinson et al., 2001). There are 3 subscales to identify parenting style as: authoritative, authoritarian, or permissive coinciding with Baumrind's parenting styles (Baumrind, 1966). Parents receive a score for each of the three subscales. The Authoritative subscale's dimensions measure warmth and support, reasoning/induction, and democratic participation. The Authoritarian subscale measures physical coercion, verbal hostility, and non-reasoning/punitive behaviors. The Permissive subscale measures indulgence.

The questionnaire uses a 5-point Likert scale ranging from Never to Always. Internal consistency reliability (Cronbach's alpha) for this questionnaire is 0.86 for the Authoritative subscale (15 items), 0.82 for the Authoritarian subscale (12 items), and 0.64 for the Permissive subscale (5 items) (Robinson et al., 2001). A copy of the PSDQ was obtained through contacting one of the authors, Clyde Robinson, who provided the assessment and scoring form as well as appropriate referencing. A copy of this email can be found in Appendix B. This assessment was provided free of charge for use for this study.

Research utilizing the PSDQ confirms its validity in assessing styles of parenting according the Baumrind's model. Rinaldi and Howe (2012) used mother and father dyads to determine the impact of parenting styles on toddler behaviors. Results from the study

indicated that both parents' parenting styles positively correlated with each other for all three Baumrind parenting styles (authoritative, authoritarian, and permissive). In accordance with other research on parenting styles, authoritative parenting was found to predict more adaptive social behaviors. Mothers' permissive parenting and fathers' authoritarian parenting predicted more externalizing behaviors. The self-reported parenting styles of both could explain 44% of the variance in externalizing behaviors (Rinaldi & Howe, 2012).

Operationalization of Constructs

Operational definitions for the DV (parent-child relationship quality) and the three main IV's (parenting competence, parenting style, and parenting stress) are defined in this section. These constructs were previously defined in Chapter 2, but will be examined again for review. *Parent-child relationship quality* is operationally defined as a measure of how positive the identified relationship is by measuring specific features and parenting skills. Gerard (1994) concluded that the quality of the parent-child relationship can be determined by assessing parent's attitudes and behaviors towards their children **(**Gerard, 1994). *Parenting competence* is operationally defined as a parent's perception of their ability to positively influence the behaviors and development of their child (Coleman & Karraker, 1998; Slagt et al., 2012). *Parenting style* is operationally defined as the emotional environment in which parent-child interactions occur (Park & Walton-Moss, 2012). The operational defining of *parenting stress* was taken from the author of the Parenting Stress Index (Abidin, 1995) and is the stress that a parent experiences that is

directly related to child characteristics, parent characteristics, and experiences that are related to the parenting role.

In addition to these constructs, demographic factors including age of child and parent's age, ethnicity, gender, and education level were also measured as independent variables. The constructs *ethnicity* and *gender* are being defined for clarification. *Ethnicity* is assignment to a group based upon culture, origin of birth, or heritage (Kaplan & Bennet, 2003). *Gender* is defined as a self-identification of male or female that takes behaviors and social interactions into account, instead of biological attributions (Kaiser, 2012).

Data Analysis Plan

Research questions for this study were examined using a multiple regression model. Multiple regression is used when there are several independent variables and one dependent variable. This type of analysis identifies linear relationships and is also used to identify predictor variables (Gravetter & Wallnau, 2012). This study employed a quantitative survey design. The instruments used for measurement of the variables in this study allowed for the data to be analyzed through multiple regression analysis. The research questions and the hypotheses reflect this type of analyses. The research questions and hypotheses are listed in the next section for review.

Research Questions

Research Question 1: Is parental competence**,** as measured by the Parenting Stress Index (using the Competence subscale)**,** a predictor of the quality of the parent-child relationship**,** as measured by the Parent Child Relationship Inventory?

$H_0$1: Parental competence is not a significant predictor of the quality of the parent-child relationship.

H_a1: Parental competence is a significant predictor of the quality of the parent-child relationship.

Research Question 2: Are parenting styles (authoritarian, authoritative, permissive)**,** as measured by the Parenting Styles and Dimensions Questionnaire**,** predictors of the quality of the parent-child relationship**,** as measured by the Parent Child Relationship Inventory?

$H_0$2: Parenting styles are not significant predictors of the quality of the parent-child relationship.

H_a2: Parenting styles are significant predictors of the quality of the parent-child relationship.

Research Question 3: Is parental stress**,** as measured by the Parenting Stress Index-Short Form (using Parental Distress, Parent-Child Dysfunctional Interaction, Difficult Child and Total Stress), a predictor of the quality of the parent-child relationship**,** as measured by the Parent-Child Relationship Inventory?

$H_0$3: Parental stress is not a significant predictor of the quality of the parent-child relationship.

H_a3: Parental stress is a significant predictor of the quality of the parent-child relationship.

Research Question 4: Is the age of the child a predictor of the quality of the parent-child relationship**,** as measured by the Parent-Child Relationship Inventory?

$H_0$4: The age of the child is not a predictor of the quality of the parent-child relationship.

H_a4: The age of the child is a predictor of the quality of the parent-child relationship.

The instruments were hand scored and the Statistical Package for Social Sciences (SPSS) version 23.0 was used for data analysis. Multiple linear regressions were run to predict the dependent variable as measured by parent scores on the PCRI. In addition to the predictor variables identified in the research questions, demographic data was also collected including the number of children in the home with a disability, parent's age, gender, ethnicity, and education level. Sufficient variability was determined for the demographic variables parent's age, gender, ethnicity, and education level to be examined and used as predictor variables.

Threats to Validity

Validity identifies the accuracy of the instrumentation used, the data collected, and the results of the research (Bernard, 2013). Validity may be considered as the most important element of research; however, all research has possible threats to validity (Bernard, 2013). Participants for this study were recruited through convenience sampling. Convenience sampling occurs when participants are self-selected and can threaten research validity when the sample is not representative of the population that you would like to generalize the data to (Bernard, 2013). Generalizability is limited to the demographics of the sample collected. Another threat to validity is nonresponse bias. Nonresponse bias occurs when respondents do not complete the survey or do not fully

complete the surveys. When survey items are left uncompleted, there is no way to determine how the participant would have responded and how it would have affected the data (Bernard, 2013). In order to reduce the risk of nonresponse bias, respondents were notified that their responses would be confidential and anonymous. In addition, the survey was not timed, so participants were able to complete the survey at their own pace. There was no coercion, as participants were invited to participate with the option to withdraw from the study at any time. The researcher also provided a sufficient data collection timeframe giving potential participants ample time to respond to the survey.

When survey methodology is implemented, there is also the risk of response bias. One type of response bias in social desirability bias, in which participants respond to survey items in a manner that is more positive or favorable and could result in elevated scores (McCambridge, de Bruin, & Witton, 2012). In order to reduce the risk of response bias, participants were instructed to answer questions as truthfully as possible and all survey data was collected anonymously. The surveys utilized for this study included the PCRI, the PSI-4, and the PSDQ. Construct validity for these assessment tools have been established by the authors and by supporting research (Abidin, 2012; Gerard, 1994; Robinson et al., 1995).

Ethical Procedures

Careful consideration was given regarding the nature of this study and its possible effects on the participants. The informed consent was distributed to all potential participants discussing the procedures for participation in the study, confidentiality matters, the voluntary nature of the study, the risks and benefits associated with

participation in the study, as well as a way to contact the researcher with individual questions regarding the study.

It was clearly stated in the informed consent that all records in this study will remain confidential and that only the researcher will have access to those records. Potential participants were notified that they were free to withdraw from the study at any time during the process without consequence. There were no physical risks or benefits for participation in the study. However, there was the potential for emotional upset as participants reflect on the relationships they have with their children. Participants were notified that there was no obligation to complete any part of the study in which they felt uncomfortable. Informed consent was obtained when the participant submitted the electronic informed consent form in Qualtrics which signified that the participant agreed and understood the conditions of the study. Surveys were completed anonymously with no information directly linking the individual to the data collected. This further provided for reduced risk of harm to the participant.

Raw data is stored electronically and password protected on a flash drive held in the possession of the researcher. Raw data will not be distributed and will only be used for research analysis purposes. Analyzed data will be made available for publication, and will not contain any personally identifying information. Raw data will be destroyed after a period of 5 years, which is the minimum as required by the Institutional Review Board.

Summary

Chapter 3 provided an overview of the research methods for this study. This included the research questions, type of data collected, procedures for data collection,

sampling procedures and expected sample size, as well as ethical considerations. The research method was identified as quantitative using a convenience sample of participants. A survey design was used for this study including questions from the PCRI, PSI-4, and PSDQ. A review of the reliability of these three questionnaires was provided, along with a description of the types of parenting factors each will assess. The requirements for participation in this study were identified and include being a parent or guardian of a child ages 3 to 12 with a diagnosed disability. Ethical considerations, including informed consent were discussed. Chapter 4 includes the research findings, related tables and figures, data analyses procedures, and the application of the research methods. It will conclude with answers to the research questions.

Chapter 4: Results

The purpose of the current study was to investigate whether parenting factors or characteristics are predictors of parent-child relationship quality when raising a child with a disability. This quantitative nonexperimental study was done to assess the predictive relationships between these variables. Chapter 4 presents the research questions, a description of the data collection, an evaluation of the statistical assumptions, and the results from the multiple regression analyses. The following research questions guided this study:

Research Question 1: Is parental competence**,** as measured by the Parenting Stress Index (using the Competence subscale)**,** a predictor of the quality of the parent-child relationship**,** as measured by the Parent Child Relationship Inventory?

$H_0$1: Parental competence is not a significant predictor of the quality of the parent-child relationship.

H_a1: Parental competence is a significant predictor of the quality of the parent-child relationship.

Research Question 2: Are parenting styles (authoritarian, authoritative, permissive)**,** as measured by the Parenting Styles and Dimensions Questionnaire**,** predictors of the quality of the parent-child relationship**,** as measured by the Parent Child Relationship Inventory?

$H_0$2: Parenting styles are not significant predictors of the quality of the parent-child relationship.

H_a2: Parenting styles are significant predictors of the quality of the parent-child relationship.

Research Question 3: Is parental stress**,** as measured by the Parenting Stress Index-Short Form (using Parental Distress, Parent-Child Dysfunctional Interaction, Difficult Child, and Total Stress), a predictor of the quality of the parent-child relationship**,** as measured by the Parent-Child Relationship Inventory?

$H_0$3: Parental stress is not a significant predictor of the quality of the parent-child relationship.

H_a3: Parental stress is a significant predictor of the quality of the parent-child relationship.

Research Question 4: Is the age of the child a predictor of the quality of the parent-child relationship**,** as measured by the Parent-Child Relationship Inventory?

$H_0$4: The age of the child is not a predictor of the quality of the parent-child relationship.

H_a4: The age of the child is a predictor of the quality of the parent-child relationship.

Participants completed a survey that included a demographic questionnaire, the Parent-Child Relationship Inventory (PCRI; Gerard, 1994), the Parenting Stress Index-4 Short Form (PSI-4 SF Stress; Abidin, 2012), the Parenting Stress Index-4 Competence Scale (PSI-4; Abidin, 2012), and the Parenting Styles and Dimensions Questionnaire (PSDQ; Robinson, Mandleco, Olson, & Hart, 2001). A convenience sample of 244 male and female parents or guardians of a child with a disability participated in the study. Data were analyzed using SPSS 23.0 for Windows.

Data Collection

Survey data were collected from February 2, 2017 to May 18, 2017. Surveys were administered electronically via a one-time use survey link that was provided to parents who were interested in completing the survey. The survey was originally administered via Survey Monkey and promoted by two community partners via social media, however, it was determined that the survey had been compromised and results invalidated after over 150 surveys were completed within a 15 minute timeframe all having the same responses and having an average 1.5 minute completion time. The survey was terminated and data was erased from the database. The survey was then reopened in Qualtrics utilizing a one-time use link where new data were collected. An incentive of a $5 Amazon gift card was provided to all participants who qualified and successfully completed the survey via a third party so that respondent information would remain anonymous. A total of 249 surveys were collected. After removal of incomplete responses, a final sample size of 244 respondents was included in the final analyses.

Results

Descriptive statistics for the sample and results of the regression analyses are presented in this section. I calculated means and standard deviations, and frequencies and percentages for the categorical variables. I conducted a multiple linear regression with parental stress, parental competence, parenting style, and age of child as potential predictors of the quality of the parent-child relationship.

Descriptive Statistics

Participants responded to a screening question prior to accessing the measures that comprised the survey. All participants reported that they were parents (*n* = 249, 100%). Participants also reported raising a child with a disability between the ages of 3 and 12 (*n* = 249, 100%). This indicated that all the respondents met the inclusionary criteria for the study. Parents were asked to report demographic information regarding their age, gender, number of children, education, disability status, marital status, employment status, and ethnicity. Many participants reported that they had two children (*n* = 99, 40%) Most participants indicated that they were female (*n* = 203, 82%) and did not have a disability (*n* = 178, 71%). Half of the participants reported their highest level of education achieved as high school diploma (*n* = 124, 50%). Most participants were White or Caucasian (*n* = 189, 76%). Half of the sample consisted of parents who were employed full-time (*n* = 125, 50%). Most participants in the sample were married (*n* = 151, 61%). Demographic characteristics for participants are presented in Table 1.

Table 1

Frequency Table for Parent Demographic Characteristics

Variable	*n*	*%*
Age of child with disability		
3 to 6	84	34
7 to 9	94	38
10 to 12	71	29
Number of children		
1	54	22
2	99	40
3	60	24

(*table continues*)

Variable	*n*	*%*
4	25	10
5 or more	11	4
Gender		
Female	203	82
Male	46	18
Disability status of parent		
Diagnosed with a Disability	71	29
No Disability	178	71
Highest level of education		
Did not complete high school	5	2
High School Diploma	124	50
College Degree	93	37
Graduate Degree	27	11
Ethnicity		
American Indian or Alaska Native Asian	5	2
Black or African American	17	7
Hispanic or Latino	23	9
Mixed Ethnicity	12	5
White or Caucasian	189	76
Other please specify	3	1
Employment status		
Full-time	125	50
Part-time	45	18
Unemployed	79	32
Marital status		
Cohabitating	29	12
Divorced	23	9
Married	151	61
Single	46	18

Note. Due to rounding errors, percentages may not equal 100%.

Parents were asked to provide additional information regarding their child or children with a disability. Children's ages ranged from 3 to 12 in the sample. The mean age of children in the sample was 7.71 years. Most children had been diagnosed with their disability for five or more years (*n* = 186, 75%). The most common disability diagnosis for children in the sample was Attention Deficit Hyperactivity Disorder (ADHD; *n* = 120, 48%). The types of disabilities reported were proportionate to the larger population of school-aged children with disabilities with most having some type of cognitive disability (Kraus, 2017). Most parents in the sample reported that there was one child in their household who was diagnosed with a disability (*n* = 191, 77%). A small percentage reported having more than one child in the home with a disability (*n* = 58, 23%). Frequencies and percentages for characteristics of children are presented in Table 2.

Table 2

Frequency Table for Characteristics of Children

Variable	*n*	*%*
Length of time child has been diagnosed with disability		
2 years	13	5
3 years	22	9
4 years	28	11
5 or more years	186	75
Child's diagnosis		
Attention Deficit Hyperactivity Disorder ADHD	120	48
Autism Spectrum Disorder(ASD)/Asperger's	63	25
Bipolar Disorder	3	1
Cerebral Palsy	3	1
Epilepsy/Other Seizure Disorder	3	1
Learning Disorder	26	10
Leukemia	1	0
Oppositional Defiant Disorder	8	3
Other	22	9
Number of children in home with disability		
1	191	77
2	44	18
3	9	4
4	3	1
5 or More	2	1

Note. Due to rounding errors, percentages may not equal 100%.

The means and standard deviations for parenting style (PSDQ), parental stress (PSI-4 SF Stress), parental competence (PSI-4), and parent child relationship (PCRI), and the associated subscales are shown in Table 3. Of the three parenting styles reported on the PSDQ (authoritative, authoritarian, and permissive-indulgent), parents had the highest mean score on the authoritative dimension. This is consistent with the results of Monaghan et al.'s (2012) study on parents of children with diabetes indicating that 97%

of parents reported being more authoritative in their parenting style. Authoritative scores ranged from 1.87 to 5.00, with an average of 4.18 (*SD* = 0.57). Authoritarian scores ranged from 1.00 to 5.00, with an average of 2.00 (*SD* = 0.74), while Permissive scores ranged from 1.00 to 5.00, with an average of 2.55 (*SD* = 0.83).

The mean parental competence score was 31.11 (*SD* = 5.09). The parental stress score was 110.84 (*SD* = 25.26). Of the stress subscales, parents scored highest on parental distress with a range of 12.00 to 60.00, and an average of 38.62 (*SD* = 11.04).

Table 3

Descriptive Statistics for Parenting Style, Parental Competence, Parental Stress, and Parent Child Relationship

Variable	*M*	*SD*	*n*	Min.	Max.
PSDQ Authoritative	4.18	0.57	246	1.87	5.00
Connection	4.22	0.59	247	2.00	5.00
Regulation	4.11	0.70	248	1.20	5.00
Autonomy Granting	4.22	0.59	247	2.00	5.00
PSDQ Authoritarian	2.00	0.74	247	1.00	5.00
Physical Coercion	1.71	0.81	249	1.00	5.00
Verbal Hostility	2.19	0.89	247	1.00	5.00
Non-reasoning	2.10	0.84	249	1.00	5.00
PSDQ Permissive - Indulgent	2.55	0.83	247	1.00	5.00
PSI-4	31.11	5.09	247	11.00	43.00
PSI-4 SF Stress	110.84	25.26	245	37.00	163.00
Defensive Responding	21.75	6.53	247	7.00	35.00
Parental Distress	38.62	11.04	247	12.00	60.00
Parent-Child Dysfunctional Interaction	38.07	9.13	247	12.00	56.00
Difficult Child	34.03	8.24	249	13.00	54.00
PCRI	143.52	16.13	247	61.00	177.00

Evaluation of Statistical Assumptions

Prior to conducting the multiple linear regression analyses, I assessed the assumptions of normality, homoscedasticity, and multicollinearity. I compared the calculated values for skewness and kurtosis to the guidelines established to indicate that the data distribution differs from a normal distribution. The critical values were ±2 for skewness and ±3 for kurtosis (Westfall & Henning, 2013). When the skewness is greater than or equal to 2 or less than or equal to -2, then the variable is considered to be asymmetrical about its mean. When the kurtosis is greater than or equal to 3, then the variable's distribution is markedly different than a normal distribution in its tendency to produce outliers (Westfall & Henning, 2013). The scores for parental competence and parent child relationship exceeded the guidelines of kurtosis with values of 3.68 and 6.09, respectively. The Shapiro-Wilk test was conducted to test for normality. The results of the Shapiro-Wilk test indicated that the data distribution differed from a normal data distribution; therefore, the assumption of normality was not met. However, Stevens (2009) posited that with a sufficiently large sample, the regression analysis can be considered robust to a violation of the assumption. Table 4 presents the results of the Shapiro-Wilk test for normality.

Table 4

Results of the Normality Testing for Parenting Style, Parental Competence, Parental Stress, and Parent Child Relationship

	Statistic	*df*	*P*	Skewness	Kurtosis
Parenting Style					
Authoritative	.936	238	.000	-1.00	1.35
Authoritarian	.876	238	.000	1.50	2.65
Permissive/Indulgent	.970	238	.000	0.44	-0.35
Parental Competence	.879	238	.000	-1.47	3.68
Parental Stress	.983	238	.006	-0.42	-0.03
Parent Child Relationship	.866	238	.000	-1.83	6.09

To assess homoscedasticity, I examined a residual scatterplot for the predicted versus standardized data. The points appeared to be distributed about a mean value of zero and there was no curvature in the plot. Therefore, the assumption of homoscedasticity was met. Figure 1 presents the residual scatterplot for homoscedasticity.

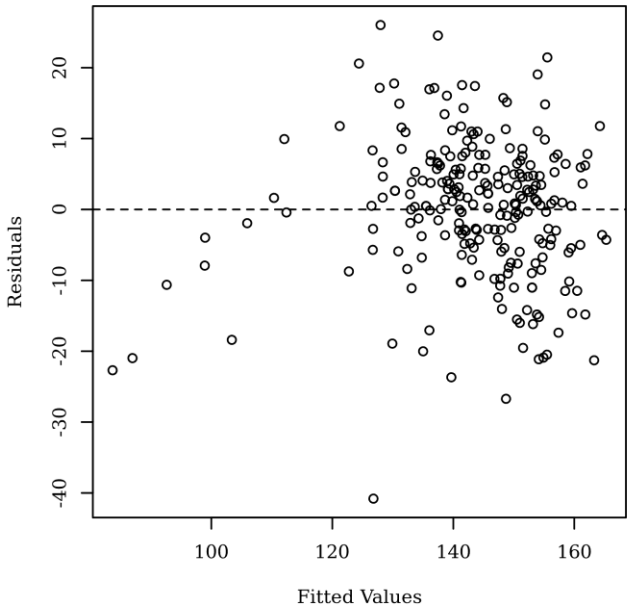

Figure 1. Residuals scatterplot for homoscedasticity.

Finally, I calculated Variance Inflation Factors (VIFs) for the predictor variables. VIFs reflected the amount of correlation among the predictor variables included in the analysis (Stevens, 2009). I evaluated the VIFs using the benchmarks developed by Menard (2009), where values greater than five may indicate issues while values greater than 10 are considered evidence of multicollinearity. For the subscales and total score of the PSI-4 SF Stress there was a high degree of multicollinearity between the defensive response and parental distress subscales. The VIF values for these variables exceeded the cut off for multicollinearity (Table 7). Additionally, the VIF value for parent-child dysfunctional interaction was close to five, indicating that there may be an issue with multicollinearity. Because of this high degree of multicollinearity, I included only the

total score for stress in the regression analysis (Baguley, 2012). Table 5 presents the VIF values for the predictor variables.

Table 5

VIF Values for the Predictor Variables

Variable	*VIF*
Age of Child	1.04
PSDQ – Authoritative	1.20
PSDQ – Authoritarian	2.13
PSDQ Permissive – Indulgent	1.77
PSI-4 Competence	2.05
PSI-4 SF Stress	2.06
Defensive Response	15.39
Parental Distress	16.25
Parent-Child Dysfunctional Interaction	4.20
Difficult Child	3.19

Multiple Regression Analyses

To address the research questions guiding this study I conducted multiple linear regression analyses using the standard entry method. The standard method allowed the addition of the predictor variables and demographic variables into the regression model one at a time. The predictor variables from the research questions were parental competence, parenting styles (i.e., authoritative, authoritarian, and permissive), parental stress, and age of child with disability. The demographic variables were age of parent/guardian, parent/guardian level of education, parent/guardian gender, and parent/guardian ethnicity. I conducted a total of five standard multiple linear regression analyses, one for each subscale of the PCRI instrument.

Multiple Regression: Predicting Relationship Quality (Satisfaction with Parenting)

I conducted a multiple linear regression analysis to assess the relationship between the predictor variables and satisfaction with parenting. The predictor variables for the multiple linear regression were parental competence, parenting styles (i.e., authoritative, authoritarian, and permissive), parental stress, and age of child with disability. The demographic variables of parent/guardian's age, education level, gender, and ethnicity were also included in the regression model.

The results of the multiple linear regression were statistically significant, $F(10,229) = 32.20$, $p < .001$, $R^2 = 0.57$. This finding indicates that the model provided a statistically significant contribution to the variance in satisfaction with parenting. Specifically, the model contributed to 57% of the variation in satisfaction with parenting score.

Parental competence was a statistically significant predictor of satisfaction with parenting, $B = 0.12$, $p = .018$. The results indicated that as parental competence score increased, satisfaction with parenting score increased. On average, for every one-unit increase in parental competence score, there was a 0.12-unit increase in satisfaction with parenting score. Parental stress was a statistically significant predictor of satisfaction with parenting, $B = 0.06$, $p < .001$. The results indicated that as parental stress score increased, satisfaction with parenting score increased. On average, for every one-unit increase in parental stress score, there was a 0.06-unit increase in satisfaction with parenting score. Authoritarian parenting style was a statistically significant predictor of

satisfaction with parenting, $B = -2.17$, $p < .001$. The results indicated that as authoritarian parenting style score increased, satisfaction with parenting score decreased. On average, for every one-unit increase in authoritarian score, there was a 2.17 unit decrease in satisfaction with parenting score.

The remaining predictor variables (authoritative parenting style, permissive/indulgent parenting style, and age of child) were not statistically significant predictors of satisfaction with parenting score. The demographic variables (age of parent/guardian, gender of parent/guardian, education level of parent/guardian, and ethnicity of parent/guardian) were not statistically significant predictors of satisfaction with parenting score. Table 6 presents the results for the individual predictors.

Table 6

Results of the Multiple Linear Regression Predicting Satisfaction with Parenting

Variable	*B*	*SE*	β	*T*	*p*
PSI-4 Competence	0.12	0.05	0.15	2.38	.018
PSI-4 SF Stress	0.06	0.01	0.39	6.23	.000
PSDQ – Authoritative	0.49	0.37	0.06	1.32	.189
PSDQ – Authoritarian	-2.17	0.36	-0.38	-5.97	.000
PSDQ – Permissive/Indulgent	0.36	0.29	0.07	1.24	.217
Age of Child	0.10	0.08	0.06	1.27	.204
Age of Parent/Guardian	-0.02	0.03	-0.03	-0.67	.502
Education Level	-0.10	0.38	-0.01	-0.28	.781
Gender of Parent/Guardian	0.59	0.49	0.05	1.20	.233
Ethnicity	-0.05	0.45	0.00	-0.11	.913

Note. $F(10,229) = 32.20$, $p < .001$, $R^2 = 0.57$.

Multiple Regression: Predicting Relationship Quality (Limit Setting)

I conducted a multiple linear regression analysis to assess the relationship between the predictor variables and limit setting. The predictor variables for the multiple linear regression were parental competence, parenting styles (i.e., authoritative, authoritarian, and permissive), parental stress, and age of child with disability. The demographic variables of parent/guardian's age, education level, gender, and ethnicity were included in the regression model.

The results of the multiple linear regression were statistically significant, $F(10,229) = 48.37$, $p < .001$, $R^2 = 0.67$. This finding indicates that the model provided a statistically significant contribution to the variance in limit setting. Specifically, the model contributed to 67% of the variation in limit setting score.

Parental competence was a statistically significant predictor of limit setting, $B = -0.13$, $p = .048$. The results indicated that as parental competence score increased, limit setting score decreased. On average, for every one-unit increase in parental competence score, there was a 0.13 unit decrease in limit setting score. Parental stress was a statistically significant predictor of limit setting, $B = 0.11$, $p < .001$. The results indicated that as parental stress score increased, limit setting score increased. On average, for every one-unit increase in parental stress score, there was a 0.11-unit increase in limit setting score. Authoritative parenting style was a statistically significant predictor of limit setting, $B = -0.95$, $p = .043$. The results indicated that as authoritative parenting style score increased, limit setting score decreased. On average, for every one-unit

increase in authoritative parenting style score, there was a 0.95 unit decrease in limit setting score. Authoritarian parenting style was a statistically significant predictor of limit setting, $B = -1.09$, $p = .019$. The results indicated that as authoritarian parenting style score increased, limit setting score decreased. On average, for every one-unit increase in authoritarian score, there was a 1.09 unit decrease in limit setting score. Permissive/indulgent parenting style was also a statistically significant predictor of limit setting, $B = -3.48$, $p < .0001$. The results indicated that as permissive/indulgent parenting style score increased, limit setting score decreased. On average, for every one-unit increase in permissive/indulgent score, there was a 3.48 unit decrease in limit setting score. Education level was a statistically significant predictor of limit setting, $B = 1.84$, $p < .001$. The results indicated that college educated parents reported higher scores in limit setting. Finally, ethnicity was a statistically predictor of limit setting, $B = 1.26$, $p = .028$. The results indicated that minority parents (i.e., non-White) reported higher scores in limit setting.

Age of child was not a statistically significant predictor of limit setting score. The remaining demographic variables (age of parent/guardian and gender of parent/guardian) were not statistically significant predictors of limit setting scores. Table 7 presents the results for the individual predictors.

Table *7*

Results of the Multiple Linear Regression Predicting Limit Setting

Variable	*B*	*SE*	β	*t*	*p*
PSI-4 Competence	-.013	0.07	-0.11	-1.99	.048
PSI-4 SF Stress	0.11	0.01	0.45	8.29	.000
PSDQ – Authoritative	-0.95	0.47	-0.09	-2.04	.043
PSDQ – Authoritarian	-1.09	0.46	-0.13	-2.37	.019
PSDQ – Permissive/Indulgent	-3.48	0.37	-0.48	-9.49	.000
Age of Child	-0.03	0.10	-0.01	-0.34	.733
Age of Parent/Guardian	-0.02	0.04	-0.02	-0.54	.590
Education Level	1.84	0.48	0.15	3.86	.000
Gender of Parent/Guardian	-0.63	0.63	-0.04	-1.01	.314
Ethnicity	1.26	0.57	0.09	2.22	.028

Note. $F(10,229) = 48.37$, $p < .001$, $R^2 = 0.67$.

Multiple Regression: Predicting Relationship Quality (Autonomy)

I conducted a multiple linear regression analysis to assess the relationship between the predictor variables and autonomy. The predictor variables for the multiple linear regression were parenting styles (i.e., authoritative, authoritarian, and permissive), parental competence, parental stress, and age of child. The demographic variables of parent/guardian's age, education level, gender, and ethnicity were included in the regression model.

The results of the multiple linear regression were statistically significant, $F(10,229) = 12.90$, $p < .001$, $R^2 = 0.33$. This finding indicates that the model provided a statistically significant contribution to the variance in autonomy. Specifically, the model contributed to 33% of the variation in autonomy score.

Parental competence was a statistically significant predictor of autonomy, B = 0.17, p = .005. The results indicated that as parental competence score increased, autonomy score increased. On average, for every one-unit increase in parental competence score, there was a 0.17-unit increase in autonomy score. Permissive/indulgent parenting style was also a statistically significant predictor of autonomy, B = -1.55, p < .001. The results indicated that as permissive/indulgent parenting style score increased, autonomy score decreased. On average, for every one-unit increase in permissive/indulgent score, there was a 1.55 unit decrease in autonomy score. Age of parent/guardian was a statistically significant predictor of autonomy, B = 0.10, p = .007. The results indicated that as age of parent/guardian increased, autonomy score increased. On average, as age of parent/guardian increased, there was a 0.10-unit increase in autonomy score. Education was a statistically significant predictor of autonomy, B = 1.15, p = .010. The results indicated that college educated parents reported higher scores in autonomy. Finally, gender of parent/guardian was a statistically predictor of autonomy, B = 1.26, p = .031. The results indicated that female parents reported higher scores in autonomy.

Parental stress, authoritative parenting style, authoritarian parenting style, and age of child were not statistically significant predictors of autonomy scores. Ethnicity was not a statistically significant predictor of autonomy scores. Table 8 presents the results for the individual predictors.

Table 8

Results of the Multiple Linear Regression Predicting Autonomy

Variable	*B*	*SE*	β	*t*	*p*
PSI-4 Competence	0.17	0.06	0.22	2.82	.005
PSI-4 SF Stress	0.01	0.01	0.08	1.09	.275
PSDQ – Authoritative	-0.75	0.44	-0.10	-1.71	.089
PSDQ – Authoritarian	-0.12	0.43	-0.02	-0.27	.784
PSDQ – Permissive/Indulgent	-1.55	0.34	-0.32	-4.53	.000
Age of Child	-0.13	0.10	-0.08	-1.35	.178
Age of Parent/Guardian	0.10	0.04	0.17	2.71	.007
Education Level	1.15	0.44	0.14	2.59	.010
Gender of Parent/Guardian	1.26	0.58	0.12	2.16	.031
Ethnicity	-0.27	0.53	-0.03	-0.50	.616

Note. $F(10,229) = 12.90$, $p < .001$, $R^2 = 0.33$.

Multiple Regression: Predicting Relationship Quality (Communication)

I conducted a multiple linear regression analysis to assess the relationship between the predictor variables and communication. The predictor variables for the multiple linear regression were parenting styles (i.e., authoritative, authoritarian, and permissive), parental competence, parental stress, and age of child with a disability. The demographic variables of parent/guardian's age, education level, gender, and ethnicity were added to the regression model.

The results of the multiple linear regression were statistically significant, $F(10,229) = 10.95$, $p < .001$, $R^2 = 0.29$. This finding indicates that the model provided a statistically significant contribution to the variance in communication. Specifically, the model contributed to 29% of the variation in communication score.

Parental competence was a statistically significant predictor of communication, $B = 0.32$, $p < .001$. The results indicated that as parental competence score increased, communication score increased. On average, for every one-unit increase in parental competence score, there was a 0.32-unit increase in communication scores. Parental stress score was also a statistically significant predictor of communication, $B = -0.08$, $p < .001$. The results indicated that as parental stress score increased, communication score decreased. On average, for every one-unit increase in parental stress score, there was a 0.08 unit decrease in communication score. Authoritative parenting style was a statistically significant predictor of communication, $B = -1.93$, $p < .001$. The results indicated that as authoritative parenting style score increased, communication score decreased. On average, as authoritative parenting style score increased, there was a 1.93 unit decrease in communication scores.

Authoritarian parenting style, permissive/indulgent parenting style, and age of child were not statistically significant predictors of autonomy scores. None of the demographic characteristics were statistically significant predictors of communication. Table 9 presents the results for the individual predictors.

Table 9

Results of the Multiple Linear Regression Predicting Communication

Variable	*B*	*SE*	β	*t*	*p*
PSI-4 Competence	0.32	0.06	0.43	5.42	.000
PSI-4 SF Stress	-0.08	0.01	-0.52	-6.60	.000
PSDQ – Authoritative	-1.93	0.42	-0.29	-4.59	.000
PSDQ – Authoritarian	-0.76	0.41	-0.15	-1.85	.066
PSDQ – Permissive/Indulgent	0.21	0.33	0.05	0.63	.527
Age of Child	-0.18	0.09	-0.12	-1.93	.055
Age of Parent/Guardian	0.04	0.03	0.08	1.30	.194
Education Level	0.10	0.43	0.01	0.23	.821
Gender of Parent/Guardian	0.34	0.56	0.04	0.61	.543
Ethnicity	-0.52	0.51	-0.06	-1.03	.305

Note. $F(10,229) = 10.95$, $p < .001$, $R^2 = 0.29$.

Multiple Regression: Predicting Relationship Quality (Parental Involvement)

I conducted a multiple linear regression analysis to assess the relationship between the predictor variables and parental involvement. The predictor variables for the multiple linear regression were parenting styles (i.e., authoritative, authoritarian, and permissive), parental competence, parental stress, and age of child with disability. The demographic variables of parent/guardian's age, education level, gender, and ethnicity were also added to the regression model.

The results of the multiple linear regression were statistically significant, $F(10,229) = 8.25$, $p < .001$, $R^2 = 0.23$. This finding indicates that the model provided a statistically significant contribution to the variance in parental involvement. Specifically, the model contributed to 23% of the variation in parental involvement score.

Parental competence was a statistically significant predictor of parental involvement, $B = 0.13$, $p = .014$. The results indicated that as parental competence score increased, parental involvement score increased. On average, for every one-unit increase in parental competence score, there was a 0.13-unit increase in parental involvement score. Authoritative parenting style was a statistically significant predictor of parental involvement, $B = -0.96$, $p = .015$. The results indicated that as authoritative parenting style score increased, parental involvement score decreased. On average, as authoritative parenting style score increased, there was a 0.96 unit decrease in parental involvement scores.

Authoritarian parenting style, parenting stress, permissive/indulgent parenting style, and age of child were not statistically significant predictors of involvement scores. None of the demographic characteristics were statistically significant predictors of involvement. Table 10 presents the results for the individual predictors.

Table 10

Results of the Multiple Linear Regression Predicting Parental Involvement

Variable	*B*	*SE*	*β*	*t*	*p*
PSI-4 Competence	0.13	0.05	0.20	2.47	.014
PSI-4 SF Stress	0.02	0.01	0.14	1.65	.100
PSDQ – Authoritative	-0.96	0.39	-0.16	-2.44	.015
PSDQ – Authoritarian	-0.73	0.38	-0.16	-1.90	.059
PSDQ – Permissive/Indulgent	-0.56	0.31	-0.14	-1.81	.072
Age of Child	-0.06	0.09	-0.04	-0.66	.509
Age of Parent/Guardian	0.01	0.03	0.02	0.25	.801
Education Level	0.18	0.40	0.03	0.45	.654
Gender of Parent/Guardian	-0.30	0.52	-0.03	-0.57	.568
Ethnicity	0.55	0.48	0.07	1.15	.252

Note. $F(10,229) = 8.25$, $p < .001$, $R^2 = 0.23$.

Summary

I investigated the predictive relationship of parent-child relationship quality to parental competence, parenting styles (i.e., authoritarian, authoritative, and permissive), parental stress, and age of child. I conducted multiple linear regression analyses to determine if there was a statistically significant relationship between the predictor variables and criterion variables. A regression analysis was conducted for each of the five subscales of the PCRI (satisfaction with parenting, limit setting, autonomy, communication, and parental involvement).

Parental competence was a significant predictor for satisfaction with parenting, limit setting, autonomy, communication, and parental involvement. Authoritarian parenting style was a statistically significant predictor of satisfaction with parenting and limit setting. Authoritative parenting style was a significant predictor of limit setting,

communication, and parental involvement. Permissive parenting style was a significant predictor of limit setting and autonomy. Parental stress was a significant predictor for satisfaction with parenting, limit setting, and communication. Finally, age of child was not a statistically significant predictor for any of the subscales of parent-child relationship.

Demographic variables age of parent, ethnicity of parent, education level of parent, and gender of parent were also added to the model to determine if they were predictors of the PCRI subscales. The results indicated that the demographic variables did contribute to the variation in limit setting, communication, and parental involvement. Age, education level, and gender of parent contributed to the variation in autonomy. Education level and ethnicity contributed to the variation in limit setting. In Chapter 5, an interpretation of the findings, the limitations of the study, and recommendations for future research will be presented.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative study was to determine if the parenting characteristics of stress, competence, and parenting style have a significant impact on the parent-child relationship quality in families of children with disabilities. Researchers have shown that the relationships that parents have with their children can impact the emotional and physical well-being of the child (Hazel et al., 2014; Peterson & Nguyen, 2010). Children with disabilities are often at greater risk of child abuse or neglect than are typically developing children (CDC, 2016; Leeb, Bitsko, Merrick, & Armour, 2012). However, a nurturing parent-child relationship can help to ensure that these children are properly cared for (CDC, 2016). Prior research has often focused on typically developing children and failed to adequately identify specific parenting factors that influence relationships between parents and their disabled child.

The data were analyzed using standard multiple linear regression analyses. The results of this study identified parenting style, parenting stress, and parenting competence as significant predictors of parent-child relationship quality. The age of the child was not found to be significant. The parent/guardian demographic variables of age, ethnicity, and education level were also found to be significant predictors of parent-child relationship quality.

In this chapter, I will discuss in greater detail the findings of this research study in the interpretation of findings section. I will also discuss the limitations of this study, followed by recommendations for future research and implications for social change. The chapter will end with conclusions for this study.

Interpretation of the Findings

In this section, I will present an interpretation of the findings for the research questions. This section will conclude with a synthesis of the research findings.

Hypothesis 1: Parental Competence

Several studies have indicated that challenging or problematic behaviors exhibited by the child or related to a child's disability could be a predictor of parental competency with those parents feeling less competent (Ketelaar, Volman, Gorter, & Vermeer, 2008; Slagt et al., 2012). However, previous research has also indicated that parents who have high levels of parental competency report less parenting dysfunction (Morawska et al., 2009).

In this research, I found that parental competence was a predictor of the quality of the parent child relationship. As parental competence scores increased, so did scores on satisfaction with parenting, autonomy, communication, and involvement. Higher scores on the PCRI indicate more positive parenting-child relationships. However, higher scores on the Competence scale of the PSI-4 indicate a lack of parental competency, potentially due to lack of child development knowledge or lack of support (Abidin, 2012). These results suggest that parents of children with disabilities may be able to maintain positive attitudes about being a parent and actively engage with their child in spite of feeling a lack in their ability to parent.

Parents of children with disabilities often report low parental competency (Abidin, 2012). The findings of this study indicate that lower feelings of competency

resulted in higher parent-child relationship scores. This finding was contradictory to prior research findings that indicate that lower competency levels, as indicated by higher scores on the competence scale, would result in lower parent-child relationship scores (Morawska et al., 2009). It is possible that parents in this study did not find that the challenges associated with their child's disability, or their own feelings regarding their competency, impeded their ability to have a healthy and positive relationship with their child. However, for limit setting, scores decreased as competence scores increased. The results for limit setting were the only findings that aligned with prior research findings, suggesting that a lower level of competency would also result in lower limit setting abilities by the parent.

Findings from this study regarding parental competency suggest that a lack of competency does not necessarily predict lower quality in the parent-child relationship. This may be the result of parents reporting a lower level of self-efficacy regarding their parenting despite their parenting behaviors being conducive to a positive parent-child relationship. Researchers have shown that the severity of the child's behavioral challenges could impact parents' self-esteem and result in reports of lower parental competency (Slagt et al., 2012; Spielman & Taubman-Ben-Ari, 2009). In addition, parental supports, which were not measured in this current study, may be a confounding factor. Parents who received emotional, financial, and practical support from a spouse or others often feel more competent in their ability to care for and support a child (Deković et al., 2010; Gerard, 1994; Morawska et al., 2009).

Hypothesis 2: Parenting Style

Research on parenting styles and its impact on the quality of the parent-child relationship has been limited, especially when related to children with disabilities (Raya, Ruiz-Olivares, & Herruzo, 2013). Even though parenting style can have an impact on child behaviors and the relationships that children have with their parents, it is unclear what parenting style is most effective for parenting a child with a disability (Kakinami et al., 2015; Park & Walton-Moss, 2012). Much of the previously published research has indicated that authoritative parenting is the most effective style of parenting (Baumrind, 1971; Chen, 2015; Dixon et al., 2008). However, the majority of the research has been conducted on families of typically developing children.

Results from this study indicated that all three parenting styles (authoritarian, authoritative, and permissive) were significant predictors of the quality of the parent-child relationship. Authoritarian parenting was a significant predictor of satisfaction with parenting and communication. As authoritarian parenting increased, satisfaction with parenting and communication decreased. This suggests that the parents who reported being more demanding and restrictive were less satisfied with their role as a parent and communicated less with their disabled child. These parents may have more difficulty in managing their child's behaviors, thereby resorting to a more controlling style of parenting and leading to them being less happy in their role as a parent. Authoritarian parenting was not a predictor of limit setting, autonomy, or involvement. Due to the low responsiveness of authoritarian parents to their children, the effect of their disengagement may be reflected in their ability to set limits, to actively engage their child, and to allow

autonomous behaviors. These findings align with previous research indicating that authoritarian parenting can lead to fearful children and more distressed relationships (Baumrind, 1971; Dixon et al., 2008). The authoritarian parenting style is considered to be the most controlling and restrictive (Baumrind, 1966; Zajko, 2007).

Authoritative parenting style was a predictor of limit setting, communication, and involvement. As authoritative parenting increased, limit setting, communication, and involvement decreased. This suggests that these parents who reported being able to maintain authority, while still being responsive and supportive, still had poor interactions and difficulty setting limits with their disabled child. It is possible that these parents may lack the additional supports needed, such as social and community support, to be more engaged in parent-child interactions or provide sufficient structure for setting limits. This result was unexpected with prior research indicating that this parenting style should lead to increases in these parenting areas (Baumrind, 1971; Dixon et al., 2008). Authoritative parenting was not a predictor of satisfaction with parenting or autonomy. Parents who are more authoritative may find that their parenting behaviors are not an indicator of how happy they are with being a parent or reflective of their ability to allow their child to have more independence and freedom in making decisions for themselves. In addition, it is possible that the influence that child behaviors can have on parental satisfaction does not impact authoritative parents in the same manner, thereby allowing their feelings of satisfaction to be independent of the parenting behaviors they find necessary to raise their disabled child. Findings from previous studies led to the assumption that higher authoritative parenting scores would result in increased parent-child relationship scores,

however, this was not the case. It may be that the parenting styles of parents with disabled children do not elicit the same outcomes as they would when utilized with nondisabled children. These authoritative parents may have to engage in alternative methods of parenting in order to elicit the more positive parent-child relationships that are usually seen exhibited with the authoritative parenting style.

Permissive parenting was found to be a significant predictor of limit setting and autonomy. As permissive parenting increased, limit setting and autonomy decreased. These parents who reported more lenient parenting behaviors were less able to set limits for their disabled child and lacked in their ability to allow the child more independence. The decrease in limit setting aligns with previous research indicating that permissive parents lack structure and do not offer much guidance to their children (Zajko, 2007). The decrease in autonomy scores would be contradictory based upon these same findings. However, the lack of parental guidance seen in these permissive parents could have also impacted their ability to demonstrate appropriate behaviors or provide the structure needed for the child be autonomous and still feel safe and secure (Baumrind, 1971). Permissive parenting was not a predictor of satisfaction with parenting, communication, or involvement. Permissive parents have a more lenient and hands off style of raising children. This hands off approach may also be reflected in these parents' relationships with their child and the way they interact, leading to a lack of predictability between this parenting style and these areas of the parent-child relationship quality (Zajko, 2007).

These findings suggest that parenting styles may not produce the same results when raising a child with a disability. Previous research identifies that parents of children

with disabilities often report more hostile or controlling parenting behaviors, but does not identify which parenting styles would be most conducive for these families (Cussen, Sciberras, Ukoumunne, & Efron, 2012; Shur-Fen Gau & Chang, 2013). Lack of research on parenting styles and disabled children may require that existing parenting models be reassessed to determine which style is most effective for parenting a child with a disability.

Hypothesis 3: Parenting Stress

Prior research has indicated that parenting a child with a disability can lead to increased levels of parenting stress (Bennett, English, Rennoldson, & Starza-Smith, 2013; Silva & Schalock, 2012). Parents of children with brain tumors reported parenting stress at clinically significant levels (Bennett, English, Rennoldson, & Starza-Smith, 2013). When parents of children with autism and other developmental delays were compared to typically developing children, the parents of the children with disabilities reported significantly higher levels of parenting stress (Silva & Schalock, 2012).

Previous researchers have also identified factors that may have a positive or negative impact on the level of stress that parents experience. Research conducted by Huang et al. (2014) found that the more severe the child's disability, the more the parent's stress level increased. Previous researchers have also indicated that perceived satisfaction with parenting could cause an increase or decrease in parenting stress. One study found that the more positive the parent's perception of parenting was, the less stress the parent felt (Respler, Mowder, Yasik & Shamah, 2012).

The results of this study demonstrated that parenting stress was a significant predictor of the parent-child relationship quality. Results indicated that parenting stress was a predictor of satisfaction with parenting, limit setting, and communication. As parenting stress increased, satisfaction with parenting and limit setting increased. However, as parenting stress increased, communication scores decreased. This could suggest that the additional stress experienced by parents of children with disabilities may also serve as a catalyst for them to set additional limits for their child. In addition, it may compel them to identify ways to maintain their positive attitudes about being a parent, such as through finding support from other parents or through service agencies or counseling. The decrease in communication indicates that the increased stress levels do, however, impact how the parent and child are able to connect or have open expression and dialogue between each other. In addition, parents experience less stress when their child is able to communicate better with them, so a lack of communication skills in the child could have also had an impact (Bender & Carlson, 2011). Parenting stress was not a significant predictor of autonomy or involvement. This lack of significance suggests that parents of disabled children can have increased stress levels without it affecting the level of freedom that they give their child or how engaged they are with the child.

The direction of this relationship with satisfaction with parenting and limit setting was unexpected. The increase in parent-child relationship score could be related to additional factors that were not measured in this research study, such as coping skills. Factors such as coping skills or parental support could potentially mediate the impact of parenting stress on the quality of the parent-child relationship. Gerard (1994) and

Karasavvidis et al. (2011) found that parental supports decreased feelings of being overburdened, while lack of supports increased feelings of burden and stress. Parents who feel as if they have no control over the circumstances of raising a child with a disability often experience increased stress levels (Karasavvidis et al., 2011). The parent's sense of psychological burden or their ability to cope influences parenting behaviors and their stress levels. Poor coping skills such as avoiding, refusing, and denying increase stress levels while more positive coping skills such as identification of external supports and care provisions, belief in self, and engagement in social activities decreases stress (Karasavvidis et al., 2011).

Although there is research to support the impact that parenting stress can have on child behaviors and illness manageability, there is a lack of research that directly identifies relationships between parenting stress and the parent-child relationship in families of children with disabilities. However, research conducted by Smith and Grzywacz (2014) and Resch, Elliott, and Benz (2012) on the impact of raising a child with a disability on stress levels and overall mental health, supports the assumption that increased stress levels would lead to decreases in many of these parenting areas. In addition, increased parenting stress should have been linked to decreased satisfaction with parenting (Respler, Mowder, Yasik & Shamah, 2012). Therefore, increases in satisfaction with parenting and limit setting scores were contradictory to expectations. This outcome implies that parents of children with disabilities may have increased stress levels, however, they can still be happy with their role as a parent and set appropriate

limits for their child. Potentially, these parents may find themselves more satisfied if they perceive that the rewards associated with raising the child outweigh the costs.

Hypothesis 4: Age of Child

Findings indicated that the age of the child with a disability was not a predictor of any of the subscales of the PCRI and therefore, not a predictor of the overall quality of the parent-child relationship. These results differ from previous research that found that the age of the child accounted for significant differences in parent-child relationship quality (Gerard, 1994). This is contradictory with previous research conducted by Osborne and Reed (2010) who found that the age of the child accounted for significant differences in limit setting, communication, and involvement scales when assessing parents of children with autism. This lack of significance could be due to little or no change over time in the symptoms or behaviors associated with the disabilities of the children identified in this study. This absence could result in the parent-child relationship remaining the same over time, with the age of the child having no significant impact.

Parent Demographic Variables

Several demographic variables were added to the model to determine if they were predictors of the parent-child relationship quality. Age, ethnicity, gender and education level of parent were found to be significant predictors of the parent-child relationship quality. This suggests that the parent's life experience and experience in caring for the child with a disability, as well as their level of knowledge and formal education has a direct impact on a parent's relationship with their child. In addition, cultural norms and attitudes about child-rearing may impact the quality of the relationship. Though there was

a lack of variability in the gender of the sample population, the significance of the results could suggest that mothers and fathers have different experiences and outcomes when raising a disabled child. These findings coincide with previous research conducted by Gerard (1994) identifying the age, gender, ethnicity, and educational level of the parent as significant indicators of parent-child relationship quality.

Theoretical Framework and Research Findings

The theoretical framework for this study was Minuchin's structural family theory (Minuchin, 1974). This theory asserts that stressors on the family, such as raising a disabled child, can influence any or all of the members of that family. Minuchin argues that distress can develop when families are unable to adapt to these challenges and stressors. According to Minuchin, healthy families restructure and adapt when necessary and allow autonomy of the children while maintaining a hierarchy where the parents have the highest level of authority (Minuchin, 1974). This model was the basis for this study, with the assumption that the challenges of raising a child with a disability can impact parenting characteristics that could influence or predict the overall quality of the relationship between the parent and the child.

The results of this study aligned with this assumption and with Minuchin's theory. Parenting stress, parenting competence, and parenting style were all predictors of the parent-child relationship. Unexpectedly, as parenting stress increased, so did scores of parent-child relationship quality. Another unexpected result was that lower levels of parenting competency predicted higher scores in parent-child relationship quality. These results could be due to families appropriately restructuring to deal with the challenges of

raising a child with a disability. Despite parent reports of high stress and feeling a lack of competency in their parenting abilities, they still reported higher levels of positive parenting behaviors and overall quality of the parent-child relationship. According to Minuchin (1974), these parents would be considered a part of healthy family units that were able to adapt to changes without disrupting the functioning of the family.

Minuchin (1974) also identified that healthy families required a hierarchy with parents having the highest levels of authority. Results from this study coincide with that assertion since authoritarian and authoritative parenting styles, both of which identify parents as the authority figures, were predictors of increases in reported parent-child relationship quality. Contradictory to this theory, increases in permissive parenting also predicted an increase in parent-child relationship quality. Structural family theory does identify that there is often a need for redefining relationships, which may be the case for these families and one possibility for these results.

Limitations of the Study

There were several limitations to this study. The first limitation was generalizability of the results. Participants for this study were self-selected based upon convenience sampling from online participant pools. Convenience sampling lacks the generalizability of a random sample of participants. Though some demographic diversity did exist within the study population, there were several areas that lacked variability including parent ethnicity and gender. In addition, a majority of the sample reported raising a child that was diagnosed with ADHD (48%) or Autism Spectrum Disorder (25%). This makes generalizability to families of children with other disabilities limited.

In conducting this research, I asked that the primary caregiver complete the survey. A majority of respondents were married (61%) suggesting that even in two parent homes, the mother identified as the primary caregiver.

Response bias may also be a limitation of this study. The methodology used for this research was survey design, which allows self-report from participants. Participants were asked to respond truthfully in the instructions for completion. However, there is no way to determine if participants responded honestly or responded in a manner to look more favorable, social desirability bias. To avoid demand characteristics bias where the participant could anticipate what the study was investigating, additional questions were asked that were unrelated to the nature of the study.

Another limitation of this study was the lack of ability to identify causality. Multiple regression is used to identify predictive relationships between independent variables and one dependent variable. This analytical model determines which independent variables predict the criterion or dependent variable. Since this was not an experimental design, causation could not be determined. Though the independent variables parenting competence, parenting stress, and parenting style did predict variability in the overall parent-child relationship quality, neither of those variables could be said to be cause this difference that resulted in an increase or decrease in parent-child relationship scores.

Potential confounds could also be a limitation of this study. Parental factors such as marital status, engagement in community support or therapeutic services, as well as family support systems or income level could have impacted the results of this study. In

addition, researcher bias may be a limitation. Question-order bias, a form of researcher bias, results in respondents basing their answers to subsequent questions on how they responded to previous questions. Since the surveys used for this study were pre-developed by other authors, there was no way to reduce the possible occurrence of this bias. However, all surveys used were checked for appropriate validity, reliability, and use in previous research measuring similar variables.

The final limitation of this study was the inability to include the subscales of the PSI-4-SF in the final analysis. Due to high multicollinearity between the defensive response and the parental distress subscale, as well as high multicollinearity on the parent-child dysfunctional interaction subscale, only the total stress score could be included. This eliminated the researcher's ability to make predictions to the parent-child relationship quality based upon these subscales.

Recommendations

Response rates of survey completion for this research were initially very slow. Incentive was added to increase participation, which eventually led to a rapid increase in response rate, especially when combined with access to a readily available participant pool through Qualtrics. One challenge to response rate may have been the length of the survey. With multiple assessments combined to measure the identified parenting factors, the length of the survey may have been a deterring factor for survey completion. For future research measuring these parenting characteristics, a shorter survey may lend to an increased response rate.

Though the sample size was very close to the recommended number of participants based upon power analysis, there was a lack of variability in the ethnicity and the gender of participants. This limited the generalizability of the research findings due to lack of minority and male respondents. Future research should target minority populations which were not well-represented in this study to determine if there may be differences in the findings amongst these additional populations. Further research targeting fathers of children with disabilities would also help to identify if stress levels, competency, parenting styles, and relationship quality reported by fathers differs from that reported by mothers.

In addition, although parenting styles were a significant predictor of the parent-child relationship, the parenting styles reported by participants did not elicit the expected outcomes based upon Baumrind's three categorical model of parenting (Baumrind, 1966). Authoritative parenting was associated with decreases in limit setting, communication, and involvement. This does not fit with previous research on parenting styles which identifies authoritative parenting style as the most effective (Baumrind, 1971; Dixon et al., 2008). Due to a lack of research including this most commonly used model of parenting to measure relationship quality in families of children with disabilities, as well as a lack of research identifying specific categories that fit the parenting styles for these families, additional research is required in this area. Further studies should be conducted that will help to identify parenting behaviors that are present most often, as well as those that are most effective, when raising a disabled or non-typically developing child.

I found that increases in parenting stress predicted increases in satisfaction with parenting and limit setting. This was an unexpected result that did not align with previous research on parenting stress, though it is important to note that this research is limited, particularly when measuring relationship quality for parents and children when the child has a disability. Therefore, additional research identifying potential mediating factors between parenting stress and parent-child relationship quality should be conducted. In addition, research should be conducted that can clearly identify whether parenting stress has a negative impact on the parent-child relationship quality of these families, or if this finding can only adequately be applied to families of typically developing children.

Additional research should be conducted specifically for families that are in some type of family therapy or other behavioral health treatment for the child. Although this research found that medication was not a predictor of parent-child relationship quality, whether or not the family was receiving some form of therapy or treatment was not assessed. This factor could have a direct impact on responses from participants, as those in treatment could have potentially responded more positively based upon received services, increased coping skills, or improved child behaviors. Research measuring the same factors only on families currently in therapy or treatment could yield different results.

Lastly, the collection of qualitative data on families of children with disabilities is also needed in furthering research in this area. This information could be collected through interviews with parents or case studies on the families. Obtaining data on the

lived experiences of these parents could provide insight into the challenges that they face and ways to better support these parents and their children.

Implications

The findings from this research provide several positive implications for social change at the family, organizational, and societal levels. This research has provided additional foundation to the limited body of knowledge on parent-child relationship quality for families of children with disabilities. Previous researchers have given attention to factors such as parental satisfaction, quality of life, or parenting interventions for parents of disabled child (Crowley & Kazdin, 1998; Cussen et al., 2012; Roux, Sofronoff, & Sanders, 2013). Limited research has looked at individual parenting characteristics and the impact on the relationship quality between parents and their non-typically developing child. Results from this study have helped to identify the impact that these parenting factors can have on the parent-child relationship. For example, the finding that relationship quality increases as competency level decreases was an unexpected finding that could provide implications for organizational practice. Programs and organizations that serve these families may need to modify parental therapy models to ensure that parental self-efficacy is appropriately addressed and that parents who are exhibiting positive parenting behaviors do not measure their competency based upon their child's disability and related behavioral factors. Results from this study could provide insight into training and education for practitioners, as well as for parents, and improve service delivery for this unique family structure. Practitioners need to be aware that their therapeutic model and parenting programs should not adhere to the traditional parenting

styles that are most often measured and assessed to identify parenting behaviors, as these models do not fit for parents of children with disabilities. In addition, new theoretical models may need to be developed to adequately identify parenting typologies for parents of disabled children. Research has not adequately identified parenting models that fit these families or that provide the most effective parenting strategies for raising a child with a disability.

Modification of service models and interventions for these families could help to improve parent-child relationships and provide additional psychoeducation to families that could increase healthy and positive parenting behaviors. Educating parents on the impact that their perceived competency, level of stress, or parenting style could have on their relationship with their child could provide parents with insight that they could use to improve the interactions that they have with their disabled child. Researchers have shown that children with disability are at greater risk of being abused or mistreated than typically developing children (CDC, 2016; Leeb, Bitsko, Merrick, & Armour, 2012). Improved parent training models could increase the quality of the relationships that parents have with their disabled child, thereby reducing incidents of child abuse. This would improve the overall quality of life for the parents, the disabled child, and the family.

An additional social change implication would be toward policy development. Though there are policies to identify and reduce incidents of abuse against children, future policy development for fostering or ensuring the general welfare of children with disabilities should find a way to identify those parenting characteristics that may be

conducive to raising a typically developing child, but not conducive to rearing a child with a disability. This research may also be used to increase general awareness of the challenges that families with disabled children face, such as the need for additional financial, academic, and social supports, and stressors that parents face due to difficult child behaviors or other symptoms of the child's condition. It may also increase awareness of the implications of those challenges to the family's relationship quality, and the need for continuity of care and continued support for these families.

There are also positive implications for future theory development. Most of the theories established around raising children have focused on typically developing children. New theoretical models may need to be developed, or pre-existing ones modified, to specifically address families of children with disabilities. Also, the methods utilized in studying these families may need to be enhanced to include more case studies and include a greater variation in disability type. Additional variables such as cultural differences, religion, and socioeconomic status may also need to be specifically looked at and assessed to determine their impact on relationship quality.

Conclusion

This study was conducted to fill the gap in literature on parenting-child relationship quality in families of children with disabilities. Increases in technology and advancements in health care have led to increased numbers of children being diagnosed with some type of disability (Wise, 2012). Families of children with disabilities experience challenges that other families do not face. The CDC (2016) has identified that children with disabilities are at higher risk of being abused than children without

disabilities. Relationships between parents and children can have a huge impact on how these children are treated. Previous researchers have failed to identify the impact that parenting factors can have on the quality of parent-child relationships for these families (Raya, Ruiz-Olivares, & Herruzo, 2013).

This research study found the parenting characteristics of parenting stress, parenting competence, and parenting style to all be predictors of the overall quality of the parent-child relationship. The age of the child, though found to be significant by previous research, was not found to be a predictor of parent-child relationship quality in this present study. Increases in parenting stress scores led to increases in parent-child relationship, which was an unexpected finding. Lower reported parenting competence was also found to increase parent-child relationship scores. These findings suggest that there may be other mediating factors, such as parental supports or coping skills, that cause parents to maintain positive parenting behaviors despite their overall stress levels or lack of parental self-efficacy. In addition, the results of parenting styles regression analyses indicated that parents of children with disabilities do not fit into the most commonly used models of parenting and therefore, additional research should be conducted in this area. As predicted, authoritarian parenting was found to be the least effective parenting style amongst the three styles of Baumrind's model used in this study.

This study has made contributions to the body of knowledge on parenting children with disabilities. It provides insights into the impact of parenting factors on relationship quality in families of disabled children. In addition, it highlights the lack of significance that demographic factors may play into this relationship amongst diverse family

structures. This study aims to increase awareness of the unique parenting characteristics and challenges of parents of children with disabilities, as well as provide foundational information to aid in programmatic practice and services for these families. Findings from this study can propel the work of future researchers to identify parenting strategies and interventions that would increase the quality of relationships for families of children with disabilities.

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Appendix A: Demographic Questionnaire

Please provide the following demographic information regarding you and your child before proceeding to the survey questions. Mark your answer by making the appropriate selection from the drop down menu.

1. Age of Parent/Guardian:
2. Gender of Parent/Guardian:

   Male

   Female
3. Disability Status:

   Diagnosed with Disability

   No Disability
4. Highest Level of Education:

   Did not complete High School

   High School Diploma

   College Degree

   Graduate Degree
5. Ethnicity of Parent/Guardian:

   American Indian or Alaska Native

   Asian

   Black or African American

   Hispanic or Latino

   Mixed Ethnicity

   Native Hawaiian or Pacific Islander

White or Caucasian

Other

6. Employment Status:

   Full-Time

   Part-Time

   Unemployed

7. Marital Status:

   Married

   Single

   Divorced

   Cohabitating

8. Age of Child:

9. Gender of Child:

   Male

   Female

10. Child Primary Diagnosis/Disability:

11. Child's Age at Initial Diagnosis of Disability:

12. Medication Child takes to treat primary disability (Choose One):

    None

    Abilify/Aripiprazole

    Carbatrol

Concerta/Methylphenidate

Cymbalta/Duloxetine

Depakote

Dilantin

Insulin

Lamictal/Lamotrigine

Neurontin

Plaquenil

Prednisone

Prozac/Fluoxetine

Risperdal/Risperidone

Ritalin

Savella/Milnacipran

Seroquel

Vitamin Supplements

Vyvanse/Lisdexamfetamine

Other

13. Number of Children in home with a Disability:
14. Ages of All Children in home with a Disability:
15. Total Number of Children in the Home:

Appendix B: Email for use of PSDQ

Permission to Use PSDQ
4 messages

Hello Dr. Robinson,

My name is Tammy Young and I am a student at Walden University. I am currently working on my dissertation, which will examine parent child relationships in families of children with disabilities. I would like to use the Short version of the PSDQ in order to examine parenting styles.

I would be using the assessment in an online format and would only include a copy of the instrument in the appendix of my dissertation with permission. The instrument would not be modified.

Please reply indicating if permission is granted or with any questions that you may have. In addition, any reliability and validity data regarding the Short Version would be helpful as I have only been able to identify psychometric properties for the long form from your original article and a review of the literature gives mixed psychometric data for the short version. The identified handbook is no longer in publication by Sage and unavailable at my academic library.

I was able to procure a copy of the instrument from the Academia.edu page that it is

published on.

Thank you for your assistance and have a great day.

--

Tammy Young, MA, LPC

General Educational Psychology Doctoral Student

College of Social and Behavioral Sciences

Hello Dr. Robinson,

As an immediate update, upon further review, I was able to locate Cronbach's alpha on the downloaded instrument forms. Thank you!

Greetings Tammy,

You have permission to use the PSDQ and you may alter it in any way to meet your research requirements. I am attaching a Scoring Protocol of the Short-Form which includes the reliability scores for each Style. One type of validity is demonstrated by the hundreds of individuals who have used the instrument with apparent evidence of construct validity.

Best wishes,

Clyde Robinson

PSDQ32SingSCOR.doc

34K

Thank you so much Dr. Robinson.

Appendix C: Email for use of PCRI

Subject: Re: Terms for the adapted/online use of the PCR

Hello,
Attached is the signed terms letter.

Thank you

On Jan 2, 2017, at 7:12 PM, Arianna De Lara wrote:

Hello Tammy,
In follow up to your email below, please see the attached files for WPS's standard limited -use research licensing terms, permitting the adapted applications of the PCRI as indicated within the registered investigation, with per-use fees.

If, down the road, you need to make additional administrations beyond the number you Initially license for use, simply contact me with your resulting license number to advise the extra number you require, and we'll provide you with a quote to receive a supplemental license.
On behalf of WPS, I look forward to hearing from you. Please let me know if you have any follow-up questions.

Have a wonderful day!
Arianna de Lara
Rights & Permissions Assistant

Appendix D: Email for use of PSI-4

Vicki McFadden
to
me

Tammy,
I am happy to hear you purchased the materials.

I will be happy to prepare your Agreement for 245 administrations.

I should have it to you within a few business days.

Best Regards,
Vicki McFadden
Permissions Specialist

Psychological Assessment Resources, Inc., 16204 N. Florida Avenue, Lutz, FL 33549,
www.parinc.com