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Mothers' Parenting Discipline Style and Their Early Puberty Daughters' Engagement in High-Risk Behaviors

Yvette C. White
Walden University

Walden University

College of Social and Behavioral Sciences

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Yvette C. White

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Abstract

Some early puberty girls engage in high-risk externalizing behaviors such as early sexual activity, delinquent behavior, and disruptive behaviors. Harsh parenting experienced by girls who develop early has been associated with delinquent and disruptive behaviors. The purpose of this quantitative correlational study was to examine predictive relationships between the style of parental discipline by mothers of early puberty girls and the likelihood and frequency of the girls' engagement in high-risk behaviors. Parenting style theory, including the authoritarian, authoritative, and permissive style of parenting, served as the theoretical foundation for the study. Survey data were collected from 28 mothers who identified as having a daughter who experienced early puberty. The Parenting Scale subscales were used to measure the dysfunctional parenting behaviors of laxness, overreactivity, and verbosity. Logistic regression analysis revealed no statistically significant relationships between the early puberty girl's involvement in risky behaviors and dysfunctional parenting. Results may be used by human service and public health officials to increase awareness of early puberty and to promote public health policies to address the individual, social, and economic implications of early puberty in girls.

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Dedication

I dedicate this PhD to my daughter, Amanda McKenzie, and husband, Raymond Massey. On my journey, you sacrificed time away from me, patiently waited on me, and supported me when I needed encouragement. You helped me to never give up on my educational endeavor to complete the degree. I also say thank you to my mother, Olive Robinson. Although you may not have fully understood what I was doing, you knew it was important to me and therefore always encouraged me. You sacrificed all for me to obtain an education and complete this journey, and for that I say thank you!

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I could not have completed this journey without the love and support of my family and friends. Thanks to my sister, Sandra Bailey, who knew I could do this even before I knew. Thanks also to my brother, Wesley White, who patiently waited for the right time to speak to me when I was not available.

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Chapter 1: Introduction to the Study

Introduction

Early puberty in girls occurs when secondary sexual traits show before the age of eight years (Cozzi & Vinel, 2015; Root, 2005). Secondary sexual traits include breast development at Tanner Stage 2 (breast budding), pubic hair development, and menarche before Age 11 (Cozzi & Vinel, 2015; Root, 2005). Researchers have found that some girls who go through puberty early engage in risky behaviors such as early sexual activity, disruptive behavior, and delinquency (Maron, 2015; Mrug et al., 2014). Researchers have also suggested that there is a relationship between harsh parental discipline practices and antisocial behavior in children (Cham, Reshetnyak, Rosenfeld & Breitbart, 2017; Gomez-Ortiz, Romera & Ortega-Ruiz, 2016; Rhee, Lahey, & Waldman, 2015; Skinner et al., 2015). Krueger et al. (2002) described antisocial behaviors as behavioral patterns that violate norms with diverse outcomes, including conduct problems, criminality, and aggression. Researchers have also documented a relationship between laxness in parenting discipline and conduct disorder (Rhee et al., 2015). The purpose of this quantitative study was to examine the predictive relationships between the parenting discipline behavior in mothers and engagement in high-risk behavior by their early puberty daughters. This chapter provides background information relevant to the study and includes the problem statement, purpose of the study, research questions and hypotheses, theoretical framework, nature of the research, definitions, assumptions, scope delimitations, limitations, and significance.

Background

Maron (2015) reported that 23% of Black girls, 15% of White girls, and 10% of Hispanic girls experience puberty at Age 6 or 7. Some girls who experience early puberty are at increased risk of engaging in high-risk behaviors that can continue through adolescence (Mrug et al., 2014). These behaviors include early sexual activity, disruptive behaviors (including noncompliance to parent rule, aggression, disruptive classroom behavior, or violation of social norms and of the rights of others), and juvenile delinquency behaviors (Centers for Disease Control and Prevention [CDC], 2014; Graber, Lewinsohn, Seeley, & Brooks-Gunn, 1997; Massetti et al., 2011; Mrug et al., 2014). Some juvenile delinquency behaviors include fighting, gang activities, deliberate destruction of property, use of illicit drugs, and carrying weapons (CDC, 2017; Graber et al., 1997; Massetti et al., 2011; Mrug et al., 2014; Pflieger & Cook, Niccolai & Connell, 2013). According to Pflieger et al. (2013), adolescents who engage in sexual activity before Age 15, which is often associated with girls who experience early puberty, are at the highest risk of contracting a sexually transmitted infection (STI). This risk of contracting an STI increases with the likelihood of engagement in sexual activity with multiple partners and older sex partners (Pflieger et al., 2013).

Jackson (2012) reported that early maturing girls have an increased risk for delinquency and a higher likelihood of committing an illegal act. The U.S. Department of Justice, Office of Justice Programs (2010) reported that the arrest rate for girls who experienced early puberty was 19% higher than the arrest rate for girls who did not experience puberty early. Also, some researchers have found a strong association

between harsh parenting (such as corporal punishment) and conduct problems in adolescents (Cham et al., 2017; Gomez-Ortiz et al., 2016; Mrug et al., 2014; Pflieger et al., 2013; Skinner et al., 2015). Weis and Toolis (2010) reported that harsh parenting discipline behavior, including the use of frequent and harsh punishment, was associated with increased aggression in children. Researchers also stated that some children who experienced harsh discipline were at risk of developing behavioral and emotional problems, which can lead to adverse outcomes (Weis & Toolis, 2010). Such outcomes can translate to billions of dollars in health care cost (CDC, 2017; Owusu-Edusei et al., 2013).

Although researchers have linked harsh parenting, early pubertal development, and risky behaviors in girls, they recommend additional research (Cham et al., 2017; Mrug et al., 2014; Pflieger et al., 2013; Skinner et al., 2015). According to Dorn (2015), although there have been significant advances in examining puberty and its impact on various phenomena during the period of adolescence, such as peer relationship, sexual behavior, and brain function, there is still a notable gap in what is known. I did not locate any studies that addressed whether the different styles of parenting by mothers, co-occurring with early puberty in their daughters, impacted the engagement in high-risk behaviors by their daughters. Because engagement in risky behaviors can be detrimental to girls, to their children born as a result of risky sexual behavior, and to society as a whole through spread of STIs, teen pregnancy, low educational achievement, delinquency, overuse of social service, and a burden on social service programs partially supported by taxpayers (CDC, 2013, 2014; Epstein et al., 2014; Owusu-Edusei et al.,

2013), it is desirable to understand whether engagement in risky behavior can be minimized by a specific method of parenting behavior or by a combination of methods.

Problem Statement

Some early puberty girls engage in high-risk externalizing behaviors such as early sexual activity, delinquent behavior, and disruptive behaviors (CDC, 2017; Jackson, 2012; Mrug et al., 2014. Harsh parenting experienced by girls who develop early has been associated with delinquent and disruptive behaviors (Gomez-Ortiz et al., 2016; Pflieger et al., 2013; Skinner et al., 2015). Adolescent delinquent behavior includes involvement in activities like fighting, truancy, gang activities, early or risky sexual behavior, deliberate destruction of property, use of illicit drugs, and carrying weapons (Craine, Tanaka, Nishina & Conger, 2009; Harris-McKoy & Cui, 2013). Adolescent disruptive behavior is defined by the American Psychiatric Association as noncompliance, aggression, disruptive classroom behavior, violation of social norms and the right of others, and delinquent behavior (CDC, 2017; Eyberg, Nelson, & Boggs, 2008; Viding & Seara-Cardoso, 2013).

These behaviors have been found to be detrimental to girls and society as a whole. For instance, early sexual activity has been linked to an increase in sexually transmitted diseases and teen pregnancy, while disruptive and delinquent behaviors often lead to entrance into the juvenile system (CDC, 2017; Mrug et al., 2014; Zuckerman, 2010). Both circumstances could lead to an increase in economic cost to taxpayers for health and childcare expenses (CDC, 2017). In 2010, teen pregnancy and childbirth in the United States cost taxpayers $9.4 billion, which included cost for health care, foster care, and

incidents of incarceration among children born to teen mothers (CDC, 2017). A loss of revenue was factored into this cost as teen mothers are more likely to have lower educational attainment and pay less in taxes due to lower contribution from minimal paying jobs (CDC, 2017; Owusu-Edusei et al., 2013). The problem addressed in this study was engagement in high-risk externalizing behaviors by girls and the negative implications associated with their actions.

As I examined the scholarly literature on early puberty and parenting behavior, I found both longitudinal and cross-sectional studies in which researchers examined parenting behavior, early puberty, and adolescent behavior. However, these researchers did not address the topic fully. For instance, I did not find a study that addressed mothers' parenting behavior while her daughter experienced puberty. Some researchers evaluated other combinations of social and family factors, such as early puberty girls and older peer relationships, parenting behavior reported by both parents, and age of menarche (Mrug et al., 2014; Zuckerman, 2010). Others included factors such as positive and harsh parenting, race, and socioeconomic status (Cham et al., 2017; Deardorff et al., 2013; Mensah & Kuranchie, 2013; Mrug et al., 2014; Rhee et al., 2015; Skinner et al., 2015; Zuckerman, 2010). Many researchers suggested that the relationship between parenting and child behavior is multifaceted and needs further investigation (Deardorff et al., 2013; De Haan, Prinzie, & Deković, 2012; Powers, 2013; Tan, Gelley, & Dedrick, 2015).

Purpose of the Study

The purpose of this quantitative study was to examine the possible predictive relationship between the use of parental discipline practice by mothers of early puberty

girls and the likelihood of their daughters' engagement in high-risk behaviors such as early sexual activity and disruptive or delinquent behaviors. I assessed maternal parenting behavior through the laxness, overreactivity, and verbosity subscales of the Parenting Scale. The Parenting Scale is an instrument used to measure parenting discipline behavior (Arnold, O'Leary, Wolff & Acker, 1993) and parental response to the child's behavior (Lorber et al., 2014). The independent variable in this study was mothers' parental discipline behavior and the dependent variable was the number of different high-risk behaviors in which their early puberty daughters engaged over a 1-year period. The risky behaviors included noncompliance to parent rule, truancy, risky sexual behavior, deliberate destruction of property, gang activities, fighting, illicit drug use, and carrying a weapon. All variables were analyzed quantitatively. The study was conducted in an area located in the Southeastern United States.

Research Questions and Hypotheses

The following research questions (RQs) and their respective null and alternative hypotheses guided the study:

RQ1: To what degree does mothers' parental discipline behavior, as measured by the three Parenting Scale subscale scores, predict the likelihood of repeated, high-risk behaviors of their early puberty daughters, as reported by the mothers?

H_o1: Mothers' parental discipline behavior, as measured by the three Parenting Scale subscale scores, does not predict the likelihood of repeated, high-risk behaviors of early puberty girls, as reported by the mothers.

H_a1: Mothers' parental discipline behavior, as measured by the three Parenting Scale subscale scores, predicts the likelihood of repeated, high-risk behaviors of early puberty girls, as reported by the mothers.

RQ2: Based on the mothers' disciplining practices, what are the differences in the weekly frequency of high-risk behavior in which their early puberty daughters engaged, as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores?

H_o2: There are no statistically significant differences in the weekly frequency of high-risk behavior in which their early puberty daughters engaged, as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores.

H_a2: There are statistically significant differences in the weekly frequency of high-risk behavior in which early puberty daughters engaged, as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores.

Theoretical Framework for the Study

Guiding this study was Baumrind's parenting style theory, which was developed and refined between 1966 and 1978. The main constructs of the theory are parent responsiveness and demandingness. *Responsiveness* refers to the level to which parents engage with and respond to their children's needs (Baumrind, 1971). *Demandingness* refers to the level of control that parents impose on their children, how parents supervise and discipline their children, and how willing parents are to confront their children when they disobey (Baumrind, 1971). Parents exercise a high or low level of demandingness and responsiveness as a means of integrating their children into the family

(Baumrind,1971). Baumrind (1971) identified three parenting styles: permissive, authoritative, and authoritarian. Parents who respond to their children's misbehavior by engaging in high responsiveness and low demandingness fall within the permissive style of parenting. Parents who respond to their children's misbehavior by engaging in low responsiveness and high demandingness fall within the authoritarian style of parenting. Finally, parents who respond to their children's misbehavior by engaging in high responsiveness and high demandingness fall within the authoritative style of parenting. Maccoby and Martin (as cited in Baumrind, 1971) as well as Darling and Steinberg (1993) added rejecting or neglecting parenting as a fourth style characterized by low responsiveness and low demandingness.

Parents who exercise the authoritarian style of parenting are described as strict and assertive; they have high expectations for compliance and they do not react to the concerns or needs of their children (Baumrind, 1971, 1978). Some children reared with the authoritarian style of parenting are incompetent and more likely to have issues in school when compared to children who experience authoritative parenting (Mensah & Kuranchie, 2013; Williams et al., 2009). Children raised with the authoritative style of parenting are usually more successful at avoiding negative peers' influence than those reared under the authoritarian style of parenting (Mensah & Kuranchie, 2013). The permissive style of parenting represents inconsistent discipline, lack of expectations, and low tolerance of adverse behavior in children (Baumrind, 1978). Children reared through the permissive parenting style struggle with internal and external behavioral problems such as conduct disorders and delinquency (Baumrind, 1978; Massetti et al., 2011; Mrug

et al., 2014). Parents who exercise neglectful parenting have little control over the behavior of their children tend to be low in warmth toward their children and are not supportive of their children's interests (Rhee et al., 2015). Applying Baumrind's three parenting styles as the theoretical framework for this study allowed me to examine whether a relationship exists between mothers' reported parenting behavior and their early puberty daughters' engagement in high-risk behaviors.

Nature of the Study

This study was quantitative, correlational, and cross-sectional in nature. The quantitative approach allows for social behaviors to be quantified and analyzed (Rahman, 2016). The quantitative approach also allows for statistical analysis to determine the relationships between the dependent and independent variables (Hagan, 2014). In the current study, mothers of girls experiencing early puberty were asked to report on whether their daughters engaged in risky behaviors and how often they did so over the course of 1 year. High-risk behaviors were recorded as a part of the demographic questionnaire I constructed. Questions related to the dependent variable addressed whether the girls engaged in risky behaviors such as noncompliance to parent rule, truancy, risky sexual behavior, deliberate destruction of property, gang activities, fighting, illicit drug use, and carrying a weapon. The survey tool was used to collect demographic data and data from the behavior report form combined into one survey tool to simplify the process of completion for the participants. Participants responded to individual items on the Parenting Scale. Responses were provided on a 7-point Likert-type scale, where 1 indicated parenting effective discipline practice and 7 indicated an

ineffective discipline practice (see Arnold et al., 1993). Statistical analysis included logistic regression analysis to test the null hypothesis for Research Question 1.

Definitions

Some of the key terms used in the study could have had multiple meanings. To provide the participants with a clear understanding of the intended meaning of each key term, I used the following definitions:

Delinquent behavior: Participation in noncompliance to parent rule, truancy, risky sexual behavior, deliberate destruction of property, gang activities, fighting, illicit drug use, and carrying a weapon (Beier, Rosenfeld, Spitalny, Zansky, & Bontempo*,* 2000*;* Craine et al., 2009; Mrug et al., 2014; Van Doorn, Branje, & Meeus, 2008).

Demandingness: Claims parents make to help their child integrate into the family; demandingness is observed through the maturity of the parents' demands, supervision, disciplinary efforts, and willingness to confront their child in instances of disobedience (Baumrind, 1971).

Disruptive behavior: Noncompliance, aggression, disruptive classroom behavior, or delinquent behavior (Eyberg et al., 2008).

Early puberty: Reaching puberty before the age of 8, as manifested in the appearance of secondary sexual traits including breast development at Tanner Stage 2 (breast budding), pubic hair development, and the onset of menarche before Age 11 (Cozzi & Vinel, 2015; Root, 2005).

Early sexual activity: First intercourse at or before the age of 15 (Marston, Beguy, Kabriu & Cleland, 2013).

Informal relative: A relative with no legal adoption or guardianship authority over the child who they take in their home temporarily or for an extended period of time (New York State, 2009).

Mother: A biological, foster, or adoptive mother; a female guardian or custodian; or an older informal female relative (Indiana Department of Child Services Relative Resource Guide, 2012).

Parenting practices: Child-rearing practices, values, and behaviors parents use to raise their children in order to shape their development, personality, and social interaction (Akhtar, 2012).

Puberty: The period when a child begins to transition to adulthood and experiences physical and emotional changes such as the appearance of pubic hair, changes in height, and mood swings (CDC, 2013).

Responsiveness: The degree to which parents encourage their children's individuality, self-regulation, and self-assertion by being in tune with and supportive of their child (Baumrind, 1971).

Assumptions

I made several assumptions in this study. First, I assumed that Baumrind's parenting style theory was the most appropriate theoretical framework to examine parenting behavior and its resulting response in early puberty girls. I made this assumption because the demandingness and responsiveness principles of Baumrind's theory directly related to the parent's response and control of their child (see Gafoor, 2014). This theory has been applied in studies where results indicated a significant

relationship between parenting style and developmental outcomes in children (Besharat, Azzi, & Poursharifi, 2011; Erlanger, Turner, & Chandler, 2009). Therefore, I assumed that this theory could produce a valid framework for addressing the research questions.

Second, I assumed that the Parenting Scale was the most appropriate tool to measure mothers' parental discipline behavior—the independent variable in this study. Through numerous tests and applications in previous empirical studies, this tool has been proven to be a valid and reliable way to measure parenting behavior (Baumrind, 1971). Gafoor et al. (2014) noted that the Parenting Scale was constructed based on Baumrind's studies on parenting, which accounted for construct validity and reliability to measure parenting behavior. This affirmed my confidence that applying the Parenting Scale would ensure the integrity of the study. A third assumption was that participants would possess the literacy skills needed to read the instructions and understand the survey questions. The Parenting Scale was written at a sixth-grade level (Arnold et al., 1993), which gave me the confidence to assume that the participants would understand the language of the survey.

A fourth assumption was that the sample used in the study would be representative of the targeted population. Pannucci and Wilkins (2010) stated that study participants should be selected using rigorous criteria to avoid confounding results. To avoid selection bias, I defined the criteria for participation, which included mothers' or caregivers who had daughters who experienced early puberty while living at home within a 1-year period.

The final assumption was study participants would be truthful in their answers to the survey questions. Before completing the survey, all participants acknowledged informed consent, voluntary participation in the study, and voluntary withdrawal at any point from the study. These options, in addition to participants' anonymity, gave me the confidence to assume that participants would be truthful in their responses.

Scope and Delimitations

The scope of the study encompassed mothers who employed dysfunctional parenting, as measured by the three subscales of the Parenting Scale, and their daughters who experienced early puberty. I choose to research mothers' parenting behavior and their daughters' risky behavior because previous researchers showed that parenting style can affect internalizing and externalizing behaviors in children (Deardorff et al., 2013). Previous researchers also indicated that some girls who experience early puberty are at a higher risk of engaging in risky behavior than girls who do not (Mrug et al., 2014). I wanted to determine whether any relationship existed between dysfunctional parenting behavior and risky behaviors in girls who experienced early puberty. Findings may contribute to existing research and could be used to foster change in parenting behavior. Findings may also be used by health care professionals to generate opportunities for parenting education and coaching. Additionally, increasing awareness among parents could strengthen effectiveness in parenting.

The parenting style theory was chosen to guide this study because the constructs (authoritative, authoritarian, and permissive) can be used to explain the different parenting styles and their effects on children (see Baumrind, 1967). The Parenting Scale

was chosen to measure parenting discipline practice because of its validity and reliability in recording dysfunctions in parenting behavior (Arnold et al., 1993; Harvey, Danforth, Ulaszek, & Eberhardt et al., 2001; Irvine, Biglan, Smolkowski, & Ary, 1999). I initially considered Ajzen and Fishbein's theory of planned behavior and theory of reasoned action (Ajzen, 1991) and a qualitative rather than quantitative approach. However, after considering my study topic and variables, I concluded that the parenting style theory was more appropriate in examining the relationship between mothers' parenting behavior and their daughters' engagement in risky behavior. Furthermore, I opted for a quantitative approach because I wanted to collect data that could be measured (Hagan, 2014) to examine the relationship between mothers' parenting style and their daughters' behavior.

Limitations

Participation in the study was limited to a population of mothers whose daughters experienced puberty between the ages of 8 and 11. Generalizability was limited to these age groups, and findings from the study cannot be applied to girls of all ages. The study was also limited to mothers and excluded fathers; therefore, generalizability was limited to parenting behaviors in mothers, and findings from the study cannot be applied to fathers. Another limitation was the fact that mothers reported their daughters' engagement in risky behaviors. Because the study did not include self-report by the girls themselves, it is possible that mothers misrepresented information, which could reduce the validity of the findings. For instance, when reporting on behavioral incidents, mothers could have over- or underemphasized details, or may not have known about all the behaviors in which their daughters engaged. Another limitation was that mothers could

have had selective memory in choosing to remember or forget their daughters' behavior at a particular point in time (Price & Murnan, 2004). Memory retrieval of events decreases over time, thereby reducing a person's ability to remember specific information (Rubin & Wenzel, 1996).

Convenience sampling was used in the current study because of its ease and low cost of implementation and because it takes less time to administer when compared to other sampling methods (Bornstein, Jager, & Putnick, 2013). However, the generalizability of this study's results was limited compared to what probability sampling could have yielded (Bornstein et al., 2013). The use of convenience sampling prevents any estimation of study results across different sociodemographic groups (Bornstein et al., 2013).

Significance

This study was conducted to determine whether a predictive relationship exists between mothers' parenting, as measured by the three subscales of the Parenting Scale, and the likelihood of their early puberty daughters engaging in high-risk behaviors. Findings could be of interest to the health care community. Mental health providers, public health officials, and physicians could use findings to advocate for change steered toward improving parenting knowledge and behavior, especially for parenting adolescent girls. Knowledge generated from the study, along with the efforts of health care providers to promote behavioral changes, could collectively generate positive social change through counseling interactions, health care collaborations, and dialogue at the parent level. The information from this study could positively affect parenting behavior over

time. Increased knowledge about how parenting style can impact girls who experience early puberty may create an opportunity for more sensitized parenting. This increased awareness about parenting behavior and the potential effect on early puberty girls may lead to more positive parenting behavior and may benefit girls and society as a whole.

Summary

Researchers have indicated that early puberty increases the chances that some girls may engage in high-risk behaviors such as delinquent and disruptive behavior (Maron, 2015; Massetti et al., 2011; Mrug et al., 2014). Several authors revealed that children who mature early and are exposed to inconsistent and harsh discipline are at a higher risk of developing behavioral problems (Cham et al., 2017; Deardorff et al., 2013; Pinquart, 2017). However, researchers have not addressed how the different styles of dysfunctional parenting occurring simultaneously with early puberty development in girls affect their decisions to engage in high-risk behavior, which could be detrimental to them. I examined the relationship between parental discipline practices and high-risk behavior engaged in by early puberty girls.

In this chapter, I presented the background information along with the problem statement, purpose of the study, and research questions and hypotheses. I also presented the theoretical framework, definitions of terms, assumptions, delimitations, and limitations of the study. The next chapter provides a thorough review of the literature pertaining to parental discipline practices, early puberty, and risky behavior among early puberty girls.

Chapter 2: Literature Review

Introduction

This study addressed early puberty in girls, harsh parental discipline practices, and engagement in high-risk behaviors by some girls who experience early puberty. Early puberty has been found to be problematic (Maron, 2015; Skinner et al., 2015). For some girls, early puberty has been associated with engagement in high-risk behaviors like noncompliance to parent rule, truancy, risky sexual behavior, deliberate destruction of property, gang activities, fighting, illicit drug use, and carrying a weapon (Javdani, Rodriguez, Nichols, Emerson, & Donenberg, 2014; Mrug et al., 2014). Harsh parenting practices have been associated with externalizing behavioral problems like aggression in children (Maron, 2015; Rhee et al., 2015). The purpose of this quantitative study was to examine the predictive relationships between mothers' parental discipline practice, as measured by the three subscales of the Parenting Scale, and the likelihood that their early puberty daughters engaged in high-risk behaviors such as early sexual activity and disruptive or delinquent behaviors. This chapter presents an examination of previous studies on parental discipline practice and associated behaviors in early puberty girls. I conducted a thorough analysis of the literature surrounding the independent variable (mothers' parental discipline practice, as measured by the Parenting Scale's three subscale scores) and the dependent variable (different high-risk behaviors in their early puberty daughters).

Literature Search Strategy

I conducted a comprehensive review of literature published between 2010 and 2018. Seminal research dating back to 1971 was also included in the review as it provided insight on the trend of the problem. I performed a digital search of scholarly articles included in the Walden University library system, examining the SocINDEX and PsycINFO databases. I also reviewed resources such as Academic Search Complete, ProQuest, Central, Medline, PubMed, SAGE Primer, and Google Scholar. The key terms I used to execute the search included *dysfunctional parenting practices*, *early puberty in girls*, *puberty*, *parenting* and *adolescent behavior*, *mother-daughter relationship*, *girls* and *juvenile system*, *puberty* and *secular trend*, *adolescent* and *early sexual activity*, and *high-risk behaviors*.

Theoretical Foundation

The parenting style theory was used in this study to examine parenting behavior, early puberty in girls, and the high-risk behaviors in which early puberty girls engaged. To understand and distinguish between the different kinds of parenting styles, Baumrind (1967) began research on the parent-child relationship in the late 1900s. Baumrind (1967) first examined this relationship within nursery school and preschool children and their parents. This examination included in-home visits for the purpose of observation and structured interviews (Baumrind, 1967, 1971). To examine childrearing parenting behavior, Baumrind (1971) assessed parents of children considered normal (i.e., lacking any behavioral problems). To conceptualize the role of parenting, Baumrind (1968) examined parent values and their beliefs about their role as parents and about the nature

of the children. Baumrind (1968) compared the presence or absence of responsiveness to their children's behavior as well as the level of parent demandingness or absence of demandingness toward their children. Parent responsiveness was defined as the degree to which parents purposefully encouraged individuality, self-regulation, and self-assertion in the child, and instances when parents were attentive and supportive of the child's needs (Baumrind, 1971). Demandingness was described as the parents' expectation as far as the role their child plays in the family, the parents' controlling behavior used to generate an expected behavior in their child, and the parents' willingness to confront their disobedient child (Baumrind, 1971). Baumrind (1971) also conceptualized three types of parenting: authoritative, authoritarian, and permissive.

Authoritative Style

With the authoritative style of parenting, parents attempt to shape the behavior of the child by limiting the child's autonomy. Household rules and values are also applied to build respect for work (Baumrind, 1971). This style of parenting allows for more autonomy for the child (Baumrind, 1971). Although the parent exerts control over the child's behavior, there is some degree of bargaining allowed between parent and child (Baumrind, 1971). With the authoritative parenting approach, the parent attempts to explain to their child the reason for any restrictive actions in an effort to promote understanding (Baumrind, 1971).

Authoritarian Style

When utilizing this style, parents exercise strict control over their child, are intolerant of the child's misconduct, and often resort to harsh punishment to maintain

control (Baumrind, 1971). The children's freedom to express their opinion is limited, and any objections indicate disobedience (Baumrind, 1971). Parents who exercise the authoritarian style prefer to use forceful measures to curb what they perceive as misconduct (Baumrind, 1966). These parents believe in setting boundaries for children and therefore limit autonomy and assign household chores to build respect for work (Baumrind, 1966).

Permissive Style

The permissive style of parenting involves behaviors opposite to those exhibited by parents who exercise the authoritarian and authoritative style of parenting (Baumrind, 1971). This style of parenting allows children the freedom and authority to regulate their activities and minimizes parent interference (Baumrind, 1971). The level of autonomy granted by permissive parents creates the opportunity for children to engage in risky behaviors (Baumrind, 1971). The permissive parent does not exert control over the child, and the child is not encouraged to obey external standards (Baumrind, 1971). Permissive parents tend to explain family rules as opposed to condemning inappropriate behavior by their child (Baumrind, 1971).

Neglect

Further examination into Baumrind's parenting style theory led to the development of a fourth style of parenting by Maccoby and Martin (as cited in Baumrind, 1971). Parents who exercise a neglectful style of parenting are low in both parent demandingness and responsiveness (Powers, 2013). This parenting style has been applied in numerous studies that were set in different environments to investigate parenting style

and child outcomes (Dominguez & Carton, 1997; Harrist, Hubbs-Tait, Topham, & Page, 2013; Kelly, Zilanawala, Sacker, Hiatt, & Viner, 2017; Veldhuis, 2012). Similar to the outcomes experienced with Baumrind's permissive parenting style, the outcomes experienced with Macoby and Martin's neglectful parenting style are associated with child delinquency (Hoeve, Dubas, Gerris, van der Laan, & Smeenk, 2011; Powers, 2013).

Comparison of Parenting Styles

The authoritative parenting style is high in parent demandingness and high in parent responsiveness (Baumrind, 1971). The authoritarian parenting style is also high in demandingness but low in responsiveness, while the permissive style is high in responsiveness but low in demandingness (Baumrind, 1971). Baumrind was able to identify a pattern in parenting in which parents who identified as permissive were different in how they interacted with their children compared to parents who identified as authoritative (Baumrind, 1971). Permissive parents were less controlling and placed fewer demands on their children in comparison to parents who identified as authoritarian (Baumrind, 1967). Baumrind (1971) viewed the authoritative parenting style as the ideal child-rearing method.

Previous Applications of the Parenting Style Theory

Researchers examining parenting style and adolescent behavior confirmed a relationship between parenting style and behavior in children (Guilamo-Ramos et al., 2012; Sylvester, 2014). Trinkner, Cohn, Rebellon, and Van Gundy (2012) applied the parenting style theory in a study in which they examined whether parental legitimacy functioned as a contributing factor between parenting style and delinquent behavior.

Trinkner et al. examined the relationship between the three styles of parenting (authoritarian, authoritative, and permissive), adolescents' perception of legitimate parenting authority, and changes in adolescent delinquency over time. Trinkner et al. aimed to determine whether parenting style influenced what adolescents believed about the legitimacy of parental authority. Trinkner et al. also attempted to find out whether those perceptions affected the adolescents' reports of delinquent behavior. Trinkner et al. hypothesized that parental legitimacy was a mediator for the relationship between parenting style and future delinquent behavior. The sample in the study consisted of children in middle and high school, and parenting style and delinquent behavior were measured as Time 1 (T1), parental legitimacy as Time 2 (T2), and delinquency as Time 3 (T3). Trinkner et al. reported a statistically significant positive association between the authoritarian parenting and adolescent reports of delinquency, T1 ($r = .22$, $p < .01$) and T3 ($r = .10$, $p < .05$). However, a statistically significant negative association was reported between the authoritative parenting style and adolescent reports of delinquency, T1 ($r = .20$, $p < .01$) and T3 ($r = .22$, $p < .01$). Permissive parenting was significantly positively correlated with delinquency reporting at T1 ($r = .12$, $p < .01$), but not at T3 (Trinkner et al., 2012). Trinkner et al. also reported that results of the bivariate correlation indicated an association between the authoritarian and authoritative styles of parenting and parental legitimacy. However, the permissive style of parenting was not significantly associated with parental legitimacy (Trinkner et al., 2012). Trinkner et al. concluded that the results were similar to those from previous studies. For example, Hoeve et al. (as cited in Trinkner et al., 2012) concluded that the authoritative parenting style was

associated with beneficial outcomes, while authoritarian and permissive parenting was associated with unfavorable results for adolescents.

Permissive parenting style. In a study of self-esteem, parental monitoring, and parenting styles, researcher Sylvester (2014) reported a significant relationship between the permissive style of parenting and risky sexual behavior. Sylvester used the independent sample t-test and regression analysis to analyze the data. Findings suggested that adolescents with low self-esteem reported statistically significant higher levels of risky sexual behavior than those with high self-esteem. Adolescents who identified as experiencing low parental monitoring reported statistically significant higher rates of risky sexual behavior than those with high parental monitoring (Sylvester, 2014). It was, therefore, determined that self-esteem, parental monitoring, and parenting styles were statistically significant predictors of adolescent risky sexual behavior (Sylvester, 2014). Gilligan, Kypri, Johnson, Lynagh, and Love (2012) examined the permissive style of parenting by studying parents who gave their adolescent alcohol with the hope of limiting the quantity consumed. Gilligan et al. found that adolescents between the ages of 13 to 17, whose permissive parents gave them alcohol, unsupervised drinking was associated with risky behaviors. The researchers concluded that the parents' permissive actions considerably increased the chances of risky drinking among adolescents (Gilligan et al., 2012

Ehrenreich, Beron, Brinkley, and Underwood (2014) examined physical and social aggression in children over a 10-year period, by following a sample of middle school children to late adolescence. Using descriptive and correlation methods for

analysis, the researchers reported that permissive parenting was the only variable that predicted aggression in their final model (Ehrenreich et al., 2014). They also reported that exposure to permissive parenting predicted higher social aggression trajectories over many years (Ehrenreich et al., 2014). Ehrenreich et al. explained that parental behavior with fewer limits may have long-term consequences on peer interaction. Ehrenreich et al., therefore, recommended further research, to determine the effects of parenting styles and children's' aggressive behavior. Additional research and findings could contribute to a change in the engagement of social and physical aggression at the stages of childhood and adolescence (Ehrenreich et al., 2014).

Alegre and Benson (2010) examined parenting behavior relative to internal and external behavior in adolescents, focusing on the late-adolescent trait, adjustments to problems, and emotional intelligence. The researchers hypothesized that negative parental control and parental unavailability to their adolescent child (i.e., coolness, hostility and rejection) would predict internalizing and externalizing behavior in the adolescent's later years (Alegre & Benson, 2010). The authors used two scales: The Warmth and Affection scale from the Parental Acceptance-Rejection Questionnaire, and the Harsh Punishment Subscale from the Ghent Parental Behavior Scale. They reported a positive correlation between the Warmth and Affection subscale scores and the child's report on the Parent Behavior Scale, $r = 0.90$, $p < .001$, $\alpha = 0$ .96 (Alegre & Benson, 2010).

Authoritarian parenting style. De la Tore-Cruz, Garcia-Linares, and Casanova-Arias (2014) investigated the relationships between adolescent's perception of their

mothers' and fathers' parenting style and the different levels of physical and verbal aggression adolescents displayed toward their peers. After conducting an analysis of variance, Dela Tore-Cruz et al. reported that adolescents who perceived their parents as practicing the authoritarian style of parenting demonstrated potential aggressive behavior towards their peers. The researchers concluded that the authoritarian style of parenting was associated with aggressive behavior in adolescents (Dela Tore-Cruz et al., 2014).

Georgiou, Fousiani, Michaelides, and Stavrinides (2013) examined the relationships between authoritarian parenting style, culture, bullying, and victimization in school. The researchers used a sample of adolescents with a mean age of 13. Structural equation modeling was employed to explore the mediating effects among the variable of bullying. The researchers reported that vertical individualism was a mediator between authoritarian parenting and bullying and that there was a positive association between the authoritarian style of parenting, victimization, and bullying at school (Georgiou et al. 2013).

Cham et al. (2017) examined Mexican American girls' internalizing and externalizing behavior. They also examined mental health, pubertal timing, and parenting style. Data for the study included self-reports from the girls on their perception of their mother's behavior and the mothers on their perception of their daughters' mental health. The researchers surveyed the girls in the fifth-grade through tenth-grade grade to determine whether puberty and harsh parenting predicted internalizing and externalizing behavior in the girls by the time they reached tenth-grade (Cham et al., 2017). Results from the researchers suggested that harsh maternal parenting was related to early pubertal

timing as well as behavioral and emotional outcomes among girls with Mexican origins (Cham et al., 2017). More specifically, a statistically significant correlation existed between harsh parenting and externalization symptoms for girls in the fifth-grade and seventh-grade (Cham et al. 2017). The researchers concluded that harsh parenting predicted internalizing and externalizing behavior (Cham et al., 2017.

Erath, El-Sheikh, and Cummings (2009) used the Skin Conductance Level Reactivity (SCLR) test to investigate the association between harsh parenting and child externalizing behavior. The SCLR was defined as a socioemotional stress task and problem-solving challenge task (Erath et al., 2009). The authors aimed to determine if a low SCLR score acted as a factor of vulnerability for child involvement in externalizing behavior (Erath et al., 2009). Parent and child completed the Personality Inventory tool for Children. The externalization part of the scale consists of delinquency and impulsivity. The distractibility subscales measured aggression, impulsivity, disruptive behavior delinquency, and noncompliance (Erath et al., 2009). The researchers noted that PIC–2 scales demonstrated reliability for test-retest, interrater reliability, as well as discriminant and construct validity (Erath et al., 2009). The internal consistency was 0.83 for mothers and 0.84 for fathers (Erath et al., 2009). Erath et al. found that externalizing behaviors correlated with the Achenbach Child Behavior Checklist -Teacher Report Form ($r = .48$, $p < .001$. The authors showed a stronger association among harsh parenting and externalizing behavior among children who reported a lower SCLR score, compared to children who reported a high SCLR score (Erath et al., 2009).

Authoritative parenting style. Kauser and Pinquart (2016) examined the association between parenting style and juvenile delinquency in adolescents in Pakistan. The researchers stated that Baumrind's parenting style theory might apply to countries outside of the Western world. Kauser et al. observed the adolescent's perception of each parenting style separately, as they stated that the four styles of parenting are inter-correlated. Using multiple linear regression, they investigated the multivariate association between the four parenting styles and delinquency. Kauser et al. reported that there were fewer occurrences of delinquency by adolescents who identified their parents' parenting style as authoritative. The researchers also reported that authoritative parenting by mothers and, to some degree, by fathers, showed lower levels of juvenile delinquency, while the opposite was true for neglectful parenting (Kauser & Pinquart, 2016). Although the findings lined up with research results emerging from Western countries, the authoritarian and permissive parenting styles did not show an association with delinquency (Kauser & Pinquart, 2016). The researchers credited the differences in reports to a tolerance for the authoritarian and permissive style of parenting in the Pakistani culture (Kauser & Pinquart, 2016).

Mensah and Kuranchie (2013) hypothesized that the authoritative style of parenting is associated with positive pro-social behavior and is the inverse to the authoritarian style of parenting. The researchers analyzed the relationship between parenting style and social development. Mensah et al. reported that children reared with the authoritative style of parenting were usually more successful at avoiding negative peer influence than those reared under the permissive and authoritarian parenting styles.

The researchers also reported that these children more commonly accepted their parents as confidants (Mensah et al., 2013).

Rationale for the Choice of Parenting Style Theory

The parenting style theory is appropriate for conceptualizing parenting behavior and how it may be related to the behaviors exhibited by children (Gafoor & Kurukkan, 2014). For the current study, the parenting style theory was applied to early puberty girls and their participation in risky behavior. Dominguez and Carton, 1997, Harrist et al., 2013, and Veldhuis, 2012 agree that the three constructs of the parenting style theory, including the principles of parent demandingness and responsiveness, are useful for exploring whether parenting discipline behavior predicts a child's behavior. The parenting style theory has been tested and applied on different platforms examining parenting and child behavior. Some platforms include educational research, parenting books, and intervention strategies (Dominguez & Carton, 1997, Harrist et al., 2013, & Veldhuis, 2012). One example is where researchers applied the parenting style theory in work, involving parenting and academic performance. Today, researchers continue to conduct studies using the parenting style theory to gain knowledge that may be championed into action to improve the behavioral outcome for parents and children (Powers, 2013; Tan et al., 2015). Scholars also continue to encourage additional research using this theory to foster a greater understanding of the family environment and parenting behavior (De Hann et al., 2012; Powers, 2013; Tan et al., 2015). Although researchers have evidence of associations between parenting style and disruptive and delinquent behavior, there is still a need for research on how the different styles of

parenting intersect or overlap and how it affects adolescent behavior (De la Tore-Cruz et al., 2014; Deardorff et al., 2013; Georgiou et al., 2013). These outstanding questions, along with continued calls by scholars to conduct further research in this area signifies a gap in the literature that still requires examination. Therefore, the goal of this study, was to attempt to contribute to filling this gap in research.

Literature Review Related to Key Concepts and Variables

Both early puberty and parenting behavior, particularly dysfunctional parenting, have been associated with increased risky behaviors in girls (de Hann et al., 2012). In this section, I incorporate discussions and a literature review of studies that involves early puberty and dysfunctional parenting behavior. In the current study, I examined sores from the three Parenting Scale sub-scales; overreactivity, verbosity, and laxness in conjunction with a review of literature on risky behavior in early puberty girls. “Risky” behaviors, such as (non-compliance to parent rule, truancy, risky sexual behavior, deliberate destruction of property, risky sexual behavior, gang activities, fighting, illicit drug use and carrying a weapon), are often categorized as disruptive and can lead to juvenile delinquency (CDC, 2014; Graber et al., 1997; Massetti et al., 2011; Mrug et al., 2014; Pflieger et al., 2013).

Early Puberty

Puberty is identified by changes such as breast development in girls, facial changes, and the appearance of pubic hair (Peper & Dhal, 2013). Menarche represents the end stage of a girls’ pubertal development when the girls begin the transition into adolescence. Hormonal and physical changes can begin two to three years before the

onset of menarche (Peper & Dhal, 2013). Adolescents comprise over 13% of the U.S. population and females representing 49% of the adolescent population (Healthy People.gov. 2018). Of the female adolescent population, the average age of puberty is 12.5 years (Peper & Dhal, 2013).

Some researchers speculate that early puberty can be triggered by multiple factors, like biological tendencies, life experiences, self-reliance, and environmental risk (Mendle, Leve, Ryzn & Natsuaki et al., 2013). These development experiences play an essential role in the child's response, awareness, and ability to navigate the challenges of becoming mature (Mendle et al., 2013).

Over the last 20 years, there has been a noticeable downward trend in the timeframe that girls experience puberty (Maron, 2015; Zuckerman, 2010).
Early puberty is evident in girls when secondary sexual traits show before the age of 8 years and include menarche before the age of 11 years (Cozzi & Vinel, 2015 Root, 2005). This period of early puberty represents a challenging time for adolescents, sometimes resulting in an increased frequency of risky behaviors and parent-child conflict (Wasserman, Holmbeck, Lennon, & Amaro, 2012). Furthermore, early puberty has been associated with risky behavior and adverse outcomes for some girls (Mrug et al., 2014).

Some girls who go through puberty early experience unfavorable outcomes like teen pregnancy, the contraction of sexually transmitted infections leading to reproductive problems, and poor educational achievement (CDC, 2013). These girls tend to utilize public resources at a high rate, which contributes to elevated health care costs to taxpayers (CDC, 2013).

Early Puberty and Early Sexual Activity

Researchers have linked the onset of early puberty in some girls to early engagement in sexual activity (Cozzi & Vinel, 2015; De Ganna et al., 2011). Researchers Downing and Bellis (2009) also linked early pubertal development with increased sexual activity and aggressive behavior. Natacha et al. (2011) examined the association of early puberty and sexual debut among 14-year old Black and White girls, hypothesizing that the girls would engage in sexual intercourse by age 14. An investigation of 305 girls led researchers to report a significant three-way interaction between race, sex, and pubertal timing (Natacha et al., 2011). After conducting logistic regression analyses to investigate the bivariate associations among pubertal timing and sexual intercourse, the researchers concluded that early puberty in girls was inversely related to early sexual activity (Natacha et al., 2011).

Downing and Bellis (2009) examined factors associated with earlier pubertal development in girls and boys, hoping to learn whether earlier pubertal onset (age ≤ 11) predicted sexual risk-taking, substance use (tobacco & alcohol), and anti-social behaviors in adolescents. The researchers used logistic regression to identify the relationship between early puberty, risky behaviors such as sexual intercourse before age 16, adolescent engagement in unprotected sex, and the use of substances (Downing & Bellis, 2009). Results indicated that for both sexes, early puberty acted as a predictor for risky sexual behavior and the use of alcohol and smoking (Downing & Bellis, 2009). Based on their findings that early puberty can function as a predictor of risky sexual behavior, Downing and Bellis suggested that a reduction in the age of pubertal onset may have

public-health implications. The effects of the reduction in pubertal age, the researchers explained, is especially true in the areas of adolescents' sexual health, the use of substances, and the demonstration of anti-social behaviors (Downing & Bellis, 2009).

The risk of teen pregnancy and of contracting sexually transmitted diseases (STDs) increases with indulgence in early sexual activity (CDC, 2014). An estimated 19 million new STD cases are reported each year among young people (CDC, 2013). Furthermore, 51% of the new STD cases among 15- to 24-year olds are reported in females (CDC, 2013). Researchers Epstein et al., 2014 examined adolescents in terms of their environment (family, school, and peer influence), individual characteristics, and the number of sexual partners. Parental monitoring was considered a buffer for engaging in early sexual activity, while school bonding and anti-social peer relations were related to engaging in early sexual activity and to contracting STDs (Epstein et al., 2014). From this examination, the researchers reported that there was a strong relationship between early sexual engagement and contracting STDs (Epstein et al., 2014).

Savolainen et al. (2015) studied the association between early pubertal maturation in adolescent girls and first coital sexual intercourse. The sample size consisted of 2,596 girls ages 15-16 who self-reported on their sexual activity. While the girls' temperament and the presence of family adversity were included as covariates in the data analysis, no statistically significant relationship between these variables and the onset of menarche was recorded (Savolainen et al., 2015). However, there was a report of a negative association between the age of menarche and coital sexual activity (Savolainen et al., 2015). Savolainen et al. also reported a linear association for the prevalence of coitus and

the timing of menarche. In comparison, engagement in coitus among 15-year old girls was reported in 48% of the girls who began menarche before age 12, opposed to the 19% of the girls who started menarche at age 14 or older (Savolainen et al., 2015).

While scholars and the medical community researching early puberty amongst adolescents do not agree on what constitutes a normal age for the onset of puberty, they agree that early maturing girls tend to become sexually active early (Cozzi & Vinel, 2015; Negriff & Trickett, 2010). These early puberty girls are also subject to exploitation and often imitate adult misconduct such as using substances (Negriff & Trickett, 2010). In a study that examined early puberty, sexual activity, and substance use in maltreated and non-maltreated adolescents, Negriff et al. reported an association between early puberty and the use of substances among maltreated adolescents. However, when early puberty was examined as a mediating factor for early sexual activity, the results demonstrated strong significance for both maltreated and non-maltreated adolescents (Negriff et al., 2010). The researchers, therefore, concluded that sexual behavior might be a universal factor that connects early puberty maturation with risky friends, regardless of adverse life experience (Negriff et al., 2010).

Dysfunctional Parenting and Child Behavior

Burnette, Oshri, Lax, Richards, and Ragbeer (2012) stated that physically abusive or harsh parenting creates a potent environment for anti-social behavior across genders. The researchers suggested that childhood temperament, externalizing and internalizing symptoms, and the involvement with antisocial peers contributed to the increase in the number of girls entering the juvenile system (Brunette et al., 2012). Harris-McKoy and

Cui (2013) completed a study to determine associations between parental control and delinquency, including an examination of criminal behavior among young adults. Baumrind's typology of demandingness in parenting style was utilized as the underlining principle of parent control. Results of the study included a report of elevated levels of delinquency among the young adults who experienced less parental control (Harris-McKoy et al., 2013). The researchers concluded that the results of their study were consistent with Baumrind's parenting theory and also with previous researchers who reported negative adolescent behavior outcomes resulting from lax parenting (Harris-McKoy et al., 2013). For example, in 2003, Borawksi, Levers-Landis, Lovegreen, and Trapl reported a relationship between unsupervised time and sexual activity, alcohol, and drug use among adolescents. Haynie (2003) reported an association between a lack of parental control and delinquent behavior in girls; and Hoeve, et al. (2009) reported a negative relationship between parenting behavior and delinquency.

To understand the parent and peer influence on delinquency, Henneberger, Tolan, Hipwell, and Keenan conducted a study in 2014. The researchers controlled for the effects of race, single-parent household, and public-assistance receipt. Henneberger et al, subsequently reported a positive relationship between harsh punishment, relations with peers, and delinquency in mid-adolescence (Henneberger et al., 2014). After adding harsh parenting as a control, the results indicated $B = .08$, $p < .001$, while peer delinquency was reported at $B = .01$, $p < .001$ (Henneberger et al., 2014). Since harsh parenting and peer relations appeared to be independent of each other, the researchers suggested that in the

future, researchers should concentrate on both areas, in efforts to prevent delinquency among adolescent girls.

Prinzie, van der Sluis, de Haan, and Deković (2010) investigated overreactivity and warm parenting on child personality characteristics, looking specifically at rule-breaking and aggression. The researchers reported a positive relationship between parental overreactivity and adolescent aggression (Prinzie et al., 2010). An increase in parental warmth was found to be correlated with a decrease in the frequency of aggressive behavior (Prinzie et al., 2010).

Leeman et al. (2014) examined the relationships between parental permissiveness and adolescent gambling as well as the use of alcohol, cigarettes, and marijuana. Two sets of adolescents were examined, those who identified as impulsive and sensation-seeking, and those who were not (Leeman et al., 2014). The researchers subsequently reported that parental permissiveness toward gambling was related to adolescent gambling and substance use, including alcohol and problems with drugs (Leeman et al., 2014). Results of the Leeman et al. study, extended the belief that perceived parent permissiveness is associated with risky behaviors, even among adolescents already considered as at risk (Leeman et al., 2014). The researchers showed that the perception of less permissive parenting could have a protective effect on adolescent behavior and that external parental control could be valuable, especially for at-risk youth (Leeman et al., 2014). The researchers recommended a reduction in permissive parental behavior when relating to adolescent gambling, especially for parents with adolescent children identified as sensation-seeking (Leeman et al., 2014).

Summary and Conclusions

The empirical evidence presented in previous sections highlighted challenges associated with dysfunctional parenting behavior and early puberty girls. Both early puberty in girls and dysfunctional parenting behavior are problematic for children (Maron, 2015; Skinner et al., 2015). However, it is unknown if the combination of early puberty in girls and dysfunctional parenting practices by mothers results in high-risk behaviors among the early pubescent girls. Baumrind's parenting style theory guided the construct of this study, as evidence in the literature suggested that this parenting style model is adaptable in explaining the parental behavior towards early puberty girls. Findings from the current study added to existing research on parenting discipline behavior, early puberty, and risky behaviors. The results indicated similar trends in past studies where early puberty and dysfunctional parenting leads to risky behavior for some early puberty girls. The current study findings could be incorporated into best practices and included in a curriculum for parenting classes. The results could also be beneficial for human service professionals, public health advocates, and other community caregivers working with adolescents.

Increased awareness on the issue of early puberty in girls and its association with parenting behavior could promote more positive parenting behavior. Increased sensitivity in parenting early puberty girls could impact them positively and positively affect social change over time. Chapter three discusses a more detailed description of the research methodology and study design.

Chapter 3: Research Method

Introduction

The purpose of this study was to determine whether mothers' parental discipline behavior of early puberty girls predicted the likelihood of engagement in high-risk behaviors by those girls. I examined associations between parent discipline behavior and the reported engagement in high-risk behaviors by girls who experienced early puberty. In this chapter, I explain the methodology of the study, including the research design, dependent and independent variables, sampling and sampling procedure, instrumentation, data analysis, and ethical considerations.

Research Design and Rationale

The independent variable was mothers' parental discipline behavior. Responses were measured by three subscale scores of the Parenting Scale (Arnold et al., 1993). The dependent variable was the number of different risky behaviors that a girl engaged in within 1 year. Retrospective data were collected using a demographic behavior questionnaire created and housed on the Survey Monkey website. A quantitative, nonexperimental, cross-sectional approach was used to answer the following research questions:

RQ1: To what degree does mothers' parental discipline behavior, as measured by the three Parenting Scale subscale scores, predict the likelihood of repeated, high-risk behaviors of their early puberty daughters, as reported by the mothers?

H_o1: Mothers' parental discipline behavior, as measured by the three Parenting Scale subscale scores, does not predict the likelihood of repeated, high-risk behaviors of early puberty girls, as reported by the mothers.

H_a1: Mothers' parental discipline behavior, as measured by the three Parenting Scale subscale scores, predicts the likelihood of repeated, high-risk behaviors of early puberty girls, as reported by the mothers.

RQ2: Based on the mothers' disciplining practices, what are the differences in the weekly frequency of high-risk behavior in which their early-puberty daughters engaged, as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores?

H_o2: There are no statistically significant differences in the weekly frequency of high-risk behavior in which their early puberty daughters engaged, as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores.

H_a2: There are statistically significant differences in the weekly frequency of high-risk behavior in which early puberty daughters engaged, as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores.

Utilizing a nonexperimental design allowed me to focus on the mother and daughter's behavior, correlational relationships, and differences; no effort was made to establish a cause and effect relationship (see McCusker & Gunaydin, 2015). The quantitative approach was selected because the study was intended to examine the association between the variables (McCusker & Gunaydin, 2015). The quantitative method is used by many researchers in social science because it is deemed simpler for

accessing and acquiring measurable information (McCusker & Gunaydin, 2015). Extracting quantifiable data allows researchers to identify current trends that can be used to predict future trends (McCusker & Gunaydin, 2015). The quantitative approach is also associated with positivism, which allows for scientific verification that can be proven mathematically (Arghode, 2012). In the current study, the quantitative approach may lead to change in parenting behaviors toward girls who experience early puberty, and subsequently a change in how these girls behave. The cross-sectional approach was suitable for this study because data were collected once, and no follow-up with participants was needed (see Frankfort-Nachmias & Nachmias, 2008). Thisted (2006) pointed to the low cost and the absence of follow-up activities as two advantages of utilizing a cross-sectional research design. I chose the correlational approach for this study because this method allowed me to assess the relationships among the variables (see Shaughnessy, Zechmeister, & Zechmeister, 2012). The correlational approach also allowed me to determine whether there were predictive relationships between the variables (see Shaughnessy et al., 2012). I attempted to determine the likelihood that dysfunctions in a mother's parenting behavior towards her early puberty daughter would predict engagement in high-risk behaviors by that daughter.

Methodology

Population

The target population for this study was mothers who identified as having a female child who experienced early puberty. Although an exact count of the population was unknown, a review of the 2010 U.S. Census indicated that 7,196,101 women over

the age of 18 resided in the state of Georgia (U.S. Census, 2010). Approximately 95,136 of the females in Georgia were mothers of children under the age of 18 (U.S. Census, 2010). There were approximately 739,000 females living with their children as single mothers, and there were 1,548,000 married couples with children (Annie E. Casey Foundation, 2016).

Sampling and Sampling Procedure

The sample size calculation was executed using the G* Power 3.1 statistical analysis program. Logistic regression and a two-tailed analysis were the basis for computing the sample size. The entry for review included the following: a power of .80, an alpha of 0.05, and an odds ratio of 2.6. Reports on the percentage of early puberty girls who engaged in high-risk, disruptive, and delinquent behavior varied. However, there was some reporting that reflected that between 20% and 50% of girls affected by early puberty engage in these behaviors (Hemphill et al., 2010; Keyes et al., 2018). In the current study, I calculated the sample size using 30% as the proportion of girls who engaged in high-risk behaviors. This calculation indicated a minimum sample size of 56 participants. According to Balkin and Sheperis (2011), having the correct statistical power for the sample calculation minimizes the chance of misreporting or committing a type I or type II error. Using the appropriate power increases the likelihood of finding statistically significant results if they exist (Balkin & Sheperis, 2011). Cohen (1988) specified that in the social sciences, researchers typically use an effect size of 0.5, an alpha of 0.05, and a statistical power of 0.80 in sample size calculation.

A purposeful convenience sampling method was used to recruit participants for the study. Researchers use purposeful sampling to identify and survey individuals who can contribute to the area being studied because they meet specific criteria (Kalpana et al., 2002, & Patton, 1990). Mothers and other female caregivers who met the inclusion criteria were eligible to participate. The two organizations where I recruited participants serve a population that covers Cobb County, Georgia. This county is the fourth largest county in Georgia, which allowed me to recruit from a diverse community of participants (see U.S. Census, 2010). Two questions at the beginning of the survey were used to determine eligibility to participate (see Appendix C). Participants who did not meet the study criteria were excluded from the study. The eligibility criteria included the following: (a) mothers or caregivers who had a female child living in the home between the ages of 8 and 11 years who experienced early puberty and (b) willingness to consent to participate in the survey.

Procedures for Recruitment, Participation, and Data Collection

The approach used to encourage participation in the current study included having a conversation with the owners of the recruiting site to gain permission to speak with visitors to their organization. I also asked the owner's permission to place my survey flyers at the location (see Appendix G). The flyer included the following information: (a) a brief description of the study, (b) my contact information and associated university information, (c) a description of the purpose of the study, (d) a description of the voluntary nature and anonymity of survey participation, and (e) an example of the possible risk of participating in the study. The survey was password protected with

single-user access assigned only to me. With Walden approval granted (approval # 7-24-18-0283816), I posted the survey on the Walden University Participant Pool website. Once all data collection activities were approved, I visited the organization twice per week and spent approximately three hours each time. Almost midway through the quarter, I recognized a low survey response trend and repeated requests by participants to share the survey with others. However, because I was the only one approved to distribute the study, I found myself saying no with an explanation of why. Due to this repeated request from prospective participants to share my survey, I decided to seek approval from my chair to add the snowball method of surveying as a part of this study. The request was approved by the IRB, which allowed participants to share information on the survey with family members, peers, and church members.

I created the demographic behavior questionnaire on the Survey Monkey internet site, and participants accessed the site via the link provided on the flyer. The survey represented a combination of the self-reporting Parenting Scale developed by Arnold et al. (1993) and a demographic behavior questionnaire. Combining the Parenting Scale and the questionnaire into one survey document allowed me to capture the mothers' parenting behavior, demographic data, as well as her report on high-risk behaviors that her daughter engaged in. The data collected also included the frequency of the behavior that her daughter engaged in over one year. The demographic portion of the survey captured information on the participant's race, occupation, income level, marital status, and educational level. Data to measure the mother's parenting behavior were collected from the answers provided when completing the Parenting Scale portion of the survey.

All participants were required to answer the question of giving consent before being able to participate in the survey. Participants who did not acknowledge consent were exited from the study. Access to the online survey responses was password-protected. I did not receive any hard copy survey responses in the data collection phase of this study. My contact information was made available on the flyer and on the consent form, where participants could call or email me with any questions or concerns, or request a summary of the study results.

Instrumentation and Operationalization of Constructs Instruments

Parenting Scale. The principal data collection tool used in this study was the Parenting Scale (Arnold, et al., 1993). The Parenting Scale (PS) developed by Arnold et al. (1993) is a 30-item, self- reporting survey scale. This instrument was designed as a means of measuring parental disciplinary practices exercised by parents of young children (Arnold et al.,1993). Because the Parenting Scale was developed solely to measure parenting discipline practice, I thought this scale was relevant to measure the independent variable in this study.

Arnold et al. (1993) believed that parental disciplinary behavior was related to child behavior, and they found that various aspects of parenting impacted how children socialized and externalized behaviors. They also noted how results from different studies repeatedly showed associations between dysfunctional parenting discipline practices and child behavior, especially delinquency, and aggressive behavior (Arnold et al., 1993)

The Parenting Scale is divided into the following three subscales: Laxness, Verbosity, and Overreactivity (Arnold et al., 1993). There are 11 items on the Laxness

Subscale, 7 on the Verbosity Subscale, and 10 on the Overreactivity Subscale (Arnold, et al.,1993). The authors of the scale permitted me to use the tool in this study. See Appendix F for a copy of the email giving consent. The Parenting Scale, written below a sixth-grade reading level, usually takes approximately 10 minutes to complete, is inexpensive, and can produce information about parent discipline practice (Arnold, et al., 1993; Morawska, Winter & Saunder, 2009; Salari, Terreros, & Sarkadi, 2012).

Validity. Relates to whether an instrument measure what a researcher intends to measure (Fields, 2013). The researcher must consider the validity, as it generates confidence that the instrument used in the study is measuring what the researcher is attempting to measure (Fields, 2013). Three established types of validity include the following: a) content validity, how well the instrument used in the study correctly measures the entire construct (Heale & Twycross, 2015); b) concurrent validity, an assessment of whether data collected by an instrument can distinguish between groups (Torchim, 2006); and c) construct validity, which pertains to an accurate measurement of the construct (Field, 2013). Researchers examine data on content, construct, or predictive validity when validating an instrument for use in a study (Frankfort-Nachmias et al., 2008). Validity scores from a survey are also used to determine whether a tool is suitable for use in a study (Creswell, 2014).

While establishing the validity of the *Parenting Scale*, Arnold et al. (1993) used various methods. For instance, they compared the research results of the observed parental behavior of clinical and non-clinical children. The researchers also checked for construct validity. They compared their study results to similar studies that used

instruments with established validity, for instance, the Child Behavioral Checklist (CBCL) (Arnold et., 1993). Subsequently, they reported finding a correlation between the Parenting Scale scores, observed parental discipline mistakes, and child behavior (Arnold et al., 1993). The researchers stated that the validity data was most robust for the Overreactivity and Laxness subscale (Arnold et al., 1993). Correlation scores for the Laxness, Overreactivity, and Verbosity subscales were reported at 0.82, 0.85, and 0.88, respectively (Arnold et al., 1993). To further establish validity, the researchers incorporated the use of Spearman Rank-order Correlation, and they reported that the results were significantly similar to observed parenting behavior (Arnold et., 1993). Recorded correlation results were as follows: 0.82, 0.85, and 0.88 for the Laxness Overreactivity and verbosity, respectively (Arnold et al., 1993). The general rating for dysfunctional discipline rated at 0.88, while child misbehavior reported at 0.91 (Arnold et al., 1993). The researchers suggested that parenting measures measured by the Parenting Scale are meaningful as related to the level of child behavior (Arnold et., 1993).

Harvey et al. (2001) examined the validity of the Parenting Scale. They were the first researchers to utilize the Parenting Scale to analyze the parenting behavior of parents who had children attending elementary school, as Arnold et al. used preschoolers in their research (Harvey et al. (2001). The goal of their study was to evaluate the psychometric properties of the Parenting Scale among elementary children, including some affected by ADHD. They also aimed to find supporting evidence for a self-report tool that would enhance already existing study results on observational reports on parent/child behavior (Harvey et al., 2001). To validate the discriminative validity of the scale, the researchers

compared the parenting behavior of children with ADHD conduct disorder, or opposition defiant disorder (often occurring with children with ADHD) to parents with children without ADHD (Harvey et al., 2001). Using a Bonferroni correction, overreactivity in the total score for mothers and fathers, was significantly higher for those who had children affected by ADHD (Harvey et al., 2001). Differences in the overreactivity scores for fathers approached ($p = 0.008$). And, the average effect size for mothers and fathers was reported at 0.60 and .52, respectively (Harvey et al., 2001).

The researchers also evaluated the construct validity of the scale by examining the factor structure through a comparison of their study results to previous research findings that utilized the Parenting Scale in different populations (Harvey et al., 2001). In their research, the Parenting Scale was applied to a population of 109 families (106 mothers and 93 fathers) with children diagnosed with ADHD, and to 70 families with children not diagnosed with any problems (Harvey et al., 2001). The researchers combined the factor structure of the two groups for analysis, as there was little difference when calculated separately (Harvey et al., 2001). Results of the factor structure analysis revealed that overreactivity and laxness in both mothers and fathers had significantly higher scores among those with children diagnosed with ADHD compared to parents with children who were not diagnosed with ADHD (Harvey et al., 2001). For instance, using Cattell's similarity indices, scores were reported at 1.0 and 0.96 for laxness and overreactivity in fathers, respectively (Harvey et al., 2001). While 1.0 was reported for mothers' laxness and overreactivity (Harvey et al., 2001). In a comparison of the factor structure between the non-clinical and the entire sample revealed a score of 0.82 and 0.76 for fathers'

laxness and overreactivity, and a score of 0.73 and 0.62 for mothers' laxness and overreactivity, respectively (Harvey et al., 2001).

Reliability. Reliability refers to consistent results when the same unit is measured in different conditions (Fields, 2013). To estimate the internal consistency of the Parenting Scale, the authors used a complete sample of mothers (n = 168). These mothers included those who had children with reported behavioral issues and mothers of children without behavioral problems (Arnold et al., 1993). The Coefficient alpha for the factor and the total scores reported at the following: 0.83. 0.82, 0.63, and a total of 0.84 for Laxness, Overreactivity, and verbosity, respectively (Arnold et al., 1993).

Whittingham, Sarnoff, Sheffield, and Sanders (2009) utilized the Parenting Scale in their study of 59 families; each family had a child with a diagnosis of Autism Spectrum Disorders (ASD). Their purpose was to evaluate the efficacy of a parent intervention program (Stepping Stone Triple P) used for parents with children who had Autism Spectrum Disorder (Whittingham, et al., 2009). It was hypothesized that participation in the intervening program would have positive results on parent's report on child behavior, and a positive report of dysfunctional parenting (Whittingham, et al., 2009). The researchers thought the Parenting Scale to be an appropriate instrument for measuring parenting styles. They reported that the Parenting Scale had good test-retest reliability as test-retest reliability and internal consistency recorded a total score of (α=0.81). The Laxness scale recorded (α=0.78), Overreactivity at α=0.7, and verbosity recorded at α =0.65 (Whittingham et al., 2009). The authors concluded that the Parenting

Scale was an appropriate instrument for measuring parenting styles applied to children with an ASD developmental disability (Whittingham et al., 2009).

Reitman, et al. (2001) examined the psychometric characteristics of the Parenting Scale with a sample of African American mothers (n= 1,183) who had children enrolled in the Head Start program. One reason for the study was to determine if the reliability and factor structure of the Parenting Scale could be replicated in a sample with lower socioeconomic status (Reitman et al., 2001). The researchers, therefore, conducted a second exploratory factor analysis using a 2-factor structure (consistent with overreactivity and laxness of the Patenting Scale) with a smaller sample (n= 216). Cronbach's alpha for the original full scale, and the laxness and overreactivity subscales were reported as adequate, with the full-scale reporting at .71, laxness .77, and overreactivity .72. Reitman, et al. stated that the reporting for the revised scales were acceptable, in spite of their brevity. For instance, laxness reported at .70, overreactivity .74, and the full scale at .71. A strong correlation between the original and modified measures was reported as laxness .91, overreactivity .89, and full scale .87. A one-month test-retest correlation for a small sample of parents (n = 18) were acceptable for laxness .73, overreactivity .71, and full scale.75 (Reitman et al., 2001).

Demographic Report Form (DRF). This form was used to collect data on the dependent variable, which is a ratio variable. Answers to the question, that asks if the girl engaged in risky behavior was coded as a binary response where 1 = yes and 0 = no, and logistic regression was used for the analysis. For example, scores for the girls' engagement in risky behavior can range between 0 - 8 behaviors.

The DRF form was accessible through a link provided on Survey Monkey. When a participant selected the link, they were asked qualifying questions to determine eligibility to participate in the study, see Appendix B. An answer of yes to the qualifying items transitioned the participant to the informed consent page with the option to agree or disagree. However, the answer "no" existed them from the survey without participation. Participants who agreed to the informed consent, by clicking agreed were transitioned to participate in the survey. The content at the beginning of the survey included questions to provide demographic information needed on the study participants. This demographic information included questions about race, employment status, educational status, marital status, and income level, but did not include any identifiable information. The demographic information was followed by questions on the Parenting Scale that captured parenting behavior. Table 1 shows the information contained in the demographic report form and the coding schema that was used to code the demographic data in SPSS. Appendix C includes a copy of the demographic behavior section of the survey completed by the study participants. After participant completed the demographic information, the questions transitioned next to items from the Parenting Scale, a copy of which is included in Appendix F.

Operationalization of Variables

Table 1 presents the participant demographic data and codes used for each variable category.

Table 1

Participant Demographic Data and Coding

Variable Categories	*Coding*
Race	*0 = white, 1 = non-white*
White	
Black/African American	
Hispanic/Latino	
Multiple races	
Education	0= high school or less, 1= some college
Associate degree	
Bachelor's degree	
Doctorate degree	
High school graduate / GED	
Masters' degree	
Some college but no degree	
Some high school but no diploma	
Trade/ Technical	
Vocational training	
Employment	0= not employed, 1= employed
Home Maker	
Employed for wages	
Military	
Retired	
Self employed	
Relationship to child	0= biological, 1= other relationship
Biological mother	
Older Sibling	
Adoptive Mother	
Grandmother	
Informal relative caregiver	

Table 2 presents information captured after participants provided the demographic data. The data collected was on the dependent variable and pertained to the girls' behavior and frequency of the action. The table also reflect how different behaviors coded. The instructions on the survey directed the participant to first acknowledge if the girls engaged in the behavior and to rate the frequency of engagement in behavior demonstrated by each girl. A report of yes to the question that asked if the girls engaged in early sexual activity was coded as yes= 1, and no= 0. The frequency of occurrence to the other risky was recorded as 0 = never or once, and 1= engaged once per week or more. Table 2 demonstrates examples of questions included in the final set of items on the survey, which captured the parenting behavior.

Table 2

Girl Behavior and Frequency

Type of risky behavior	Engaged in behavior 0= no, 1= yes	Frequency of weekly behavior 0= never or once
Noncompliance to parent rule	0 1	0 1
Truancy	0 1	0 1
Disruptive classroom behavior	0 1	0 1
Destruction of property	0 1	0 1
Illicit drug use	0 1	0 1
Early sexual activity	0 1	0 1
Gang membership	0 1	0 1
Fighting	0 1	0 1

Parenting Discipline Practice

The independent variable, mother's parental discipline behavior was measured by using scores from the three subscales of the Parenting Scale. Items on the instrument allowed the mothers to indicate how they reacted to different behaviors exhibited by their daughters. I used the mother's response to capture the mother's disciplinary practices. The Parenting Scale measured the mothers' reaction on three separate subscales or

factors, that being laxness (inconsistent permissive parenting), overreactivity (harsh or punishing parenting), and verbosity (parent may insult, curse, or hit the child). An example of the instructions and questions asked on the Parenting Scale is as follows:

Participants responded to individual items on the Parenting Scale subscales, which is a 7-point Likert-type scale (Arnold et al., 1993). The subscale scores were calculated by adding the assigned items to each subscale and dividing by the total number of items on the respective scales. Table 3 shows which items are assigned to each subscale of the PS. Each subscale can receive a score of 1 to 7, where 1 = effective discipline practices and 7 = ineffective discipline practices. Some of the survey items must be reversed coded before the subscale scores are calculated (Arnold et al., 1993). Therefore, before I determined the subscale scores, the following items were coded in reverse, where the number 7 was on the left side (the others item numbers are placed on the right): 2, 3, 6, 9, 10, 13, 14, 17, 19, 20, 23, 26, 27, and 30 (Arnold et al., 1993).

Table 3

Measurement of Independent Variables Scale

Variables	Assigned items
Overreactivity (10 items)	3, 6, 9, 10, 14, 17, 18, 22, 25, 28
Laxness (11 items)	7, 8, 12, 15, 16, 19, 20, 21, 24, 26, 30
Verbosity (7 items)	2, 4, 7, 9, 11, 23, 29
Items not on a factor (4 items)	1, 5, 13, 27

The dependent variable is the number of different risky behaviors that a girl engaged in during the span of one year. Data for this variable was captured on the DBR form. I used

this questionnaire to track information on the eight different behaviors that the girl engaged in (for 1-yr) and the frequency as reported by their mothers.

Steps to Construct the Dependent Variable for Analysis

Step 1. I recode each of the eight girl behavior questions into three groups based on the mother's response as follows: (a) never participated in the behavior within the last year, (b) participated once in a behavior, e.g. fighting within the last year, (c) participated more than once in a behavior within the last year

Step 2. I summed each of the recoded girl behavior as described above. This created the new dependent variable that measured the minimum number of times in the past year that a girl engaged in risky behavior. This continuous dependent variable was used in the independent sample t-test as the dependent variable in research question two.

Step 3. I recoded the newly formed variable constructed in step 2 into a binary variable where (a) engagement in behavior was coded as 0 for any activity reported as less than or equal to one and (b) a score of 1 was recorded for reports on activities that were engaged in more than once.

This binary variable was used in the logistic regression analysis to answer research question one, along with the independent variables, laxness, overreactivity, and verbosity that were linear and identified on the Parenting Scale as subscales.

Data Analysis Plan

For this study, collected data was analyzed using the Statistical Package for the Social Science (SPSS). Logistic regression was used to test the hypothesis that examined for relationships between the mother's parenting behavior and the girls' engagement in

risky behaviors. Answers to the questions on the girls' involvement in risky behavior was coded in the binary form of yes = 1 and no = 0.

RQ1: To what degree does mother's parental discipline behavior, as measured by the three Parenting Scale subscale scores, predict the likelihood of repeated, high-risk behaviors of their early puberty daughters, as reported by the mother?

H_o1: Mothers' parental discipline behavior, as measured by the three Parenting Scale subscale scores, does not predict the likelihood of repeated, high-risk behaviors of early puberty girls, as reported by the mothers.

H_a1: Mother's parental discipline behavior, as measured by the three *Parenting Scale* subscale scores, do predict the likelihood of repeated, high-risk behaviors of early puberty girls as reported by the mother

RQ2: Based on the mothers' disciplining practices, what are the differences in the weekly frequency of high-risk behavior in which their early-puberty daughters engaged, as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores?

H_o2: There are no statistically significant differences in the weekly frequency of high-risk behavior in which their early puberty daughters engaged, as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores.

H_a2: There are statistically significant differences in the weekly frequency of high-risk behavior in which early puberty daughters engaged, as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores.

Crucial to the interpretation of logic regression is the odds ratio, described as an indicator of change in odds of something occurring from a unit change in the predictor (Fields, 2013). Odds look at the probability of an event occurring or not (Fields, 2013). I reported out on the results of the odds ratio and its intervals. I also report on beta values and their standard errors and significance value (Fields, 2013). I then reported on whether relationships among the variables were statistically significant or not (Fields, 2013). Odds ratio was used to examine for the predicted change, and odds ratio and categorical predictors were used to interpret the data. Interpretation of results were represented in a complete logic regression model.

Threats to Validity

Researchers must be concerned about threats to the internal and external validity of the study. Internal validity helps to determine if the study results are valid (Drost, 2011). Internal validity also helps to exclude interference, such as confounding factors (Drost, 2011). Instruments used in research will always pose some degree of risk to internal validity, as the scores from outcome measures are never entirely valid or reliable (Bollen, 1989; Onwuegbuzie, 2000). For the current study, to addressed internal validity, I needed to determine whether the effects of the girl's behavior were, in fact, a result of the dysfunctional parenting practice experienced by the early puberty girl.

The burden was on me to choose the correct instrument. Selecting the proper tool improves the chance of reporting accurate results on whether a relationship exists between the study variables (Bastos, 2014). The use of an incorrect instrument is a threat to validly, the reporting of accurate study results, and could leave the research question

unanswered (Bastos, 2014). The Parenting Scale was chosen as it has been tested and retested with proven results of internal consistency and reliability (Arnold et al., 1993; Harvey et al., 2001; Irvine et al., 1999). Other external factors can threaten internal validity in research, and researchers must consider these factors when working to determine validity (Trochim, 2006).

Regarding external validity, researchers must determine how the study results can be generalized across different populations (Drost, 2011). In the current study, I allowed for mothers who fit the survey criteria to participate in the study; for instance, mothers of girls who experienced puberty. The current study criterion allowed for the sample to be more representative, and increased my confidence about generalizing across a population of mothers who have daughters who experienced puberty. The criteria for the research population was mothers who reside in and out of the state of Georgia, who had daughters who experienced puberty.

Due to the nonexperimental, retrospective, cross-sectional approach for this study, maturation, history, and interference was not a factor. With no interventions in the study, the opportunity for interactions was not present, and therefore the threat to validity minimized (Onwuegbuzie, 2000). Reactivity was not a threat to validity, in the current study, as the research covered one group of participants (see Onwuegbuzie, 2000). The absence of an intervention also reduced the opportunity for participants to act differently (Onwuegbuzie, 2000). For instance, knowing they were being observed or what group they identified in (Onwuegbuzie, 2000).

In experimental and non-experimental research, there is always the risk of attrition, where individual who agreed to participate in the study withdraw partially or fully depending on the timeframe criteria of the study (Onwuegbuzie, 2000). One risk of attrition is the reduction in population representation, which ultimately affect study results and the ability to accurately generalize over an intended population (Preston et al., 2013). For the current study, participants completed the survey once, where they answered questions retrospectively. To account for any attrition activity, I attempted to survey a larger sample than the calculated sample of 56 participants

Statistical conclusion validity (SCV) refers to whether the data collected represents a real association or disassociation between the independent and the dependent variable (Garcia-Perez, 2012). For instance, it addresses the question of whether researchers can make a reasonable conclusion based on the research data collected. SCV also pertains to whether there is enough statistical power used in the study. A threat to SCV relates to whether a researcher attempts to include an effect size that does not exist (Garcia-Perez, 2012). SCV also addresses the confidence a researcher has in the magnitude of estimating the effect size (Garcia-Perez, 2012). Additional threats to SCV include when the statistical analysis does not match the data collection method, and therefore cannot correctly produce answers to the research question (Garcia-Perez, 2012). Another threat exists when the true test is used but used under conditions that present the risk to change the stated probabilities in the study (Garcia-Perez, 2012). Garcia-Perez also stated that repeated statistical testing to find some level of significance is also a threat to SCV. For the current study, it was essential to make every effort to ensure that I

had the appropriate sample size and proper research design to avoid making a type II error (see Garcia-Perez, 2012).

Ethical Procedures

A significant part of conducting this research is ensuring that ethics are considered, guidelines followed, and all necessary approvals gained. The IRB Standard Application for Research Ethics Review Form was submitted to the Walden University IRB committee for approval to conduct the study. The IRB reviewed the proposal to ensure that the risk to study participants was minimized, reasonable, and equitable (Walden University, 2015). The IRB committee also examined the proposal for evidence of informed consent, see Appendix A of this proposal. The IRB requires this form of consent to ensure minimal risk of coercion to the study participant (Walden University, author).

The proposal to the Walden University IRB board included information on the name, location, and contact person at data collection sites, data collection questionnaires (demographic questionnaire and a sample of the Parenting Scale questionnaire), and permission to use the Parenting Scale questionnaire. I also sought approval from the IRB to use the Walden University Participant Pool as a source to encourage participation in my survey. This study did not include any protected population intentionally, although individuals in the protected groups could have chosen to participate.

Potential participants were provided an informed consent form to guard against participant risk, see Appendix A. The consent form indicated that the survey was voluntary, that participants had the right to withdraw from the survey at any point, and

that completing the survey constituted informed consent. Personal data, such a name, address, and phone number, were not required on any of the surveys. Once the survey was completed and submitted, I could not identify the participants. The results of the survey is password protected and stored on my personal computer hard drive. After the dissertation has been approved, and the degree is awarded by Walden University, I will keep the data in the secured format for the next five years as required by Walden University. After the 5-year period has ended, all data from the questionnaire will be destroyed by permanent deletion. Individuals wanting to contact me were able to do so by utilizing the email address made available in the informed consent summary sheet included on the first page of the survey consent form.

Summary

This chapter provided an overview of the quantitative study conducted, including sampling methods, the data collection tools, and the process for data analysis. Also, included in the chapter was information on the organizations involved in the sample recruitment process, along with the IRB request and approval to conduct the study. I also discussed the independent and dependent variables in the study and provided reasoning for their inclusion. Instrumentation and operationalization of constructs in the study were discussed, with an in-depth review of Arnold et al. (1993) Parenting Scale used to measure how parents' parent in response to their child's behavior. For the current study, parenting behavior was included as a part of dysfunctional parenting practices. While working with the study population, threats to validity and ethical concerns was reviewed,

I also explained the importance of addressing the concerns and the necessity of the Walden University IRB approval to conduct the study.

The last two chapters in this proposal include data collection, results of the analysis, and the study's relevance to today's literature regarding the issue of early puberty in girls. Based on the research finding, I made suggestions for future research and programs to improve the outcome for girls who develop early and experience challenges. A more detailed analysis and presentation of data are presented in chapter four.

Chapter 4: Results

Introduction

Studying the relationships between parenting behavior and the outcome of behaviors in children is complicated because of the scope of parenting behaviors and different child behavioral outcomes (Tashjian, 2018). In this study, I examined whether parental discipline behavior by mothers of early puberty girls, as measured by the three subscales of the Parenting Scale, predicted the likelihood of engagement in high-risk behaviors such as early sexual activity, disruptive behaviors, and delinquent behaviors in those girls. The following research questions and hypotheses were used to guide the study:

RQ1: To what degree does mothers' parental discipline behavior, as measured by the three Parenting Scale subscale scores, predict the likelihood of repeated, high-risk behaviors of their early puberty daughters, as reported by the mothers?

H_o1: Mothers' parental discipline behavior, as measured by the three Parenting Scale subscale scores, does not predict the likelihood of repeated, high-risk behaviors of early puberty girls, as reported by the mothers.

H_a1: Mother's parental discipline behavior, as measured by the three *Parenting Scale* subscale scores*,* do predict the likelihood of repeated, high-risk behaviors of early puberty girls as reported by the mother

RQ2: Based on the mothers' disciplining practices, what are the differences in the weekly frequency of high-risk behavior in which their early-puberty daughters engaged,

as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores?

H_o2: There are no statistically significant differences in the weekly frequency of high-risk behavior in which their early puberty daughters engaged, as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores.

H_a2: There are statistically significant differences in the weekly frequency of high-risk behavior in which early puberty daughters engaged, as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores.

This chapter includes a discussion of the data collection time frame and discrepancies. The process of recruiting study participants and their demographic characteristics are described. The chapter concludes with the data analysis and a summary of the results.

Data Collection

In this section, I discussed the data collection procedures and survey response rates. The section also includes a discussion of data cleaning procedures and the statistical results. Tables that include the calculated frequencies of the demographic data are also presented in this section.

Data were collected between July 26, 2018, and November 1, 2018. The Survey Monkey electronic tool was used to collect data from participants. During the beginning of the data collection period, recruitment was slow, which threatened the possibility of obtaining the calculated sample size. Some participants suggested sharing the survey link with church members and friends so they could participate in the survey. However,

snowball sampling was not originally approved by the IRB. Therefore, on September 17, 2018, I sent a request to the Walden University IRB to include the snowball sampling method, which would allow participants to share information about the study with other potential participants. The IRB approved this request on October 2, 2018 (approval # 7-24-18-0283816). After keeping the survey active for an additional month from the IRB approval date to use the snowball sampling method, there was little improvement in the number of survey responses.

The minimum sample size to ensure appropriate statistical power was 56, but only 52 potential participants accessed the survey. Of the 52 potential respondents who accessed the survey, only 35 (67%) met the inclusion criteria and completed the survey. With further examination of the data and the use of a listwise deletion, seven surveys were removed due to missing information regarding the girl's engagement in risky behavior and the mother's report on the three subscales of behavior (see Cham et al., 2017). This resulted in a final sample size of $N = 28$ that was used in data analyses.

The decision was made to calculate the statistical power of the study with the current number of participants to determine whether there would be adequate statistical power to detect true differences in the data if they existed. To calculate the statistical power, I used the mean and variance observed in the sample. The mean number of risky behaviors among girls whose parents displayed a lax parenting style was 3.98; for girls whose mothers did not display lax parenting style, the mean number of risky behaviors was 4.78. The standard deviation for the overall sample was 2.37. Using this information, along with an alpha of 0.05, I concluded that the calculated power was .24. Dorey (2011)

stated that a low power could translate to insufficient evidence to reject the null hypothesis even when it is false. Additionally, a study with low power increases the chance of making a type II error because a higher power reduces the chance of rejecting a true null hypothesis (Dorey, 2011). The method of bootstrapping was implemented to address concerns of low power resulting from the smaller sample size. Bootstrapping can be used to generate confidence intervals, create a sampling distribution, compute *p* values, and test hypotheses (Erceg-hurn & Mirovich, 2008). The application of the bootstrapping method did not produce statistically significant results; however, the adjusted *p* value is reflected in Table 8.

Results

The IBM Statistical Package for Social Sciences (SPSS) Version 24.0. was used to calculate the results. The data were downloaded and cleaned, and a check was executed for missing data. The demographic data and independent variables were recoded as new variables. Reverse coding was completed on the Parenting Scale data following instructions of the publishers (Arnold et al., 1993). A total of 28 cases of data were in the final data set.

Demographic Characteristics

Data analysis indicated that 61% of the mothers identified as Black or African American, and 92% of participants indicated that they were the biological mother; 68% also reported being married or with a domestic partner. Additionally, 14% of mothers reported education levels of at least some level of college. The reported family income ranged primarily between $20,000 and $80,000+, with only 7.1% reporting income below

$20,000. Over 78% of mothers reported being employed. Table 4 presents the demographic data.

Table 4

*Participant Demographics (*N*=28)*

Variable	Category	*n*	Percentage
Race	Black/African American	17	60.7
	White	9	32.1
	Multiple races	2	7.1
Relationship to child	Biological mother	26	92.9
	Older sibling	1	3.6
	Adoptive mother	1	3.6
Marital status	Single never married	2	7.1
	Divorced	3	10.7
	Separated	3	10.7
	Married/domestic Partner	19	67.9
	Widowed	1	3.6
Education level	Some high school no diploma	2	7.1
	High school graduate/GED	2	7.1
	Some college credits, no degree	4	14.3
	Associate's degree	2	7.1
	Bachelor's degree	8	28.6
	Master's degree	9	32.1
	Doctorate degree	1	3.6
Income (n=27)	Less than $20,000	2	7.1
	$20,000 - $34,999	2	7.1
	$35,000 - $49,999	4	14.3
	50,000 - $4,999	6	21.4
	$65,000 - $79,999	4	14.3
	$80,000 – and over	9	32.1
Employment status	Homemaker	0	0
	Employed for wages	25	78.6
	Retired	1	3.6
	Self-employed	7	17.9

Constructing the Dependent Variable

To construct the dependent variable, I summed the mother's report from the questions that addressed engagement in risky behaviors. The eight questions pertained to whether the daughters had participated in behaviors such as noncompliance to parent rule, truancy, risky sexual behavior, deliberate destruction of property, gang activities, fighting, illicit drug use, and carrying a weapon. I defined repeated engagement in risky behavior as whether a girl participated in any given risky behavior more than once or whether she participated in more than one risky behavior. Table 5 presents the percentage of mothers who reported that their daughters engaged in repeated high-risk behavior. Overall, 18% of mothers reported that their girls were repeatedly involved in fighting while experiencing early puberty. Also, 14% of mothers reported their daughter's repeated engagement in the destruction of property. Only 4% of mothers reported their daughters repeatedly participated in gang activities, and no mothers reported that their daughters engaged in illicit drug use. Regarding truancy, 29% of the mothers reported that their girls were repeatedly involved, and 23% of mothers indicated repeated exhibition of disruptive classroom behaviors. Almost 79% of mothers reported their daughters repeatedly defied or disregarded parental rules. Approximately 11% of mothers indicated their daughter regularly engaged in early sexual activity.

Table 5

Mother's Reported Frequency of Daughter's Engagement in High-Risk Behavior (N=28)

Variable	Category	*n*	Percentage
Fighting	Did not engage in repeated behavior	23	82.1
	Engaged in repeated behavior	5	17.9
Gang activities	Did not engage in repeated behavior	27	96.4
	Engaged in repeated behavior	1	3.6
Destruction of property	Did not engage in repeated behavior	24	85.7
	Engaged in repeated behavior	4	14.3
Illicit drug use	Did not engage in repeated behavior	28	100
	Engaged in repeated behavior	0	0
Truancy	Did not engage in repeated behavior	20	71.4
	Engaged in repeated behavior	8	7.1
Disruptive behavior	Did not engage in repeated behavior	19	67.3
	Engaged in repeated behavior	9	32.1
Noncompliance	Did not engage in repeated behavior	6	21.4
	Engaged in repeated behavior	22	78.6
Early sexual behavior	Did not engage in repeated behavior	25	89.3
	Engaged in repeated behavior	3	10.7

Testing Assumptions for Logistic Regression

The assumptions of logistic regression include that the dependent variable is dichotomous, there are more than one independent variable being measured on a continuous level, independent observations between predictor variables exist; and that there is an absence of multicollinearity (Bewick, Cheek, & Ball, 2005; Leard.com). For this study, mothers reported whether the girls participated in various risky behavior. The risky behavior was coded as 0 if a girl engaged once or did not engage in risky behavior. The risky behavior was coded as 1 if a girl engaged in risky behavior more than once.

The three independent variables in the study were measured on a continuous level. There was an indication of linearity of the independent variables and log odds, evident in the scatterplot graph presented in Appendix I. The scatterplot shows that points on the graph appear to identify around a straight line. A Pearson correlation analysis was conducted to test the correlations between the independent variables (subscales on Parenting Scale) and the continuous dependent variable of repeated engagement in behavior. See Table 6 for a summary of the results. The aim of the correlation analysis was to address the assumption of multicollinearity by determining that the independent variables were not highly correlated (Hensch, 1996). Both verbosity and overreactivity were correlated at a statistically significant level (p=.05). The correlation was .449, which is not considered evidence of multicollinearity. A score of 0.00 to 0.19 is considered as a very weak correlation, 0.20 to .039 as weak, 0.40 to 0.59 as moderate, 0.60 to 0.79 as strong, and 0.80 to 1.0 as very strong (Hensch, 1996). Results from the correlation analysis revealed that multicollinearity was not present among the variables as no high correlation was evident. Based on the results from the correlation analysis all three predictor variables were retained for further statistical analysis.

Table 6

Results of Pearson Correlation Analysis

Variables	Laxness	Verbosity	Overreactivity
Laxness (IV)	1		
Verbosity (IV)	.1.92	1	
Overreactivity (IV)	.103	.449**	1
Repeated engagement in Risky behavior	.219	.052	-.038

Research Question 1 Analyses

RQ1: To what degree does mothers' parental discipline behavior, as measured by the three Parenting Scale subscale scores, predict the likelihood of repeated, high-risk behaviors of their early puberty daughters, as reported by the mothers?

H_o1: Mothers' parental discipline behavior, as measured by the three Parenting Scale subscale scores, does not predict the likelihood of repeated, high-risk behaviors of early puberty girls, as reported by the mothers.

H_a1: Mother's parental discipline behavior, as measured by the three *Parenting Scale* subscale scores, do predict the likelihood of repeated, high-risk behaviors of early puberty girls as reported by the mother

Results from the logistics regression are discussed below. The logistics regression was estimated using the "enter" method in SPSS. This method estimates two models; the first includes only a constant and the second model includes all three independent variables along with a constant term. I chose the 'enter" method as the best fit for this analysis based on the existing evidence that parenting styles are important factors as it

regards child behaviors (Hosokawa & Katsura, 2018; Howenstein, Casamassimo, McTigue, & Yin, 2015). Table 7 presents a summary of the binary logistic analysis. Overall, results of the regression analysis did not present any evidence of statistically significant results for the overall regression model.

Table 7

*Results of Binary Logistic Regression (*N = *28)*

Variables	*B*	*SE*	*Sig*	*Wald*	*df*	*Exp (B)*
Laxness	.117	.111	.290	1.118	1	1.124
Overreactivity	-.046	.087	.601	2.74	1	.955
Verbosity	-.103	.110	.350	.873	1	.902
Constant	2.258					
Nagelkerke (Pseudo R squared)	.158					

As shown in Table 8, the p-values for the laxness, verbosity and overactivity odds ratio are .29, .35 and .60, respectively. None of these variables were related to engagement in risky repeated behaviors at statistically significant levels. Using the bootstrapping method to address concerns about the relatively small sample size did not meaningfully affect the p-values. The null hypothesis is retained.

Table 8

*Results of Logistic Regression With Bootstrapping (*N = *28)*

Variable	Adjusted odds ratio	Standard error	*p* value	Adjusted *p* value
Laxness	1.124	.111	.290	.254
Verbosity	.902	.110	.350	.402
Overreactivity	.955	.087	.601	.552

Research Question 2 Analyses

RQ2: Based on the mothers' disciplining practices, what are the differences in the weekly frequency of high-risk behavior in which their early-puberty daughters engaged, as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores?

H_o2: There are no statistically significant differences in the weekly frequency of high-risk behavior in which their early puberty daughters engaged, as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores.

H_a2: There are statistically significant differences in the weekly frequency of high-risk behavior in which early puberty daughters engaged, as evidenced by the laxness, overreactivity, and verbosity Parenting Scale subscale scores.

To address the research question, I used the independent sample t-test. To implement the t-test analysis, my dependent variable needed to be continuous, and my independent variable needed to be categorical. For the dependent variable, I used the mothers' reported weekly frequency of occurrence of their daughter's high-risk behavior.

To obtain a categorical dependent or grouping variable, I redefined each of the parenting subscale scores into binary variables. I used the cut-off scores reported by the authors to determine whether a mother exhibited each of the three parenting styles. For example, the mean scores on the Laxness Subscale were used to determine whether a mother displayed a lax parenting style or not. Authors of the Parenting Scale reported a value of 3.6 as the cutoff point for determining whether a parent demonstrated the lax parenting style. For the data analysis, mothers who received a scored 3.6 or greater on the Laxness Subscale were regarded as having a lax parenting style, and they were given a 1 for the grouping variable. Mothers who scored below 3.6 were regarded as not having a lax parenting style, and these mothers were coded a 0 on the grouping variable. The recoded data for the independent (grouping) was used to answer the question "What are the differences in the reported mean weekly frequency of occurrence of risky behavior of early puberty girls for mothers who displayed lax parenting styles and those mothers who did not?"

For the overreactivity style of parenting, I used scores on the Overreactivity Subscale to determine whether a mother displayed the overreactive parenting style or not. Mothers with a subscale score of 4.0 or greater were regarded as having an overreactive parenting style, and they were coded as a 1 for the binary grouping variable. Mothers with scores below 4.0 were regarded as not having an overreactive parenting style. These mothers were coded as 0 in the binary coding for the overreactivity parenting style. Results for the binary coding on the Overreactivity Subscale were used to answer the question, "What are the differences in the reported mean weekly frequency of risky

behavior of early puberty girls for mothers who displayed an overreactive parenting style and those mothers who do not?"

For the verbose style of parenting, I used scores from the Verbosity Subscale to determine whether a mother displayed verbose parenting style or not. Mothers with subscale scores of 2.4 or greater were regarded as having a verbose parenting style, and those with a score below 2.4 were regarded as not having a verbose parenting style. Results from the recoding for the parenting verbosity styles of parenting resulted in no mothers reporting a verbose style of parenting style. Therefore, the verbose style of parenting could not be applied to answer the research question which stated, "What is the difference in the mean weekly reported frequency of risky behavior of early puberty girls for mothers who displayed a verbose parenting styles and those mothers who do not?" A summary of results for the independent samples t-test for the recoded variables are presented in Table 9 and 10.

Table 9 shows the means for the mother's reported weekly occurrence of their daughter's engagement in risky behavior for the Laxness Subscale. Results showed a higher mean frequency of risky behavior for mothers who were not lax in their parenting style. However, results from the independent samples t-test showed the differences were not statistically significant. Therefore, the null hypothesis was accepted.

Table 9

Mean Weekly Report of Risky Behavior Engaged in by Early Puberty Girls - Laxness Subscale

Independent variable	Group	Mean frequency	*p* value
Laxness	Lax (n=19) Not lax (n=9)	3.984 4.777	.327

Table 10 shows the means for the mother's reported weekly occurrence of their daughter's engagement in risky behavior for the Overreactivity Subscale. Results showed a higher mean frequency of risky behavior for mothers who were not overreactive in their parenting style. However, results from the independent samples t-test showed the differences were not statistically significant. Therefore, the null hypothesis was accepted.

Table 10

Mean Weekly Report of Risky Behavior Engaged in by Early Puberty Girls – Overreactivity Subscale

Independent variable	Group	Mean frequency	*p* value
Overreactivity	Overreactive (n=14)	3.92	.587
	Not overreactive (n=14)	4.42	
Verbosity	Verbose (n=0)		

Not verbose (n=28)	4.18

Summary

In summary, the original calculated sample size for the study (56) was reduced to (28) due to low survey response, eligibility to be included in the analyses, and as a result of the data cleaning. The Pearson Correlation analyses did not identify a high correlation among the independent and dependent variables, as no analysis among the variables reported >.8 (Hensch,1996). T-test analysis demonstrated that there were no statistically significant relationships between the parenting discipline behaviors of laxness and overreactivity among mothers who identified as utilizing a lax or overreactive style of parenting behavior when parenting girls who experienced early puberty. All mothers reported as not participating in the verbose style of parenting behavior. Using logistic regression analysis to analyze the research question one, I did not identify statistically significant relationships among the variables ($p>.05$) in all analyses. Applying the bootstrap method among the variables indicated a marginal increase in the odds, but no statistically significant relationship between the predictor and dependent variable, ($p > .05$) for all analyses. The results, therefore, support the null hypotheses for both research question that there would be no statistically significant relationship between a mother's parenting discipline behavior and engagement in high-risk behavior by girls who experience early puberty. In the next chapter, I present interpretation of the findings, discuss the limitations, make recommendations for future studies, and discuss the implications, including those for social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of my study was to determine whether mothers' parental discipline behavior of early puberty girls predicted the likelihood of engagement in high-risk behaviors by those girls. Researchers indicated that early puberty in girls and harsh parental behavior can have adverse outcomes such as negative social and economic implications for the girls, their children, and society as a whole (Cham et al., 2013; Gomez-Ortiz et al., 2016; Maron, 2015; Mrug et al., 2014; Rhee et al., 2015; Skinner et al., 2015). Some girls who go through puberty early may engage in risky behaviors such as early sexual activity, delinquent behavior, or disruptive behavior (Maron, 2015; Mrug et al., 2014). Some children who experience harsh parenting may exhibit antisocial behaviors like conduct problems, aggression, and criminality (Cham et al., 2013; Gomez-Ortiz et al., 2016; Krueger et al., 2002; Rhee et al., 2015; Skinner et al., 2015).

The three types of parenting discipline behavior measured in the current study were laxness, overreactivity, and verbosity. The eight measures of high-risk behavior included noncompliance to parent rule, truancy, risky sexual behavior, deliberate destruction of property, gang activities, fighting, illicit drug use, and carrying a weapon. Findings did not confirm that parenting discipline behavior, as measured using the subscales of the Parenting Scale, predicted girls' engagement in high-risk behaviors.

In this chapter, I discuss my interpretation of the finding as they relate to earlier studies examined in the literature review. The interpretation of findings is followed by a discussion of the limitations and recommendations. Next, I discuss the implications for

social change as they relate to the first research question: RQ1: To what degree does mothers' parental discipline behavior, as measured by the three Parenting Scale subscale scores, predict the likelihood of repeated, high-risk behaviors of their early puberty daughters, as reported by the mothers? The chapter ends with my conclusions of the study.

Interpretation of the Findings

My purpose was to determine whether mothers' parental discipline behavior of early puberty girls predicted the likelihood of engagement in high-risk behaviors by those girls. Researchers reported that girls who experience early puberty and harsh parental behavior can have adverse outcomes (Mrug, et al., 2014 & Rodriquez, 2010). Although some mothers in my study reported that their daughters who experienced early puberty and harsh parenting did engage in high-risk behavior, the overall findings did not confirm those of previous researchers (see Cozzi & Vinel, 2015; Downing & Bellis, 2009). Of the eight high-risk behaviors examined in the current study, less than 50% of mothers reported that their daughters engaged in any of those high-risk behaviors.

Early Puberty and Engagement in High-Risk Behavior

Researchers linked the onset of early puberty in some girls to early sexual activity (Cozzi & Vinel, 2015; De Ganna et al., 2011; Negriff & Trickett, 2015). Downing and Bellis (2009) used logistic regression to determine the predictive relationship between early puberty and risky behaviors in girls, which included engagement in unprotected sex. Downing and Bellis reported that for both genders, early puberty predicted risky sexual behavior as well as the use of alcohol and smoking. Findings from my study were not

consistent with the results of Downing and Bellis. Slightly over 10% of mothers in my study reported engagement in early sexual activity by their daughters; however, the finding was not statistically significant. Savolainen et al. (2015) investigated the association between early puberty in adolescent girls and first engagement in sexual intercourse. Savolainen et al. did not find a statistically significant relationship between the onset of early menarche and the girls' involvement in early sexual activity. Findings from my study were consistent with the findings of Savolainen et al. 2015.

Early Puberty, Delinquent Behavior, and Mothers' Discipline Practices

Early puberty in girls has been associated with engagement in high-risk delinquent behavior and disruptive behavior (Javdani et al., 2014; Mrug et al., 2014). The findings from my study were consistent with results from these studies. Some mothers in my study reported that their early puberty daughters engaged in delinquent behavior such as disruptive behavior, fighting, and destruction of property.

Theoretical Orientation, Parenting Discipline, and Outcomes for Early Puberty Girls

Arnold and O'Leary et al. (1993) stated that Baumrind's authoritarian style of parenting (strict and assertive) is consistent with the overreactive (harsh and punitive) style of parenting. Hosokawa et al. (2018) agreed that this style of parenting is harmful to children. Children governed by authoritarian parenting behaviors are at risk for internalizing and externalizing behaviors, including conduct problems and disruptive behaviors that usually follow them through life (Hosokawa et al., 2018). The results of my study confirmed that overreactive parenting practices were related to engagement in

high-risk behaviors by some girls who experience early puberty. The results of my study were consistent with the results of researchers who found a relationship between overreactive parenting of early puberty girls and engagement in high-risk behaviors (Rodriquez, 2010). My research showed that half of the mothers who scored high on the overreactive parenting style reported that their daughters engaged in noncompliance to parent rule, disruptive behavior, and truancy.

Hoeve et al. (2011) and Powers (2013) identified relationships between neglectful parenting and delinquency. Results from my study showed that 28% of mothers scored high for the laxness style of parenting. Of those mothers, 14% reported truancy by their daughter, 14% reported the destruction of property, and 11% reported engagement in early sexual activity. My study results were consistent with those reported by Hoeve et al. and Powers.

Authoritarian and permissive parenting have been associated with unfavorable results for adolescents (Trinkner et al., 2012). Findings from my study, were consistent with those from Ehrenreich et al. (2014), Rikuya et al. (2019), and Trinkner et al. (2012) who concluded that girls raised with the laxness and overreactive style of parenting engaged in high-risk behaviors that can result in negative consequences. In my study, mothers reported that their daughters were involved in seven of the eight high-risk behaviors except for illicit drug use. Previous researchers linked participation in high-risk behaviors to adverse outcome such as the spread of STDs, delinquency, and incarceration (CDC, 2017; Jackson, 2012).

Findings from my study were consistent with findings from other researchers who linked harsh parenting practices with aggression in children (De la Torre-Cruz et al., 2014). Rodriquez, 2010. investigated the relationships between perceived parenting styles and the different types of aggression (physical, verbal, and aggressive behavior) that adolescents display among their peers. Rodriquez concluded that the authoritarian style of parenting was associated with aggressive behavior in adolescents. Results from my study showed that 18% of mothers reported their daughters engaged in fighting and 14% of girls engaged in the destruction of property. Findings from my study were consistent with those reported by previous researchers regarding overreactive parenting and aggressive behaviors. Overreactive parenting behaviors are consistent with the authoritarian style of parenting (O'Leary et al., 1993).

Ehrenreich et al. (2014) examined physical and social aggression in children for over 10 years. Using descriptive and correlation methods for analysis, Ehrenreich et al. reported that permissive parenting was the only variable that predicted aggression in their final model. Ehrenreich et al. also reported that exposure to permissive parenting predicted higher social aggression trajectories over many years. In my study, over 50% of mothers scored high on lax parenting. These mothers also reported girls' involvement in high-risk behaviors. The results of my study were consistent with Ehrenreich et al.'s findings that permissive parenting is associated with high-risk behaviors in children.

Limitations of the Study

There were limitations regarding the findings of my study. First, findings were based on the mothers' report of their parenting discipline behavior toward their daughters

who experienced early puberty. The mothers also reported on their daughters' participation in high-risk behaviors. Researchers showed that there is a direct relationship between adolescents' risky behavior and parental dysfunctional behavior Massetti et al., 2011; Mrug et al., 2014). For instance, permissive parenting was associated with conduct disorder and delinquency in children (Baumrind, 1978; Massetti et al., 2011; Mrug et al., 2014). Including the girl's report in my study would have provided an opportunity to examine both perspectives. Investigating both mothers' and daughters' reports would have allowed me to examine possible differences in their perceptions.

Second, the sample size represented a limitation. The calculated sample size based on the power analysis was 56, but the response rate was low ($N = 28$). A recalculation of the power with the new sample size yielded a power of .24, which is considered low (see Dorey, 2011). If the sample size had been larger, I might have been able to identify statistically significant relationships between the study variables. The small sample size may have compromised the validity of my findings (see Faber, 2014).

Another limitation existed with how questions were asked, and the answer choices provided to participants. According to Fowler, (1992), unclear terms in surveys could produce biased estimates. In my study, some of the answer options on the demographic questionnaire where mothers reported on their daughter's behavior may not have been clear or well defined. Therefore, this lack of definition or action to clarify an unclear term could have affected how the question was answered (see Fowler,1992). An example of this existed in question ten of the demographic questionnaire. Mothers were asked about the girls' participation in gang activity, and one answer choice was "more than once but

not regular." The word "regular" could have been clarified or further described to promote clarity or consistency in understanding the term. With this lack of clarity, the risk existed that mothers may have applied different meanings (Fowler,1992).

Recommendations

The purpose of my research was to examine whether mothers' use of parental discipline behavior of early puberty girls predicted the likelihood of engagement in high-risk behaviors by those girls as reported by the mothers. Although mothers' reported girl's engagement in high- risk activities, there was no statistically significant relationships between the variables. Because previous researchers reported statistically significant relationships between early puberty girls, parental behavior, and involvement in high-risk behavior (Mendle, Ryan, & McKone, 2018; Suzuki et al., 2016), my study should be replicated with a larger sample size to examine for similar or different results that would either confirm or fail to validate my findings.

The demographic questionnaire used to collect data on the participants' reports of their girl's behavior could be improved to generate more precise answers from respondents (Fowler, 1992). An improvement of the demographic questionnaire would include direct answer choices and removal of choices that where ambiguously answered. For instance, answer choices that include once, twice, or three times per week could replace choices like more than once but not regular. Presenting the choices in this manner to the mothers would provide clarity in terms of what is being asked of the respondents. Having more accurate data to analyze may produce more meaningful results (Fowler, 1992).

The study design could be adjusted as a mixed-method, where method triangulation could be introduced to incorporate other participants and a variety of opportunities in which to gather information (Mertens &Hesse-Biber, 2012). For instance, researchers could expand the study to include the girls, fathers, and other caretakers who may also be directly involved in the disciplining of adolescent girls. This action would provide the opportunity to survey a broader range of participants. Additional findings could add to prior knowledge as confirmation or present questions about the impact of parenting/caretaker discipline behavior on early puberty girls. Including the girl's' report may improve accuracy by recording their perspective on the high-risk behaviors engaged in, including type, frequency, justification (Mertens et al., 2012). Including the girl's report creates the opportunity to capture the girl's perception of their parent's parenting style (Mertens et al., 2012).

Implications

The findings from my study have several implications for social change. Adding results from this study to existing research creates an opportunity for human service and public health officials to develop or update the literature on early puberty, parenting discipline behavior, and the involvement in risky behaviors by early puberty girls. Conversations may occur on the individual level concerning early puberty, parenting, and the associated risks of adverse outcome for the girls who may engage in risky behaviors. Community events may be organized by grass-roots organizations to help bring awareness about early puberty and its associated risk for some girls. Social media, or blogging chat groups could be organized, where dialogue using my research results along

with findings from the result of past studies could be used to share knowledge and increase awareness amongst adolescent girls (Wong, Merchant, & Merano, 2014). Increased awareness amongst the population most at risk of experiencing early puberty (adolescent girls) may help them recognize both early puberty and subsequent parenting behavior, possibly triggered by their onset of puberty. Findings of this study may also be used to educate school counselors. When counselors are trained on the challenges of early puberty in girls, it will assist them in directing girls to proper care. For instance, for medical examination or diagnosis or counseling to understand their condition and how avoid adverse outcomes. Health care providers could use the incorporated study results to guide discussions with parents/caregivers who bring their daughters to physicians like endocrinologists for diagnoses due to rapid physical changes like breast development or for treatment for girls already diagnosed. Addressing the issue of risky behavior in early puberty girls from various platforms provides an opportunity for change (Wong et al., 2014). Increased awareness and knowledge on the issue of early puberty and girls create the possibility for action, to evoke change. More positive behavior from both the girls and their mothers will reduce high-risk opportunities and ultimately impact social change. Continued education among parents and girls may guide them in a positive direction such as increased parenting awareness, nurturance, and sensitivity, and reduction in risky activity by girls (Mrug, Elliot, & Gillian, 2008). This progress could have a positive impact on social change. For instance, a decrease in risky sexual behavior could translate to a reduction in the spread STDs.

Conclusion

My goal for this study was to examine for predictive relationships between the parenting discipline behavior in mothers and engagement in high-risk behavior by their early puberty daughters. I confirmed that some early puberty girls did engage in delinquent behaviors like non-compliance to parent rule, truancy, risky sexual behavior, deliberate destruction of property, gang activities, and fighting. Although statistically significant relationships between variables were not determined, possibly due to smaller sample size, the consistency between the mother's report and prior research on parenting behavior and risky behavior in girls suggests that repeating this study could produce additional meaningful results. With the continued decline in the age of puberty (Maron, 2015; Zuckerman, 2010), and the associated risk harmful to the girl, there children and society as a whole, it imperative to continue research in this area (CDC, 2013 & Mrug et al. 2014). Future researchers could also identify emerging behaviors and allow for the sharing of knowledge, interventions, and the ultimate success in reducing adverse outcomes associated with early pubertal development in girls.

References

Ajzen, I. (1991). Organizational behavior and human decision processes. *Elsevier, 50*(2), 179-211. doi:10.1016/0749-5978(91)90020-T

Akhtar, Z. (2012). The effect of parenting style of parents on the attachment styles of undergraduate students. *Language in India, 12*(1), 555-565. Retrieved from http://www.languageinindia.com/jan2012/zarinaparenting.pdf

Alegre, A., & Benson, M. J. (2010). Parental behaviors and adolescent adjustment: Mediation via adolescent trait emotional intelligence. *Individual Differences Research, 8*(2), 83-96. Retrieved from www.idr-journal.com

Annie E. Casey Foundation. (2016). Child population by household type. Retrieved from http://datacenter.kidscount.org/data/tables/105-child-population-by-household-type?loc=12&loct=2#detailed/2/12/false/573,869,36,868,867/4290,4291,4292/427,428

Arghode, V. (2012). Qualitative and quantitative research: Paradigmatic differences. *Global Education Journal, 2012*(4), 155-163. Retrieved from https://www.journals.elsevier.com/international-journal-of-educational-research

Arnold, D. S., O'Leary, S. G., Wolff, L. S., & Acker, M. M. (1993). The Parenting Scale: A measure of dysfunctional parenting in discipline situations. *American Psychological Association*, *5*(2), 137-144. doi:10.1037/1040-3590.5.2.137

Balkin, S., & Sheperis, C. J. (2011). Evaluating and reporting statistical power in counseling research. *Journal of Counseling and Development, 89,* 268-269

Retrieved from: https://doi.org/10.1002/j.1556-6678.2011.tb00088.x

Bastos, J. L., Duquia, R. P., González-Chica, D. A., Mesa, J. M., & Bonamigo, R. R. (2014). Field work I: Selecting the instrument for data collection. *Anais brasileiros de dermatologia*, *89*(6), 918-923. doi:10.1590/abd1806-4841.20143884

Baumrind, D. (1966). Effects of authoritative parental control on child behavior. *Child Development, 37*(4), 887-907. Retrieved from http://arowe.pbworks.com/f/baumrind_1966_parenting.pdf

Baumrind, D. (1971). Current patterns of parental authority. *Development Psychology*, *4*(1),1-103. doi:10.1037/h0030372

Baumrind, D. (1978). Parental disciplinary patterns and social competence in children. *Youth and Society*, *9*(*3)*, 239-76. doi: 10.1177/0044118x7800900302

Baumrind, D., & Black, A. (1967). Socialization practices associated with dimensions of competence in preschool boys and girls. *Child Development, 38*(2), 291-327. doi:10.2307/1127295

Beier, S. R., Rosenfeld, W. D., Spitalny, K. C., Zansky, S. M., & Bontempo, A. N. (2000). The potential role of an adult mentor in influencing high-risk behaviors in adolescents. *Archive of Pediatric Adolescent Medicine, 154*(4), 327-331. doi:10.1001/archpedi.154.4.327

Besharat, M.A., Azzi, K., & Poursharifi, H. (2011). The relationship between parenting styles and children's academic achievement in a sample of Iranian families. *Elsevier, 15*(2011), 1280-1283. doi:10.1016/j.sbspro.2011.03.277

Bewick, V., Cheek, L., & Ball, J. (2005). Statistics review 14: Logistic

regression. *Critical Care, 9*(1), 112-118. doi:10.1186/cc3045

Bollen, K. A. (1989). *Structural equations with latent variables*. New York, NY: John Wiley & Sons.

Borawksi, E. A., Levers-Landis, C. E., Lovegreen, L. D., & Trapl, E. S. (2003). Parental monitoring negotiated unsupervised time and parental trust: The role of perceived parenting practices in adolescent health risk behaviors. *Journal of Adolescent Heal*th, *33*(2), 60-70. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/12890596

Bornstein, M. H., Jager, J., & Putnick, D. L. (2013). Sampling in developmental science: Situations, shortcomings, solutions, and standards. *Developmental Review, 33*(4), 357-370. doi:10.1016/j.dr.2013.08.003

Burnette, M. L., Oshri, A., Lax, R., Richards, D., & Ragbeer, S. N. (2012). Pathways from harsh parenting to adolescent antisocial behavior: A multidomain test of gender moderation. *Development and Psychopathology, 24*(3), 857-70. doi:10.1017/S0954579412000417

Centers for Disease Control and Prevention. (2013). Incidence, prevalence, and cost of sexually transmitted infections in the United States. Retrieved from https://www.cdc.gov/std/stats/sti-estimates-fact-sheet-feb-2013.pdf

Centers for Disease Control and Prevention. (2017). Parent and guardian resources: Help your teen make healthy choices about sex. Retrieved from http://www.cdc.gov/teenpregnancy/parent-guardian-resources/

Cham, H., Gonzales, N. A., White, R. M. B., Tein, J., Wong, J. J., & Roosa, M. W.

(2013). Pubertal timing and Mexican-origin girls' internalizing and externalizing symptoms: The Influence of harsh parenting. *American Psychological Association 49*(9). doi: 10.1037/a0031016

Cham, H., Reshetnyak, E., Rosenfeld, B., & Breitbart, W. (2017). Full information maximum likelihood estimation for latent variable interactions with incomplete Indicators. *Multivariate behavioral research, 52*(1), 12-30. doi: 10.1080/00273171.2016.1245600

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.

Conger, R. D., Conger, K. J., & Martin, M. J. (2010). Socioeconomic status, family processes and individual development. *Journal of Marriage and the Family, 72*(3), 685-704. doi:10111/j.1741-3737.2010. 00725.x

Cozzi, D., & Vinel, V. (2015). Risky, early, controversial. Puberty in medical discourses. *Social Science & Medicine*, *143,* 287-296. doi: 10.1016/j.socscimed.2014.11.018

Craine, J. L., Tanaka, T. A., Nishina, A., & Conger, K. J. (2009). Understanding adolescent delinquency: The role of older siblings' delinquency and popularity with peers. *Merrill-Palmer Quarterly*, *55*(4), 436-453. doi:10.1353/mpq.0.0036

Creswell, J. W. (2014). *Research design qualitative, quantitative and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage.

Darling, N., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin, 113*(3), 487-496. doi:10.1037/0033-2909.113.3.487

Deardorff, J., Cham. H., Gonzales, N., White, R., Tein, J., Wong, J., & Roosa, M. (2013). Pubertal timing and Mexican-origin girls' internalizing and externalizing symptoms: The influence of harsh parenting. *Development Psychology*, *49*(9), 1790-1804. doi:10.1037/a0031016

De Genna, N., Larkby, C., & Cornelius. M. (2011). Pubertal timing and early sexual intercourse in the offspring of teenage mothers. Journal of Youth and Adolescence, *40*(10), 1315 1328. doi: 10.1007/s109464-010-9609-3

de Haan, A., D., Prinzie, P., & Deković, M. (2012). Change and reciprocity in adolescent aggressive and rule-breaking behaviors and parental support and dysfunctional discipline. *Development and Psychopathology, 24*(1), 301-315. doi:10.1007/ s10964-010-9609-3

De la Torre-Cruz, M. J., Garcia-Linares, M.C., & Casanova-Arias, P. F. (2014). Relationship between parenting styles and aggressiveness in adolescents. *Electronic Journal of Research in Educational Psychology, 12*(1), 147-170. doi:10.14204/ejrep.32.13118

Dominguez, M., M. & Carton, J. S. (1997). The relationship between self-actualization and parenting style. *Journal of Social Behavior and Personality*. 12, 1093-1100.

Dorey, F. K. (2011). Statistics in brief statistical power: What is it and when should it be used? *Clinical Orthopedics Related Research, 469*(2), 619- 620.doi: 10.1007/s11999-010-1435-0

Dorn, L. D. (2015). Moving research on puberty forward: Measures are the key component. *Journal of Adolescent Health, 56*(6), 580-581.

doi:10.1016/j.jadohealth.2015.03.011

Downing, J., & Bellis, M. A. (2009). Early pubertal onset and its relationship with sexual risk taking, substance use and anti-social behaviour: A preliminary cross-sectional study. *BMC Public Health, 9(1)*, 446. doi:10.1186/1471-2458-9-446

Drost, E. A. (2011). Validity and reliability in social science research. *Education Research and Perspectives, 38*(1), 105-123. Retrieved from http://erpjournal.net/wp-content/uploads/2012/07/ERPV38-1.-Drost-E.-2011.-Validity-and-Reliability-in-Social-Science-Research.pdf

Ehrenreich, S. E., Beron, K. J., Brinkley, D.Y., & Underwood, M. K. (2014). Family predictors of continuity and change in social and physical aggression from ages 9 to 18. *Aggressive Behavior, 40*(5), 421-439. doi:10.1002/ab.21535

Epstein, M., Bailey, J. A., Manhart, L. E., Hill, K. G., Hawkins, J. D., Haggerty, K. P., & Catalano, R. F. (2014). Understanding the link between early sexual initiation and later sexually transmitted infection: Test and replication in two longitudinal studies. *Journal of Adolescent Health*, *54*(4), 435-44. doi: 10.1016/j.jadohealth.2013.09.016

Erath, S. A., El-Sheikh, M., & Cummings, E. M. (2009). Harsh parenting and child externalizing behavior: Skin conductance level reactivity as a moderator. *Child Development*, *80*(2), 578-592. doi:10.1111/j.1467-8624.2009.01280.x

Erceg-Hurn, D., & Mirosevich, V. (2008). Modern robust statistical methods: An easy way to maximize the accuracy and power of your research. *American Psychologist*, *63*(7), 591-601. doi: 10.1037/0003-066x.63.7.591

Hensch, S. & Evans, J., D. (1996). *Straightforward statistics for the behavioral sciences*. Belmont, Pacific Grove: Brooks/Cole Pub. Co

Eyberg, S. M., Nelson, M. M., & Boggs, S. R. (2008). Evidence-based psychosocial treatments for children and adolescents with disruptive behavior. *Journal Of Clinical Child & Adolescent Psychology*, *37*(1), 215-237. doi:10.1080/15374410701820117

Faber, J., & Fonseca, L. M. (2014). How sample size influences research outcomes. *Dental Press Journal Of Orthodontics, 19*(4*),* 27-29. doi:10.1590/2176-9451.19.4.027-029.ebo

Fields, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). Thousand Oaks, CA: Sage Publication.

Fowler, Jr., F. (1992). How unclear terms affect survey data. *Public Opinion*, *56*(2), 218-231.doi.org/10.1086/269312

Frankfort-Nachmias, C., & Nachmias, D. & Dewaard, J. (2008). *Research methods in the social sciences* (7th ed.). New York: Worth.

Gafoor, A., Kurukkan, A. (2014). Goal orientation among boys and girls in higher secondary schools of Kerala: How parenting styles influence it? Retrieved from: https://files.eric.ed.gov/fulltext/ED545363.pdf

García-Pérez, M. A. (2012). Statistical conclusion validity: Some common threats and simple remedies. *Frontiers In psychology*, *3*, 325. doi:10.3389/fpsyg.2012.00325

Georgiou, S. N, Fousiani, K., Michaelides, M. & Stavrinides, P. (2013). Cultural value orientation and authoritarian parenting as parameters of bullying and

victimization at school. *International Journal Of Psychology, 48*(1), 69-78. doi: 10.1080/00207594.2012.754104

Gilligan, C., Kypri, K., Johnson, N., Lynagh, M., & Love, S. (2012). Parental supply of alcohol and adolescent risky drinking. *Drug And Alcohol Review, 31*(6), 754-762. doi:10.1111/j.1465-3362.2012. 00418.x

Gomez-Ortiz, O., Romera, E. M., & Ortega-Ruiz, R. (2016). Parenting styles and bulling. The mediating role of parental psychological aggression and physical punishment. *Child Abuse and Neglect 51*, 132-43. doi:10.1016/chiabu.2015.10.025

Graber, J. A., Lewinsohn, P. M., Seeley, J. R., & Brooks-Gunn, J. (1997). Is psychopathology associated with the timing of pubertal development? *Journal of American Academy of Child Adolescent Psychiatry, 36(*12*)*, 1768-76. doi: 10.1097/00004583-199712000-00026

Guilamo-Ramos, V., Bouris, A., Lee, J., McCarthy, K., Michael, S. L., Pitt-Barnes, S., & Dittus, P. (2012). Parental influences on adolescent sexual risk behaviors: A structured literature review. *Pediatrics, 130*(5). doi:10.1542/peds.2011-2066

Hagan, T. L. (2014). Measurements in quantitative research: How to select and report on research instruments. *Oncology Nursing Forum, 41*(4), 431-433. doi: 10.1188/14.ONF.431-433

Harris-McKoy, D., & Cui, M. (2013). Parental control, adolescent delinquency, and young adult criminal behavior. *Journal of Child and Family Studies*, *22*(6), 836-843. doi:10.1007/s10826-012-9641-x

Harrist, A.W., Hubbs-Tait, Topham, G.L., Page, M.C., (2013). Emotion regulation is

related to children's emotional and external eating. Jo*urnal of Developmental and Behavioral Pediatrics, 34*(8)557-65. doi:10.1097/DBP.0b013e3182a5095f

Harvey, E., Danforth, J. S., Ulaszek, W. R., & Eberhardt, T. L. (2001). Validity of parenting scale for parents of children with attention-deficit/hyperactivity disorder. *Behavior Research and Therapy, 39(*6), 731-43. doi:10.1016/S0005-7967 (00) 00052-8

Haynie, D. L. (2003). Contexts of risk? Explaining the link between girls' pubertal development and their delinquency involvement. *Social Forces, 82*(1), 355-397 doi:10.1353/sof.2003.0093

Healthy People.gov (2018). Sexually transmitted diseases. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/sexually-transmitted-diseases

Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence Based Nursing,18*(3), 66-7. doi:10.1136/eb-2015-102129

Hemphill, S. A., Kotevski, A., Herrenkohl, T. I., Toumbourou, J. W., Carlin, J. B., Catalano, R. F., & Patton, G. C. (2010). Pubertal stage and the prevalence of violence and social/relational aggression. *Pediatrics*, *126*(2), e298-e305. doi:10.1542/peds.2009-0574

Henneberger A. K., Tolan, P. H., Hipwell, A. E., & Keenan, K. (2014). Delinquency in adolescent girls: Using a confluence approach to understand the influence of parents and peers. *Criminal Justice and Behavior, 4*(11), 1327-37. doi:10.1177/0093854814538624

Hoeve, M., Dubas, J. S., Eichelsheim, V. I., van der Laan, P. H., Smeenk, W., & Gerris, J. R. M. (2009). The relationship between parenting and delinquency: A meta-analysis. *Journal of Abnormal Child Psychology*, *37*(6), 749-775. doi: org/10.1007/s10802-009-9310-8

Hoeve, M., Dubas, J. S., Gerris, J. R., van der Laan, P. H., & Smeenk, W. (2011). Maternal and parenting styles: Unique and combined links to adolescent and early adult delinquency. *Journal Of Adolescence*, *34*(5), 813-827. doi: 10.1016/j.adolescence.2011.02.004

Hosokawa, R., & Katsura, T. (2018). Role of parenting style in children's behavioral problems through the transition from preschool to elementary school according to gender in Japan. *International Journal of Environmental Research and Public Health, 16*(1), 21. doi:10.3390/ijerph16010021

Howenstein, J., Kumar, A., Casamassimo, P. S., McTigue, D., Coury, D., & Yin, H. (2015). Correlating parenting styles with child behavior and caries. *Pediatric Dentistry, 37*(1), 59-64. Retrieved from https://www.ncbi.nlm.nih.gov /pmc/articles/PMC4559268/

Indiana Department of Child Services Relative Resource Guide, (2012). Retrieved from: http://www.in.gov/dcs/files/RelativeResourceGuideDocument031212.pdf

Irvine, A. B., Biglan, A., Smolkowski, K., & Ary, D. V. (1999). The value of parenting scale for measuring the discipline practices of parents of middle school children. *Behaviour Research and Theory*, *37*(2), 127-42. doi:10.1016/S0005-7967(98)00114-4.

Jackson, D. B. (2012). The role of early pubertal development in the relationship between general strain and juvenile crime. *Youth Violence and Juvenile Justice, 10*(3), 292-310. doi:10.1177/1541204011427715

Javdani, S., Rodriguez, E. M., Nichols, S., Emerson, E., & Donenberg, G. R. (2014). Risking it for love: Romantic relationships and early pubertal development confer risk for later disruptive behavior disorders in African American girls receiving psychiatric care. *Journal of Abnormal Child Psychology, 42*(8), 1325-1340. doi.org/10.1007/s10802-014-9875-8

Kalpana, N., Dolovich, L., Cassels, A., McMcormack, J., Levine, M., J., Gray,…Burns, S. (2002). What patients want to know about their medications: Focus group study of patient and clinician perspectives. *Canadian Family Physician, 48*,104-110. Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/articles /PMC2213938/pdf/11852597.pdf

Kauser, R., & Pinquart, M. (2016) Gender differences in the associations between perceived parenting styles and juvenile delinquency in Pakistan. *Pakistan Journal of Psychological Research, 31*(2), 549-568. Retrieved from: http://www.pjprnip. edu.pk/ pjpr/index.php/pjpr/article/view/379/397

Kelly, Y., Zilanawala. A., Sacker, A., Hiatt, R., & Viner, R. (2017). Early puberty in 11-year-old girls: Millennium Cohort Study findings. *Archives of Disease in Childhood.* doi: 10.1136/archdischild-2016-310475

Keyes, K. M., Gary, D. S., Beardslee, J., Prins, S. J., O'Malley, P. M., Rutherford, C., & Schulenberg, J. (2018). Joint effects of age, period, and cohort on conduct

problems among American adolescents from 1991 through 2015. *American Journal of Epidemiology*, *187*(3), 548-557. doi:10.1093/aje/kwx268

Krueger, R. F., Hicks, B. M., Patrick, C. J., Carlson, S. R., Iacono, W. G., & McGue, M. (2002). Etiologic connections among substance dependence, antisocial behavior and personality: Modeling the externalizing spectrum. *Journal of Abnormal Psychology, 11*1(3), 411-424. doi.org/10.1037/0021-843X.111.3.411

Leeman, R. F., Pattock-Peckham, J. A., Hoff, R. A., Krishnan-Sarin, S., Steinberg, M. A., Rugle, L. J., & Potenza, M. N. (2014). Perceived parental permissiveness toward gambling and risky behaviors in adolescents. *Journal of Behavioral Addictions*, *3*(2), 115-123. doi: 10.1556/jba.3.2014.012

Lorber, M. F., Xu, S., Smith, S., Bulling, Lisanne, B., & O'Leary, S. G. (2014). A new look at the psychometrics of the parenting scale through the lens of item response theory. *Journal of Clinical Child and Adolescent Psychology 43*(4), 613-626. doi:10.1080/15374416.2014.900717

Maron, D. F. (2015). Early puberty: Causes and effects. *Scientific American, 312*(5), 28-30. doi:10.1038/scientificamerican0515-28

Marston, M., Beguy, D., Kabriu, C., & Cleland, J. (2013). Predictors of sexual debut among young adolescents in Nairobi's informal settlements. *International Perspective on Sexual and Reproductive Health*, *39*(1), 022-031. doi: 10.1363/3902213

Massetti, G. M., Vivolo, A. M., Ches, Brookmeyer, K., Degue, S., Holland, K. M., Holt, M. K., & Matjasko, J. L. (2011). Preventing youth violence perpetration among

girls. *Journal of Women's Health, 20*(10), 1415-1428. doi:10.1089/jwh.2011.3057

McCusker, K., & Gunaydin, S. (2015). Research using qualitative, quantitative or mixed methods and choice based on the research. *Perfusion*, *30*(7), 537-542. doi:10.1177/0267659114559116

Mendle, J., Leve, L. D., Ryzn, M. V., & Natsuaki, M. N. (2013). Linking childhood maltreatment with girls' internalizing symptoms: Early puberty as a tipping point. *Journal of Research on Adolescence 24*(4). 689-702. doi: 10.1111/jora.12075

Mendle, J., Ryan, R. M., & McKone, K. M. P. (2018). Age at menarche, depression, and antisocial behavior in adulthood. *Pediatrics, 141*(1), e2017-1703. doi: 10.1542/peds.2017-1703

Mensah, M. K., & Kuranchie, A. (2013). Influence of parenting styles on the social development of children. *Academic Journal of Interdisciplinary Studies, 2*(3), 123-128. doi: 10.5901/ajis.2013.v2n3p123

Mertens, D. M., Hesse-Biber, S. (2012). Triangulation and mixed methods Research: Provocative positions. *Journal of Mixed Methods Research 6*(2) 75-79. doi: 10.1177/1558689812437100

Morawska, A., Winter, L., & Sanders, M. R. (2009). Parenting knowledge and its role in the prediction of dysfunctional parenting and disruptive child behavior. *Childcare Health and Development (35)2,* 217-26. doi:10.1111/j.1365-2214.2008.00929.x

Mrug, S., Elliott, M. N., Davies. S., Trotolero, S. R., Cuccaro, P., & Schuster, M. A. (2014). Early puberty, negative peer influence and problem behavior in adolescent

girls. *Pediatrics 133*(1), 2013-0628: doi:10.1542/peds.2013-0628

Negriff, S., & Trickett, P. K. (2010). The relationship between pubertal timing and delinquent behavior in maltreated male and female adolescents. *The Journal of Early Adolescence*, *30*(4), 518-542. doi:10.1177/0272431609338180

New York State (2009). Having a voice & a choice: New York State handbook for relatives raising children. Retrieved from. http://www.ocfs.state.ny.us/main/publications/Pub5080.pdf

Onwuegbuzie, A. J. (2000). Expanding the framework of internal and external validity in quantitative research. Retrieved from http://files.eric.ed.gov/fulltext/ED448205.pdf

Owusu-Edusei, K., Chesson, H. W., Gift, T., Tao, G, Mahajan, R., Ocfemia, M. C., & Kent, C. K. (2013). The estimated direct medical cost of selected sexually transmitted infections in the United States, 2008. *Sexually Transmitted Diseases, 40*(3), 197-201. doi:10.1097/OLQ.0b013e318285c6d2

Pannucci, C. J., & Wilkins, E. G. (2010). Identifying and avoiding bias in research. *Plastic and Reconstructive Surgery, 126*(2), 619–625. doi:10.1097/PRS.0b013e3181de24bc

Patton, M. (1990). *Qualitative evaluation and research method*.169-186. Beverly Hills, CA: Sage.

Peper, J. S., & Dahl, R. E., (2013). The teenage brain surging hormones: Brain-behavior interactions during puberty. *Current Direction in Psychological Science, 22*(2), 134-139. doi: 10.1177/096372141247375

Pflieger, J. C., Cook, E. C., Niccolai, L. M., & Connell, C. M. (2013). Racial/ethnic differences in patterns of sexual risk behavior and rates of sexually transmitted infections among female young adults. *American Journal of Public Health*, *103*(5), 903-909. doi:10.2105/AJPH.2012.301005

Pinquart, M. (2017). Associations of parenting dimensions and styles with externalizing problems of children and adolescents: An updated meta-analysis. *Development Psychology,* 53(5), 873-932. doi:10.1037/dev0000295

Powers, T. G. (2013). Parenting dimensions and styles: A brief history and recommendations for future research. *Childhood Obesity, 9*(1),14-21. doi:10.1089/chi.2013.0034

Preston, N. J., Fayers, P., Walters, S. J., Pilling, M., Grande, E. G., Short, V. et al. (2013). Recommendations for managing missing data, attrition and response shift in palliative and end-of-life care research: Part of the MORECare research method guidance on statistical issues. *Palliative Medicine, 27*(10) 899-907. doi:10.1177/0269216313486952

Price, J. H., & Murnan, J. (2004). Research limitations and the necessity of reporting them. *American Journal of Health Education, 35*(2), 66-67. doi:10.1080/19325037.2004.10603611

Prinzie, P., van der Sluis, C. M., de Haan, A. D., & Deković, M. (2010). The mediational role of parenting on the longitudinal relation between child personality and externalizing behavior. *Journal of Personality*, *78*(4), 1301-23. doi:10.1111/j.1467-6494.2010.00651.x

Rahman S. (2016). The advantages and disadvantages of using qualitative and quantitative approaches and methods in language. Testing and assessment" research: A literature review. *Journal of Education and Learning*, *6*(1). doi:10.5539/jel. v6n1p102

Reitman, D., Currier, R. O., Hupp, S. D., Rhode, P. C., Murphy, M. A., & O'Callaghan. (2001). Psychometric characteristic of the Parenting Scale in a head start population. *Journal of Clinical Child Psychology*, *30*(4), 514-24. doi:10.1207/S15374424JCCP3004_08

Rhee, S. H., Lahey, B. B., & Waldman, I. D. (2015). Comorbidity among dimensions of childhood psychopathology: Converging evidence from behavior genetics. *Child Development Perspectives, 9*(1)*,* 26-31. doi:10.1111/cdep.12102

Rodriguez, M. (2010). Parent–Child Aggression: Association with child abuse potential and parenting styles. *Violence and Victims*, *25*(6). doi:10.1891/0886-6708.25.6.728

Root, A. W. (2005). Sexual precocity: A historical perspective and update. *Fetal and Pediatric Pathology*, *24*(1), 39-62. doi:10.1080/15227950590961207

Rubin, D. C., & Wenzel, A. E. (1996). One hundred years of forgetting: A quantitative description of retention. *Psychological Review*, *103*(4), 734-760. doi:10.1037/0033-295X.103.4.734

Salari, R., Terreros, C., & Sarkadi, A. (2012). Parenting scale: Which version should we use? *Journal of Psychopathology and Behavioral Assessment*, *34*(2*),* 268-281. doi:10.1007/s10862-012-9281-x

Savolainen, J., Mason, W. A., Hughes, L. A., Ebeling, H., Hurtig, T. M. & Taanila A. M. (2015). Pubertal development and sexual intercourse among adolescent girls: An examination of direct, mediated, and spurious pathways. *Youth and Society,47*(4), 520-38. doi:10.1177/0044118X12471355

Shaughnessy, J. J., Zehmeister, E. B. & Zechmeister, J. S. (2012). *Research methods in psychology*. (9th ed). New York, NY: McGraw-Hill.

Skinner, S. R., Robinson, M., Smith, M. A., Robbins, S. C., Mattes, E., Cannon, J., … & Doherty, D. A. (2015). Childhood behavior problems and age at first sexual intercourse: A prospective birth cohort study. *Pediatrics, 135*(2), 255-63. doi:10.1542/peds.2014-1579

SurveyMonkey (2019. Retrieved from https://www.surveymonkey.com/mp/aboutus/

Sylvester, O. A. (2014). Influence of self-esteem, parenting style and parental monitoring on sexual risk behaviour of adolescents in Ibadan. *Gender & Behaviour, 12*(2), 6341-6353. Retrieved from http://www.teappoyo.com/bibliografia/Sylvester, %20O.%20A.%20(2014).pdf

Tan, T. X., Gelley, C. D., & Dedrick, R. F. (2015). Non-child-related family stress, parenting styles, and behavior problems in school-age girls adopted from China. *Journal of Child and Family Studies, 24*(10), 2881-2891. doi:101.1007/s10826-014-0092-4

Tashjian, S., (2018). Parenting styles and child behavior. *Psychology in Action*. Retrieved from https://www.psychologyinaction.org/psychology-in-action-1/2018/4/23/k17ziyfqt1vy9tlytr9l9k48epdnur

Thisted, R. A. (2006). The cross-sectional study: Investigation prevalence and association. Departments of Health Studies and Statistics. Retrieved from. http://health.bsd.uchicago.edu/thisted/epor/Lectures/061011-EPOR-CrossSection.pdf

Trinkner, R., Cohn, E. S., Rebellon, C. J., & Van Gundy, K. (2012). Don't trust anyone over 30: Parental legitimacy as a mediator between parenting style and changes in delinquent behavior over time. *Journal of Adolescence, 35(*1), 119-132. doi:10.1016/j.adolescence.2011.05.003

Trochim, W. M. K. (2006). Research methods knowledge base. Retrieved from http://www.socialresearchmethods.net/kb/external.php

Turner, E. A., Chandler, M., & Heffer, R. W. (2009). The influence of parenting styles, achievement motivation, and self-efficacy on academic performance in college students. *Journal of College Student Development*, *50*(3). 337-346. doi: 10.1353/csd.0.0073

U.S. Census (2010) Population interactive search. Retrieved from. https://www.census.gov/2010census/popmap/ipmtext.php?fl=13

U.S. Department of Justice, Office of justice programs, (2010). Understanding and responding to girl's delinquency. Retrieved from: https://www.ncjrs.gov/pdffiles1/ojjdp/226358.pdf

Van Doorn, M. D., Branje, S. J. T., & Meeus, W. H. J. (2008). Conflict resolution in parent-adolescent relationships and adolescent delinquency. *Journal of Early Adolescence 28*(4), 503-527. doi: 10.1177/0272431608317608

Veldhuis, H. A. (2012). Working with staff using Baumrind's parenting styles framework. *Exchange, 208*, 24-26. Retrieved from https://eric.ed.gov/?id=EJ1003090

Viding, E., & Seara-Cardoso, A. (2013). Why do children with disruptive behavior disorders keep making bad choices? *The American Journal of Psychiatry, 170*(3), 253-255. doi:0.1176/appi.ajp.2012.12121551

Walden University (2015). Research Resource: Walden University Participant Pool, Retrieved from. http://academicguides.waldenu.edu/Researchcenter/resources/participant pool

Wasserman, R. M., Holmbeck, G. N., Lennon, J. M., & Amaro, C. M. (2012). A longitudinal assessment of early pubertal timing as a predictor of psychosocial changes in adolescent girls with and without spina bifida. *Journal of Pediatric Psychology, 37*(7), 755-776. doi:10.1093/jpepsy/jsr121

Weis, R., & Toolis, E. E. (2010). Parenting across cultural contexts in the USA: Assessing parenting behavior in an ethnically and socioeconomically diverse sample. *Early Child Development and Care*, *180*(7), 849-867.doi:10.1080/03004430802472083

Whittingham, K., Sofronoff, K., Sheffield, J., & Sanders, M. R. (2009). Stepping stones triple P**:** An RCT of a parenting program with parents of a child diagnosed with an autism spectrum disorder. *Journal of Abnormal Child Psychology, 37*(4), 469-80. doi:10.1007/s10802-008-9285-x

Williams, L. R., Degnan, K. A., Perez-Edgar, K. E., Henderson, H. A., Rubin, K. H.,

Pine, D. S., … Fox, N. A. (2009). Impact of behavioral inhibition and parenting style on internalizing and externalizing problems from early childhood through adolescence. *Journal of Abnormal Child Psychology*, *37*(8), 1063-1075. doi:10.1007/s10802-009-9331-3

Wong, C. A., Merchant, R. M., & Moreno, M. A. (2014). Using social media to engage adolescents and young adults with their health. *Healthcare Amsterdam, Netherlands 2*(4), 220-224. doi:10.1016/j.hjdsi.2014.10.005

Zuckerman, D. (2010). Early puberty in girls. National Center for Health Research. Retrieved from. http://center4research.org/child-teen-health/early-puberty-and-problems-in-sexual-development/girls-to-women/

Appendix A: Consent to Study Participant (Email)

You have been invited to participate in my doctoral research study, which is examining a mother's parenting behavior with daughters who experience early puberty.

Participation in this study is completely voluntary. Therefore, your decision to participate or not to participate in the study will be respected. Declining to participate does not involve a penalty.

Completion of the two surveys should take approximately 20 minutes of your time.

Participating in this study may include some risk of discomfort in answer some questions, such as apprehension to answer questions that could appear to be personal, however, there is no risk to your wellbeing.

Participating in this survey does not include any financial compensation or incentives.

Information you provide in this survey will be kept confidential. Your personal information is not required, and your email address will not be reproduced for any use. Your email address will not be used in any published results.

Data provided will be kept secure by the use of a password protected file on my personal computer, which is kept at my home. Hard copy questionnaires will be kept in a secure file cabinet locked with a key. The university requires that data be kept for a total of 5 years. At the end of the 5 years all electronic files will be erased and hard copy responses destroyed.

The study offers several benefits to mothers and daughters:

Study findings could be used to educate mothers on issues related to the behavior of dysfunctional parenting and risks when parenting an early puberty girl. This increased

awareness could help mothers to understand the two variables and help in their decision to adjust how they discipline, which could end in more favorable results for the girls.

The first page of the survey form will be information on a request to confirm consent to continue with the survey. The deadline to complete the survey is.

Please follow this link to the Survey:

[Survey Link]

Or copy and paste the link into your Internet browser: [Survey URL]

Appendix B: Letter of Cooperation

Appendix C: Study Qualifying Criteria

(a) A mother who had a daughter between the ages of 8 to 18 years who experienced puberty early (breast development and the onset of menstruation between age 8-11?

(b) Willingness to be a participant in the study by acknowledging consent

Appendix D: Demographic Data Collection Tool

1

Race

White	0
Black/African American	1
Hispanic/Latino/Pacific	2
Multiple Races	3
Other	4

Marital Status

Single, never married	0
Married or domestic partnership	1
Widowed	2
Divorced	3

Separated	4
Education	
Less than high school degree	0
High school degree or equivalent (e.g. GED)	1
Some college but no degree	2
Associate degree	3
Bachelor degree	4
Graduate degree	5
Income	
Prefer not to answer	-99
Less than - $20,000	0
$20,000 - $34, 999	1
$35,000 - $49, 999	2
$50,000 - $64,999	3
$65,000 - $79,999	4
$80,000 and over	5
Employment	6
Not employed/Not looking for work	0
Not employed/looking for work	1
Disabled not able to work	2

Retired	3
Employed Part Time	4
Employed Full Time	5

Relationship to Child

Biological mother	0
Older Sibling	1
Adoptive Mother	2
Grandmother	3
Informal relative Caregiver	4

Appendix E: Parenting Scale

Scale Developed by Susan G. O'Leary, David S. Arnold, Lisa S. Wolff, & Maureen M. Acker.
Psychology Department, Stony Brook University, Stony Brook, NY 11794-2500

Time 1 CID ____

Mom ○ Dad/Other ○

Parenting Scale

At one time or another, all children misbehave or do things that could be harmful, are "wrong," or that parents don't like. Examples include: hitting someone, forgetting homework, having a tantrum, whining, throwing food, lying, arguing back, not picking up things, refusing to go to bed, coming home late. Parents have many different ways or styles of dealing with these types of problems. Below are items that describe some styles of parenting.

For each item, fill in the bubble that best describes your style of parenting during the ***PAST TWO MONTHS*** with the child with you here today.

Ex.	At meal time... *I let my child decide how I decide how much to eat*	○	○	●	○	○	○	○	*I decide how much my child eats*

IN THE PAST TWO MONTHS

1. When my child misbehaves... *I do something right away*	○	○	○	○	○	○	○	*I do something later*
2. Before I do something about a problem... *I give my child several reminders and warnings*	○	○	○	○	○	○	○	*I use only one reminder or warning*
3. When I'm upset or under stress... *I am picky and on my child's back*	○	○	○	○	○	○	○	*I am not more picky than usual*
4. When I tell my child NOT to do something... *I say very little*	○	○	○	○	○	○	○	*I say a lot*
5. When my child pesters me... *I can ignore the pestering*	○	○	○	○	○	○	○	*I can't ignore the pestering*
6. When my child misbehaves... *I usually get into a long argument with my child*	○	○	○	○	○	○	○	*I don't get into an argument*
7. I threaten to do things that... *I'm sure I can carry out*	○	○	○	○	○	○	○	*I know I won't actually do*
8. I am the kind of parent that... *Sets limits on what my child is allowed to do*	○	○	○	○	○	○	○	*Lets my child do whatever he/she wants*
9. When my child misbehaves... *I give my child a long lecture*	○	○	○	○	○	○	○	*I keep my talks short and to the point*
10. When my child misbehaves... *I raise my voice or yell*	○	○	○	○	○	○	○	*I speak to my child calmly*
11. If saying no doesn't work right away... *I take some other kind of action*	○	○	○	○	○	○	○	*I keep talking and try to get through to my child*
12. When I want my child to stop doing something... *I firmly tell my child to stop*	○	○	○	○	○	○	○	*I coax or beg my child to stop*
13. When my child is out of sight... *I often don't know what my child is doing*	○	○	○	○	○	○	○	*I always have a good idea of what my child is doing*

IN THE PAST TWO MONTHS ***Parenting Scale, page 2***

14. After there's been a problem with my child... *I often hold a grudge*	○	○	○	○	○	○	○	*Things get back to normal quickly*
15. When we're not at home... *I handle my child the way I do at home*	○	○	○	○	○	○	○	*I let my child get away with a lot more*
16. When my child does something I don't like... *I do something about it every time it happens*	○	○	○	○	○	○	○	*I often let it go*
17. When there is a problem with my child... *Things build up and I do things I don't mean to do*	○	○	○	○	○	○	○	*Things don't get out of hand*
18. When my child misbehaves I spank, slap, grab, or hit my child... *Never or rarely*	○	○	○	○	○	○	○	*Most of the time*
19. When my child doesn't do what I ask... *I often let it go or end up doing it myself*	○	○	○	○	○	○	○	*I take some other action*
20. When I give a fair threat or warning... *I often don't carry it out*	○	○	○	○	○	○	○	*I always do what I said*
21. If saying "no" doesn't work... *I take some other kind of action*	○	○	○	○	○	○	○	*I offer my child something nice so he/she will behave*
22. When my child misbehaves... *I handle it without getting upset*	○	○	○	○	○	○	○	*I get so frustrated or angry that my child can see I'm upset*
23. When my child misbehaves... *I make my child tell me why he/she did it*	○	○	○	○	○	○	○	*I say "no" or take some other action*
24. If my child misbehaves and then acts sorry... *I handle the problem like I usually would*	○	○	○	○	○	○	○	*I let it go that time*
25. When my child misbehaves... *I rarely use bad language or curse*	○	○	○	○	○	○	○	*I almost always use bad language*
26. When I say my child can't do something... *I let my child do it anyway*	○	○	○	○	○	○	○	*I stick to what I said*
27. When I have to handle a problem... *I tell my child I'm sorry about it*	○	○	○	○	○	○	○	*I don't say I'm sorry*
28. When my child does something I don't like, I insult my child, say mean things, or call my child names *Never or rarely*	○	○	○	○	○	○	○	*Most of the time*
29. If my child talks back or complains when I handle a problem... *I ignore the complaining and stick to what I said*	○	○	○	○	○	○	○	*I give my child a talk about not complaining*
30. If my child gets upset when I say "no"... *I back down and give in to my child*	○	○	○	○	○	○	○	*I stick to what I said*

Scoring Instructions for the Parenting Scale

Each item receives a 1-7 score, where 7 is the "ineffective" end of the item.
Thus, the following items have 7 on the left side (the others on the right): 2, 3, 6, 9, 10, 13, 14, 17, 19, 20, 23, 26, 27, 30
To compute the total score, average the responses on all items.
To compute a factor score, average the responses on the items on that factor.

Laxness:	7, 8, 12, 15, 16, 19, 20, 21, 24, 26, 30 (11 items)
Overreactivity:	3, 6, 9, 10, 14, 17, 18, 22, 25, 28 (10 items)
Verbosity:	2, 4, 7, 9, 11, 23, 29 (7 items)
Items not on a factor:	1, 5, 13, 27 (4 items)

Demographics, Parenting Scale & CBCL Scores for a clinic and control group

(Standard deviations are in parentheses).

Category	Clinic Group (n=26)	Control Group (n=51)
Child's age (months)	29.9 (4.5)	28.6 (3.3)
Mother's age (years)	29.6 (6.7)	31.7 (3.9)
Mother's education (years)	13.6 (1.7)	15.5 (2.6)*
Family Income (thousands)	33.4 (9.3)	33.4 (10.2)
Parenting Scale Scores:		
Laxness	2.8 (1.0)	2.4 (.8)*
Overreactivity:	3.0 (1.0)	2.4 (.7)**
Verbosity:	3.4 (1.0)	3.1 (1.0)
Total	3.1 (1.7)	2.6 (.6)
CBCL Externalizing Scale (T-Score)	58.7 (10.3)	47.7 (8.4)***

*p<.05, **p<.01, ***p<.001

Appendix F: Permissions to Use Instruments

Email communication approval for Parenting Scale

You are most welcome to use it. Don't know anything about using a longer time frame. We designed this originally for use with toddlers, who behave in challenging ways VERY frequently. With older children, it would make sense to extend the time frame.

Appendix G: Study Information Flyer

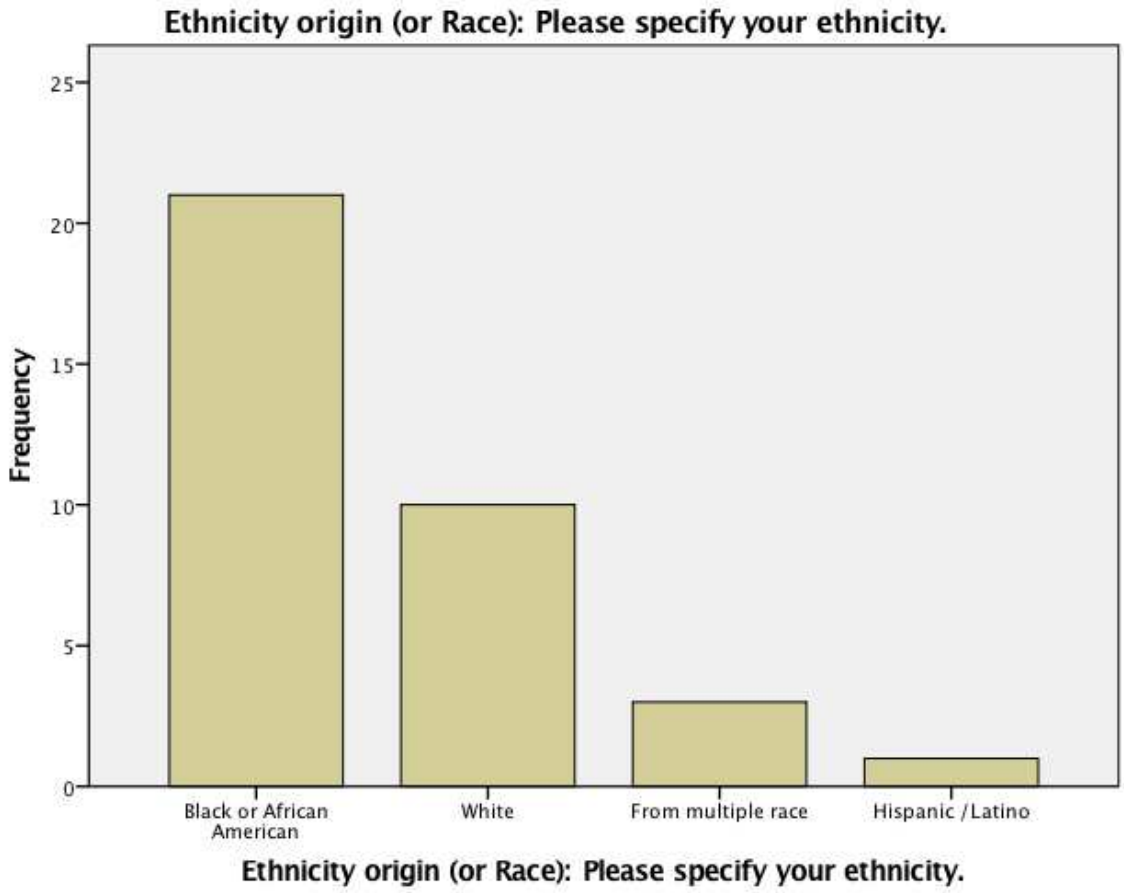
ATTENTION

I am requesting your assistance in helping me (Yvette White, Ph.D. student at Walden University) collect data for my research study.
If you have a daughter between ages 8 and 11 who is or have already experienced puberty you may qualify to participate.
The study examines a mother's parenting behavior with daughters who experience early puberty (breast development or the onset of menstruation before age 11).
Your participation is voluntary, so any decision you make is respected
This survey should only take 20 minutes to complete after you approve consent to participate.
The risk involved in completing the survey is: the possibility of discomfort in answering some questions that could appear personal
Information provide in this survey will be kept confidential. Your personal information is NOT required
Data provided will be kept secure by the use of a password protected file.
The benefits of completing this survey includes:
Study findings could be used for educational purposes for mother regarding early

pubertal development and risky behaviors in some girls

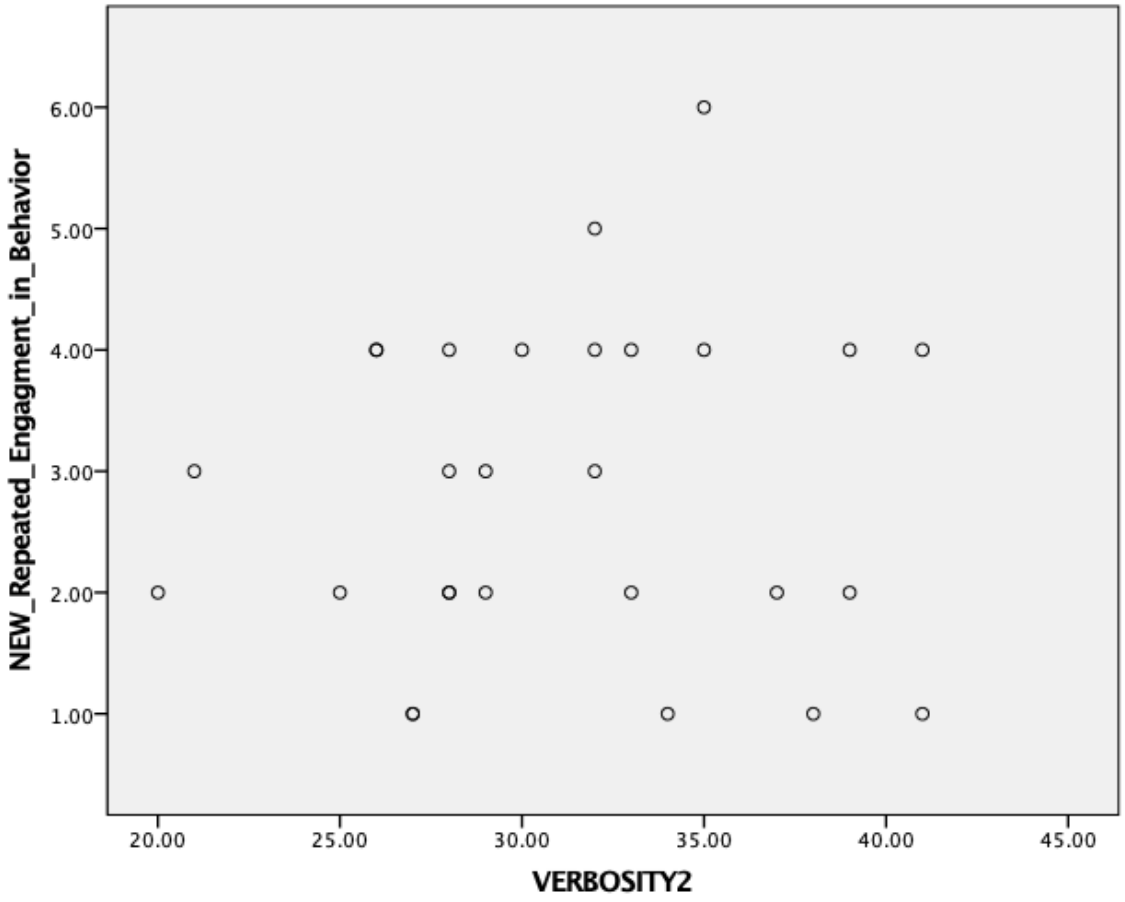
Please follow this link to the Survey:
[Survey Link] Or copy and paste the link into your Internet browser: [Survey URL]

Appendix H: Demographic Data and Illustrations

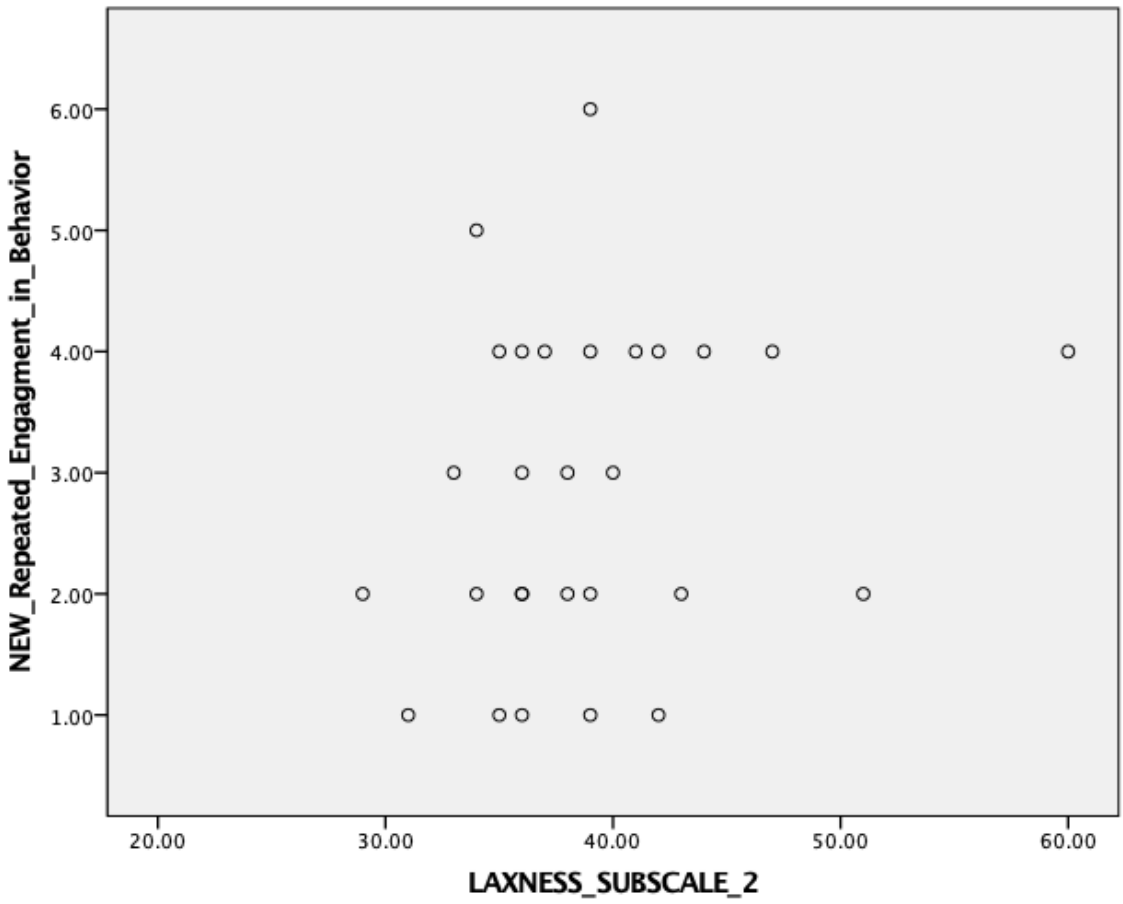


Appendix I: Diagram of Multiple Liner Regression Assumption

Scatter Plot of IV, Verbosity & DV Repeated Engagement in Behavior



Scatter Plot of IV, Laxness & DV Repeated Engagement in Behavior



Scatter Plot of IV, Overreactivity & DV Repeated Engagement in Behavior