Parenting Styles and Child Outcomes in Puerto Rican Families: A Comparison of Individual and Dyadic Coding

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PARENTING STYLES AND CHILD OUTCOMES IN PUERTO RICAN FAMILIES: A COMPARISON OF INDIVIDUAL AND DYADIC CODING

by

Jeisianne Rosario Colón

A dissertation submitted in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Psychology

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2020
ABSTRACT

Parenting Styles and Child Outcomes in Puerto Rican Families: A Comparison of Dyadic and Individual Coding

by

Jeisianne Rosario Colón, Doctor in Philosophy

Utah State University, 2020

Major Professor: Melanie M. Domenech Rodríguez, Ph.D.
Department: Psychology

Parenting styles are comprised from three dimensions: warmth, autonomy granting, and demandingness. These dimensions combined form four parenting styles: authoritative, authoritarian, permissive, and neglectful. Parenting styles have been associated with child outcomes in White and Latino families. Yet research has found distinct ways in which Latinos implement childrearing practices. Within the Latino umbrella, there is much variability between subgroups in values, beliefs, and practices. Puerto Rico’s status as a U.S. territory presents a unique cultural context for parenting. In this research, parenting styles of island Puerto Rican parents were examined. Five research questions were posed: What are the levels of each parenting dimension among Puerto Rican parents? What percentage of Puerto Rican parents fit into each parenting style based on the three dimensions? Do parenting dimensions predict child outcomes? Do parenting styles predict child outcomes? and What are the
differences in families’ parenting dimensions and parenting styles when families are
coded as a unit compared to when parents are coded as individuals? The sample
consisted of 49 Puerto Rican families with children 6-11 years old. Parent-child
interactions across six interaction tasks were coded using the Parenting Style
Observation Rating Scale and child outcomes were measured using the Child Behavior
Checklist. Overall, parents received high scores in warmth, autonomy granting, and
supportive demandingness, and low scores in nonsupportive demandingness. There
were some differences with mothers exhibiting higher levels of warmth with girls than
boys, and higher levels of autonomy granting and supportive demandingness than
fathers. The majority of the sample exhibited an authoritative parenting style (57% of
mothers and 44.9% of fathers), followed by protective parenting (26% of mothers and
28.6% of fathers). Several parenting styles not currently used by the literature were
also observed. In relationship to child outcomes, demandingness supportive was the
only parenting dimension negatively associated with child symptoms. No statistically
significant results were found for parenting styles and child outcomes, parent gender,
and/or child sex. Several methodological issues were present that prevented the
comparison between the individual and dyadic coding methods. Lastly, the
implications of this, the study’s limitations, and future research avenues were
discussed.

(130 pages)
Parenting Styles and Child Outcomes in Puerto Rican Families: A Comparison of Dyadic and Individual Coding

Jeisianne Rosario Colón

Parenting styles are comprised from three dimensions: warmth, autonomy granting, and demandingness. These dimensions combined form four parenting styles: authoritative, authoritarian, permissive, and neglectful. Forty-nine Puerto Rican families with children 6-11 years participated. Families engaged in several tasks that were coded using the Parenting Style Observation Rating Scale and child outcomes were measured using the Child Behavior Checklist. Overall, parents received high ratings in warmth, autonomy granting, and supportive demandingness, and low scores in nonsupportive demandingness. There were some differences between parents, with mothers exhibiting higher levels of warmth with girls than boys, and higher levels of autonomy granting and supportive demandingness when compared to fathers. The majority of the parents exhibited an authoritative parenting style (57% of mothers and 44.9% of fathers), followed by protective parenting (26% of mothers and 28.6% of fathers). Results also showed that higher levels of supportive demandingness were associated with less child behavioral issues. No statistically significant results were found for parenting styles and child outcomes, parent gender, and/or child sex. Several methodological issues were present that prevented the comparison between the individual and dyadic coding methods.
These results suggest that supportive demandingness might be an important factor to target when providing treatment to Puerto Rican families. It also suggests that there might be differences to consider when working with mothers versus fathers. Furthermore, it indicates that there might be other parenting styles, not currently used by previous research, that might increase the accuracy of our understanding of parenting styles within Latino families. This research aimed to fill the gap in the literature regarding Puerto Rican parenting and its relationship to child outcomes.
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Jeisianne Rosario Colón
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CHAPTER I

PROBLEM STATEMENT

Parenting styles have been studied for nearly 5 decades. Diana Baumrind (1966) initiated this line of research identifying three main categories of parenting—a authoritative, authoritarian, and permissive—that would globally define parents’ styles of child rearing. These parenting styles are characterized by the presence or absence of warmth, demandingness, and autonomy granting. A fourth parenting style, neglectful, was later identified by Maccoby and Martin (1983) and supported by research (Darling, 1999; Hoeve et al., 2009; Schroeder et al., 2010; Spera, 2005). Authoritative parenting is characterized by high scores on warmth, demandingness, and autonomy granting. Authoritarian parenting is defined by high levels of demandingness, but low levels of warmth and autonomy granting. The permissive parenting style is characterized by high levels of warmth and autonomy granting, but low levels of demandingness. Last, the neglectful parenting style is described as parents who exhibit low levels of warmth, demandingness, and autonomy granting.

A strong body of research has linked the aforementioned parenting styles with child outcomes. The authoritative parenting style has been the one mostly correlated with overall positive outcomes (Bolkan et al., 2010; Kawabata et al., 2011). On the other hand, research regarding authoritarian parenting has yielded mixed results, with some studies finding authoritarianism being associated with negative outcomes (Calzada et al., 2012; Falicov, 1998), while others have not (Knight et al., 1994; Park & Bauer, 2002). Permissive and neglectful parenting have been consistently associated with overall
negative outcomes (Hoeve et al., 2009; Luyckx et al., 2011; Schroeder et al., 2010). Yet, it is important to highlight that the aggregate of this literature is centered on analyses where the majority of the sample were White American families (Baumrind, 1966, 1972; Leeman et al., 2014; McDermott et al., 2014). Research has demonstrated that parents’ cultural backgrounds (e.g., Latinxs, African Americans, Native Americans), shapes the way in which parents raise their children, which in turn directly influences child outcomes (e.g., M. M. Domenech Rodríguez, 2009).

Although Baumrind’s initial framework was based in three parenting dimensions, most studies have categorized samples in parenting style typologies based on only two of these dimensions—warmth and demandingness (Carlo et al., 2017; A. N. Davis et al., 2015; Hoeve et al., 2011; Ratner, 2014; White et al., 2013). When all three dimensions are included in the formulation of the parenting style typologies, eight possible distinct parenting styles emerge. Some researchers have opted to include all three dimensions in the formulation of parenting styles (M. M. Domenech Rodríguez et al., 2009; Rosario Colón, 2016). M. M. Domenech Rodríguez et al. studied parenting styles in a sample of Latinx families including all three dimensions. They labeled the eight categories as: authoritative, authoritarian, permissive, neglectful, protective, cold, affiliative, and neglectful II. The most common style in that sample was protective parenting. These same categories were used by Rosario Colón, who studied parenting styles in a sample of Puerto Rican families. These findings suggest that a more sophisticated parenting style typology may provide more nuance than the four-style typology currently used.

Latinx families present a unique cultural context, including with-in and between-
group differences that influence child-rearing practices (Calzada & Eyberg, 2002; Varela et al., 2004). Currently, parenting styles research within Latinx families presents two issues: (a) a limited number of studies and (b) mixed results in terms of prevalence of parenting styles and their association with child outcomes. Early studies have characterized Latinx parents as authoritarian (Falicov, 1998; García-Preto, 1996), while further research characterized them as authoritative (A. N. Davis et al., 2015; Rosario Colón, 2016; Steinberg et al., 1992; White et al., 2013) protective (M. M. Domenech Rodríguez et al., 2009; M. R. Davis, 2006) and/or cold (Rosario Colón, 2016). The inconsistency in the literature suggests that Baumrind’s main parenting typologies may not adequately describe parenting styles in Latinx families.

Some of the disparate findings may be due to group differences among Latinx subgroups. The bulk of the research with Latinx parents has been conducted with Mexican or Mexican-American samples (Dumka et al., 2009; Leidy et al., 2012; Varela et al., 2004). However, more research is needed with diverse Latinx samples to further assess the suitability of established findings, especially when an end goal of this research is to inform the development or cultural adaptation of evidence-based interventions. As a current U.S. territory, Puerto Rico presents a unique cultural context that no other Latinx group presents. The research on family processes and parenting on Puerto Ricans living in the island is extremely limited. Further research needs to be conducted in order to determine the applicability of the current research and the interventions derived form said research. The current study aims to shed light on this matter in order to inform the development of new interventions and/or the cultural adaptation of currently used
evidence-based interventions.

The current study builds on the research conducted by Rosario Colón (2016), which aimed to decrease this gap in the literature by assessing family parenting styles and their association with child behavioral outcomes in an understudied Latinx sample (i.e., Puerto Rican families). The objective was to describe Puerto Rican families’ prevalence of each parenting dimension and parenting style, as well as to assess the relationships between parenting and child outcomes at a family level. However, coding the parenting dyad (i.e., one score for both parents’ behaviors), rather than individuals, presented challenges to obtaining a clear answer to the research questions, such as: low variability within subscales, one parent’s behavior overshadowing the other parent’s behavior, and the inability to examine possible differences due to parent gender. The current study aimed to extend Rosario Colón’s findings by assessing parenting styles and their relationship to child outcomes, coding parents individually rather than as a unit. Individual coding allowed for a more detailed analysis of the contribution of each parents’ parenting style and possibly uncover the importance of parents’ matched or unmatched styles of parenting. From a methodological standpoint, the current project aimed to compare global versus individual coding of parent-child interaction and its possible influence in the accuracy of results in parenting research.

Five research questions were examined in the current study. The first four questions replicated the Rosario Colón (2016) study. The remaining question compared results from global versus individual coding. Specifically, they are as follows.

RQ1. What are the levels of each parenting dimension among Puerto Rican families (i.e., warmth, autonomy granting, and demandingness)?
RQ2. What percentage of Puerto Rican parents fit into each parenting style resulting from all possible combinations of the three main parenting dimensions?

RQ3. Do parenting dimensions predict child outcomes (i.e., internalizing, externalizing, and total behaviors)?

RQ4. Do parenting styles predict child outcomes (i.e., internalizing, externalizing, and behaviors)?

RQ5. Are there differences in parenting dimensions and parenting styles when families are coded as a unit (i.e., dyadic coding) compared to when parents are coded as individuals (i.e., mothers and father separately)?
CHAPTER II
LITERATURE REVIEW

The present literature review will briefly present a view on the current status of the parenting literature for White and Latinx families. This review starts with the theoretical basis for this project. Subsequently, the current findings regarding the Latinx cultural context for parenting will be discussed. Next, Puerto Rico’s historical context will be briefly reviewed in order to provide a framework for the sample used in this study. How child outcomes have been consistently associated with parenting styles will also be discussed. Consequently, the literature’s findings regarding parenting styles and its differences based on parent and child sex will be discussed. Lastly, the methodological factors of global and individual coding will also be reviewed.

Parenting Dimensions and Parenting Styles

Parents engage in a variety of child-rearing practices, which have been categorized into parenting styles. This parenting styles construct was coined by Diana Baumrind (1966) as a way to describe models of parental control. Baumrind categorized parents into three parenting styles: authoritative, authoritarian, and permissive. Later on, Maccoby and Martin (1983) described a fourth parenting style: neglectful parenting. In Baumrind’s theoretical framework, each of the aforementioned parenting styles are based on a combination of three parenting dimensions: warmth, demandingness, and autonomy granting.

Warmth refers to being sensitive to the child’s needs. This involves attending to
the child when something is wrong, praising for effort or good behavior, physical affection, thoughtful caring for their well-being (i.e., emotional and physical), and being emotionally supportive (M. R. Davis, 2006; Soenens et al., 2011). Demandingness refers to parental expectations regarding children’s conduct. This includes rule setting for expected behaviors, monitoring rule compliance, and the disposition to confront child disobedience (Darling & Steinberg, 1993; Soenens et al., 2011). Last, autonomy granting refers to the extent to which parents support their children’s independence and self-will (e.g., is the child allowed to make decisions, express ideas, and/or give opinions). When combining these parenting dimensions, parenting styles emerge as independent typologies that provide a framework for child-rearing practices.

Authoritative parenting is described as being high on all three parenting dimensions (i.e., warmth, demandingness, and autonomy granting). Behaviorally, authoritative parents are characterized by parental attempts to direct the child in a rational oriented manner. This includes aspects such as taking the child’s opinion into consideration when noncompliance is present, negotiating with the child, and explaining the reasoning behind directives. This type of parenting is specially characterized by striving for a balance between the child’s will and autonomy, and adherence to discipline.

Authoritarian parents are low on warmth and autonomy granting, and high on demandingness. Baumrind (1966) described authoritarian parents as those that attempt to control and shape the behaviors of the child according to a specific set of standards, which are typically not flexible in nature. This type of parenting values adherence to discipline and norms over the child’s self-will and autonomy.
Permissive parenting is characterized by high warmth and autonomy granting, and low demandingness. Permissive parents are described as being supportive and non-punitive, reinforcing the child’s desires and actions without exerting parental demands. A permissive approach emphasizes the child’s own regulation of his or her activities without the framework of external standards or parental control.

Last, neglectful parenting is characterized by low levels of warmth, demandingness, and autonomy granting. Neglectful parents’ main characteristic is overall disengagement. This is exhibited as a “hands off” approach to the child’s life, characterized by lack of guidance in terms of child's self-regulation, absence of supervision and discipline, and overall absenteeism (Aunola et al., 2000; Carlo et al., 2017; Maccoby & Martin, 1983). Neglectful parents might provide basic physical needs, but lack boundaries, support, or guidance regarding the child’s behavior and development.

However, most studies have used only two of the three parenting dimensions originally proposed, warmth and demandingness (Carlo et al., 2017; A. N. Davis et al., 2015; Hoeve et al., 2011; Laible et al., 2004; Ratner, 2014; White et al., 2013). When all three original parenting dimensions are used, eight distinct parenting styles emerge. M. M. Domenech Rodríguez et al. (2009) studied parenting styles in a sample of Latinx families including all three dimensions, labeling the eight parenting style categories as: authoritative, authoritarian, permissive, neglectful (i.e., the four main parenting styles currently used in the literature), and protective, cold, affiliative, and neglectful II. These additional four parenting styles are not currently found in the literature given that mostly
only two of the parenting dimensions are included in research studies (Carlo et al., 2017; A. N. Davis et al., 2015; Hoeve et al., 2011; Ratner, 2014; White et al., 2013). M. M. Domenech Rodríguez et al.’s (2009) study found the majority of their sample to be considered protective. These same categories were used by Rosario Colón (2016), who studied parenting styles in a sample of Puerto Rican families. Results found a percentage of families who were “cold” (for details, see Rosario Colón, 2016). Both of these studies suggest that a broader parenting style typology may provide more nuance and accuracy for Latinx families than the four-style typology currently used.

**Latinxs’ Cultural Context of Parenting**

Baumrind’s (1966) work included primarily White American families. Throughout the years, the parenting styles framework has also been applied to research with Latinx families and has yielded inconsistent results (e.g., in some studies the majority of the sample is authoritarian and in others authoritative). At the same time, parenting styles have been consistently and highly correlated with child outcomes regarding a variety of outcomes, such as socioemotional development, behavioral problems, as well as academic achievement (A. N. Davis et al., 2015; Jabagchourian et al., 2014; Steinberg et al., 1992). These associations have been found for both White American and Latinx families, as well with a variety of different cultures (e.g., African, Japanese, German, and French families; Rogoff, 2003).

The literature consistently presents the need to understand Latinx parenting practices within the context of culture. Cultural values permeate parents’ worldviews,
which in turn influence parenting practices (Calzada et al., 2010; M. R. Davis, 2006; Mogro-Wilson, 2013). Some core values associated with Latinx parenting are *familismo*, *respeto*, and *simpatía*. It is important to note that although White American parenting may also be characterized by same or similar cultural values, parents may engage and prioritize these values differently, manifesting themselves in different practices.

The two most often mentioned values in Latinxs’ parenting are *familismo* and *respeto*. *Familismo* is characterized by emphasizing family relationships and a sense of duty to said relationships. This is expressed as prioritizing family values and well-being over each family member’s opportunities to further individual aspirations. *Familismo* emphasizes interdependence; family decision making, loyalty, and reciprocity are highly regarded (Davidson & Cardemil, 2009; Guilamo-Ramos et al., 2007; Raffaelli & Ontai, 2004). *Respeto* encompasses a set of social rules regarding the level of courtesy and decorum (i.e., proper behaviors in social interactions) required in a given situation in relation to other people dependent on age, sex, and social status. The rules of engagement may ultimately function as a means of maintaining familial harmony (Calzada et al., 2010). Several studies with Latinx parents (e.g., Mexican, Costa Rican, Dominican, and Puerto Rican) have described *respeto* as critical to successful child development, which is expressed through: deference or courtesy owed to elders, decorum, parental and hierarchical obedience, and public behavior (Calzada et al., 2010; M. D. Domenech Rodríguez et al., 2013; Rosabal-Coto, 2012). A. N. Davis et al.’s (2015) study with Mexican American families found that the associations between parenting styles and prosocial behaviors among Latinxs can be partially explained by the role of such
traditional cultural values.

It is important to highlight the absence of research regarding familismo and respeto in White American families. Historically, these values have been mostly ascribed to Latinxs and Asians (Miles et al., 2012; Rosario Colón, 2016). However, a study conducted with White American families showed that they also ascribe to respeto and familismo values although at lower levels than Latinxs (Schwartz, 2007). Furthermore, from the Latinx perspective, Latinx parents have described White American parenting values as being achievement oriented, fostering the child’s independence, autonomy, and liberal thinking, and focusing on the child as opposed to the family (Calzada et al., 2010). Although Calzada et al.’s study is qualitative, it provides some insight into the differences of how Latinx parents perceive the differences in how White Americans behaviorally define, prioritize, and engage with similar cultural values.

The literature regarding parenting styles in Latinx families has been growing, although it is not as dense as the literature with White Americans. Within the literature for Latinx families, the literature regarding Puerto Rican families is significantly limited and primarily focused on Puerto Rican families living in the U.S. mainland. The present study focuses on island Puerto Rican families. As such, it is important to have some historical background of Puerto Rican families and their cultural and political context to understand what sets this population apart from other Latinx groups.

**Puerto Rico: Historical Context**

Puerto Rico has a unique cultural background that sets it apart from other Latinx
subgroups. Puerto Rico has been a U.S. colony since 1898 and is currently considered a U.S. territory. Because of its territorial status, it is a combination of White American and Puerto Rican culture. Among Puerto Rico’s differences from other Latinx cultures are a mixed racial background (i.e., the island’s indigenous people or Tainos, Africans, and Spaniards), differences in national origin, language, and the amount of contact with the mainstream White American culture (Ramos, 2005). After colonization by the U.S., Puerto Rico underwent many economic, structural, cultural, and political changes. First, the U.S. focused on the education system in order for Puerto Ricans to learn about the U.S. culture and transition towards using English as the official language (Domínguez Miguela, 2001; Ramos, 2005). In 1917, the U.S. conferred U.S. citizenship, which made Puerto Rican men eligible to be drafted into the U.S. military. As a result of this recruitment, thousands of Puerto Ricans moved to the U.S. In 1953, the United Nations removed Puerto Rico’s colonial status. The island remained under U.S. rule as a non-incorporated territory.

In the late 1940s, the island underwent an economic crisis, which caused many Puerto Ricans, mainly from the working class, to migrate to the U.S. This was part of a government initiative led by the U.S. to solve two major issues: overpopulation on the island and the economic crisis. The intense period of migration significantly increased contact between both cultures, which accelerated Puerto Rican’s acculturation process (Duarte et al., 2008); 40% of the Puerto Rican population had migrated to the U.S. by the 1970s (Pérez y González, 2000).

Historically, Puerto Ricans have engaged in circular migration. In other words,
Puerto Ricans migrated to the U.S. when in financial need and returned to the island when the financial or workforce situation improved. This pattern has repeated itself, leading to a continuous exchange between both cultures (Concepción, 2008). This circular migration remains prevalent today. It is also important to remember that because of its colonized status and history, standards from the colonizer’s culture are imposed as the “right” way of thinking and behaving (Trimble, 2009), which in turn might influence the degree of assimilation of Puerto Ricans to U.S. culture.

It is also important to highlight the current situation for Puerto Ricans on the island. The island is currently undergoing a major economic crisis that is causing another major wave of migration to the U.S. mainland. This is considered the second biggest “Puerto Rican Exodus” since the first one in the 1950s (El Nuevo Día, 2016, para. 3). Entire families are moving to the U.S. in search of economic and work stability, and the demographic characteristics of the majority of the migrating Puerto Ricans include educated (i.e., college degrees), working class, and young families (median for parents is 29 years old). The State Data Center of Puerto Rico (2015) calculated that approximately 263,000 Puerto Ricans migrated to the U.S. between 2010 and 2014, while only 20,000 Puerto Ricans returned to the island in 2014. Once more, this migration puts Puerto Rican families in more intense contact with the U.S. mainstream culture. A significant difference from the 1940s-50s migration is the worldwide movement towards globalization. Puerto Ricans have increasingly more access to the U.S. mainstream culture through the increase of migration and flying availability and the use of the television (with emphasis on White American television programs).
By the end of 2017, it has been estimated that 281,000 Puerto Ricans migrated to the continental U.S. as a result of the devastation left by hurricane Irma and María. This has been called the “New Big Exodus,” which is bigger than the aforementioned one in 2016. On the other hand, 70,410 Puerto Ricans returned to the island between the months of January and March of 2018, which is again, evidence of circular migration. However, the migration back to the continental U.S. is expected to rise to levels consistent to the ones exhibited at the end of 2017 (Cortés Chico, 2018). Hence, these natural disasters might have accelerated the patterns of circular migration.

Capielo Rosario et al. (2018) conducted a study to examine acculturation in Puerto Ricans living in Central Florida (for an average of 10 years) and Puerto Ricans living on the island (i.e., have never lived in the U.S. mainland). Results showed that Puerto Ricans that had never left the island showed the same levels of acculturation as Puerto Ricans living in Central Florida. This shows evidence that Puerto Rico’s colonial status has influenced Puerto Rican’s behaviors. However, it is not yet known if this has had an impact on parenting styles.

As a result of economic crises throughout the years, Puerto Rican’s U.S. citizenship, and acculturation processes, Puerto Ricans live in a distinct sociopolitical and cultural context. Unlike other Latinxs, Puerto Ricans have the flexibility to travel to the U.S. without regard for immigration status. The circular migration with the U.S. creates a unique situation for Puerto Rican families, highlighting assimilation processes as well as the differences between both cultures, such as: colonization history, cultural heritage, language, values, and traditions. Currently, it is not known if, due to Puerto Rico’s unique
sociopolitical characteristics, Puerto Rican families parent similarly or differently than White American or other Latinx subgroups. Nonetheless, a broad review of the literature on Latinx families will be presented to establish a foundation for the current study regarding parenting styles in Puerto Rican families.

**Parenting and Child Outcomes in Latinx Families**

Authoritative parenting has been associated with positive child outcomes in Latinx families in several studies, such as Calzada and Eyberg (2002), Carlo et al. (2017), Guilamo-Ramos et al. (2007), Steinberg et al. (1992), and White et al. (2013). However, other researchers have not found this to be the case, with authoritarian parenting being associated with more positive outcomes for Latinx families (Lindahl & Malik, 1999) or not finding a significant association between authoritativeness and positive child outcomes (Finkelstein et al., 2001; Park & Bauer, 2002). Yet other researchers have found other parenting typologies (i.e., protective parenting) to be predictive of child outcomes (M. R. Davis, 2006; Lowe & Dotterer, 2013).

**Authoritative Parenting**

Several studies have found that Latinx parents do engage in authoritative parenting (Jabagchourian et al., 2014; Rohner, 2004; Varela et al., 2004; White et al., 2013) and that these practices are associated with positive child outcomes. For example, academic achievement and performance as well as behavior problems have been consistently associated with authoritative parenting. A study of ethnic differences in adolescent achievement \( n = 15,000; \) one third of the sample being Asian American,
African American, and Latinx) showed that within Latinx families, authoritative parenting was associated with better schooling outcomes (i.e., school performance, attitudes towards school) and fewer behavior problems (e.g., alcohol use, delinquency; Steinberg et al., 1992). These findings were also found in Latinx children and adolescents (predominantly Mexican) using both, one-time and longitudinal data collection. Authoritative parenting was associated with higher grade point average, academic engagement (e.g., completed assignments), and self-efficacy, and lower levels of behavioral problems (e.g., aggression) than “less involved” (i.e., neglectful) and “moderately demanding” parenting (i.e., high on acceptance, low on harshness, and moderate levels of monitoring and discipline; Carlo et al., 2017; Jabagchourian et al., 2014).

Authoritativeness has also been linked to internalizing outcomes, prosocial behaviors, and psychosocial adjustment. Children and adolescents of parents who exhibited an authoritative parenting style showed higher levels of psychosocial adjustment (e.g., social competence, self-esteem) and lower levels of psychological distress (e.g., anxiety, depression; Steinberg et al., 1992). These findings have been consistent through the years, where studies also showed significant associations between authoritativeness and higher levels of social competence (e.g., “plays with others”), perspective taking, self-regulation (e.g., “can calm down when excited”), and prosocial behaviors (C. Carlson et al., 2000; A. N. Davis et al., 2015; Jabagchourian et al., 2014). Overall, Latinx parents have been found to engage in authoritative parenting and it has been associated with positive internalizing and externalizing outcomes.
Conflicting Findings

Although the majority of the studies have found a positive link between authoritativeness and positive child outcomes within Latinx samples, this has not always been the case. Lindahl and Malik (1999) studied parenting styles in relationship to externalizing behaviors in Latinx children between the ages of 7 and 11. They divided the sample in three groups: White American \((n = 32)\), Latinx \((n = 50)\), and biethnic (i.e., one parent White American and one Latinx; \(n = 31)\). Observational data of both parents was obtained as a measure of parenting styles (i.e., authoritative, authoritarian, and permissive) and parent report data as a measure of externalizing child outcomes (i.e., aggressive and delinquent behaviors). Results showed that for White American and biethnic families, an authoritarian parenting style was associated with higher levels of externalizing problems, but for Latinx families, it was associated with lower levels of externalizing problems. Also, a study by Park and Bauer (2002) found similar outcomes as Lindahl and Mailk. Park and Bauer utilized a sample of 11,790 students (eighth graders); 1,449 of them Latinxs. Parenting styles and academic achievement were assessed using self-report questionnaires. Results showed that lower parental authoritarianism and higher parental authoritativeness were significantly associated with academic achievement for White American but not Latinx students. Thus, authoritativeness is not always predictive of better child outcomes for Latinx samples.

Other researchers have also described Latinx parents as authoritarian (Calzada et al., 2012; Falicov, 1998; Knight et al., 1994), which has historically been associated with more negative child outcomes within White American samples (Coie & Dodge, 1998;
However, a study was conducted to examine ethnic differences in association with authoritarian parenting and adolescent depression (Finkelstein et al., 2001). Interviews and self-report measures were used in a sample of 111 girls between the ages of 12 and 18. The largest ethnic group was Black American (45%) followed by White American (37%), and Latinx (18%). Black and Latinx girls reported higher levels of authoritarian parenting than White American girls. Authoritarian parenting was not predictive of depression for White American and Latinx girls although was predictive for Black American girls. Thus, although more authoritarian parenting was reported for Black and Latinx girls, it was not predictive of depression for the Latinx group. Hence, this suggests that authoritarianism might not always associated with negative outcomes. It is important to consider that this study had a small Latinx sample size.

Furthermore, other researchers have found Latinx parents to engage in protective parenting (M. M. Domenech Rodríguez et al., 2009; M. R. Davis, 2006; Lowe & Dotterer, 2013), which is a parenting style characterized by low to moderate levels of autonomy granting. This is different from White American families, who engage in high levels of autonomy granting (i.e., authoritative parenting). This difference might be tied to the influence of Latinx cultural values (e.g., respeto, familismo) in child-rearing practices. M. R. Davis (2006) conducted a study with 50 Mexican families, with at least one child between the ages of 4 and 9. Observational data was used to assess parenting styles and parent report measures were obtained to assess child outcomes. The majority of the sample (60%) was categorized as protective, a style that was associated with lower
levels of negative child outcomes. Additionally, the second largest group of parents were categorized as authoritarian (35%). These results might suggest that traditional parenting styles may not be accurate representations of Latinx parenting styles, given that the combination of parenting dimensions involved in protective parenting are not currently used by the mainstream parenting literature.

In a more recent study, Lowe and Dotterer (2013) conducted a study on parental monitoring and warmth in relationship to ethnic minority youth academic outcomes. A sample of 208 students (63% African American, 19% Latinx, 18% multiracial; 60% girls) was obtained. Results showed that parental monitoring increased school motivation. Also, mothers’ warmth within a context of monitoring was positively associated with youths’ school engagement and academic motivation. For fathers, monitoring and warmth was predictive of higher self-esteem. Hence, this study provides support for ethnic minority parents engaging in moderate autonomy granting within a context of a warm environment, and it being linked to positive child outcomes.

**Permissive and Neglectful Parenting**

In White American and Latinx families, permissive and neglectful parenting styles are consistently associated with negative child outcomes. Numerous studies have linked permissive parenting style to higher levels of externalizing and internalizing problems, such as aggression, drug and alcohol use, cigarette smoking, gambling, school misconduct and performance, unhealthy eating behaviors, and poorer coping methods, when compared to children from nonpermissive families (Kawabata et al., 2011; Lamborn et al., 1991; Leeman et al., 2014; Lindahl & Malik, 1999; Luyckx et al., 2011;
Neal & Frick-Hobury, 2001; Varvil-Weld et al., 2014). Neglectful parenting has also been associated with negative child outcomes, such as higher levels of delinquency, alcohol and drug use, anti-social behavior, criminal offenses, anger and depression, and internalized distress. Additionally, children with neglectful parents demonstrate lower levels of academic competence, social bonding, and psychosocial development (Hoeve et al., 2009; Knutson et al., 2004; Lamborn et al., 1991; Luyckx et al., 2011; Rohner, 2004; Schroeder et al., 2010). It is important to notice that there is a mixture of methods used across these studies (i.e., observational data, interviews, and self-report).

**Puerto Rican Parenting and Child Outcomes**

The research regarding Puerto Rican parenting is limited. Within this research, studies suggest that Puerto Rican parents living in the U.S. mainland predominantly engage in authoritative parenting. A study conducted with Puerto Rican and Dominican mothers (n = 130) living in the U.S. (54% Puerto Rican; children between 2 and 6 years of age) using self-report questionnaires assessed parenting styles. Both Dominican and Puerto Rican mothers were highly authoritative (e.g., high levels of warmth, low levels of harsh demandingness), although Dominican mothers exhibited higher levels of authoritative practices than Puerto Rican mothers (Calzada & Eyberg, 2002).

Other studies have confirmed this using observational data (infants; 47% Puerto Rican and 53% White American) and qualitative data (adolescents; 30% Puerto Rican; 70% Dominican) with mother-child dyads (V. J. Carlson & Harwood, 2003; Guilamo-Ramos et al., 2007). In both, Puerto Rican mothers were found to be high in demandingness and warmth, which is characteristic of authoritative parenting. Autonomy
granting was also discussed and it was found that both groups of mothers agreed that “increasing amounts of autonomy had to occur within the context of clear parental rules and guidelines” (Guilamo-Ramos et al., 2007, p. 23). V. J. Carlson and Harwood found that parenting practices are shaped by their long-term socialization goals. Hence, high physical control (i.e., a factor in demandingness and autonomy granting) was tied to teaching their children to be attentive, calm, and well-behaved (i.e., respeto), which requires substantially more monitoring and physical control than teaching children to be assertive and self-confident like their White American counterparts. Furthermore, high levels of physical control (i.e., a factor in demandingness and autonomy granting) were associated with secure 12-month attachment for Puerto Rican infants and with insecure attachment for White American infants (V. J. Carlson & Harwood, 2003). Hence, there parenting practices are understood in terms of the cultural values of respeto and familismo.

Furthermore, Negroni-Rodríguez (2004) conducted a study with Puerto Rican mothers and found that they often shared decisions with their children about discipline and independence. Translated into the three dimensions currently used in the parenting styles literature, Latinx parents might be high on warmth and demandingness, but low on autonomy granting. This is in accord with Guilamo-Ramos et al.’s (2007) findings in terms of autonomy granting. The aforementioned combination of parenting dimensions (i.e., high warmth, high demandingness, and low to moderate autonomy granting), which would comprise the protective parenting style, has not been used in the parenting styles currently used by the literature.
Although not specifically targeting parenting styles, M. D. Domenech Rodríguez et al. (2013) studied parenting practices (i.e., skills building, monitoring, problem solving, discipline, and positive involvement) and child outcomes (i.e., internalizing and externalizing) in Puerto Rican families living on the island. A sample of 52 families, with children between 6 and 11 years old, were examined using self-report measures. Parental monitoring and problem solving were associated with fewer externalizing symptoms. A negative correlation between higher levels of skills building and positive involvement and externalizing symptoms approached significance. It is important to highlight that this is the same sample used by Rosario Colón (2016, see description of study below). Gayles et al. (2009) also conducted a study to examine parenting predictors of youth problem behaviors. Parental self-report measures were used with a sample of 167 Latinx youth (e.g., Cuban, Puerto Rican, Nicaraguan, Colombian, Salvadorian; 60% boys) was obtained. Results showed positive parenting, effective discipline, shared time, and extent of involvement were negatively associated with problem behavior. Rule setting and discipline avoidance were positively associated with problem behavior in one-parent families.

Last, Rosario Colón (2016) studied parenting styles and child outcomes in Puerto Rican families living on the island. The sample was comprised of 51 families with a child between the ages of 6 and 11. Observational data was used to assess parenting styles and self-report measures were used to assess child outcomes (i.e., internalizing and externalizing). Overall, the majority of the sample was categorized as authoritative (68.6%), followed by “cold” parenting (23.5%). “Cold” parenting was defined as parents
who exhibited low levels of warmth when compared to authoritative families, but high levels of demandingness and autonomy granting. This is the first time that families have been found to be “cold.” Authoritative parenting was significantly associated with lower internalizing and externalizing child problems in comparison to cold and permissive families. However, one of the limitations of this study was low variability within the warmth subscale (i.e., ceiling effect). All families scored high on warmth. Families were coded as “low on warmth” in comparison to warmth levels of authoritative families, thus “cold” families were not cold from an operational definition standpoint, but rather cold in relation to the very warm families. It is also important to highlight that this, to the best of our knowledge, is the only study that studied parenting styles and child outcomes in Puerto Rican families living on the island. The current study builds upon this study by using the same sample but with a different method (i.e., individual coding system), in order to parse out possible methodological issues when using observational data. This would allow the differentiation between specific parental behaviors, which when coding globally, might get obscured by the behaviors of one parent versus the other.

**Parenting Styles by Parent and Child Sex**

**White American Families**

Researchers have found differences in child outcomes dependent on parents’ sex. McKinney and Renk (2008) studied differential parenting styles and late adolescent adjustment. The participants were 151 men and 324 women enrolled in college, of which 76% were White American. Self-report measures were collected for parenting styles and
emotional adjustment (e.g., anxiety and depression). College students reported that mothers tended to be more authoritative in their parenting than fathers, who tended to be more authoritarian. Also, adolescents for whom both parents were authoritative showed better emotional adjustment. Adolescents with authoritarian fathers and authoritative mothers showed higher emotional adjustment, in comparison to those with two authoritarian parents and those with a permissive father and authoritarian mother combination. In contrast, Milevsky et al. (2008) examined 272 adolescents’ (53% men, 93% White American) and found children with permissive mothers scored lower in self-esteem in comparison to those with a permissive father.

Several other studies have confirmed differences in child outcomes dependent on parent gender. Gordon Simmons and Conger (2007) confirmed differences in child outcomes, in this case delinquency, dependent on parent gender. The study sample was comprised of 451 White American intact families, father, mother, and adolescent (52% women). In concordance with McKinney and Renk’s (2008) study, results showed that mothers were more likely to be authoritative than fathers, who were more authoritarian. Also, uninvolved mothers were associated with higher levels of negative outcomes than combinations where an uninvolved father was present. However, the highest levels of negative outcomes were associated with two uninvolved parents.

Also, the meta-analysis performed by Kawabata et al. (2011) found that the combination of mother’s permissive parenting and father’s authoritarian parenting were predictive of relational aggression in girls. The study also found that paternal authoritarian parenting was related to relational aggression in children, but not maternal
authoritarian parenting (Kawabata et al., 2011). Furthermore, Moilanen et al. (2014) found that maternal authoritarian parenting predicted decreases in self-regulation. In addition, Chassin et al.’s (2005) study found that adolescents with authoritative mothers were less likely report increases in smoking when compared to neglectful mothers, but not for fathers.

In sum, researchers have also found differences in parenting styles and child outcomes dependent on parents’ gender and child sex in White American families. Studies showed that mothers tended to be more authoritative in their parenting than fathers, while fathers tended to be more authoritarian (Gordon Simmons & Conger, 2007; McKinney & Renk, 2008). In terms of child outcomes, paternal authoritarian parenting was related to relational aggression in children, but not maternal authoritarian parenting (Kawabata et al., 2011), while maternal authoritarian parenting predicted decreases in self-regulation (Moilanen et al., 2014). For permissive parenting, children with permissive mothers scored lower in self-esteem in comparison to those with a permissive father (Milevsky et al., 2007), while the combination of mother’s permissive parenting and father’s authoritarian parenting were predictive of relational aggression in girls (Kawabata et al., 2011). Lastly, children with neglectful mothers were associated with worse outcomes than when a neglectful father was present (Gordon Simmons & Conger, 2007).

**Latinx Families**

To understand differences in parenting styles dependent on parental and child sex within the context of Latinx families, it is necessary to understand gender socialization.
Gender socialization can be examined through a cultural lens by understanding values of *machismo* and *marianismo*. These cultural values define behaviors and beliefs dependent on gender roles that manifest differently for men and women (A. N. Davis et al., 2015). Machismo is a multi-faceted construct, which emphasizes men’s authority, aggression, strength, and sexuality, while also focusing on the man as the main provider of the house (“breadwinner”), being honorable, respectful, and the carrier of familial responsibilities (Arciniega et al., 2006; Cruz et al., 2011; Mogro-Wilson et al., 2016). Marianismo emphasizes women’s submissiveness and virtue (e.g., chaste, feminine) as well as women’s roles as primary child caretakers and being the family’s pillar (Castillo & Cano, 2007; Cruz et al., 2011; Diekman et al., 2005; Raffaelli & Ontai, 2004). These values may impact fathers’ and mothers’ parenting practices in order to promote their beliefs about appropriate gender-related behaviors. For example, A. N. Davis et al. (2015) found supportive parenting to be associated with traditional gender role values for girls but not for boys.

Studies with Latinx children have found differences in parenting practices dependent on parent gender. For example, studies have found mothers to be more authoritative or democratic and fathers more authoritarian (Jabagchourian et al., 2014; Mogro-Wilson, 2013). For mothers, allowing reciprocity and providing clear expectations, and understanding when their child disagreed, predicted higher grades, social competence, perspective taking, self-regulation, and lower levels of aggressive behaviors. Regarding fathers, the use of reasoning and explanations when he demanded something and/or when the child disagreed with said demand, and providing clear
guidelines for proper behavior predicted higher levels of academic engagement, social competence, and perspective-taking (Jabagchourian et al., 2014; Jones et al., 2006).

Furthermore, when looking at Latinx adolescents, a longitudinal examination of parenting (i.e., parental monitoring, support, and strictness) found that mothers’ strictness was negatively related to risky sexual behaviors, while fathers’ strictness and low levels of monitoring were positively associated with sexual risk in Latinx youth ($n = 1,665$; 51% boys; Killoren & Deutsch, 2014). Carlo et al.’s (2017) aforementioned study also found differences in child outcomes by parent gender. Results showed that both, mothers and fathers of youth who were less involved (but in combination with mothers who were moderately demanding) were less likely than youth of authoritative parents to exhibit high levels of prosocial behaviors.

Research shows that parental expectations and behaviors change dependent on beliefs about children’s appropriate gender-related behaviors. Raffaelli and Ontai (2004) and M. M. Domenech Rodríguez et al. (2009) provided evidence of this in a predominantly Mexican sample, where higher levels of demandingness and lower levels of autonomy granting were exhibited for girls than boys. In Latinx college students, results showed that women, in comparison to men, experienced higher restrictions on social activity (e.g., age of dating, going out alone) and privilege (e.g., getting their driving license or a job) from their parents (Raffaelli & Ontai, 2004). The same was found in a study of a different Latinx subgroup (i.e., Dominican and Puerto Rican girls), where girls were given higher levels of household responsibilities and lower levels of autonomy granting, while boys were less supervised and granted higher levels of
autonomy by their parents (Guilamo-Ramos et al., 2007).

There is evidence that same-sex versus cross-sex parent-child interactions also have an effect in child outcomes. Killoren and Deutsch (2013) found a stronger negative correlation between mothers’ strictness with risky sexual behaviors for girls than boys. In addition, there was a stronger negative association between fathers’ monitoring and risky sexual behaviors for girls than boys. Also, Dumka et al. (2009) found that father’s warmth and monitoring was inversely associated with problem classroom behavior for boys but not girls. Parents’ harshness was associated with lower problem classroom behavior for both boys and girls, although higher paternal harshness was related to lower problem peer association for boys, while mothers’ harshness was associated with higher problem peer association for girls.

In sum, studies found differences in parenting styles and child outcomes dependent on parent sex, child sex, and same-sex versus cross-sex parent-child interactions. For example, Latinx mothers tend to be more authoritative and fathers more authoritarian (Jabagchourian et al., 2014; Mogro-Wilson, 2013). For mothers, allowing reciprocity and providing clear expectations predicted a broader variety of positive child outcomes than fathers (Jabagchourian et al., 2014). Regarding child sex, studies showed that women, in comparison to men, experienced higher levels of household responsibilities, parental restrictions regarding social activities and privileges, and lower levels of autonomy granting (M. M. Domenech Rodriguez et al., 2009; Guilamo-Ramos et al., 2007; Raffaelli & Ontai, 2004). In terms of same-sex versus cross-sex parent-child interactions, mothers’ strictness was negatively related to risky sexual behaviors while
the inverse was found for fathers and daughters (Killoren & Deutsch, 2013). Also, higher paternal harshness was related to lower problem peer association for boys but not girls. However, mothers’ harshness was associated with higher problem peer association for girls (Dumka et al., 2009). Hence, parent gender and child sex have both been linked to differences in parenting styles and child outcomes. These differences, although not necessarily the same, exist for both White American and Latinx families. Differences in parenting styles between parents can be understood within the context of cultural values.

**Observational Data**

The literature presented used a variety of methods to collect data. However, the current study used observational data. Behavioral observation is one of several approaches available to researchers engaged in measurement of quantitative behavioral research. The use of observational research is based on several characteristics or factors that are inherently provided by this approach that other methods do not provide. Bakeman and Quera (2012) stated the three main reasons for using observational measurements. First, behavioral observation is useful when nonverbal organisms, such as human infants, are being studied. Although the current study does involve children with the developmental capacity to express themselves, children might not have the capacity to answer the questions being asked (e.g., “Is your parent being warm towards you?”). Furthermore, even when the individuals are verbal, the use of observational methods allow us to study nonverbal behavior specifically. It is important to also note that how people say they should behave (i.e., beliefs) is not always how they behave, thus
behavioral observations can provide information that participants themselves could not provide. Second, behavioral observation allows the assessment of naturally occurring behavior. Last, when researchers are interested in interpersonal processes, not only specific outcomes, observations capture behavior as it happens, which is critical to understanding process.

Benefits and Limitations

Observational data presents several benefits as well as limitations. Some of the benefits include the opportunity to measure nonverbal behaviors as well as an indirect measure of what is “in their minds” (Bakeman & Quera, 2012). It also allows us to sample a set of behaviors in the moment, without depending on retrograde memories, which may be biased (Tourangeau et al., 2000). Another benefit is that spontaneous behavior seems more natural than elicited behaviors (e.g., filling a questionnaire). Although people know that they are being observed and that might affect their behavior, research shows that people quickly habituate to being observed (Bakeman & Quera, 2012). As mentioned above, another benefit is how observational data also allows the examination of the process instead of just the outcomes. Additionally, behaviors are defined consistently and reliably by the researcher, rather than by the parent (Aspland & Gradner, 2003). Even though third-party observers are not completely unbiased, testing the reliability of their measurements is a way to minimize that bias, thus maintaining accuracy, which cannot be accomplished when using interviews or questionnaires.

Observational data also have limitations. For example, “even with standard definitions, inconsistent coding of the variables within or between studies could lead to
biased or unexpected observations” (Wang & Bogucki, 2010, p. 987). Additionally, observational data only provides a sample of behaviors within specific and structured tasks, limiting possible behavioral repertoires. Artificial settings are not the equivalent to natural environments (e.g., home, school) where the participant’s behaviors could be more accurately observed. Moreover, because of the structured nature of the tasks, the family might be primed to engage in certain behaviors that might not happen on a daily basis, thus the observation may not be representative of each individual’s behaviors. Furthermore, observer bias can also be a limitation of observational data. Rater’s personal views and ethnic background can bias behavior coding, which presents an obstacle for making valid generalizations (Aspland & Gardner, 2003; Gonzáles et al., 1996; Orwin & Vevea, 2009; Yasui & Dishion, 2008).

Observational data is expensive to obtain (Bakeman & Quera, 2012; Markman & Notarius, 1987). Observational data involves multiple coders, equipment, and possible compensation to the participants for their time and effort. Observational data also warrants ethical considerations given the nature of the data itself. Recording videos or audio is a highly identifiable type of data, which inherently includes strict safety procedures in order to guard the participants’ confidentiality.

Nonetheless, there are several ways of addressing these limitations. For example, the inconsistent measure of variables can be addressed through the use of the same coding scheme between studies. In order to minimize observer bias, several measures are in place, including: coders training prior to coding the observational data, inter-rater reliability measures at multiple time points in the process of coding, using concrete and
specific items to measure behaviors, and involving raters that share a similar cultural background as the sample being studied. Research shows that people quickly habituate to being observed (i.e., they “forget” they are being observed; Bakeman & Quera, 2012). Additionally, using different tasks that target a wide range of behaviors can help compensate for the artificial nature of the observation. Lastly, one-time observations, high cost, and ethical considerations are limitations shared by multiple research methods (e.g., experimental designs, interviews, qualitative studies). No one specific research method is all encompassing. Among the array of imperfect methods, observational data is considered the gold standard for family research given that it has been shown to be a better predictor of child outcomes than parent or teacher reports (Forgatch & DeGarmo, 2002; Patterson & Forgatch, 1995).

**Global Coding Systems**

Global coding systems are designed to capture global or macroanalytic observations, interactions, and behaviors that are considered part of an ongoing active system where behavioral and interaction patterns develop over time. The underlying assumption behind global coding is that behaviors displayed during a specific time period provide information on fairly stable characteristics of each person and the relationship between them (Lindahl, 2001). Global coding measures uses subjective estimates of quantity rather than direct counts of behaviors (Aspland & Gardner, 2003).

Several studies regarding parenting styles have used global coding measures. Holmbeck et al. (2002) studied observed and perceived parental overprotection in relation to psychosocial adjustment in preadolescents. Using a global coding scheme, coders
viewed an entire family interaction task and then provided Likert-type scale ratings on a variety of parenting dimensions. McCarty et al. (2004) also studied parent-child interactions in relation to overinvolved expressed emotions. In this study, parents and their children were assessed using global ratings reflecting an array of dimensions (e.g., independence, discipline, antagonism, affective style). Last, Lunkenheimer et al. (2007) conducted a study examining family interactions. Mothers’ and fathers’ joint socialization efforts in the whole-family context were examined in order to show how parents facilitate or hinder children’s emotional competence in family interactions.

An important factor of global coding systems is that it targets the systemic nature of family interactions. Children’s behaviors develop within the context of the interactions of both parents (i.e., interactional pattern, Robin & Foster, 2002); thus influencing each other within the family system. Hence, global coding provides an ecological validity to research by studying the family members as a system that influences each other.

**Individual Coding Systems**

Individual coding systems are designed to capture individual interactions and behaviors that are considered when examining differences within family units (e.g., different engagement in parental behaviors dependent on parental sex). The underlying assumption behind individual coding systems suggests that the behaviors displayed during a specific time period and the information it provides might vary depending on each individual involved and the relationship between said individuals within the global unit. This allows the measurement of possible differences based on each person’s individual characteristics within the observation.
Many research studies have used individual coding systems. Davis (2006) studied parenting styles with a predominately Mexican American sample. This study used a parenting scale to code mothers’ and fathers’ individual interactions with their child during the completion of several interaction tasks (e.g., cooperative task, problem solving). Milevsky et al. (2007) also studied parenting styles dependent on parental sex and its relationship to self-esteem, depression, and life-satisfaction. In order to examine differences because of parental sex, Milevsky et al. coded maternal and paternal styles separately. Barton and Kirtley (2012), although using survey measures, also examined parenting styles in relationship to mental health outcomes. Surveys measured both maternal and paternal parenting separately. Gunnoe (2013) examined the associations between parenting style, physical discipline, and adjustment in adolescents’ reports. Gunnoe used survey methods to obtain data about maternal and paternal parenting styles in order to draw associations between parent gender and adolescent adjustment (e.g., depressive symptoms, academic rank).

**Coding System’s Selection**

It is somewhat difficult to establish differences in results between family and individual coding systems for family interactions, given the differences in the parenting dimensions or practices studied among the aforementioned studies as well as the different coding systems being used, regardless of it being global or individual. Each coding system has its strengths and limitations. It is important to use a coding system that better fits the needs of the study (i.e., the type of research question).

The current study builds on the research conducted by Rosario Colón (2016),
which intended to decrease a gap in the literature by assessing parenting styles, at a family level, and its association to child outcomes in an understudied sample, Puerto Rican families. The objective of Rosario Colón’s initial study was to describe Puerto Rican families’ prevalence of each parenting dimension and parenting style, and to assess the relationships between parenting and child outcomes at a family level; which is more cost effective in terms of resources (i.e., the researcher’s and the family’s time). However, coding the parenting dyad presented challenges to obtaining clear answers to the different research questions, such as: low variability within subscales, one parent’s behavior overshadowing the other parent’s behavior, and the inability to examine possible differences due to parent gender. The current study aimed to build up on Rosario Colón’s by assessing individual parenting styles (i.e., mothers and fathers) and their relationship to child outcomes (i.e., boys and girls). Individual coding will allow for a more detailed analysis of the contribution of each parents’ parenting style and possibly uncover the importance of parents matched or unmatched styles of parenting. From a methodological standpoint, the current project also aimed to elucidate more clearly the effectiveness of global versus individual coding of parent-child interactions and its possible influence in the accuracy of results in parenting research.

**Summary and Objectives**

In conclusion, the studies discussed in this review present another perspective on previously observed associations between authoritativeness and positive outcomes, since authoritarian parenting was related to positive outcomes in some instances or was failed
to be associated to negative outcomes in Latinx samples. Moreover, M. R. Davis’s (2006) study provide some evidence that, when using all three parenting dimensions (i.e., warmth, autonomy granting, and demandingness) researchers may gain a broader picture of parenting styles. Hence, it suggests that the four main parenting typologies currently used in the literature might not accurately describe a subgroup of Latinx families.

It is important to highlight that the majority of these studies have been conducted with Mexican American samples. Studies conducted with more diverse Latinx subgroups (e.g., Dominican, Puerto Rican), have been conducted with those living in the U.S. mainland, leaving a gap regarding Puerto Rican families living on the island. A possible explanation for the link between Latinx samples and authoritative parenting styles might be due to the cultural context in which they are parenting. Findings on authoritative styles might assess the degree that the ethnic minorities raising children within a majority culture (i.e., White American), assimilating to U.S. White American parenting yields positive results within the context they live in, which might or might not be the case if they were parenting within their cultural context of origin. On the contrary, the link between Latinx samples and authoritarian and/or protective parenting might be because engaging in Latinx-centered child-rearing practices within a socialization (e.g., frequent contact with their heritage of origin) congruent with their cultural background might also yield positive child outcomes for Latinx families. Given Puerto Rico’s unique cultural context, it is of importance to determine the applicability of the current research and interventions.

The current study aimed to help fill the literature gap regarding Puerto Rican
parenting styles who live on the island and its relationship to child outcomes. Furthermore, this study also focused on methodological aspects, namely coding systems, which might influence the results and consequently, future parenting interventions. Knowing if there are differences in results dependent of which methodological framework is used would provide useful and important information regarding the accuracy and applicability of research to the current parenting literature.
CHAPTER III

METHODOLOGY

Design

This study used an extant data set, originally collected by M. D. Domenech Rodríguez et al. (2013). Parents completed self-report questionnaires as a measure of child outcomes (described below). Observational data was collected involving parents’ interactions with their child in a number of structured tasks, which were videotaped. The original study coded the videos according to parenting practices. A secondary study using this data set was conducted by Rosario Colón (2016), in which the observational data was coded using a global coding system of the three parenting dimensions, from which family parenting styles were derived. The current study aimed to code the interactions of each parent-child dyad separately using the three parenting dimensions, from which mothers’ and fathers’ parenting styles are going to be derived.

Participants

M. D. Domenech Rodríguez et al. (2013) recruited 55 families in Puerto Rico, primarily from the areas of San Juan and Ponce. Families were comprised of two parents and a child between the ages of 6 and 11. Each parent completed self-report questionnaires. Observational tasks were conducted during a period of approximately 33 minutes. See Table 1 for demographic information.
Table 1

Participants’ Demographic Information

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mothers</th>
<th>Fathers</th>
<th>Girls</th>
<th>Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Age</td>
<td>36.48</td>
<td>7.67</td>
<td>37.81</td>
<td>8.00</td>
</tr>
<tr>
<td>Education:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate degree</td>
<td>38</td>
<td>69</td>
<td>29</td>
<td>52.7</td>
</tr>
<tr>
<td>Country of origin:</td>
<td>44</td>
<td>80</td>
<td>47</td>
<td>85.5</td>
</tr>
</tbody>
</table>

Sample Size and Recruitment Procedures

A convenience sample was obtained. The original research team used the following inclusion criteria to recruit the sample: (a) two parents currently in the home, (b) a child between the ages of 6 and 11, (c) absence of developmental problems, and (d) absence of severe child conduct problems. M. D. Domenech Rodríguez et al. (2013) excluded 30 families from the initial sample \( N = 105 \). The primary reason for exclusion was the criterion for family structure (i.e., single parent homes). Although 75 families met inclusion criteria, only 55 completed the study. The families participated in one session where all required data was collected. Parents completed the questionnaires and were video recorded while engaging in several behavioral tasks with their child.

Procedure

Prior to the beginning of the study, the investigators obtained approval by the Comité Institucional para la Protección de Seres Humanos en Investigación at the University of Puerto Rico in Río Piedras, and the Institutional Review Boards of Utah.
State University and Ponce School of Medicine in Puerto Rico. Recruitment was done through several avenues (i.e., schools, community workshops, flyers, newspaper columns, and word-of-mouth). The flyers and other materials are available in Open Science Framework (https://osf.io/fz36t/). Participants were screened and appointments were made with families that met the aforementioned inclusion criteria. The screening questionnaire is available in Open Science Framework (https://osf.io/fvrea/). Data were collected in three different settings: Institute for Psychological Research Community Clinic, Ponce School of Medicine Community Clinic, or at the participants’ homes (M. D. Domenech Rodríguez et al., 2013). Prior to data collection, the investigators obtained informed consent from each parent and assent from the child. The informed consent form is available on Open Science Framework at https://osf.io/ra895/.

The Family Interaction Tasks (FITs) were divided into two phases. In phase A (7 min), the evaluator met only with the parents and explained two of the tasks: the guessing game and the puzzle game (see Table 2), and practiced each task with them. This phase was not videotaped. In phase B (33 min), the child was brought into the observation room with the parents and the evaluator. This phase was videotaped. Table 3 describes each of the seven tasks. Although all 7 tasks were videotaped, only 6 tasks were coded during the current study, given that one of the tasks (i.e., problem selection) does not involve parent-child interactions. Detailed instructions on each task are available on Open Science Framework (https://osf.io/5evub/). Each parent received $25 and an invitation to participate in a free parenting workshop (see https://osf.io/fz36t/), and the child received a small item for participation.
Table 2

Phase A: Teaching Family Interaction Tasks (FIT) to Parents

<table>
<thead>
<tr>
<th>Order</th>
<th>FIT</th>
<th>Materials</th>
<th>Duration (minutes)</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Guessing game</td>
<td>Cards</td>
<td>3</td>
<td>P1, P2, E</td>
</tr>
<tr>
<td>2</td>
<td>Puzzle</td>
<td>Cards and puzzle pieces</td>
<td>4</td>
<td>P1, P2, E</td>
</tr>
</tbody>
</table>

Phase duration 7

1 A video camera, tripod, table, chairs, and stopwatch will be used in each task.

2 The duration exclusively includes the time the participants are engaging in the task, without including the time where instructions are given for each task; 3 P1 and P2 = parent, C = child, E = evaluator.

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Table 3

Phase B: Family Interaction Tasks (FIT)

<table>
<thead>
<tr>
<th>Order</th>
<th>FIT</th>
<th>Materials</th>
<th>Duration (minutes)</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Family fun</td>
<td>Candy basket/box</td>
<td>3</td>
<td>P1, P2, C, E</td>
</tr>
<tr>
<td>2</td>
<td>Guessing game</td>
<td>Cards</td>
<td>4</td>
<td>P1, P2, C, E</td>
</tr>
<tr>
<td>3</td>
<td>Supervision</td>
<td>Instruction cards</td>
<td>5</td>
<td>P1, P2, C</td>
</tr>
<tr>
<td>4</td>
<td>Discipline/recess</td>
<td>Basket/box with toys and food</td>
<td>7</td>
<td>P1, P2, C</td>
</tr>
<tr>
<td>5</td>
<td>Problem selection</td>
<td>List of problematic situations in the family completed, “Problem selected” format, pencil, and coin</td>
<td>5</td>
<td>P1, P2</td>
</tr>
<tr>
<td>6</td>
<td>Problem solution</td>
<td>“Problem selected” format</td>
<td>5</td>
<td>P1, P2, C</td>
</tr>
<tr>
<td>7</td>
<td>Puzzle</td>
<td>Cards and puzzle pieces</td>
<td>4</td>
<td>P1, P2, C, E</td>
</tr>
</tbody>
</table>

Phase duration 33

1 A video camera, tripod, table, chairs, and stopwatch will be used in each task.

2 The duration exclusively includes the time the participants are engaging in the task, without including the time where instructions are given for each task; 3 P1 and P2 = parent, C = child, E = evaluator.

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Measures

The original study (M. D. Domenech Rodríguez et al., 2013) used several self-report measures. The current study only used the demographic questionnaire, which included questions about age, level of education, country of origin, sex, among others, and the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001) as the child outcomes measure. Parents completed one demographic questionnaire per family, but reported on the CBCL individually. Measures were administered in Spanish. Questionnaires are available on Open Science Framework at https://osf.io/wub6c/.

Child Outcomes

The CBCL (Achenbach & Rescorla, 2001) is a widely used measure for children between 6 and 18 years of age. It is a 112-item self-report measure on which the child is rated on a variety of emotional and behavioral problems within a specific time frame (i.e., 6 months). The CBCL measures the degree of agreement with each item using a Likert-type scale that ranges from 0 (not true (as far as you know)) to 2 (very true or often true). The CBCL provides three index scores: internalizing (e.g., anxiety, worry, withdrawn), externalizing (e.g., rule-breaking behavior, aggressive), and total problem behaviors (e.g., stress, sleep and eating problems). The CBCL has been validated with Puerto Rican samples (Rubio-Stipec et al., 1990), showing high levels of internal consistency (alphas ranging from .89 to .94) for boys and girls. A high level of concurrent validity was also found. Results indicate the CBCL is a good and statistically sound measure of maladjustment for Puerto Rican children.
Observational Data

This study used the Parenting Style Observation Rating Scale (P-SOS) as the coding scheme for the observational data. The P-SOS is available on Open Science Framework at https://osf.io/pqvhh/. The P-SOS is a quantitative standardized coding system used to measure parent-child interactions. This coding system was developed by M. R. Davis (2006) based on the four parenting styles (i.e., authoritative, authoritarian, permissive, and neglectful) and the three parenting dimensions (i.e., warmth, demandingness, and autonomy granting). For more information regarding the development and validation of the P-SOS please review M. R. Davis.

The P-SOS was validated with a sample of 50 Mexican families (M. R. Davis, 2006). The scales obtained the following Cronbach’s alpha: .76 ($M = 3.81$, $SD = .30$) for warmth; .75 ($M = 3.63$, $SD = .38$) for demandingness; and .92 ($M = 2.65$, $SD = .84$) for the autonomy granting scale. The M. R. Davis study showed the parenting dimension scales had adequate to excellent reliability. Additionally, each item of the P-SOS scales was assessed by 10 expert raters establishing its content validity. The P-SOS was also used by Rosario Colón (2016), with a sample of Puerto Rican families, yielding the following alphas: warmth = .627, autonomy granting = .681, and supportive demandingness = .890. It is important to mention that reduced scales (i.e., some items were eliminated) were used to calculate the P-SOS subscale reliabilities in Rosario Colón’s study given low variability within the sample.

Before coding began, two undergraduate research assistants (RAs) were trained in coding observational data using the P-SOS. Both coders were from the Caribbean in
order to facilitate understanding Puerto Rican jargon and accent. Coders received training in the use of the P-SOS by first reading the parenting literature in the current document, and discussing parenting constructs and each item in the scales with the primary investigator during several training sessions. Next, the coders viewed five videotapes and each coded the videos separately alongside the primary investigator. The scores were discussed among the two coders and the primary investigator and a consensus was reached for all five videos. After this, training was concluded and the two RAs started the formal coding process. After both RAs coded 15% of the videos and achieved a reliability of .70 or more in each video, the remainder of the videos were divided between the two RAs and each coded their assigned videos individually. To safeguard against coder drift, reliability was assessed, for each subscale of the P-SOS, every four to five videos. Intraclass correlations (ICC) were conducted for each of the subscales. ICCs between the two coders ranged from .79 to 1.00. Coder drift checks were conducted by the primary investigator, who assigned the same video at random to both coders and then assessed for reliability. The RAs did not know which video they had both being assigned to assess reliability.

Both parents were present at the moment of the FITs. Each parent’s behavior towards the child was rated separately (i.e., a score for mothers and a score for fathers) using the Likert-type scale that ranges from 1 (very untrue) to 5 (very true) in the P-SOS scale (see https://osf.io/f935z/). A mean score was calculated for each parent on each dimension across tasks. Parenting dimensions (i.e., warmth, demandingness, and autonomy granting) were calculated separately for each parent across each of the six
tasks. The mean of the six task scores for each dimension were calculated. One task (i.e., problem selection: parents discuss between themselves and select a problem they would like to talk about with their child) was not scored because the child was not in the room for this task, hence, no parent-child interactions were present.
CHAPTER IV
RESULTS

Analytic Considerations

Of the initial 55 families, only 49 were able to be coded due to technical issues (i.e., one video did not record and other had poor lighting and/or sound). Analyses were conducted with the 49 families whose videos were coded.

Parenting Styles Observation Rating Scale

The internal consistency of the four subscales of the P-SOS was examined in order to explore the usability of the scales. Table 4 shows internal consistency scores for each subscale (i.e., warmth, autonomy granting, supportive demandingness and nonsupportive demandingness). The warmth, supportive demandingness, and nonsupportive demandingness subscales yielded high reliability for both mothers and fathers. The autonomy granting subscale showed higher reliability for fathers than for mothers, although they both showed high reliability.

Table 4
Subscale Alpha Reliabilities

<table>
<thead>
<tr>
<th>Parenting dimensions</th>
<th>Mothers</th>
<th>Fathers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmth</td>
<td>.819</td>
<td>.782</td>
</tr>
<tr>
<td>Autonomy granting</td>
<td>.698</td>
<td>.781</td>
</tr>
<tr>
<td>Supportive demandingness</td>
<td>.752</td>
<td>.707</td>
</tr>
<tr>
<td>nonsupportive demandingness</td>
<td>.723</td>
<td>.734</td>
</tr>
</tbody>
</table>
Warmth

The warmth scale was originally composed of 17 items. Frequency distribution analyses revealed two items with no variability for fathers. Because items with no variability prevent evaluation of the scales’ factor structure, decrease reliability, and limit overall variability in the scores, items that showed no variability were excluded from further analysis. These two items (i.e., “Parent explodes in anger towards child” and “Parent yells or shouts when child misbehaves”) were excluded for both mothers and fathers in order to have comparable analysis across parents. The final scale reliability was .819 for mothers and .782 for fathers. Scores ranged from 2.60 to 4.80 for mothers and 2.93 to 4.67 for fathers (possible range 1-5).

Autonomy Granting

The autonomy granting scale was originally composed of 8 items. All items showed variability and were included in the analyses. The reliability for this scale was .698 and .781 for mothers and fathers respectively. Scores ranged from 1.75 to 5.00 for mothers and 1.75 to 4.88 for fathers (possible range 1-5).

Supportive Demandingness

The supportive demandingness scale was originally composed of nine items. Initial reliability for this subscale was .709 for mothers and .588 for fathers. Bivariate correlations showed several subscale items had very low correlation to remaining items in the subscale. Upon examination, items 6, 7, and 9 (i.e., “Parent monitors (is attentive) to child’s behavior in session,” “Parent seems in good control of child in session,” and
“Parent has high expectations of child’s behavior”) were excluded from analyses. Reliability analyses were conducted with the remaining six items, which yielded an alpha of .707. To maintain comparability, these three items were also excluded from mothers’ analyses. The final scale reliability was .752 for mothers and .707 for fathers. Scores ranged from 1.83 to 5.00 for mothers and 1.83 to 4.83 (possible range 1-5).

**Nonsupportive Demandingness**

The supportive demandingness scale was originally composed of eight items. All items showed variability and were included in the analyses. The reliability for this scale was .723 and .734 for mothers and fathers respectively. Scores ranged from 1.63 to 3.88 for mothers and 1.63 to 3.88 for fathers (possible range 1-5).

**Parenting Dimensions**

In order to answer the first research question (i.e., What are the levels of each parenting dimension among Puerto Rican mothers and fathers?), descriptive statistical analyses were conducted to examine parenting dimensions. Means and standard deviations were calculated and the majority of the sample scored high on the three main dimensions: warmth, demandingness, and autonomy granting, and low in nonsupportive demandingness (see Table 5).

As part of research question 1 (i.e., What are the levels of each parenting dimension among Puerto Rican families?), a mixed ANOVA was conducted to examine the effects of parent gender and child sex in parenting dimensions. Parent gender was used as a within-subjects variable and child sex as a between-subjects variable. There was
Table 5

Scale’s Descriptive Statistics (N = 49)

<table>
<thead>
<tr>
<th>Parenting dimensions</th>
<th>Mothers</th>
<th>Fathers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Girls</td>
<td>Boys</td>
</tr>
<tr>
<td>Warmth</td>
<td>3.97</td>
<td>0.50</td>
</tr>
<tr>
<td>Autonomy Grant.</td>
<td>3.90</td>
<td>0.59</td>
</tr>
<tr>
<td>Supportive: Demandingness</td>
<td>3.63</td>
<td>0.74</td>
</tr>
<tr>
<td>Nonsupportive: demandingness</td>
<td>2.28</td>
<td>0.62</td>
</tr>
</tbody>
</table>

A significant interaction effect for parent gender by child sex in the warmth subscale, with mothers showing higher levels of warmth to girls than boys, $F(1, 47) = 7.002, p = .011$. For the autonomy granting subscale, a main effect was found for parent gender, with mothers exhibiting a statistically significant higher autonomy granting than fathers, $F(1, 47) = 6.960, p = .011$. A main effect for parent gender and supportive demandingness was found, with mothers exhibiting higher levels of supportive demandingness than fathers, $F(1, 47) = 6.238, p = .016$. Lastly, no significant effects were found for nonsupportive demandingness, $F(1, 47) = .424, p = .518$; and no significant results were found for interaction effects ($p > .05$).

Parenting Styles

Research question 2 looked at the percentage of Puerto Rican parents that fit into each family parenting style resulting from the combinations of the three parenting dimensions. As with Rosario Colón (2016), parenting styles were examined in two ways: via the traditional categorization, in which theoretical combinations of high and low
scores on the three parenting dimensions were used (i.e., warmth, autonomy granting, and supportive demandingness) and by conducting a cluster analysis using all four parenting dimensions observed (i.e., warmth, autonomy granting, supportive demandingness, and nonsupportive demandingness). The cluster analysis was conducted to explore the data-driven distribution of the parenting dimensions, which allows a strictly data-driven exploration of the data rather than one based solely on theory.

**Traditional Categorization**

Each family parenting style was derived of the combination of high or low scores for each of the three parenting dimensions in the literature. Parents scoring 3.01 or higher were considered as “high” and parents who scored below 3.01 were considered “low” in the respective dimension. Because the P-SOS uses a scale that ranges from 1-5, 3.00 was used as the mid-point in which to dichotomize the scores. This is in accordance with the method used by original developer of the P-SOS (M. R. Davis, 2006). The combination of high and low scores across the three dimensions yielded eight possible profiles or parenting styles, and parents were categorized accordingly. The four traditional parenting style categories were created (Baumrind, 1966; Maccoby & Martin, 1983): authoritative, authoritarian, permissive, and neglectful. Additional parenting styles categories were created based on the remaining possible combinations of parenting dimensions (M. M. Domenech Rodríguez et al., 2009). Results showed the majority of the current sample as authoritative (57.1%), followed by the protective parenting style (26.5%; i.e., high warmth and demandingness, but low autonomy granting). See Table 6 for a full distribution of parenting styles and Table 7 for a crosstabulation of mothers and fathers’ pairings of parenting styles within the same family.
Table 6

*Parenting Styles Among Puerto Rican Parents (N = 49)*

| Parenting style | Mothers | | % | N | | Fathers | | % | N | | Warmth | Demandingness | Autonomy granting |
|-----------------|---------|--------|----|---|--------|---------|--------|----|---|--------|---------------|---------------|
| Authoritative   | 57.10   | 28     | 44.90 | 22 | High   | High   | High   |
| Authoritarian   | 0.00    | 0      | 0.00  | 0  | Low    | High   | Low    |
| Permissive      | 12.20   | 6      | 4.10  | 2  | High   | Low    | High   |
| Neglectful      | 0.00    | 0      | 6.10  | 3  | Low    | Low    | Low    |
| Protective      | 26.50   | 13     | 28.60 | 14 | High   | High   | Low    |
| Cold            | 2.00    | 1      | 2.00  | 1  | Low    | High   | High   |
| Affiliative     | 2.00    | 1      | 12.20 | 6  | High   | Low    | Low    |
| Neglectful II   | 0.00    | 0      | 2.00  | 1  | Low    | Low    | High   |

Table 7

*Crosstabulation of Mothers and Fathers’ Parenting Styles by Family*

<table>
<thead>
<tr>
<th>Mothers’ parenting style</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Authoritative</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>2. Authoritarian</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3. Permissive</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>4. Protective</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>5. Cold</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>6. Affiliative</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>7. Neglectful II</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>2</td>
<td>3</td>
<td>14</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>49</td>
</tr>
</tbody>
</table>

Data-Driven Categorization of Parenting Styles

Each parenting style was derived using a two-step cluster analysis, which included the four subscale scores. The log-likelihood distance was used to measure clusters’ proximity. Results yielded two distinct clusters for both mothers and fathers. For mothers, the first cluster was high on warmth \((M = 3.82, SD = .41)\) and autonomy...
granting \((M = 3.51, SD = .518)\), and low on supportive demandingness \((M = 2.98, SD = .59)\) and nonsupportive demandingness \((M = 2.06, SD = .28)\). The second cluster was higher on warmth \((M = 4.10, SD = .53)\), autonomy granting \((M = 3.91, SD = .70)\), and supportive demandingness \((M = 4.21, SD = .38)\), and low on nonsupportive demandingness \((M = 2.66, SD = .55)\); see Table 8 and Figure 1.

**Table 8**

*Mothers’ Cluster Analysis on Parenting Styles (N = 49)*

<table>
<thead>
<tr>
<th>Parenting style</th>
<th>%</th>
<th>n</th>
<th>Warmth</th>
<th>Autonomy granting</th>
<th>Supportive demand</th>
<th>Nonsupportive demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permissive</td>
<td>55.1</td>
<td>27</td>
<td>High</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Authoritative</td>
<td>44.9</td>
<td>22</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
</tbody>
</table>

**Figure 1**

*Mothers’ Parenting Clusters*

*Note. This figure illustrates each cluster’s means for each parenting dimension.*
For fathers, the first cluster was high on warmth ($M = 3.57, SD = .443$) and autonomy granting ($M = 3.10, SD = .567$), and low on supportive demandingness ($M = 2.83, SD = .638$) and nonsupportive demandingness ($M = 2.22, SD = .471$). The second cluster was higher on warmth ($M = 4.08, SD = .324$), autonomy granting ($M = 4.08, SD = .530$), and supportive demandingness ($M = 3.90, SD = .614$), and low on nonsupportive demandingness ($M = 2.31, SD = .475$; see Table 9 and Figure 2). The main difference between clusters was found in the supportive demandingness subscale.

**Table 9**

*Fathers’ Cluster Analysis on Parenting Styles (N = 49)*

<table>
<thead>
<tr>
<th>Parenting style</th>
<th>%</th>
<th>n</th>
<th>Warmth</th>
<th>Autonomy granting</th>
<th>Supportive demand</th>
<th>Nonsupportive demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permissive</td>
<td>55.1</td>
<td>27</td>
<td>High</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Authoritative</td>
<td>44.9</td>
<td>22</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
</tbody>
</table>

**Figure 2**

*Fathers’ Parenting Clusters*

*Note. This figure illustrates each cluster’s means for each parenting dimension.*
Because of the pattern of high warmth and autonomy granting but low in demandingness, derived from theoretical categories, cluster 1 was designated as representing a permissive parenting style and cluster 2 was designated as an authoritative parenting style. Differences were found between the two clusters for both mothers and fathers. Mothers significantly differed in warmth, $t(1,47) = -2.071, p = .04$; autonomy granting, $t(1,47) = -2.276, p = .02$; supportive demandingness, $t(1,47) = -8.544, p < .001$; and nonsupportive demandingness, $t(1,47) = -4.953, p < .001$. Fathers’ clusters also significantly differed in warmth, $t(1,47) = -4.533, p < .001$; autonomy granting, $t(1,47) = -6.185, p < .001$; supportive demandingness, $t(1,47) = -5.961, p < .001$; but not in nonsupportive demandingness ($p = .51$). When looking at cluster combinations within families, results showed the majority of the parents as sharing the same parenting style within the family (71.43%), with a lower percentage exhibiting a combination of parenting styles (28.57%; see Table 10).

**Table 10**

*Parenting Style Dyads by Clusters (N = 49)*

<table>
<thead>
<tr>
<th>Fathers</th>
<th>Cluster 1: Permissive</th>
<th>Cluster 2: Authoritative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Cluster 1: Permissive</td>
<td>20</td>
<td>40.81</td>
</tr>
<tr>
<td>Cluster 2: Authoritative</td>
<td>7</td>
<td>14.28</td>
</tr>
<tr>
<td>TOTAL</td>
<td>27</td>
<td></td>
</tr>
</tbody>
</table>
Parenting Behaviors and Child Outcomes

Parenting Dimensions

Research question 3 examined if parenting dimensions predicted child outcomes (i.e., internalizing, externalizing, and total behaviors). Descriptive statistics and a paired-samples t test were conducted to examine differences between mothers and fathers’ CBCL scores. No significant differences were found for internalizing, externalizing, and total scores (see Table 11). While no statistically significant differences were found, small effect sizes were found for externalizing and total symptoms.

Table 11
Child Behavior Checklist Statistics

<table>
<thead>
<tr>
<th>Behavior category</th>
<th>CBCL Mother M</th>
<th>SD</th>
<th>CBCL Fathers M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>Cohen's d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internalizing</td>
<td>53.87</td>
<td>10.73</td>
<td>52.51</td>
<td>8.52</td>
<td>1.14</td>
<td>46</td>
<td>0.258</td>
<td>0.17</td>
</tr>
<tr>
<td>Externalizing</td>
<td>57.55</td>
<td>10.72</td>
<td>55.72</td>
<td>9.24</td>
<td>1.60</td>
<td>46</td>
<td>0.116</td>
<td>0.23</td>
</tr>
<tr>
<td>Total</td>
<td>56.36</td>
<td>10.74</td>
<td>54.34</td>
<td>9.24</td>
<td>1.82</td>
<td>46</td>
<td>0.076</td>
<td>0.27</td>
</tr>
</tbody>
</table>

Multiple regression analysis was used to test if parenting dimensions significantly predicted child outcomes (i.e., Research question 3). Multiple regression analyses allow the simultaneous examination of the combination of multiple factors (i.e., parenting dimensions) to assess how and to what extent they affect a specific outcome (i.e., child outcomes). Parent gender was used as a moderator variable. Results showed a significant main effect for supportive demandingness and internalizing symptoms. Higher levels of
supportive demandingness predicted lower levels internalizing symptoms \( (\beta = -.402, p < .05) \); meaning that internalizing symptoms decrease .402 by every 1 unit increase in supportive demandingness. The rest of the regression models were not statistically significant. Parent gender did not moderate child outcomes \( (p > .05) \). However, warmth and nonsupportive demandingness approached significance in relationship to internalizing symptoms. See Tables 12-14 for specific statistics on the regression models.

A 3-way ANOVA was used to examine research question 4 (i.e., Do parenting styles predict child outcomes?). This was used to examine the relationship between parenting styles and child outcomes, also considering parent and child gender. Parent sex was used as a within groups variable. Child sex and parenting style was used as a between groups variables, and scores on the internalizing and externalizing scales of the CBCL were used as dependent variables. Parent practices were predicted to their own CBCL score (mothers’ parenting to mothers’ CBCL and fathers’ parenting to fathers CBCL). Because of the limited sample size (e.g., only one or two parents in classified as neglectful or affiliative) in other parenting style categories, only authoritative and protective parenting were included in this analysis. Results showed a statistically significant difference for child sex and total CBCL scores \( (F(1, 96) = 4.46, p = .038) \), with a small to medium effect size, \( \eta^2 = 0.082 \), where parents reported higher total CBCL scores for boys than girls. No other results were statistically significant \( (p > .05) \).

However, although nonstatistically significant, parenting style \( (\eta^2 = 0.069) \) and parent gender had a small effect size \( (\eta^2 = 0.026) \) on child internalizing symptoms, and child sex had a medium effect size in internalizing symptoms, \( \eta^2 = 0.067 \). In externalizing
### Table 12

**Regression Model for Parenting Dimensions and Internalizing Symptoms**

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>p</th>
<th>R²</th>
<th>Adj R²</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td>0.11</td>
<td>0.07</td>
<td>0.11</td>
<td>0</td>
<td>0.70</td>
<td>0.485</td>
<td></td>
<td>5</td>
<td>90</td>
<td>2.32</td>
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<td>-0.07</td>
<td>-0.70</td>
<td>0.486</td>
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<td></td>
<td>4</td>
<td>86</td>
<td>0.81</td>
</tr>
<tr>
<td>Warmth</td>
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<td>0.23</td>
<td>1.93</td>
<td>0.056</td>
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<td>4</td>
<td>86</td>
<td>0.81</td>
</tr>
<tr>
<td>Autonomy granting</td>
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<td>1.72</td>
<td>0.06</td>
<td>0.45</td>
<td>0.655</td>
<td></td>
<td></td>
<td>4</td>
<td>86</td>
<td>0.81</td>
</tr>
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<td>Supportive dem.</td>
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<td>-0.40</td>
<td>-3.04</td>
<td>0.003*</td>
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<td></td>
<td>4</td>
<td>86</td>
<td>0.81</td>
</tr>
<tr>
<td>Nonsupportive dem.</td>
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<td>0.26</td>
<td>1.96</td>
<td>0.053</td>
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<td></td>
<td>4</td>
<td>86</td>
<td>0.81</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
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<td>0.06</td>
<td>0.15</td>
<td>0.75</td>
<td>0.457</td>
<td></td>
<td></td>
<td>4</td>
<td>86</td>
<td>0.81</td>
</tr>
<tr>
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<td>21.66</td>
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<td>0.75</td>
<td>0.457</td>
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<td>-0.12</td>
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<td>4</td>
<td>86</td>
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</tr>
</tbody>
</table>

*p < .05.
Table 13

*Regression Model for Parenting Dimensions and Externalizing Symptoms*

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<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>p</th>
<th>R²</th>
<th>Adj R²</th>
<th>df</th>
<th>F</th>
<th>p</th>
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</thead>
<tbody>
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<td>0.707</td>
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<td>-1.09</td>
<td>0.280</td>
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<tr>
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<td>0.923</td>
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<td></td>
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</tbody>
</table>
Table 14

Regression Model for Parenting Dimensions and Total Symptoms

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>p</th>
<th>R²</th>
<th>Adj R²</th>
<th>df</th>
<th>F</th>
<th>p</th>
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</thead>
<tbody>
<tr>
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<td></td>
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<td>0.89</td>
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<td>-1.14</td>
<td>0.256</td>
<td></td>
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</tr>
<tr>
<td>Warmth</td>
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<td>2.57</td>
<td>0.10</td>
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<td>0.428</td>
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<td>1.84</td>
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<td>-1.42</td>
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<td>-0.01</td>
<td>4.86</td>
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<td>0.706</td>
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<td>5.22</td>
<td>-0.41</td>
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<td>1.06</td>
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<td>0.125</td>
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</tbody>
</table>
symptoms, child sex had a small effect size, $\eta^2 = 0.060$. There was also a small effect size for the interaction between parenting style and parent gender ($\eta^2 = 0.016$) as well as the three-way interaction between parenting style, parent gender, and child sex ($\eta^2 = 0.016$) and externalizing symptoms. Last, parent gender had a small to medium effect size ($\eta^2 = 0.040$), but not statistically significant, on total symptoms. See Tables 15-17 for specific statistical values for internalizing, externalizing, and total behaviors respectively. An independent samples $t$ test was conducted to determine differences between the data-driven (i.e., clusters) combinations of parenting styles within the family and its effect in child outcomes. No significant results were found for mothers and fathers (see Tables 15-17) as well as for the interaction between parenting style, parent gender, and child sex (see Table 18).

Post-hoc analyses were conducted to determine if the presence of the same

Table 15

<table>
<thead>
<tr>
<th>Predictors</th>
<th>$SS$</th>
<th>$df$</th>
<th>$MS$</th>
<th>$F$</th>
<th>$p$</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>2226.54</td>
<td>19</td>
<td>117.19</td>
<td>1.37</td>
<td>0.169</td>
<td>0.24</td>
</tr>
<tr>
<td>Intercept</td>
<td>64858.49</td>
<td>1</td>
<td>64858.49</td>
<td>757.65</td>
<td>0.000</td>
<td>0.97</td>
</tr>
<tr>
<td>Parenting style</td>
<td>780.94</td>
<td>6</td>
<td>130.16</td>
<td>1.52</td>
<td>0.183</td>
<td>0.07</td>
</tr>
<tr>
<td>Parent gender</td>
<td>41.57</td>
<td>1</td>
<td>41.57</td>
<td>0.49</td>
<td>0.488</td>
<td>0.03</td>
</tr>
<tr>
<td>Child sex</td>
<td>249.63</td>
<td>1</td>
<td>249.63</td>
<td>2.92</td>
<td>0.092</td>
<td>0.17</td>
</tr>
<tr>
<td>Parenting style * parent gender</td>
<td>237.43</td>
<td>3</td>
<td>79.14</td>
<td>0.93</td>
<td>0.433</td>
<td>0.00</td>
</tr>
<tr>
<td>Parenting style * child sex</td>
<td>265.24</td>
<td>4</td>
<td>66.31</td>
<td>0.78</td>
<td>0.545</td>
<td>0.00</td>
</tr>
<tr>
<td>Parent gender * child sex</td>
<td>98.22</td>
<td>1</td>
<td>98.22</td>
<td>1.15</td>
<td>0.287</td>
<td>0.00</td>
</tr>
<tr>
<td>Parenting style * parent gender * child sex</td>
<td>88.61</td>
<td>2</td>
<td>44.31</td>
<td>0.52</td>
<td>0.598</td>
<td>0.00</td>
</tr>
<tr>
<td>Error</td>
<td>6505.96</td>
<td>76</td>
<td>85.61</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>279670.00</td>
<td>96</td>
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<td></td>
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<tr>
<td>Corrected total</td>
<td>8732.50</td>
<td>95</td>
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</table>
### Table 16

*Statistics of Predictions of Parenting Styles and Externalizing Symptoms*

<table>
<thead>
<tr>
<th>Predictors</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>2158.88</td>
<td>19</td>
<td>113.62</td>
<td>1.21</td>
<td>0.273</td>
<td>0.12</td>
</tr>
<tr>
<td>Intercept</td>
<td>80434.71</td>
<td>1</td>
<td>80434.71</td>
<td>856.69</td>
<td>0.000</td>
<td>0.97</td>
</tr>
<tr>
<td>Parenting style</td>
<td>1050.85</td>
<td>6</td>
<td>175.14</td>
<td>1.87</td>
<td>0.098</td>
<td>0.00</td>
</tr>
<tr>
<td>Parent gender</td>
<td>13.28</td>
<td>1</td>
<td>13.28</td>
<td>0.14</td>
<td>0.708</td>
<td>0.03</td>
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<tr>
<td>Child sex</td>
<td>331.45</td>
<td>1</td>
<td>331.45</td>
<td>3.53</td>
<td>0.064</td>
<td>0.06</td>
</tr>
<tr>
<td>Parenting style * parent gender</td>
<td>526.50</td>
<td>3</td>
<td>175.50</td>
<td>1.87</td>
<td>0.142</td>
<td>0.02</td>
</tr>
<tr>
<td>Parenting style * child sex</td>
<td>23.18</td>
<td>4</td>
<td>5.80</td>
<td>0.06</td>
<td>0.993</td>
<td>0.00</td>
</tr>
<tr>
<td>Parent gender * child sex</td>
<td>0.00</td>
<td>1</td>
<td>0.00</td>
<td>0.00</td>
<td>0.995</td>
<td>0.00</td>
</tr>
<tr>
<td>Parenting style * parent gender * child sex</td>
<td>92.69</td>
<td>2</td>
<td>46.35</td>
<td>0.49</td>
<td>0.612</td>
<td>0.02</td>
</tr>
<tr>
<td>Error</td>
<td>7135.62</td>
<td>76</td>
<td>93.89</td>
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<tr>
<td>Total</td>
<td>317108.00</td>
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<tr>
<td>Corrected total</td>
<td>9294.50</td>
<td>95</td>
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</table>

### Table 17

*Statistics of Predictions of Parenting Styles and Total Symptoms*

<table>
<thead>
<tr>
<th>Predictors</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>834.37</td>
<td>7</td>
<td>119.20</td>
<td>1.42</td>
<td>0.214</td>
<td>0.13</td>
</tr>
<tr>
<td>Intercept</td>
<td>180643.88</td>
<td>1</td>
<td>180643.88</td>
<td>2145.75</td>
<td>0.000</td>
<td>0.97</td>
</tr>
<tr>
<td>Parenting style</td>
<td>48.82</td>
<td>1</td>
<td>48.82</td>
<td>0.58</td>
<td>0.449</td>
<td>0.01</td>
</tr>
<tr>
<td>Parent gender</td>
<td>234.49</td>
<td>1</td>
<td>234.49</td>
<td>2.79</td>
<td>0.100</td>
<td>0.04</td>
</tr>
<tr>
<td>Child sex</td>
<td>504.51</td>
<td>1</td>
<td>504.51</td>
<td>5.99</td>
<td>0.017</td>
<td>0.08</td>
</tr>
<tr>
<td>Parenting style * parent gender</td>
<td>49.19</td>
<td>1</td>
<td>49.19</td>
<td>0.58</td>
<td>0.447</td>
<td>0.01</td>
</tr>
<tr>
<td>Parenting style * child sex</td>
<td>0.60</td>
<td>1</td>
<td>0.60</td>
<td>0.01</td>
<td>0.933</td>
<td>0.00</td>
</tr>
<tr>
<td>Parent gender * child sex</td>
<td>0.74</td>
<td>1</td>
<td>0.74</td>
<td>0.01</td>
<td>0.926</td>
<td>0.00</td>
</tr>
<tr>
<td>Parenting style * parent gender * child sex</td>
<td>20.86</td>
<td>1</td>
<td>20.86</td>
<td>0.25</td>
<td>0.620</td>
<td>0.00</td>
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<tr>
<td>Error</td>
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<td>67</td>
<td>84.19</td>
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<td>6474.88</td>
<td>74</td>
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</tbody>
</table>
Table 18

Interaction Among Parenting Style, Parent Gender, and Child Sex

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>SE</th>
<th>Std B</th>
<th>t</th>
<th>p</th>
<th>R²</th>
<th>Adj R²</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.05</td>
<td>-0.01</td>
<td>0.89</td>
<td>5, 90</td>
<td>0.489</td>
</tr>
<tr>
<td>Parent gender</td>
<td>-2.38</td>
<td>2.08</td>
<td>-0.12</td>
<td>-1.14</td>
<td>0.256</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Warmth</td>
<td>2.05</td>
<td>2.57</td>
<td>0.10</td>
<td>0.80</td>
<td>0.428</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy granting</td>
<td>-1.08</td>
<td>1.84</td>
<td>-0.06</td>
<td>-0.59</td>
<td>0.557</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demandingness supportive</td>
<td>-2.40</td>
<td>1.69</td>
<td>-0.20</td>
<td>-1.42</td>
<td>0.158</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demandingness nonsupportive</td>
<td>3.25</td>
<td>2.76</td>
<td>0.16</td>
<td>1.18</td>
<td>0.243</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
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<td></td>
<td></td>
<td></td>
<td>0.09</td>
<td>-0.01</td>
<td>0.95</td>
<td>4, 86</td>
<td>0.440</td>
</tr>
<tr>
<td>Parent gender</td>
<td>19.77</td>
<td>23.15</td>
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<td>0.395</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warmth</td>
<td>4.62</td>
<td>7.87</td>
<td>0.22</td>
<td>0.59</td>
<td>0.559</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy granting</td>
<td>2.24</td>
<td>5.92</td>
<td>0.16</td>
<td>0.38</td>
<td>0.706</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demandingness supportive</td>
<td>-10.57</td>
<td>5.55</td>
<td>-0.86</td>
<td>-1.91</td>
<td>0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demandingness nonsupportive</td>
<td>18.96</td>
<td>8.70</td>
<td>0.94</td>
<td>2.18</td>
<td>0.032</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Parent gender * warmth</td>
<td>-2.05</td>
<td>5.22</td>
<td>-0.41</td>
<td>-0.39</td>
<td>0.695</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent gender * autonomy granting</td>
<td>-2.26</td>
<td>3.70</td>
<td>-0.46</td>
<td>-0.61</td>
<td>0.543</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent gender * supportive dem.</td>
<td>5.31</td>
<td>3.42</td>
<td>1.06</td>
<td>1.55</td>
<td>0.125</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent gender * nonsupportive dem.</td>
<td>-10.60</td>
<td>5.62</td>
<td>-1.44</td>
<td>-1.89</td>
<td>0.062</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
parenting style within parenting dyads had an effect on child outcomes. Independent samples \( t \)-test analyses were conducted to compare child outcomes in matching or no matching conditions. Mothers’ and fathers’ CBCLs were analyzed separately. Results revealed no significant results for parenting dyad match and mothers’ or fathers’ CBCL scores \( (p > .05; \text{see Table 19}) \). Descriptive analyses were conducted to further examine the data. Parenting dyad match exhibited lower mean scores across mothers’ and fathers’ internalizing, externalizing, and total scores (see Table 19). Cohen’s \( d \) was also calculated as a post-hoc analysis to determine the significance of the trend seen with the mean differences between mothers and fathers. Small to medium effect sizes were found for mothers’ reported CBCL scores and small effect sizes were found for fathers’ reported CBCL scores (see Table 19).

Last, research question 5 asked, are there the differences in parenting dimensions and parenting styles when families are coded as a unit (i.e., dyadic coding) compared to

| Table 19 |

<p>| Statistics for Parenting Dyad Match and Child Outcomes |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>CBCL scores</th>
<th>( M )</th>
<th>( SD )</th>
<th>( M )</th>
<th>( SD )</th>
<th>( t )</th>
<th>( p )</th>
<th>Cohen’s ( d )</th>
</tr>
</thead>
<tbody>
<tr>
<td>( n = 24 )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Mothers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internalizing</td>
<td>50.88</td>
<td>9.923</td>
<td>56.54</td>
<td>10.847</td>
<td>1.888</td>
<td>.065</td>
<td>0.545</td>
</tr>
<tr>
<td>Externalizing</td>
<td>56.42</td>
<td>9.146</td>
<td>58.71</td>
<td>11.969</td>
<td>0.745</td>
<td>.460</td>
<td>0.215</td>
</tr>
<tr>
<td>Total</td>
<td>54.33</td>
<td>8.948</td>
<td>58.38</td>
<td>11.923</td>
<td>1.328</td>
<td>.191</td>
<td>0.384</td>
</tr>
<tr>
<td>Fathers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internalizing</td>
<td>51.13</td>
<td>4.893</td>
<td>53.96</td>
<td>10.829</td>
<td>1.168</td>
<td>.251</td>
<td>0.337</td>
</tr>
<tr>
<td>Externalizing</td>
<td>53.96</td>
<td>6.785</td>
<td>57.42</td>
<td>10.886</td>
<td>1.321</td>
<td>.194</td>
<td>0.382</td>
</tr>
<tr>
<td>Total</td>
<td>52.17</td>
<td>6.519</td>
<td>56.50</td>
<td>10.887</td>
<td>1.673</td>
<td>.103</td>
<td>0.483</td>
</tr>
</tbody>
</table>
when parents are coded as individuals (i.e., mothers and father separately)? The initial analytic plan was to examine the levels in each parenting dimension and percentages of families categorized in each parenting style and then compare its relationship to child outcomes. However, the scales’ reliabilities as well as the variability within scales were so different that it was not possible to make a quantitative analysis. Hence, a description of the differences between the results due to the differing methods will be presented.

When examining the subscales between Rosario Colón’s (2016) study and the present study, there were 5 items that were eliminated in the previous study due to lack of variability in comparison to the current study, where two items were eliminated due to lack of variability for fathers, but not for mothers. Furthermore, when comparing both studies, dyadic coding resulted in more items with a ceiling effect than in individual coding (see Table 20 for itemized mean comparisons). The viability of the items was also different between studies, where 20 items were excluded from Rosario Colón’s study because of a lack of consistency in factor loadings within the subscales in comparison to three items in the current study. Furthermore, the internal consistency of the original subscales (i.e., before items were eliminated due to lack of variability at the item level and the lack of consistency within the loadings in the subscales; refer to the study for specific reliability values) was significantly lower when coding at a global level than in the present study. Because coding was more robust when coding mothers and fathers individually, the coding seems to be more meaningful when coding individually rather than coding mothers and fathers as a dyad.
Table 20

Itemized Mean Comparison Between Studies

<table>
<thead>
<tr>
<th>Item</th>
<th>Rosario Colón (2016)</th>
<th>Current study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dyadic coding</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Warmth 1</td>
<td>3.82</td>
<td>1.01</td>
</tr>
<tr>
<td>Warmth 2</td>
<td>4.98</td>
<td>0.14</td>
</tr>
<tr>
<td>Warmth 3</td>
<td>5.00</td>
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<td>Warmth 4</td>
<td>3.96</td>
<td>1.58</td>
</tr>
<tr>
<td>Warmth 5</td>
<td>4.71</td>
<td>0.58</td>
</tr>
<tr>
<td>Warmth 6</td>
<td>3.27</td>
<td>1.82</td>
</tr>
<tr>
<td>Warmth 7</td>
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<td>0.20</td>
</tr>
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<td>Warmth 8</td>
<td>5.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Warmth 9</td>
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<td>Warmth 10</td>
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<td>1.77</td>
</tr>
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<td>Warmth 11</td>
<td>3.90</td>
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</tr>
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<td>Warmth 12</td>
<td>4.65</td>
<td>0.86</td>
</tr>
<tr>
<td>Warmth 13</td>
<td>4.63</td>
<td>0.93</td>
</tr>
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</tr>
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</tr>
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</tr>
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<td>1.76</td>
</tr>
<tr>
<td>AG 2</td>
<td>4.90</td>
<td>0.47</td>
</tr>
<tr>
<td>AG 3</td>
<td>4.06</td>
<td>0.97</td>
</tr>
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<td>4.76</td>
<td>0.60</td>
</tr>
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<td>AG 5</td>
<td>4.80</td>
<td>0.54</td>
</tr>
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CHAPTER V
DISCUSSION

The current study assessed parenting styles in Puerto Rican families that lived on the island and their relationship to child outcomes. The current study used an extent data set and builds on the research conducted by Rosario Colón (2016), which aimed to decrease a gap in the literature by assessing family parenting styles and its association to child behavioral outcomes but with an individual look at mothers’ and fathers’ parenting styles. Five research questions were examined in the current study. The first four questions replicate the Rosario Colón study and the remaining question compares results from global versus individual coding. The specific questions are the following: (a) What are the levels of each parenting dimension among Puerto Rican families? (b) What percentage of Puerto Rican parents fit into each parenting style resulting from all possible combinations of the three parenting dimensions? (c) Do parenting dimensions predict child outcomes (i.e., internalizing, externalizing, and total behaviors)? (d) Do parenting styles predict child outcomes (i.e., internalizing, externalizing, and total behaviors)? and (e) What are the differences in families’ parenting dimensions and parenting styles when families are coded as a unit compared to when parents are coded as individuals?

Latinx families present a unique cultural context, including within- and between-group differences that influence child-rearing practices (Calzada & Eyberg, 2002; Varela et al., 2004). Currently, parenting styles research within Latinx families presents two issues: a limited number of studies and mixed results in terms of prevalence of parenting styles and their association with child outcomes. Studies have characterized Latinx
parents as authoritarian (Falicov, 1998; García-Preto, 1996), authoritative (A. N. Davis et al., 2015; Rosario Colón, 2016; Steinberg et al., 1992; White et al., 2013) protective (M. M. Domenech Rodríguez et al., 2009; M. R. Davis, 2006) and/or cold (Rosario Colón, 2016). The inconsistency in the literature suggests that Baumrind’s main parenting typologies may not adequately describe parenting styles in Latinx families.

Some of the disparate findings may be due to cultural differences between Latinx groups. The bulk of the research with Latinx parents has been conducted with Mexican or Mexican-American samples (Dumka et al., 2009; Leidy et al., 2012; Varela et al., 2004). Moreover, the amount of research conducted with Puerto Rican families is extremely limited and no current studies of parenting styles, to the best of our knowledge, are being conducted with families who live on the island. This is especially important if the interventions currently being used with Puerto Rican families have been designed with White American samples and are assumed to apply across cultures. Hence, the goal of this study was to provide more research with a subset of the Latinx population to further assess the suitability of established findings with Latinx samples, especially when an end-goal of this research is to inform the development or cultural adaptation of evidence-based interventions.

**Puerto Rican Parenting Behaviors**

The majority of Puerto Rican parents in the current sample, both mothers and fathers, exhibited high levels of warmth, demandingness, and autonomy granting. When looking at the combination of parenting dimensions, both mothers and fathers had a
similar distribution of parenting styles, with the majority of parents being categorized as authoritative followed by a protective parenting style. These findings were not consistent when parents were categorized using an empirical (i.e., cluster analysis) categorization method. When using data-driven categorization, both mothers and fathers exhibited authoritative and permissive parenting styles; which suggests the analyses used to examine the data might influence the results. Last, most parenting dimensions exhibited statistically significant differences when considering parent gender (i.e., mothers exhibited higher scores).

**Parenting Dimensions**

Overall, both mothers and fathers exhibited high levels of the main three parenting dimensions used in the literature (i.e., warmth, autonomy granting, and supportive demandingness), while scoring low in nonsupportive demandingness. Parental engagement in high levels of warmth within Latinx families is consistent with the literature (Calzada & Eyberg, 2002; M. M. Domenech Rodríguez et al., 2009; M. R. Davis, 2006; Guilamo-Ramos et al., 2007; Mogro-Wilson et al., 2016; Negroni-Rodríguez, 2004; Soenens et al., 2011; White et al., 2013). Hence, this study provides further evidence supporting Latinx parents’ sensitivity to the child’s physical and emotional needs. Studies have also explained this as being associated to the cultural value of familismo, given that high levels of warmth help maintain family cohesion and respect (Gonzáles et al., 2011; Leidy et al., 2012). It is also important to highlight that fathers also exhibited high levels of warmth. Even though it was not statistically higher than mother’s levels of warmth, it might be a noteworthy factor, even more so when gender
roles and the cultural value of machismo might not necessarily encourage men to exhibit warm behaviors (Arciniega et al., 2008; Cruz et al., 2011). Furthermore, Shears (2007) found that fathers engaged in more social activities with their children to foster familismo. Even more so, Puerto Rican fathers reported engaging in high levels of warmth as part of their perception of machismo, which included being warm and supporting their children in order to be good role model and increase family cohesion.

Both mothers and fathers also exhibited high levels of autonomy granting, which includes the amount of liberty a parent gives their child to make their own decisions, express opinions, and develop and follow personal plans. This finding is inconsistent with studies with Latinx samples of Mexican, Mexican American, and parents from the Caribbean living in the U.S. (M. R. Davis, 2006; M. M. Domenech Rodríguez et al., 2009; Roche et al., 2014). The differences may be due to Puerto Rico’s unique historical background. As a U.S. territory, parents living on the island have access to the U.S. mainland (i.e., circular migration) as well as a variety of U.S. media (e.g., television, radio, social media, movies) that might be influencing parenting practices (Concepción, 2008; Trimble, 2009). Capielo Rosario et al. (2018) provides some evidence that this might be the case due to the biculturalism shown by island Puerto Ricans. Another contributing factor might be the contextual changes on the island, such as socioeconomic status, and more specifically employment. In two-parent households, if both parents work, it might mean that children have less time under direct parental supervision (Bradley & Corwyn, 2002). Hence, higher levels of autonomy granting might be a byproduct of contextual factors rather than personal beliefs regarding parenting practices.
When looking at supportive demandingness, results showed a significant negative interaction between supportive demandingness and internalizing symptoms. Supportive demandingness involves parents providing clear expectations of children’s behaviors. For example, providing rules for how they need to behave, monitoring whether the child complies with said rule, and also providing consistent consequences for noncompliance (Darling & Steinberg, 1993; Gayles et al., 2009; Jabagchourian et al., 2014; Soenens et al., 2011). These findings are consistent with research conducted with Latinx families (Calzada & Eyberg, 2002; M. M. Domenech Rodríguez et al., 2009; M. R. Davis, 2006; Roche et al., 2014) and are congruent with the value of respeto. Although research is limited in terms of supportive demandingness’ direct influence regarding internalizing symptoms, it might be explained through a child’s need for structure in order to increase self-regulation. Furthermore, knowing what parents expect makes it easier for children to comply and be respectful, which in turn increases family cohesion; an important family goal for which children are socialized from an early age (Calzada et al., 2010; Calzada et al., 2012; A. N. Davis et al., 2015; Jabagchourian et al., 2014).

Lastly, mothers and fathers exhibited low levels of nonsupportive demandingness. Although the literature does not explicitly mention this type of demandingness, the term was coined by M. R. Davis (2006) when developing the scale used in the present study. Nonsupportive demandingness involves harsh rules and non-developmentally appropriate expectations. Some examples are being overly controlling and withdrawal of love if the child does not live up to the parent’s expectation. These are types of behaviors most associated with an authoritarian parenting style (Calzada et al., 2012; Jabagchourian et
al., 2014). However, this result needs to be interpreted cautiously, given that the current study used a sample of convenience, which was “non-clinical” or “normative.” Additionally, the use of observational data might have influenced how parents behaved (Wang & Bogucki, 2010). Hence, the aforementioned factors might have influenced the repertoire of behaviors that were observed.

Overall, these findings are consistent with the literature, which showed that Puerto Rican parents attend to the child’s physical and emotional needs within a context of clear expectations and parental rules. Also, it shows that Puerto Rican mothers and fathers frequently share decisions with their children about discipline and autonomy (Guilamo-Ramos et al., 2007; Negroni-Rodríguez, 2004). Many factors might be influencing the high levels of warmth, autonomy granting, and supportive demandingness exhibited in the current sample, such as the values of familismo and respeto as well as possible acculturation and contextual factors. High levels of warmth foster the value of familismo, autonomy granting might be related to contextual factors as well as acculturation influences, while clear parental guidelines through supportive demandingness might be related to the value of respeto and maintaining family cohesion.

Parenting Styles

When using the theoretical categorization, the current sample presented a variety of parenting styles, with fathers exhibiting a broader range of parenting styles that mothers. However, most mothers and fathers exhibited an authoritative parenting style, with 57.10% and 44.9%, respectively. This was followed by the protective parenting style, where 26.5% of mothers and 28.6% of fathers presented this style. Other parenting
styles present were permissive, cold, affiliative, neglectful, and neglectful II. No parent was categorized as authoritarian, which is somewhat consistent with the recent literature (Ayón et al., 2015; Carlo et al., 2017; M. R. Davis, 2006; Jabagchourian, 2014). These results need to be understood within its context (i.e., non-clinically significant sample).

When looking at the main two parenting styles, the collective majority of parents were categorized as authoritative and protective, which is somewhat consistent with the literature. Authoritative parenting has been consistently found within White American families (Bolkan et al., 2010; Kawabata et al., 2011; Rothrauff et al., 2009), and although not as consistent, it has also been found with Latinx samples (Calzada & Eyberg, 2002; Guilamo-Ramos et al., 2007; Jabagchourian et al., 2014; Steinberg et al., 1992; White et al., 2013). This would suggest that the current parenting styles used by the literature are a good fit for Puerto Rican families living in the island to an extent. On the other hand, 13 mothers and 14 fathers exhibited a protective parenting style. This a parenting style characterized by low to moderate autonomy granting. This finding is consistent with M. M. Domenech Rodríguez et al.’s (2009) findings in a Latinx sample. Lowe and Dotterer (2013) found that parents of ethnic minority youth (63% African American, 19% Latinx, 18% multiracial) engaged in high levels of monitoring (i.e., lower autonomy granting) within a context of warm relationships. Another study found fathers to engage in high levels of monitoring within the context of respeto and familismo (these values are discussed more in depth in the next section). Parents monitor their children’s behavior to make sure it is congruent with the family’s values (i.e., the child’s behavior reflects the family in general) and that they behave in a respectful manner (Mogro-Wilson et al.,
2016). This is consistent with a protective parenting style.

A subset of the parents exhibited a permissive parenting style, which is characterized by low demandingness. 12.2% of mothers, and 4.1% of fathers were categorized as permissive using the theoretical approach. However, a larger percentage of permissive parents emerged when using the data driven analysis (55.1% of mothers and 55.1% of fathers). The small percentage when using the theoretical approach is consistent with the prevalence of permissive parents in Latinx samples (Calzada & Eyberg, 2002; M. M. Domenech Rodríguez et al., 2009; M. R. Davis, 2006; White et al., 2013). The difference in results regarding the theoretical versus the data-driven categorization might be due to lack of statistical power, given that cluster analysis is subjective to power (Wedel & Kamakura, 2000).

Only 6.1% of fathers (n = 3), but zero mothers, where categorized as neglectful. Again, this small percentage is consistent with the literature (Aunola et al., 2000; Carlo et al., 2017; García & Gracia, 2009). The reminder parenting styles present in the current sample (i.e., cold, affiliative, and neglectful II), although theoretically possible given the combination of the three main parenting dimensions, have not been found in previous research with Latinx families. Consequently, it impedes our ability to determine how these parenting styles would impact child outcomes in Latinx families.

In sum, the results suggest that Baumrind’s typologies currently used in the literature does not accurately capture the entirety of Puerto Rican parenting. Although part of the sample was authoritative, which is consistent with White American samples, there was also a significant part of the sample that exhibited a different level of autonomy
granting than authoritative parents (i.e., protective parenting); which is a piece of information that can inform future parenting interventions. An example of this is when parenting interventions emphasize independence from an early age, which might not be culturally congruent with some Puerto Rican families. Furthermore, new unexplored parenting styles emerged (e.g., affiliative and neglectful II) which also suggest that there might be families that might parent in different ways and that it is not known if it would affect child outcomes in a positive or negative way.

**Parenting Styles and Puerto Rico’s Cultural Background**

Although acculturation processes are out of the scope of the current study, it is a possible explanation for the combination of parenting styles exhibited by the collective majority of the parents (i.e., authoritative and protective; Capielo Rosario et al., 2018). Authoritative parenting is a hallmark of White American parenting in the current literature. When Puerto Rico’s cultural history and current colonial status are considered, it is likely that parenting practices are being influenced by the dominant culture (Capielo Rosario et al., 2018; Trimble, 2009). Hence, almost half of the current sample exhibited an authoritative parenting style.

On the other hand, the second largest parenting style present for both mothers and fathers, was the protective parenting style. This parenting style is consistent with Puerto Rican’s values of familismo and respeto, which involve a strong duty to your family and parental obedience and monitoring. Being warm while providing clear parental guidelines within a context of parental monitoring (i.e., autonomy granting) is consistent with these
values. This specific parenting style is characterized because of its low to moderate autonomy granting. Within a Latinx context, familismo means that family responsibilities and duties should come first. When this is tied to autonomy granting, it might not be completely related to prohibiting the child from making their own decisions but to put the family ahead, which might mean you make decisions based on what is in the best interest of the family (Mogro-Wilson et al., 2016). Manzi et al. (2012) conducted a cross-cultural study (U.S., Italy, Belgium, and China) that supported cultural differences regarding the distinction of three autonomy granting dimensions: promotion of autonomous thought, promotion of autonomous decision-making, and promotion of physical distance. This might be a future direction regarding autonomy granting research that might provide a more nuanced and accurate representation of cultural differences.

In sum, the current sample presented a high percentage of authoritative and protective parenting, which needs to be seen through the lens of Puerto Rico’s unique cultural context. The current sample also exhibited low levels of cold, permissive, affiliative, neglectful, and neglectful II parents, and none of the parents were considered authoritarian. These low levels and/or absence of certain parenting styles are consistent with the literature with Latinx samples (M. M. Domenech Rodríguez et al., 2009; M. R. Davis, 2006; White et al., 2013).

**Parenting Behaviors and Child Outcomes**

The only parenting dimension that significantly predicted child outcomes was supportive demandingness. However, this connection was only significant in relationship
to internalizing symptoms (e.g., anxiety, depression, emotion-regulation). None of the different parenting styles was found to predict child outcomes.

**Parenting Dimensions**

Supportive demandingness (i.e., parental expectations of children behaviors, rule setting, monitoring compliance, and providing consequences for noncompliance; Darling & Steinberg, 1993; Soenens et al., 2011) was the only parenting dimension that predicted internalizing symptoms. This finding is consistent with the literature across White American and Latinx samples (Barber & Harmon, 2002; M. R. Davis, 2006; Muris et al., 2004). This finding continues to be consistent with the recent literature involving Latinx samples, where studies have found that providing clear expectations for children’s behaviors and engaging in effective discipline (e.g., monitoring misbehaviors, enforcing consequences), predicted higher grades, social competence, perspective taking, self-regulation, and lower levels of relationally aggressive behaviors (Gayles et al., 2009; Jabaghourian et al., 2014). This ties into the values of respeto and familismo. If the child knows parental expectations and can achieve them, it maintains family cohesion and shows respect, which in turn provides a more emotionally stable environment for the child within the family context.

None of the remaining parenting dimensions emerged as significant predictors of child outcomes in the current sample. These findings are somewhat inconsistent with previous literature. Warmth has been consistently associated with child outcomes in previous literature, where warmth has been associated with higher academic achievement, secure attachments, and emotion regulation, while exhibiting lower alcohol
use, and internalizing symptoms (Figueroa-Moseley et al., 2006; Mesman et al., 2012; Mogro-Wilson, 2008). Khaleque (2013) conducted a meta-analysis on parental warmth and children’s psychological adjustment. Thirty studies from 16 different countries were included (N = 12,087). Results showed higher psychological adjustment (e.g., lower hostility and aggression, higher independence, self-esteem, self-adequacy, emotional responsiveness and stability, and positive worldview). No differences were found between ethnicities, cultures, and gender.

Within Puerto Rican families specifically, a study found Puerto Rican American parents to be more nurturant and responsive to their children than were African American parents. Results also showed significant associations between Puerto Rican American mothers' self-reports of responsiveness and child social competence (i.e., self-control, interpersonal skills), and fathers' responsiveness/consistency and child social behavior. This at least shows that Puerto Rican parent perceive themselves as being warm. This is also consistent with Mogro-Wilson et al.'s (2016) qualitative study where Puerto Rican fathers reported engaging in high levels of warmth (e.g., hugging, kissing, quality time).

Along the same lines, autonomy granting has also been previously associated with child outcomes although the literature has provided mixed results in terms of its effects. A study, by M. R. Davis (2006) found autonomy granting to be positively associated with behavioral problems in a Mexican American sample. On the other hand, the opposite trend has been found in the literature for White American samples, where autonomy granting has been negatively associated with child outcomes, especially internalizing symptoms in children and adolescents (Barber et al., 1994; Boykin McElhaney & Allen,
However, a cross-cultural study by Supple et al. (2009) found autonomy granting to be generally consistent across cultures. Further research is needed to elucidate if the inconsistencies in autonomy granting’s relationship to child outcomes are due to cultural differences.

Last, nonsupportive demandingness was not a significant predictor of child outcomes, which is not consistent with the literature. Studies have found nonsupportive demandingness (i.e., controlling and strict parental behaviors and/or expectations) to be associated with higher levels of internalizing and externalizing symptoms (e.g., aggression, conduct problems, depression, anxiety; Barber & Harmon, 2002; Calzada et al., 2012; Muris et al., 2004). However, nonsupportive demandingness is most often associated with authoritarian behaviors. None of the parents in the current sample were categorized as authoritarian, which coupled with the fact that the vast majority of the parents scored low on the nonsupportive demandingness subscale, no relationship might have emerged due to the low frequency of this particular set of behaviors.

**Parenting Styles**

None of the parenting styles were found to be significantly related to child outcomes. This is a finding that is incongruent with previous literature. There are multiple studies across cultures that has established the evidence of parenting styles and its relationship to child outcomes (Barber et al., 2005; Baumrind, 1966, 1972; Bolkan et al., 2010; Calzada et al., 2010; Hoeve et al., 2009; Jabagchourian et al., 2014; Kawabata et al., 2011; Leeman et al., 2014; Luyckx et al., 2011; McDermott et al., 2014; Miles et al, 2012; Mogro-Wilson, 2013; Schroeder et al., 2010). No statistically significant results
were found for matching or differing parenting styles within the family (e.g., authoritative mother and authoritarian father) and child outcomes, which is also inconsistent with previous literature (Gordon Simmons & Conger, 2007; Milevsky & Renk, 2008). However, when doing a visual examination of the data, the mean scores for parenting dyads that exhibited the same parenting style were lower than when the parents exhibited differing parenting styles. This was found across child outcomes (i.e., internalizing, externalizing, total scores) for both mothers’ and fathers’ CBCL scores. Hence, the descriptive data shows that both mothers and fathers report lower behavioral problems when both parents have the same parenting style and vice versa. Although the findings are not statistically significant, it might point towards clinical significance.

A possible explanation for the lack of significant findings is the magnitude of the sample size. Having a small sample size ($n = 49$) might have hindered our statistical power, which in turn would limit our ability to detect any possible significant findings. A larger sample size might be needed in the future. This was also a prevention sample (non-clinically significant child symptoms with two-parent households), which might influence how parenting styles might have impacted child outcomes.

**Parenting Behaviors and Child Sex**

Statistically, mothers endorsed more total symptoms for boys than girls, which is consistent with gender roles (i.e., boys tend to be more disruptive than girls). Furthermore, an interaction effect was found based on parenting and child. Results showed that parents exhibited statistically higher levels of warmth with girls than boys.
The research is limited in terms of parsing out specific parenting dimensions and its interaction effect of parent and child gender. However, a possible explanation for this finding may be that parents exhibit higher levels of warmth to daughters in congruence with their value of marianismo. This would involve the belief that women need to be more nurturing and warmer than men (Cruz et al., 2011; Diekman et al., 2005; Raffaelli & Ontai, 2004). Studies have examined gender stereotypes within the family context and found that mothers had stronger implicit gender stereotypes than fathers, and that mothers’ stereotypical beliefs predicted daughters’ beliefs, which in turn positively predicted daughters’ pursuit of traditional goals (Endendijk et al., 2013; Montañés et al., 2012). Hence, these values and implicit attitudes might impact mothers’ parenting practices in order to promote their beliefs about appropriate gender-based behaviors.

On the other hand, the absence of significant interactions between other parenting dimensions or styles and child gender is inconsistent with the literature. Studies have found parents to be less autonomy granting and more demanding with girls than boys. Conversely, boys are given more autonomy (e.g., allowed to date at an earlier age, allowed to go out alone) and privileges (e.g., getting their driving license or a job) from their parents (M. M. Domenech Rodríguez et al., 2009; Guilamo-Ramos et al., 2007; Raffaelli & Ontai, 2004). When looking at parenting specific styles, studies have found mothers to engage in more protective parenting and less likely to engage in authoritative parenting with daughters in a Mexican American sample (M. R. Davis, 2006).

However, although not statistically significant, the current sample showed that child sex was an influencing factor for internalizing, externalizing, and total symptoms,
with small to medium effect sizes, suggesting a difference in child outcomes that might be important to consider when addressing child behavior within clinical settings. For example, even if a parent behaves in the same way with their two children (i.e., boy and girl), it might have differing effects in each of them; hence clinical focus might be spent in the child that requires it. This is congruent with past literature, in which child sex is an influential factor into child outcomes (M. M. Domenech Rodríguez et al., 2009; Guilamo-Ramos et al., 2007; Raffaelli & Ontai, 2004).

## Parenting Behaviors and Parent Gender

Significant differences were found between fathers and mothers’ parenting dimensions. In the current sample, mothers exhibited statistically higher levels of autonomy granting and supportive demandingness than fathers. The literature on parenting dimensions is limited and even more so when considering parent gender differences. However, within the limited literature, Verhoeven et al. (2012) and Hause Kunz and Grych (2013) examined autonomy granting in a predominately White sample of children and adolescents and no differences were found between mothers and fathers’ autonomy granting levels; with M. M. Domenech Rodríguez et al. (2009) finding the same results in a Mexican American sample.

The literature has not found the same results as in the current sample either in relationship to supportive demandingness. It is important to highlight that the current literature does not distinguish between supportive and nonsupportive demandingness, which might be the source of the limited existing research on the subject. However, both
M. R. Davis (2006) and the aforementioned study by M. M. Domenech Rodríguez et al. (2009), whose studies do distinguish between types of demandingness, did not find any differences between mothers and fathers for supportive demandingness. More research needs to be conducted in order to parse out the effects of supportive demandingness in comparison to nonsupportive demandingness and the possibility of effects due to parent gender. When looking at parenting styles, studies have found mothers to be more authoritative than fathers (Jabagchourian et al., 2014, McKinney & Renk, 2008).

Although non-statistically significant, the results suggest there might be some clinically significant factors given the effect sizes found. The data suggested that clinicians might want to focus on how parenting styles and parent gender differ and how it is affecting a child’s internalizing symptoms. Past research has shown the unique impact of parents’ parenting styles in children’s internalizing outcomes, such as self-esteem, emotion-regulation, and relational aggression (Chassin et al., 2005; Gordon Simmons & Conger, 2007; Milevsky et al., 2008; Moilanen et al., 2014). Moreover, although it was a small effect there was also some indication that there is a three-way interaction between parenting styles, parent gender, and child sex in its relationship to externalizing symptoms. Hence, for externalizing symptoms, parenting style alone might not be as influential as the data in this study suggested for internalizing symptoms. Lastly, parent gender had a small to medium effect size on total symptoms, which is in line with past literature for Latinx parenting (Gordon Simmons & Conger, 2007; McKinney & Renk, 2008; Kawabata et al., 2011).

Although it is important to interpret the findings within the study’s limitations,
which are going to be discussed in more detail later on, the results suggest several things that心理学ists might want to be aware of. First, Puerto Rican parents might ascribe to existing interventions if they ascribe to an authoritative parenting style. However, they might also differ in terms of autonomy granting. This suggest the need of culturally adapted interventions that inform how interventions are framed (i.e., how you explain interventions to parents) and how parenting skills might need to be changed or adapted to fit the lower autonomy granting that Puerto Rican parents give to their children (i.e., protective parenting style). In addition, it might be important to focus or emphasize skills that increase supportive demandingness in Puerto Rican parents and explain how supportive rather than nonsupportive demandingness might help increase positive child outcomes. Although more research is needed to replicate findings, when looking at prevention interventions, it may be helpful to focus on supportive demandingness and how it relates to internalizing symptoms. Many parents might be more focused on working in reducing externalizing misbehaviors due to its disruptive nature. However, internalizing symptoms can go unnoticed for longer periods of time (Carpenter et al., 2014) and are as equally important to work on.

**Coding System**

Last, research question 5 aimed to compare results from Rosario Colón’s (2016) study and the current study, which used the same sample. Possible similarities or differences that might emerge due to the use of individual (i.e., each parent’s behavior is coded individually) versus dyadic coding (i.e., behavioral observations at the family
system were going to be examined. However, when factor analyses were conducted, the subscale yielded vastly different factor loadings than in Rosario Colón’s initial study. Furthermore, the variability within the scales when using individual coding was drastically different to when dyadic coding was used (Rosario Colón, 2016); with greater variability within the scales in the current project than in the initial one. Additionally, the initial study, which used a dyadic coding system, yielded five different subscales (i.e., warmth, emotion-regulation, autonomy granting, supportive demandingness, and nonsupportive demandingness), while in the current study, the original subscales held their overall reliability. Consequently, the data from both studies could not be compared in a reliable way.

This incongruence in how the data behaved, when the same scale was used to code the behavioral observations with the same sample, elucidates significant information for the importance of the methodology being used when coding behavioral observations. Rosario Colón (2016) provided a possible explanation for favoring individual over family level coding by positing that dyadic coding could be obscuring parental differences in parent-child interactions. This could include parents behaving differently in a specific dimension/behavior or one parent’s behavior compensating for the other parent’s behavior. However, it is important to note that even though mothers and fathers were coded separately, they were both present in the room while doing the interactions tasks. Thus, the behavior of one of them might still impact the behavior of the other. Hence, individual coding potentially minimizes but not totally takes care of behavior compensation, which has an influence in the scores. Still, this mirrors real life situations,
where both parents are present while interacting with the child; which increases the ecological validity of the observations. Nonetheless, using individual coding allows parsing out in more detail how each parent influences the child.

Furthermore, mothers showed higher levels of warmth compared to fathers. This might be due to how parents might have been socialized to ascribe to gender roles. Another factor that might have influenced this is the position of parents during the tasks. A qualitative observation is that most families sat in a line by each other, with the mother sitting between the father and the child. Hence, if the mother and child are sitting next to each other, paternal physical affection might be more limited due to the physical distance between father and child. The same goes for the mother; more physical affection might be observed due to the proximity to each other.

Although direct comparison between coding methods was not possible in the current study, the data (e.g., scales’ reliabilities and the variability of scores) suggests that future research should focus on using an individual coding system in order to increase the reliability of the findings. Using individual coding systems seems to provide more accuracy given that the observations might vary depending on each individual involved and the relationship between said individuals within the global unit (Lindahl, 2001). Hence, coding behaviors separately allows the investigators to detect more nuanced behaviors that might be overshadowed by dyadic coding. Furthermore, using individual coding allowed the examination of differences within family units (e.g., different engagement in parental behaviors dependent on parental sex), which can provide a richer understanding of parent-child interactions. Moreover, having both parents present while
coding their behavior individually might provide a more ecologically valid measurement and be more cost-effective.

Last, there are factors within the current study to consider that might influence its comparability to the existing literature. For example, the present study used observational data. Across the literature there are studies that use interviews, self-report measures, observations, or a mix of methods to collect the data. Additionally, the observations were coded with both parents present during the interactions. Some studies might look at father-child and mother-child interactions separately. All of these methodological differences might influence results.

**Limitations**

The present study presents several limitations from which the findings need to be interpreted in. First, the magnitude of the sample for this study was relatively small to begin with \( n = 55 \), which then became further constrained by technical problems (e.g., video did not record, low audio and lighting; \( n = 49 \)). This significantly limited the power that might have been required to find statistically significant findings. Second, the sample was one of convenience, which limits the generalizability of the findings. The current sample was nonclinical and predominantly educated (as determined by post-secondary education) families (Lucas, 2003). In future research, random samples would be able to address this limitation. Third, while observational methods have benefits (e.g., free of self-report bias), it also has some disadvantages, such as research bias and participant bias (i.e., behaving in certain ways due to the laboratory setting, perceived expectations
from researchers, presenting themselves in a favorable light; Kassin et al., 2011; Shadish, Cook, & Campbell, 2002). Another methodological issue was the setting where the data collection took place. The sample was coded based on setting (i.e., at home versus the clinic); hence, distinctions between data collection settings could not be made.

In addition, the current sample focused on a specific age range (i.e., 6-11 years old). Parenting styles may be influenced by different developmental stages. Further study is needed regarding Puerto Rican parenting styles with younger and older children in order to explore possible differences in parenting styles based on age (Becerra & Castillo, 2011; Davidson & Cardemil, 2009). Likewise, socioeconomic status was not included as a variable in the current study; which might be an influencing factor (e.g., mediator) in relationship to parenting styles and child outcomes. Moreover, this study used an extent data set that was collected before the natural disasters of Irma and María. The exodus from Puerto Rico and the current living conditions present an important context in which to conduct further research. The increased contact with the continental U.S. along with the separation of families (nuclear and extended), presents another factor that will likely impact parenting styles and/or practices in the future.

It is also important to highlight the analytic issues present in the study. For starters, the coding scheme (i.e., P-SOS) used to code the behavioral observations does not include every behavior that might be part of the latent construct being studied (e.g., use of physical punishments, monitoring behavior with others, monitoring behaviors when in public); hence, it may not include all the parenting factors that may be involved in Puerto Rican parenting styles (Yoder & Symons, 2010). When comparing the present
study to Rosario Colón’s (2016), some items yielded no variability (e.g., “Parent explodes in anger towards child”) in both studies, which might be due to the rules set for the FITs, the laboratory setting, and/or participant bias. This lack of variability limited our analytic options. Furthermore, while comparing the factor analysis results for the P-SOS scale on both studies, notable differences emerged on how the factors loaded. Using a more sensitive measure for Puerto Rican samples might be more effective and stable in capturing the variability within the sample. Lastly, our analytic strategy certainly influenced the structure of the items included in the final scales that were used to assess parenting dimensions.

Summary

In summary, this study aimed to further the literature regarding parenting styles and child outcomes in Latinx families, specifically within the Puerto Rican population. For the main three parenting dimensions used in the literature, results showed that the majority of the parents exhibited high levels of warmth, demandingness, and autonomy granting, while exhibiting low levels of nonsupportive demandingness. There were also significant differences between mothers and fathers, with mothers exhibiting higher levels of warmth with girls than boys. Similarly, mothers exhibited higher levels of autonomy granting and supportive demandingness than fathers.

There was diversity within parenting styles with every parenting style combination being present except authoritarian parenting. The majority of the parents were categorized as authoritative, with the second biggest group exhibiting a protective
parenting style. These finding suggests that Puerto Rican parents predominantly exhibit a parenting style that is consistent with White American families, followed by a group of parents that exhibit a different parenting style than what the vast majority of the literature has described. Protective parenting was coined by M. R. Davis (2006), which is characterized by low autonomy granting and has been previously found in Mexican American samples.

Higher levels of supportive demandingness were found to be associated with lower child behavioral symptoms. This finding may point towards a protective factor for Latinx families, in which supportive demandingness may be providing clear expectations for the child’s behavior that sets them up for success and parental approval within a context of support. Furthermore, mothers reported higher levels of total symptoms for boys than girls. On the other hand, no statistically significant effects were found between parenting styles, parent gender, and child sex. The same trend was found for match or no match parenting dyads. However, the small to medium effect sizes found suggest that there is a significant difference when parenting with the same or differing parenting styles. Furthermore, a visual examination of the mean scores showed that mothers and fathers report lower levels of child problems across the board in families were both parents exhibit the same parenting style. Overall, the main probable cause for the lack of statistical findings is the magnitude of the sample size.

Last, the results from Rosario Colón’s (2016) study could not be compared to the current study because of analytic issues between studies. Although the same sample and scale were used for both studies, the factor loadings for both studies did not allow for an
accurate comparison between results. Nonetheless, descriptive comparisons related to reliability and variability suggest that individual coding produces more significant and nuanced results. A more sensitive scale and a larger sample size might be needed in the future to be able to compare both methodologies. More extensive research is needed in order to have a clearer picture of normative parenting styles in Puerto Rican families and be able to parse out possible differences by parent gender and child sex, and also to determine the clinical significance of the current findings.

**Future Research**

The current parenting framework which categorizes parents in four parenting styles (i.e., authoritative, authoritarian, permissive, and neglectful) did not conceptualize Puerto Rican parenting in its entirety. Four parenting styles (i.e., protective, cold, affiliative, and neglectful II) emerged that are not portrayed in Baumrind’s (1966) and Maccoby and Martin (1983) original typology, which provides evidence that further research is needed in order to broaden the concept of parenting and effectively captures parenting within Puerto Rican families. Furthermore, a parenting measure designed specifically for this population might be needed in order to measure parenting behaviors that more accurately capture the latent constructs. Alongside the behavioral coding measure, future potential research might want to focus on family dynamics. In day to day life, each family member will interact with each other in the presence of other family members; hence rather than individual coding, focusing on family dynamics might help increase ecological validity.
In addition, given Puerto Rico’s status as a U.S. territory and the current study’s findings (i.e., at least half of the parents exhibiting an authoritative parenting style), studying acculturation as a moderating variable might be beneficial. In addition, further research is needed regarding the protective, cold, affiliative, and neglectful II parenting styles, its prevalence, and how it might influence child outcomes. Likewise, using different demographics, such as: single parental households, different age ranges, and children with clinically significant behavior problems, might broaden our understanding of parenting and its relationship to child outcomes. Samples with Puerto Rican families living on the island versus in the U.S. mainland might also provide more nuanced information about how cultural context affects parenting.

In terms of clinical significance, the current findings suggest that interventions might want to focus on fostering supportive demandingness within the Latinx cultural context. It would also be beneficial for clinicians working with Latinx populations to be mindful of generalizing interventions when the current literature has conflicting findings. Hence, clinical situations should be navigated with caution and always be informed by the client or family’s own expertise (APA Presidential Task Force on Evidence-Based Practice, 2006). Overall, further research is needed regarding Puerto Rican parenting styles and child outcomes, including a broader developmental spectrum. The current literature has conflicting findings, with more recent studies bringing more parenting styles to light. Further exploration is needed in order to be able to determine which parenting style(s) accurately conceptualizes Puerto Rican parenting styles, while also considering the diversity that exists within Latinx subgroups in general.
REFERENCES


Gunnoe, M. L. (2013). Associations between parenting style, physical discipline, and adjustment in adolescents' reports. *Psychological Reports, 112*, 933-975. doi: 10.2466/15.10.49.PR0.112.3.933-975


CURRICULUM VITAE

JEISIANNE ROSARIO COLÓN

Personal Information

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Education

Ph.D. Utah State University
2020 Logan, UT
Combined Clinical, Counseling, and School Psychology Program, APA accredited
Dissertation: Parenting styles and child outcomes in Puerto Rican families: A dyadic comparison between individual and global coding
Chair: Melanie M. Domenech Rodríguez, Ph.D.

M.S. Utah State University
2016 Logan, UT
Combined Clinical, Counseling, and School Psychology Program, APA accredited
Thesis: Parenting styles and child outcomes in Puerto Rican families
Chair: Renee V. Galliher, Ph.D., Melanie M. Domenech Rodríguez, Ph.D.

B.A. University of Puerto Rico
2014 Mayagüez Campus, Puerto Rico
Major: Psychology
Advisor: Douglas Santos, Ph.D.

Clinical Experience

Internship:

09/2019- to present Pre-doctoral Psychology Intern
Center for Multicultural Training in Psychology
Boston University School of Medicine/Boston Medical Center, Boston, MA
Responsibilities:

*Massachusetts Mental health Center from Department of Mental Health of Massachusetts:* provide individual and group therapy, in Spanish, to adults diagnosed with a major mental illness while working with an interdisciplinary team to coordinate care, including: social workers, case managers, psychiatrists, primary care providers, nurses, shelters, and government entities.

*Supporting Parents and Resilient Kids, Boston Medical Center:* conduct individual and dyadic therapy, psychological evaluations, and classroom interventions for children and families with a history of interpersonal violence, trauma, low socioeconomic status, and complex medical and mental health needs. In addition, work with an interdisciplinary team, including: social workers, case managers, psychiatrists, primary care providers, nurses, teachers, and Early Intervention providers, to coordinate care.

*Expected total hours: 2,300*
Supervisors: Sandra Mattar, Ph.D.; Twyla Wolfe, Ph.D.; Carola Mallol, MS, LMHC; Martha Vibbert, Ph.D.; and Alyssa King, Ph.D.

**Clinical Assistantships:**

**01/2019- 05/2019**
**Student Therapist**
Utah State University Clinical and Psychological Services
Utah State University, Logan UT

Responsibilities: provide individual (in English and Spanish) and group therapy to college age individuals using diverse theoretical orientations; and conduct workshops and community outreach events.

*Total hours: 164.5; Direct contact hours: 72.5*
Supervisors: Mark Nafziger, Ph.D.

**08/2018 – 01/2019**
**Student Therapist**
Neurobehavioral Center for Growth, Bountiful, UT

Responsibilities: provide individual therapy across the developmental spectrum using a variety of interventions and conduct neuropsychological assessments (e.g., academic achievement tests, intellectual assessments).
Total hours: 201; Direct contact hours: 17
Supervisor: Jennifer Cardinal, Ph.D.

05/2017 – 05/2018 **Behavior Specialist**
Up to Three Early Intervention
Utah State University, Logan UT

Responsibilities: provide in-home therapy (in English and Spanish) to families with children up to three years old with developmental disabilities using behavioral interventions, conduct staff trainings, school observations, and interventions in classroom settings, and collaborate with multidisciplinary treatment teams, including: nurse practitioners, service coordinators, and physical, occupational, and speech therapists.

Total hours: 501; Direct contact hours: 322
Supervisor: Gretchen Peacock, Ph.D.

09/2016- 04/2017 **Mental Health Consultant**
Bear River Head Start, Logan, UT

Responsibilities: provide individual and couples therapy, in English and Spanish, to individuals across the developmental spectrum using diverse theoretical orientations; develop and implement in-staff service trainings; school observations; and conduct consultations with teachers and other multidisciplinary staff.

Total hours: 277; Direct contact hours: 77
Supervisor: Sara Boghosian, Ph.D.

**Practicum Experience:**

09/2016- 05/2017 **Student Therapist**
Utah State University Clinical and Psychological Services, Utah State University, Logan UT

Responsibilities: provide individual (in English and Spanish) and group therapy to college age individuals using diverse theoretical orientations; and conduct workshops and community outreach events.

Total hours: 325; Direct contact hours: 136
Supervisors: Amy Kleiner, Ph.D. and David Bush, Ph.D.

09/2015- 05/2016  **Student Therapist**  
Utah State University Psychology Community Clinic  
Utah State University, Logan UT  
Responsibilities: provide individual therapy, in English and Spanish, to children and adults, using diverse theoretical orientations, and conduct psychodiagnostic assessments.  
*Total hours: 450; Direct contact hours: 107*

Supervisors: Susan Crowley, Ph.D., Sara Boghosian, Ph.D. and Jenna Glover, Ph.D.

**Additional Clinical Experience:**

04/13  **Behavior Management Staff Training**  
Bear River Head Start, Logan, UT  
Responsibilities: conducted a 2-hour training on the implementation of behavioral management strategies for children three to five years old in a school setting and subsequent modifications when using behavioral strategies with children with special needs.

02/2018  **Problem Solving for Married Couples**  
The Family Place, Logan UT  
Responsibilities: conducted a 2-hour workshop, in Spanish, on the implementation of problem solving skills within the context of marriage and family conflicts.

01/2018  **Behavior Management Staff Training**  
*Centro de la Familia*, Honeyville, UT  
Responsibilities: conducted a 2-hour training on the implementation of behavioral management strategies for children three to five years old in a school setting.

11/2017  **Child Behavior Checklist Staff Training**  
Up to Three Early Intervention Program  
Utah State University, Logan, UT  
Responsibilities: conducted a 60-minute training on the use, scoring, and conduction of feedback sessions when using the Child Behavior Checklist (CBCL) for ages 18 months to 5 years old in Spanish and English.
11/2017  **Behavior Management Parent Training**  
Centro de la Familia, Honeyville, UT  
Responsibilities: conducted a 45-minute training for parents on the implementation of behavioral management strategies for children three to five years old in a house setting.

01/2017  **Resilience Staff Training**  
Bear River Early Head Start, Logan, UT  
Responsibilities: conducted a 60-minute training on how to develop resilience in children three to five years old in a school setting.

11/2016  **Effective Communication Staff Training**  
Bear River Head Start, Logan, UT  
Responsibilities: conducted a 50-minute training on key aspects of effective communication and how to manage difficult verbal exchanges.

11/2016  **Resilience Staff Training**  
Bear River Head Start, Logan, UT  
Responsibilities: conducted a 50-minute training on how to develop resilience in children three to five years old in a school setting.

04/2016  **Benevolent Sexism Student Training**  
Utah State University, Logan, UT  
Responsibilities: conducted a 50-minute training on sexism, its history, types of benevolent sexism, and how to address it in campus, work, or daily life scenarios.

**Research Experience**

09/2016- to present  **Primary Researcher**  
Utah State University, Logan, UT  
Responsibilities: conceptualization of the investigation, conduct a literature review, code parenting interactions, data analysis, and

Doctoral dissertation project. Examined the difference between individual and global coding in relationship to parenting styles in Puerto Rican families with children between the 6 and 11 years old, and its association to child outcomes.
presentation of results.

Primary Researcher: Jeisianne Rosario Colón, M.S.
Research Mentor: Melanie Domenech Rodríguez, Ph.D.

09/2016-11/2017  **Research Assistant**
Experience of Microaggressions: White Bystanders’ Physiological and Psychological Reactions
Utah State University, Logan, UT

Dissertation project. Experiment to examine the ways racial microaggression experiences impact the psychological and physiological reactions of White bystanders.

Responsibilities: serve as a decoy (i.e., portray as a fellow participant) by taking assessments and filling out surveys while reacting to a microaggression done by another research assistant.

Primary Researcher: Alexandra Reveles
Research Mentor: Melanie Domenech Rodríguez, Ph.D.

09/2014- 09/2016  **Primary Researcher**
Parenting Styles and Child Outcomes in Puerto Rican Families
Utah State University, Logan, UT

Master’s thesis project. Examined normative parenting practices in Puerto Rican families with children between the 6 and 11 years old, and its association to child outcomes.

Responsibilities: conceptualization of the investigation, conduct a literature review, code parenting interactions, data analysis, and presentation of results.

Primary Researcher: Jeisianne Rosario Colón
Research Mentors: Renee V. Galliher, Ph.D., Melanie M. Domenech Rodríguez, Ph.D.

08/2014- 04/2015  **Research Assistant**
Padres Preparados
Utah State University, Logan, UT

NICHD funded project to develop and evaluated the impact of an 8-session parenting skills training intervention with Latino Parents with a 3 to 5-year-old child in preschool.
Responsibilities: revise video and document translations, and transcribe focus group meetings and interviews.

Primary Researcher: Melanie M. Domenech Rodríguez, Ph.D.

01/2015- 05/2015  **Research Assistant**
Amor de Cerca: Positive Involvement in Latino Families
Utah State University, Logan, UT

Dissertation project where pre-recorded parent-child interactions were coded to examine if positive and negative parental behaviors predicted externalizing behaviors in children.

Responsibilities: code observational data of parent-child interactions.

Primary Researcher: Michelle Varón
Research Mentor: Melanie Domenech Rodríguez, Ph.D.

08/2013– 05/2014  **Research Assistant**
The Abilities of Emotional Intelligence in Undergraduate Students of the University of Puerto Rico, Mayagüez Campus: Searching Differences Between Gender, Faculty, and GPA.
University of Puerto Rico, Mayagüez Campus

Responsibilities: conceptualization of the investigation; instrument administration; data analysis; presentation of results.

Primary Researcher: Lizzie García, Ph.D.

02/2012- 03/2012  **Research Assistant**
University of Puerto Rico, Mayagüez Campus

Responsibilities: data analysis and construction of code book.

Primary Researcher: Douglas Santos, Ph.D.

08/2011- 05/2012  **Research Assistant**
Symptoms Associated with Bulimia, Depression and Anxiety in College Students of the Mayagüez Campus
University of Puerto Rico, Mayagüez Campus

Responsibilities: Conceptualization of the investigation; design and administration of questionnaire; data analysis; presentation of
results.

Primary Researcher: Douglas Santos, Ph.D.

08/2011-02/2012 **Research Assistant:**
Globally Promoting Psychological Well-Being, University of Puerto Rico, Mayagüez Campus
University of Puerto Rico, Mayagüez Campus

Responsibilities: Contact principals of different private schools to obtain their authorization to access the school premises; interview persons between the ages of 5 and 63; transcribe interviews; translate interviews from Spanish to English.

Primary Researcher: Amanda Clinton, Ph.D.

**Publications**


**Poster Presentations**


Vargas, V., Rodríguez, K., Avilés, L., Crespo, A., Lebrón, C., Maldonado, Y., & Rosario, J. (April, 2012). *Ingestion patterns of RUM college students: In search of cases of*
bulimia. Poster presented at the XIX Social Sciences Research Symposium, University of Puerto Rico-Mayagüez, PR.

Avilés, L., Maldonado, Y., Crespo, A., Lebrón, C., Rodríguez, K., Rosario, J., & Vargas, V. (April, 2012). *Symptoms of anxiety and depression in undergraduate students in Mayaguez Campus*. Poster presented at the Undergraduate and Graduate Student Research Congress, University of Puerto Rico-Río Piedras, PR.


**Teaching Experience**

08/2018- to date  
**Teaching Assistant**  
PSY7350 – Integrated Practicum  
*Department of Psychology, Utah State University, Logan, UT.*  
Responsibilities: Grade intellectual and academic achievement tests, and conduct role-plays with practicum students.  
Professor: Susan Crowley, PhD, Sara Boghosian, PhD

05/2018-08/2018  
**Teaching Assistant**  
PSY4240 – Multicultural Psychology  
*Department of Psychology, Utah State University, Logan, UT.*  
Responsibilities: Graded assignments, made announcements, and help students when needed.  
Professor / Instructor: Alexandra Reveles, M.S.

08/2016- 05/2017  
**Teaching Assistant**  
PSY4230 - Psychology of Gender  
*Department of Psychology, Utah State University, Logan, UT.*  
Responsibilities: graded weekly discussions posts, quizzes, and essays, provided feedback, and addressed student concerns.  
Professor: Kathryn Sperry, Ph.D.

05/2016- 08/2016  
**Teaching Assistant**  
PSY1010 - Introduction to Psychology  
*Department of Psychology, Utah State University, Logan, UT.*  
Responsibilities: graded weekly assignments.  
Professor: Jennifer Grewe, Ph.D.

08/2015- 05/2016  
**Teaching Assistant**  
PSY 4240 - Multicultural Psychology  
*Department of Psychology, Utah State University, Logan, UT.*
Responsibilities: graded assignments, made announcements, and supervised and managed the students that helped with the Cache Refugee and Immigrant Clinic every week.
Professor: Melissa Tehee, Ph.D., J.D.

05/2015 - 08/2015  
**Teaching Assistant**
PSY 4230 – Psychology of Gender  
*Department of Psychology, Utah State University, Logan, UT.*
Responsibilities: graded weekly assignments, provided students with feedback, and made class announcements.
Professor: Vonda Jump, Ph.D.

**Guest Lectures:**

**10/2018**  
**Guest Lecturer**  
PSY2010- Orientation to Psychology as a Career and Profession  
*Department of Psychology, Utah State University, Logan, UT.*
Presented a 50-minute lecture on multicultural competence awareness, knowledge, and skills.
Professor: Carrie Madden, Ph.D.

**04/2017**  
**Guest Lecturer**  
PSY2010- Orientation to Psychology as a Career and Profession  
*Department of Psychology, Utah State University, Logan, UT.*
Presented a 75-minute lecture on multicultural competence awareness, knowledge, and skills.
Professor: Carrie Madden, Ph.D.

**04/2016**  
**Guest Lecturer**  
PSY4240 - Multicultural Psychology course  
*Department of Psychology, Utah State University, Logan, UT.*
Presented a 60-minute lecture on multicultural competence (i.e., awareness, knowledge, and skills), lead student discussion groups, and discussed videos related to multicultural competence.
Professor: Melissa Tehee, Ph.D., J.D.

**11/2015**  
**Guest Lecturer**  
PSY 4240 - Multicultural Psychology course  
*Department of Psychology, Utah State University, Logan, UT.*
Presented a 50-minute lecture on multicultural competence awareness, knowledge, and skills.
Professor: Melissa Tehee, Ph.D., J.D.
**Work Experience**

08/2014- 08/2016    **Editorial Assistant**  
*Psi Chi Journal of Psychological Research*  
Psi Chi Central Office, Chattanooga, TN, and Logan, UT  

Responsibilities: manuscripts revision, submit manuscripts to plagiarism checks, develop and administer online surveys, recruit reviewers, coordinate assistant editor’s meetings, create and update Google Scholar citations account, and help with any other administrative needs.  
Journal Editor: Melanie M. Domenech Rodríguez, Ph.D.

**Service/Community Outreach**

01/2019- to present    **Volunteer**, Vital Village Scholar Support program

01/2017- 05/2018    **Organization Committee**, Fiesta Américas, Latinx Student Union’s Annual Cultural Event, Utah State University, Logan UT.

08/2016- 05/2018    **Graduate Advisor**, Latinx Student Association, Utah State University, Logan campus.

04/2018    **Volunteer**, *Feria de la Salud*, screenings of anxiety and depression symptoms at an annual community health fair, Logan, UT.

11/2017    **Student Panel Member**, panel to discuss how to work and factors to have in mind when working with Latino families.

11/2017    **Community Outreach**, Presentation: How to Engage in Self-care, Latinx Student Union, Utah State University, Logan UT.

10/2017    **Community Outreach**, Presentation: Definition, Key Terms, and Processes of Cultural Identity, Latinx Student Union, Utah State University, Logan UT.

04/2017    **Volunteer**, Latinos Pursuing a College Degree, orientation of high school students on the benefits of obtaining a college degree.

04/2017    **Volunteer**, *Feria de la Salud*, screenings of anxiety and depressive symptoms at a community health fair, Logan, UT.

04/2017    **Community Outreach**, Walk a Mile in Her Shoes, campus event to raise awareness of gender violence. Provided orientation of on- and off-campus mental health resources.
01/2017- 04/2017 **Organization Committee**, Areito, Dominican Student Association’s Annual Cultural Event, Utah State University, Logan UT.

11/2016- 03/2017 **Community Outreach**, Advancing Civility, trainings pro-inclusion of minorities in Utah’s school system, Utah State University, Logan UT.

11/2016 **Committee**, Pro-Diversity Coalition, development of pro-diversity policies at Utah State University, Logan campus.

11/2016 **Board Committee**, USU Inclusion, student-based group that provides social support and psychoeducation about diverse student populations, Utah State University, Logan campus.

11/2015- 05/2016 **Organizer and Volunteer** of the Cache Refugee and Immigrant Connection clinic, Utah State University, Logan UT.

04/2015- 10/2016 **Student representative** of the Scientific Committee, National Latina/o Psychological Association 2016 Conference

04/2012 **Organization Committee** of the XX Social Sciences Research Symposium, University of Puerto Rico-Mayagüez

03/2012 **Organization Committee** of the XIX Social Challenges Symposium, University of Puerto Rico- Mayagüez

04/2011 **Organization Committee** of the III Social Sciences Research Symposium, University of Puerto Rico- Mayagüez

11/2011 **Organization Committee** of the 1st Psychology Week, University of Puerto Rico- Mayagüez

**Awards**

12/2019 (nominated) Utah State University Diversity Awards, Utah State University

09/2017 **College of Education and Human Services Graduate Student Research Award**, Utah State University ($1,300)

04/2017 **Carolyn Barcus Diversity Scholarship**, Utah State University ($1,000)

04/2017 **Graduate Enhancement Award**, Utah State University ($4,000)

04/2015 **Lawson Fellowship**, Utah State University ($3,000)
Specialty Training/Workshops

10/2019  Child-Parent Psychotherapy, Supporting Parents and Resilient Kids Center, Boston, MA

04/2019  Psychopharmacology Update for Clinicians: What’s New in 2019, Counseling and Psychological Services 25th Annual Conference, Utah State University, Logan, UT.

10/2018  Pew Research Center Immigration Course, Pew Research Center

04/2017  The Power of Mindsets, Counseling and Psychological Services 23rd Annual Conference, Utah State University, Logan, UT.

05/2016  Allies Training, Utah State University, Logan UT.

04/2016  Interfaith Ally Training, Utah State University, Logan UT.

04/2016  Innovations in Clinical Assessment of Suicidal Patients, Counseling and Psychological Services 22nd Annual Conference, Utah State University, Logan, UT.


Memberships and Affiliations

Professional:

10/2019 to date  Student Member, Asociación de Psicología de Puerto Rico, Puerto Rico

04/2015-to date  Student Member, National Latinx Psychological Association

10/2013-to date  Student Member, American Psychological Association

08/2011 (Lifetime)  Member, Psi Chi, the International Honor Society of Psychology

College level:

08/2016-2019  Student Member, Polynesian Student Union, Utah State University, Logan campus
08/2016- 2019 **Student Member**, Black Student Union, Utah State University, Logan campus

01/2015- 2019 **Student Member**, Latinx Student Association, Utah State University, Logan campus

08/2011- 12/2012 **Vice-president**, Association of Psychology Students, University of Puerto Rico, Mayagüez Campus

08/2012 (Lifetime) **Student Member**, Golden Key Honor Society, University of Puerto Rico, Mayagüez Chapter

08/2010- 05/2014 **Student Member**, Association of Psychology Students, University of Puerto Rico, Mayagüez Campus

**Other Skills**

Proficient in Spanish (primary language) and English.