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Play Behaviors in Latino Dual Language Learners: The Relationship between Maternal Characteristics and Classroom Peer Play

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by

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DEDICATION

I dedicate this dissertation to my family because my education is the result of their encouragement and support through the years. My grandparents encouraged me to pursue a degree in higher education. My father taught me the skills of perseverance, and my mother made my dreams possible by bringing me to this beautiful country. My husband has been supporting my goals since the beginning of college. My sisters inspired me to work with children and made the future better for them. Finally, yet importantly, I would like to dedicate my work to all the immigrants who came to this country looking for a better future.

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ABSTRACT

In Head Start, 28.8% of the children enrolled are Dual Language Learners (DLLs), and 84.4% of those speak Spanish as their home language. However, there are limited studies involving DLLs. Using the Ecological Model of Human Development framework with current revisions with culture as part of the microsystem (Bronfenbrenner, 1994; Vélez-Agosto et al., 2017), the current study aimed to identify maternal level factors that may relate to Latinos' classroom peer play while controlling for classroom quality. Forty-five Latino DLL children attending Head Start, their mothers, and their teachers participated in the study. Head Start administrators provided their most recent vocabulary subtest scores of VPK Assessment and their Classroom Assessment Scoring System (CLASS) scores. Child participants' mothers completed the Bidimensional Acculturation Scale for Hispanics (BAS), the Parenting Styles and Dimensions, and the Quick Inventory of Depressive Symptomatology ($QIDS_{16}$). Additionally, teachers rated the children's play behaviors with the Penn Interactive Peer Play Scale. None of the models were statistically significant, suggesting that maternal level of acculturation, parenting style, or depression do not predict peer play. Yet, there were significant negative correlations between acculturation to the Hispanic culture, permissive parenting style, and maternal depression with children's VPK scores on the oral language/vocabulary subtest. Future studies should consider ecological and cultural approaches to allow for a broader view of Latinos' development.

CHAPTER ONE:

INTRODUCTION

Statement of the Problem

Latinos represent one-third of the Head Start children (Office of Head Start, 2016) and 80% of the Dual Language Learners (DLL). However, research involving Latino DLLs is limited, and we do not fully understand all the variables impacting DLLs development (Halle et al., 2014). Studies suggest behavior is an area of strength for this population since Latino children tend to exhibit fewer behavior problems than other ethnic groups and tend to also excel in social competence (Halle et al., 2014). We know that immigration status plays a role in positive behavior interactions based on research findings indicating first-generation children perform better in these areas of social competence as compared to the second generation (Halle et al., 2014). First-generation immigrants are less acculturated to the American culture and tend to practice their home culture (De Feyter & Winsler, 2009). Latino parents emphasize the value of respect in which children should behave and be obedient to adults. Moreover, teaching morals is one of the central roles of Latino parents in their children's education (Reese et al., 1995). Understanding additional variables that predict classroom peer play can inform prevention and intervention practices to foster appropriate play behaviors and enhance academic outcomes in young children.

In Head Start classrooms, children spend most of their time playing with their peers. Play fosters cognitive, language, and social-emotional development and builds essential foundations

for school readiness (Fisher, 1999). Children's interactive play with their peers fully moderates more learning and less problem behaviors in Head Start classrooms (Bulotsky-Shearer, Bell, Romero, & Carter, 2012). On the other hand, children engaging in problematic behaviors in the classroom also exhibit poor peer interaction, which negatively affects school readiness skills. In particular, Bulotsky-Shearer and her colleagues (2012) found behavior problems during classroom peer play predicted lower attitudes toward learning. Behavior problems correlate with poor academic outcomes on both early reading and mathematics ability. Moreover, behavior problems negatively relate to adaptive learning skills, such as motivation, attention, and persistence in academically focused tasks.

In the area of kindergarten readiness, kindergarten teachers ranked social-emotional skills (i.e., following directions and cooperation with peers) higher than cognitive skills (i.e., knowing letter and numbers). Socio-emotional skills are the foundation for learning because they allow students to follow directions, focus, and form relationships (Lin, Lawrence, & Gorrell, 2003). Additionally, social-emotional skills relate to positive gains on academic test scores and grades (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). In the literature, there are limited studies investigating the social-emotional development of Latino DLLs. The aims of this study are to explore the maternal level factors that may predict play interaction, disruption, and disconnection while controlling for classroom quality.

Latinos

A Hispanic or Latino is "a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race" (U.S. Census Bureau, 2011, p.2). Latinos are the largest and fastest-growing minority group in the United States (U.S. Census Bureau, 2011). Latino children tend to attend public schools in low-income neighborhoods (Han,

2010) and represent 12% of the special education population (National Department for Education Statistics, 2015). Latinos also have the highest high school dropout rate (12%) and the lowest graduation rate (76%) when compared to other ethnic groups. Latino children also have low scores in reading and mathematics (National Center for Education Statistics, 2015). Despite their academic struggles, Latino children tend to excel in the area of behavior by demonstrating lower rates of problem behaviors and higher social competence than other ethnic groups.

In Head Start, 38% of the children enrolled are Latinos, representing one in three children. Latinos are also the fastest growing group in Head Start (Office of Head Start, 2016). According to the Head Start Family and Child Experiences Survey (FACES), Latino children tend to live with both parents, and their household tends to be larger than other groups (Garcia & Levin, 2001). Mothers who completed the FACES study reported receiving more support from their spouses than from other family members or friends. Additionally, Latino families are as involved as other families in Head Start, and they reported higher levels of satisfaction with the program than other ethnic groups (Garcia & Levin, 2001). Some of the Latino children enrolled in Head Start are DLLs and represent 80% of the Head Start DLL population (Lazarín, 2006). The Office of Head Start (2016) defines DLLs as "children learning two (or more) languages at the same time, as well as those learning a second language while continuing to develop their first (or home) language" (p.2).

Social Competence among Latino Dual Language Learners

Social competence is one of the social-emotional domains and refers to the ability to interact with others efficiently and form relationships with peers and adults (Halle et al., 2014). DLLs tend to have higher self-control and interpersonal skills and fewer problem behaviors than other monolingual groups. For example, Mexican children enrolled in Migrant Head Start scored

in the average range on the Child Behavior Checklist (CBCL) in Siantz, Coronado, and Dovydaitis' (2010) study. However, Latinos' social competence varies across subgroups. For instance in a study by Galindo and Fuller (2010), Cuban and South American children scored higher than other Latino subgroups in social competence while Mexican children scored similarly to Caucasians, Asians, and different Latino subgroups. On the other hand, Puerto Ricans scored lower than Caucasians (Galindo & Fuller, 2010). Young children tend to show their emerging social competence during play since children spend most of their time playing with peers in early childhood programs (Gagnon & Nagle, 2004). Therefore, peer play in preschool is considered the foundation for later social competence (Mathieson & Banerjee, 2010).

Theoretical Framework: Ecological Model of Human Development

This study uses the Ecological Model of Human Development as a framework to understand peer play interactions in young Latino children. The Ecological Model of Human Development states that children's development results from their interaction with multiple environments (Bronfenbrenner, 1994; Bronfenbrenner & Morris, 2006). In Bronfenbrenner's model, concentric circles represent the different ecologies. The inner circle represents the child's genetics followed by the microsystem which is the child's immediate community (i.e., the family, school, peers, etc.), which makes the microsystem having a more significant influence on development due to its proximity. The present study focuses on the microsystem, specifically the home and school environments because young children spend most of their time with family and in daycare settings. The study aims to identify which maternal factors influence children's peer play while controlling for classroom quality and child's language proficiency.

The most recent revision of the Ecological Model of Human Development added culture to the microsystem because culture is part of the everyday practices of families and schools (Vélez-Agosto et al., 2017). For instance, DLLs may experience one culture at school and another one at home, which impacts language and behavior and shapes development (Halle et al., 2014). The Ecological Model of Human Development with cultural modifications serve as a framework for understanding the characteristics related to peer play in young Latinos children. For instance, studies have shown acculturation plays a role in Latino families such that first-generation students have fewer problem behaviors than the second generation (Halle et al., 2014). The following section reviews the child, classroom, and maternal characteristics associated with play behaviors in DLLs.

Characteristics Associated with Classroom Peer Play

Classroom peer play behaviors are represented in three distinct categories: Play interaction, play disconnection, and play disruption. The first category represents the children who play well with others and are actively engaged in play. Play disconnection, the second category, refers to internalizing problem behaviors, such as being withdrawn from play while play disruption matches externalizing problem behaviors, such as aggression (Fantuzzo et al., 1998).

Child Characteristics. Studies have shown that a child's language proficiency impacts peer play. For instance, DLL children with higher language scores and those who are bilingual tend to have higher social competence than children with low language skills or monolinguals (De Feyter & Winsler, 2009; Han, 2010; Winsler et al., 2014). Additionally, children with limited English proficiency tend to often become frustrated for not being able to communicate,

showing internalizing and externalizing behaviors in the classroom (Campbell, 1995; Qi & Kaiser, 2003).

Classroom Characteristics. Most of the research to date has focused on classroom factors. For example, classroom climate and teacher-child relationship represent the most robust predictors of peer play interactions (Howes et al., 2011). Additionally, classroom quality in the form of teachers' emotional support has been shown to relate to children's social competence and on-task behaviors in large national data sets (Curby et al., 2009; Mashburn's et al., 2008).

Maternal Predictors. The maternal factors predicting peer play are still emerging and constitute areas needing further exploration. There is no doubt that maternal depression affects children's general development (Campbell, 1995; 2006; Jones Harden et al., 2010; Meadows, McLanahan, & Brooks-Gunn, 2007). Depression symptoms in mothers correlate with internalizing and externalizing depression in young children (Qi & Kaiser, 2003). In Head Start samples of Latinos, maternal depression is associated with internalizing behaviors (Siantz, Coronado, & Dovydaitis, 2010). In play situations, maternal depression predicted physical aggression in boys and verbal aggression in girls (Hipwell et al., 2005). In addition to depression, authoritarian parenting relates to both internalizing and externalizing behaviors in preschool-age children (Calzada et al., 2012; Qi & Kaiser, 2003). Authoritarian parenting offers little warmth and uses harsh discipline methods, such as yelling and hitting. Maternal acculturation may also be related to play behaviors, but there are no current studies that explore the role of acculturation in predicting play behaviors or social competence in young children. Studies have identified maternal variables influencing children's outcomes. Yet the field is still emerging when it comes to peer play interactions.

Purpose of the Current Study

The purpose of the current study was to identify the maternal variables that may predict play behaviors in children, specifically play interaction, play disconnection, and play disruption. This study aimed to control for child language and classroom quality. However, the study only controls for classroom quality because only 16 VPK were obtained due to Head Start only assessing children who are transitioning to kinderkarten.

Research Questions

1) To what extent do maternal level factors (i.e., acculturation, parenting style, and depression symptoms) relate to Latino children's play interaction when controlling for classroom quality?

2) To what extent do maternal level factors (i.e., acculturation, parenting style, and depression symptoms) relate to Latino children's play disruption when controlling for classroom quality?

3) To what extent do maternal level factors (i.e., acculturation, parenting style, and depression symptoms) relate to Latino children's play disconnection when controlling for classroom quality?

Operational Definition of Key Terms

Acculturation: Level of assimilation to the American culture.

Child's English Language Proficiency: Child's vocabulary scores in English as measured by the Head Start Voluntary Prekindergarten (VPK) Assessments.

Classroom quality: the average quality of teacher-child interactions in three categories: emotional support, classroom organization, and instructional support, as measured by the CLASS.

Depression symptoms: The presentation and intensity of depressive symptoms in mothers as measured by the Quick Inventory of Depressive Symptomatology ($QIDS_{16}$).

Parenting style: Frequency of parenting practices in three categories: authoritarian, authoritative, and permissive parenting style.

Play disconnection: Frequency of a child's withdrawn and avoidant play behaviors, described by an absence of interaction with peers.

Play disruption: Frequency of a child's aggressive/antisocial play behaviors that interfere with maintaining ongoing peer interactions.

Play interaction: Frequency of a child's prosocial behaviors during play, such as sharing toys and showing cooperation with peers.

Contributions to the Literature

Bronfenbrenner (1994) explained child development occurs with the interaction of multiple environments, such as home and school. Vélez-Agosto and her colleagues (2017) revised Bronfenbrenner's model by moving culture into the microsystem. The picture of DLL social-emotional development is emerging as we have identified some of the variables influencing DLLs (Halle et al., 214). However, research involving DLLs is limited especially related to their social-emotional development. In the area of predictors of peer play interactions, classroom variables have been more explored compared to home variables (Halle et al., 2014). This study aimed to add to the literature in the area of the maternal factors influencing peer play competence in Latino DLLs. The goal of this study is to guide future researchers in this area that needs further investigation in order to have a full picture of DLLs development to inform our practice.

Importance of the Study to School Psychologists

As Bronfenbrenner explained in his model of Human Development, child development results in the child's interaction with multiple environments. Notably, home and school constitute the closest environments and the ones with more significant impact on children. To treat the whole child, practitioners should have an understanding of the variables that shape children's outcomes in a positive or negative direction. Early childhood programs, including Head Start, embrace the families in their everyday practices. As a result, the identified variables may help in providing child and parent level supports to maximize children's outcomes. For instance, if parenting style affects peer play interactions. Practitioners can recommend or add parent training to their practices. Furthermore, practitioners may want to screen and recommend professional help for mothers if maternal depression is a factor related to children's behaviors. The current study aimed to provide understanding of the maternal areas necessary to tackle in prevention and intervention practices.

CHAPTER TWO:

REVIEW OF THE LITERATURE

Latinos in the U.S.

A Hispanic or Latino is "a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race" (U.S. Census Bureau, 2011, p.2). Researchers have used both terms, Hispanic or Latino. This study uses the term Latino as being more conservative. Latinos are a diverse ethnic group with multiple races, languages, places of origin, and religions (Marín & Marín, 1991; Rodríguez, Rodríguez, Saenz, & Menjívar, 2008; Suárez-Orozco & Páez, 2008). In the United States, Latinos are the most extensive and fastest-growing minority group (U.S. Census Bureau, 2011). Mexicans are the biggest and oldest Latino subgroup residing in the U.S. as part of Mexico joining the U.S. territory in 1848 with the Treaty of Guadalupe Hidalgo. The second largest group is Puerto Ricans who are U.S. citizens since 1917. Cubans' immigration increased in 1959 after Cuba broke ties with the U.S. (Marín & Marín, 1991). Rodríguez et al. (2008) reported that Latinos in the U.S. represent all the countries in Central America, South America, and the Caribbean. Wars, politics, and economic crises have influenced immigration waves.

Despite their differences in race, religion, and place of origin, Latinos share similar cultural practices. Their culture blends the Spanish, the African, and the Native American's traditions into one culture in which the group's needs are met over individuals' needs (Sue & Sue, 2013). Latino families tend to be larger than American families since Latinos count as part

of their nuclear family both immediate and extended family. As a result, Latino households tend to be larger and include multiple generations (Marín & Marín, 1991). Respect is a core value for Latinos, and younger members are taught to show respect to older members. In the Latino culture, children are expected to be obedient to their parents and authority figures, such as teachers. Teaching children about morals and appropriate behaviors is the primary role of Latino parents (Reese et al., 1995).

Latino children are the fastest-growing group of children in the United States (U.S.), representing 23% of the population younger than 18 years (Passel, Cohn, & Lopez, 2011). They typically attend public schools in low-income neighborhoods (Han, 2010). In special education, Latinos represent 12% (National Department for Education Statistics, 2015) of students categorized under intellectual disability, specific learning disability, or emotional/behavior disorder (Garcia-Joslin, Carrillo, Guzman, Vega, Plotts, & Lasser, 2015). Moreover, Latinos have the highest high school dropout rate (12%) and the lowest graduation rate (76%) when compared to other ethnic groups. Latino children also have low scores in reading and mathematics (National Center for Education Statistics, 2015). Despite their academic struggles, Latino children tend to excel in the area of behavior by demonstrating lower rates of problem behaviors and higher social competence than other ethnic groups.

Latinos in Head Start Programs

Head Start is a program that receives funding from the federal government and local agencies to support low-income families. Head Start serves children three to five years of age and their families. The four major components of Head Start are education, health, parent involvement, and social services. These elements address the whole child and family. In particular, the education domain covers cognitive and social-emotional skills needed for

kindergarten. The health component includes medical, dental, nutrition, and mental-health services. Additionally, Head Start fosters parent involvement by incorporating parents in the planning and implementation of activities. There also are social services to provide families with needs various services (i.e., food, clothing, and information about adult education).

In Head Start, 38% of the children enrolled are Latinos, representing one in three children. Latinos also are the fastest growing group in Head Start (Office of Head Start, 2016). According to the Head Start Family and Child Experiences Survey (FACES), Latino children tend to live with both parents, and their household tends to be larger than other groups (Garcia & Levin, 2001). However, mothers who completed the FACES study reported receiving more support from their spouses than from other family members or friends. Additionally, Latino families are as involved as other families in Head Start, and they report higher levels of satisfaction with the program than other ethnic groups (Garcia & Levin, 2001). Some of the Latino children enrolled in Head Start are Dual Language Learners (DLLs) and represent 80% of the Head Start DLL population (Lazarín, 2006). The Office of Head Start (2016) defines DLLs as "children learning two (or more) languages at the same time, as well as those learning a second language while continuing to develop their first (or home) language" (p.2). DLLs are diverse in "languages, national origin, immigration experiences, demographic characteristics, and early learning opportunities. All of these factors make a difference in their development and school readiness" (Castro, 2014, p. 694).

Social Competence among Latino Dual Language Learners

Social-emotional development includes a set of abilities related to social interactions and controlling emotions. In particular, self-regulation, social competence, social cognition, and behavior problems are the core domains of social-emotional skills. The current study focuses on

social competence defined as “effectiveness in social interaction” (Rose-Krasnor, 1997, p.119). This effectiveness is the ability to interact with others and form relationships with peers and adults. Cognitive and language skills influence children’s growth in social competence (Rose-Krasnor). Social competence in early childhood relates to academic achievement and predicts social competence in elementary school (Halle et al., 2014).

Halle et al. (2014) reviewed the literature to explore the social-emotional development of DLLs in early childhood (birth to age five), and their results showed that DLLs tend to have higher self-control and interpersonal skills, and fewer problem behaviors than other monolingual groups. Likewise, Siantz, Coronado, and Dovydaitis (2010) found that Mexican children enrolled in Migrant Head Start scored in the average range on the Child Behavior Checklist (CBCL). However, Latino’s social competence varies across subgroups. For instance, Galindo and Fuller (2010) found that within their sample, Cuban and South American children scored higher than other Latino subgroups in social competence while Mexican children scored similarly to Caucasians, Asians, and different Latino subgroups. On the other hand, Puerto Ricans scored lower than Caucasians (Galindo & Fuller, 2010). Young children tend to show their emerging social competence during play since children spend most of their time playing with peers in early childhood programs (Gagnon & Nagle, 2004). Therefore, peer play in preschool is considered the foundation for later social competence (Mathieson & Banerjee, 2010).

Peer Play Competence

Play facilitates learning and the acquisition of social competencies (Fisher, 1992). Eggum-Wilkens et al. (2014) reported that children attending Head Start showed growth in their play behaviors over time. Additionally, previous studies have shown that peer play behaviors have short- and long-term impacts on a child’s development (Fisher, 1992; Halle et al., 2014).

Peer play competence has three dimensions: play interaction, play disconnection, and play disruption, and these three peer play competencies represent children's strengths and needs during free play (Fantuzzo et al., 1998). The impact of the three different play behaviors is further explained below.

Play interaction. Play interaction represents prosocial play behaviors, such as cooperation, sharing, and taking turns. Classroom peer play influences children's social, cognitive, and physical development (Fantuzzo et al., 1998; Fisher, 1992). Additionally, play interaction helps DLL children to acquire English language skills (Piker, 2013). In her study Piker (2013) used a single-case design to study English acquisition during play. Participants were four Latino children attending Head Start, two had previous exposure to English, and two did not. Children in the studies interacted during free play with both English speaking and Spanish-speaking children which helped them acquire English language proficiency through conversation with their peers.

Mendez and Fogle (2002) also reported play interaction as measured by the PIPPS correlated with children's expressive vocabulary as measured by the PPVT. Likewise, the play interaction subscale of the PIPPS positively correlated with language proficiency in a sample of 207 Latino children between the ages of three and five years (Oades-Sese, Esquivel, Kaliski, & Maniatis, 2011). The authors also reported that play interaction was associated with temperament, emotion regulation, and autonomy. Moreover, Fantuzzo et al. (1998) reported that children's behavior observed during peer play tends to occur in other areas as well. For example, play interaction relates to positive classroom behaviors, such as motivation, attention, perseverance, and learning attitudes. Additionally, children with higher play interaction also scored high on social skills (Fantuzzo et al., 1998).

Bulotsky-Shearer, Bell, Romero, and Carter (2012) explored the role of peer play in a sample of 507 Head Start children across 46 classrooms and found that play interaction fully moderated fewer problem behaviors and more learning in the school. Eggum-Wilkens et al. (2014) found that peer play predicted school competence in kindergarten. Their study included a sample of 74% Mexican Americans representing both Spanish and English speaking children. Additionally, Oades-Sese and her colleagues (2011) found that children with higher scores on play interaction had higher gains on reading and math two years later, demonstrating the importance of social competence as a precursor of academic achievement.

Play Disruption. On the other hand, play disruption includes children who are verbally or physically aggressive towards their peers (Fantuzzo et al., 1998). Play disruption correlates with classroom conduct problems and hyperactivity which relate to externalizing behavior problems (Coolahan et al., 2000). Additionally, behaviors problems at school tend to be present at home as well. For instance, Mendez and Fogle (2002) found a correlation between the Conners Parent Rating subscales of oppositional, inattention, hyperactivity, and ADHD symptoms and children's scores on the play disruption scale of the PIPPS. Their sample included 113 children attending Head Start classrooms. Play disruption tends to interfere with learning opportunities and is related to lower English proficiency as measured by the PPVT (Mendez & Fogle, 2002).

Play Disconnection. Play disconnection refers to children who play alone and refuse to join in play activities (Fantuzzo et al., 1998). These children tend to be overlooked by adults because they are not disruptive to the classroom. However, they are missing learning opportunities (Fantuzzo et al., 1998). Additionally, children who show high levels of play disconnection tend to be passive, inattentive, and unmotivated in the classroom (Coolahan et al.,

2000). For instance, Mendez and Fogle (2002) reported that scores on the play disconnection scale of the PIPPS correlated with the scores on the Conners' inattentive scale. Furthermore, children who are withdrawn tend to be rejected by their peers at a higher rate than children who are disruptive (Kistner, Metzler, Gatlin, & Risi, 1993).

In early childhood, children demonstrate relationship skills with peers during free play (Fantuzzo et al., 1998). Understanding peer play competencies are essential because they relate to other areas of development (Fisher, 1992). The section below describes the theoretical framework for understanding play behaviors.

Theoretical Framework: Ecological Model of Human Development

The theoretical framework guiding the current study is the Ecological Model of Human Development, which states that a child's development results from his/her genetics and interactions with multiple environments (Bronfenbrenner, 1994; Bronfenbrenner & Morris, 2006). The model consists of various concentric circles each within the next one. The inner circle represents the child, and the closer a circle is to the child, the greatest its influence. The present study is going to focus on the child and the microsystem within this model. The child circle represents characteristics of the child, such as language and behavior. The microsystem describes the child's closest environment (e.g., family, school, and peers), which directly influences the child. Within the microsystem, family and classroom variables are the focus of this study.

Others theories that support this study are Vygotsky's Sociocultural Theory, Rogoff's Transformation of Participation Perspective, and Weisner's Ecocultural Theory. Vygotsky, Rogoff, and Weisner's recommended considering the role of culture in human development,which is relevant to DLLs since their development takes place between two languages and cultures. Vygotsky's Sociocultural Theory suggested studying development within

the social, cultural, and historical contexts (1978). Furthermore, Rogoff (2003) explained the role of cultural practices in which children participated in allowing them to adapt and make sense of their world. Weisner's Ecocultural Theory includes children's daily routines and activities in the context of family life. However, the researcher selected the Bronfenbrenner's Ecological Model of Human Development over the others because his theory is more comprehensive by including home and school variables in addition to culture. Additionally, the work of Vygotsky, Rogoff, and Weisner informed Bronfenbrenner's current revision of his theory.

Bronfenbrenner developed the Ecological Model of Human Development in the 1970s, but his theory has been revised it over the years (Bronfenbrenner, 1994; Bronfenbrenner & Morris, 2006). In the most current revision, Vélez-Agosto et al. (2017) proposed to move culture into the microsystem. Currently, culture is part of the macrosystem, one of the most distal environments in Bronfenbrenner's theory. Rogoff's transformation of participation perspective, Vygotsky's sociocultural theory, and Weisner's ecocultural theory influenced Vélez-Agosto and her colleagues' proposal for emphasizing the role of culture in children's development. According to Vélez-Agosto, "Human development takes place within a cultural system" (p.906). This study is going to include cultural variables, such as acculturation, as part of the microsystem because DLLs' development occurs between two languages and cultures (Halle et al., 2014; Vélez-Agosto et al., 2017). For example, Latino children's social competence varies across subgroups (Galindo & Fuller, 2010) and some of the items of the PIPPS have shown to load differently in Latino samples compared to African American samples (Bulotsky-Shearer, Lopez, & Mendez, 2016). In conclusion, the Ecological Model of Human Development, with cultural modifications, serves as a framework for understanding the characteristics related to social competence in young Latinos children. This idea is further developed in the following section.

Characteristics Associated with Classroom Peer Play

Based on the Ecological Model of Human Development, this section reviews studies addressing predictors of classroom peer play across different ecologies, such as child, classroom, and maternal variables.

Child Characteristics. Studies have identified a child's language proficiency as predicting social competence or behavior problems in young children. For instance, Han (2010) reported that children who are bilingual, fluent in English and Spanish, tend to have better peer interactions than monolingual peers because they can adapt to different environments. Bilingual children in Han's study had fewer problem behaviors during preschool compared to monolingual children, and their social competence continued to develop positively from kindergarten through fifth grade. De Feyter and Winsler (2009) and Winsler et al. (2014) found similar results since teachers reported bilingual children engaging more often in prosocial behaviors in the classroom compared to monolingual children. Likewise, Oades-Sese, Esquivel, Kaliski, and Maniatis (2011) reported language proficiency measured by the oral language subscale of the WLPB–R correlated with social competence measured by the PIPPS in a sample of 207 preschool Latino children.

On the other hand, meta-analyses conducted with a focus on behavior problems have found children with limited English proficiency engaging in externalizing and internalizing behavior problems across samples diverse in both ethnicity and socioeconomic status (Campbell, 1995; Qi & Kaiser, 2003). Qi and Kaiser (2004) found that Head Start children who had language delays engaged more often in externalizing and internalizing behaviors than children with typical language development due to their inability to effectively communicate and understand others. Teachers reported that children with limited English proficiency presented

problematic behaviors in both structured and unstructured activities. It is important to note that the majority of the children in the study were African Americans. Qi and Kaiser assessed language with the Preschool Language Scale -3 (PLS 3) and the Peabody Picture Vocabulary Test, Third Edition (PPVT-3) and behavior with the Child Behavior Checklist (CBCL).

Few studies have explored the relationship between language and young Latino children's behaviors. Notably, Halle and her colleagues (2014) reported finding five studies investigating such relationship. Across studies, Latino children who were not fluent in English exhibited behavior problems per teacher report. Problems in the areas of academic and behavior were present in DLL children when the language of the classroom (i.e., English) did not match the child's language (i.e., Spanish). Halle et al. also reported that the inappropriate behaviors in DLLs with low English proficiency in preschool continued until third grade. Likewise, Hagan-Burke and colleagues (2015) reported similar findings. They explored the relationship between language and problem behaviors in 148 Latino preschoolers. Children in the study were from low-income families, and their average age was 4.5 years. Children's vocabulary scores on the Peabody Picture Vocabulary Test, Fourth Edition (PPVT-4) and the Expressive Vocabulary Test, Second Edition (EVT-2) positively correlated with the Problem Behavior subscale of the Social Skills Improvement System (SSIS).

Likewise, Bulotsky-Shearer, Bell, Carter, and Dietrich (2014) found a relationship between children with low language skills measured by the Preschool Language Assessment Scale (PreLAS2000) and disruptive and disconnected peer play behaviors as measured by the PIPPS. The study controlled for classroom quality using the Classroom Assessment Scoring System (CLASS) and showed that the relationship among language and negative behaviors existed regardless of instructional, organizational, or emotional support in the classroom. Their

sample included 304 culturally and linguistically diverse urban Head Start children across 53 classrooms, and 41% of the sample included bilingual Spanish Speaking children. Bulotsky-Shearer and her colleagues established the role of language in peer play while controlling for classroom variables, such as quality.

Classroom Characteristics. Howes and her colleagues (2011) reported that classroom climate and teacher-child relationship were the strongest predictors of peer play interactions compared to child's gender, ethnicity, and language. Their study used data from the National Early Head Start Research and Evaluation Project, representing a large and diverse sample of children attending Head Start. Howes' et al. study measured teacher-child relationship with the Student-Teacher Relationship Scale (STRS) and classroom climate with the Early Childhood Environment Scale. Moreover, peer group size also predicted play interactions. In particular, smaller groups fostered better interactions among children because children had more chances to engage in play scripts compared to large groups that were more unmanageable. Other studies have found large groups associated with externalizing behaviors (McCartney et al., 2010). Furthermore, a language match between the teacher and the child related to social skills. Chang and her colleagues (2007) used a sample of 345 Spanish-speaking children who were attending various pre-kindergarten programs. They found that children with teachers who spoke some Spanish had better social skills with their peers than children who experienced more English in their classrooms. Additionally, Spanish-speaking children with teachers who only spoke English had more conduct problems than children who had teachers who spoke some Spanish (Chang et al., 2007).

Classroom Quality. In Head Start centers, the Classroom Assessment Scoring System (CLASS; Pianta, LaParo, & Hamre, 2008) measures classroom quality in three distinct areas:

emotional support, instructional support, and classroom organization. Emotional support refers to healthy teacher-child relationships in which teachers are aware of the child's academic and social needs by offering choice and freedom. Instructional support includes the curriculum and teaching strategies. Classroom organization represents behavior management. Researchers have reported these domains of classroom quality relate to children's social competence and on-task behaviors. Domínguez and her colleagues (2011) documented the moderating role of classroom quality in problem behaviors in a sample of 275 urban and minority preschool children. Particularly, more instructional support (i.e., academic demands) as measured by the CLASS was related to more problem behaviors, while more emotional support (i.e., positive climate) was related to fewer problem behaviors in the classroom. This study demonstrated how quality indicators can have positive or negative effects in children's behaviors.

Curby and his colleagues (2009) found teachers' emotional support from the CLASS observation related to children's positive social skills in a large national sample of 2,028 pre-kindergarten children. Likewise, teacher emotional support was related to higher social competence and lower problem behaviors in Mashburn's et al. (2008) study. They also used a national data set, and their sample included 2,439 children from 671 classrooms in 11 states. However, classroom emotional support measured by the CLASS had a negative relationship with children's English literacy skills in a Latino sample of DLLs (Partika et al., 2019). The study suggested that as emotional support increased English literacy skills decreased. The explanation for such findings has not been explored yet. It can be explained by the CLASS not having cultural sensitivity for Latino classrooms or explained by other variables, such children's disruptive behaviors or teacher's stress level. Researchers reported the teacher's fluency and usage student's native language increases teacher's responsiveness and emotional support

(Zepeda, 2015). Additionally, Children's disruptive behaviors (Miles & Stipek, 2006) and teacher's stress level (Hopman et al., 2018) affect the learning environment of the classroom.

Maternal Characteristics. Studies have identified different maternal characteristics predicting social competence in young children. The research on maternal variables is discussed in this section.

Maternal Depression. According to the Center for Disease Control and Prevention, 26% of Latinos in the U.S. experience depression symptoms. Additionally, chances of having depression double for people from low-income backgrounds (CDC, 2012). Depression affects multiple areas of functioning, and maternal depression has been associated with adverse outcomes in children (Campbell, 1995; 2006; Jones Harden et al., 2010; Meadows, McLanahan, & Brooks-Gunn, 2007) since depression affects parenting (Campbell, 2006). Qi and Kaiser (2003) reviewed the literature and found eight studies that linked maternal depression to children's externalizing and internalizing problem behaviors. The research of Siantz, Coronado, and Dovydaitis (2010) investigated maternal predictors of behavior problems in children of Mexican migrant workers. The sample consisted of parents and their children who were between the ages of three and six years. All children (N = 205) attended Migrant Head Start programs in the state of Texas. Parents completed the Child Behavior Checklist (CBCL) and Center for Epidemiological Study of Depression Scale (CES-D) to report children's behavior and caregiver depression symptoms, respectively. Regression analyses showed that maternal depression related to male children's internalizing behaviors. Results were not significant for females or externalizing behaviors. In their sample, behavior problems were in the average range and girls showed higher rates of externalizing behaviors compared to boys.

Likewise, maternal depression has been shown to influence children's peer play. Hipwell and her colleagues (2005) explored the role of maternal depression on children's peer play. Their sample included 94 child and mother dyads in which 54 mothers experienced postnatal depression, and 40 did not experience depression. Children in the sample were five years old. Results showed that boys of mothers with depression displayed physical aggression while playing with a peer, and girls of mothers with depression showed verbal aggression during play. Researchers used the Schedule for Affective Disorders and Schizophrenia, Lifetime version (SADS-L) to measure maternal depression and observed peer play interactions in video tapes of each child playing with a peer.

Maternal Parenting Style. In the literature, there are three types of parenting styles: permissive, authoritarian, and authoritative. Permissive parents are warm and undemanding. Parents who use an authoritarian parenting style lack affection, are strict and use harsh discipline methods. Authoritative parenting is the mix of the previous two because these parents have expectations for the children, but also give affection.

In the U.S. and western countries, Authoritative parenting has the most favorable outcomes for children, such as fewer internalizing and externalizing problems and higher academic outcomes compared with children of parents who use authoritarian and permissive practices. Researchers have found a relationship between authoritarian and permissive practices with low academic achievement and high levels of mental health and behavior problems (Pinquart, 2016). Additionally, researchers have reported authoritarian parenting is correlated with externalizing behavior problems in preschool children from low-income families (Qi & Kaiser, 2003).

In Latino samples, Calzada and her colleagues (2012) studied a sample of 467 Dominican and Mexican mothers of children between the ages of four and five years old. Although mothers reported being more authoritative than authoritarian, their study found a relationship between authoritarian parenting style and internalizing and externalizing problem behaviors in young Latino children. Calzada et al. measured parenting style using the Parenting Styles and Dimensions (PSD) developed by Robinson et al. (1995) and child's behavior with the Behavior Assessment System for Children (BASC; Reynolds & Kamphaus, 2004). Similarly, Lequerica and Hermosa (1995) found authoritarian parenting practices, such as yelling and hitting/spanking correlated with externalizing behavior problems in Latino preschoolers. Their sample included 52 mothers of Latinos who had children between two and five years of age. The majority of mothers spoke Spanish as their primary language, were single, received public assistance, and had a low income. Lequerica and Hermosa recruited the mothers from a local clinic and used the Child Behavior Checklist (CBCL) to measure the children's behavior. Mothers reported their parenting practices using the Parent/Family Dimensions.

Despite the finding of the studies above, other researchers suggest that authoritarian parenting has positive effects on collectivistic cultures, such as the Latino culture (Dwairy et al., 2006). The inconsistency hypothesis explained such findings since it states that parenting practices should match cultural expectations to promote positive outcomes for children. Consequently, children's adverse outcomes result from the inconsistency between parenting practices and cultural norms. For example, permissive parenting in a culture that values respect to authority figures can lead to adverse outcomes. Similary, giving autonomy to children by using an authoritative parenting style when the culture values conformity to group norms creates inconsistency. The inconsistency hypothesis explains that outcomes of parenting styles depend

on the level of consistency with cultural expectations (Farah, 2006). In this case, authoritarian parenting aligns with the Latino's core value of respect, in which children have to exhibit obedience towards authority figures such as parents and teachers, and such consistency promotes positive outcomes in children. Latinos are a collectivistic culture in which the group is valued over the individual (Sue & Sue, 2013). Latino parents teach their children to respect the adults, the ability to distinguish between right and wrong, and good manners and behavior. Latinos tend to define "education" as being a good person, suggesting a blending between academics and morals. Parents stated that they used corporal punishment to discipline their children, which is consistent with an authoritarian style (Reese et al., 1995).

Pinquart and Kauser, (2018) conducted a meta-analysis to investigate the relationship of parenting styles with behavior problems, and academic achievement varies by culture. For instance, the impact of authoritarian parenting on academic performance was less negative in Latino samples. The researchers recommended using an authoritative approach since it was related with at least one positive outcome and authoritarian was associated with at least one negative outcome across the globe. However, they had the disclaimer that authoritarian is acceptable in some cultural contexts (Pinquart & Kauser, 2018).

Maternal Acculturation. Merrell, Ervin, and Gimpel (2012) defined acculturation as "the process of psychological change in values, beliefs, and behaviors when adapting to a new culture" (p. 46). Latinos residing in the United States experience the acculturation process and cultural practices vary across generations. For example, first-generation Latinos tend to engage in cultural traditions from their native country more often than second-generation Latinos do (Marín & Marín, 1991). In Halle and her colleagues' (2014) review of the social-emotional development for DLL, none of the studies included acculturation or other maternal variables.

Halle et al. listed children's immigration status, which is the closest approximation to acculturation. For instance, first-generation immigrant children showed higher social skills and lower problem behaviors compared to second generation and non-immigrant children suggesting that immigration status influences social competence (De Feyter & Winsler, 2009). The current study aims to include acculturation to explore the role of culture in classroom peer play.

Conclusion

Latino children represent one-third of the Head Start population and 80% of DLLs (Office of Head Start, 2016). These children tend to excel in the area of social competence and behavior (Halle et al., 2014). Gallindo and Fuller (2010) reported that there are differences among the Latino subgroups since some display higher social competence (i.e., South Americans) than others (Puerto Ricans). Research has identified many advantages related to the early development of social competence, such as school readiness and later social competence across the elementary grades (Mathieson & Banerjee, 2010). Preschool children demonstrate their emerging social competence during play, which is part of the curriculum in early childhood programs (Gagnon & Nagle, 2004). However, there are few studies exploring the variables associated with social competence (Halle et al., 2014). The empirical literature discusses classroom climate and teacher-child relationship as predictors of peer play interactions (Howes et al., 2011). Additionally, child's language proficiency has been associated with behavior problems, which are the extremes of appropriate interactions (Campbell, 1995; Halle et al., 2014; Qi & Kaiser, 2003). Additionally, researchers have identified maternal depression (Campbell, 1995; Halle et al., 2014; Qi & Kaiser, 2003) and authoritarian parenting as predictors of behavior problems in children (Calzada et al., 2012; Qi & Kaiser, 2003). The role of acculturation in

predicting play behaviors is unknown. Research is needed to untangle the variables and mechanisms predicting both sides of play behaviors.

Purpose of the Current Study

Using the Ecological Model of Human Development framework with current revisions with culture as part of the microsystem (Bronfenbrenner, 1994; Vélez-Agosto et al., 2017), the current study aims to identify maternal level factors that may relate to Latinos' classroom peer play while controlling for classroom quality. The present study explored the predictors of both appropriate and inappropriate play behaviors. Maternal level predictors were acculturation, parenting style, and depression symptoms.

CHAPTER THREE:

METHODS

Chapter three describes the methods used in this study, including a description of the participants, variables, assessment instruments, procedure, ethical considerations, research design, and data analysis.

Setting

President Lyndon B. Johnson signed the Head Start Act as part of the War on Poverty in 1964. Dr. Robert Cooke, a pediatrician at John Hopkins University, led a panel of experts that developed Head Start in 1965 to help communities meet the needs of disadvantaged preschool children. Head Start provides preschool children of low-income families with a comprehensive program to meet their emotional, social, health, nutritional and psychological needs. One of the program's aims is to be culturally responsive to the communities served. Those communities are involved in the program through volunteer work or donations. Head Start has served over 32 million children since 1965, and 37% of the children are Latinos.

Currently, Head Start is administered by the Administration for Children and Families (ACF) in the Department of Health and Human Services. Head Start serves over a million children and their families each year in urban and rural areas in all 50 states, the District of Columbia, Puerto Rico and the U.S. territories, including American Indian, Alaskan Native and Migrant/Seasonal communities. The Improving Head Start for School Readiness Act of 2007 has several provisions to strengthen Head Start quality. These include alignment of Head Start school

readiness goals with state early learning standards, higher qualifications for the Head Start teaching workforce, State Advisory Councils on Early Care and Education in every state, and increased program monitoring, including a review of child outcomes and annual financial audits.

The present study collected data from one of the Head Start's non-profit organization founded in 1982 with more than 60 programs throughout Florida. In county participating in the study, the organization has 19 fully state-licensed childcare centers serving 1,442 children and their families. To qualify for Head Start, families must meet current Federal Poverty Guidelines. However, foster children qualify regardless of their family's income. In Head Start, 30% of the children enrolled are Latinos, which is similar to the national average (37%). Head Start administrators assigned the centers participating in the study based on the percentage of Latinos enrolled in these centers.

Participants

The principal investigator (PI) used the Optimal Design program to estimate the sample size for the study. Optimal Design showed that 140 participants were needed for a medium effect size (.5) and a power of .8. In particular, the PI aimed for ten children per classroom, with a total of 14 classrooms. However, the PI obtained IRB approval at the end of the school year, which reduced the time for data collection. Participants were 45 three to five-year-old Latino children attending Head Start, their mothers, and their teachers. Eighteen classrooms from six centers participated in the study. Participants' characteristics are presented in Tables 1 through 5 below.

Table 1. Characteristics of Children

Descriptor	Frequency	Percentage
Gender		
Male	22	48.9
Female	23	51.1
Race/Ethnicity		
White	1	22.2
Hispanic/Latino	44	97.8
Place of Origin		
United States	37	82.2
Puerto Rico	6	13.3
Mexico	2	4.4
Live with Both Parents		
Yes	33	73.3
No	11	24.4

Table 2. Characteristics of Mothers

Descriptor	Frequency	Percentage
Language of Questionnaire		
English	13	28.9
Spanish	32	71.1
Place of Origin		
United States	7	15.6
Puerto Rico	8	17.8
Cuba	1	2.2
Mexico	28	62.2
Other	1	2.2
Marital Status		
Single	8	17.8
Married	17	37.8
Living together	19	42.2
Separated	0	0
Divorced Widow	1	2.2

Table 2. (Continued) Characteristics of Mothers.

Descriptor	Frequency	Percentage
Education Level		
None	1	2.2
Some Elementary School	4	8.8
Completed Elementary School	4	8.9
Some High School	13	28.9
Completed High School	11	24.4
GED Certificate	3	6.7
Vocational/Trade School	1	2.2
Some College or University	1	2.2
Completed College	1	2.2
Some Graduate Level	1	2.2
Completed Masters	1	2.2
Income		
Under 10,000	15	33.3
10,000 – 19,000	13	28.9
20,000 – 29,999	7	15.6
30,000 – 39,999	6	13.3
40,000 – 49,999	0	0
50,000 – 59,999	0	0
60,000 – 69,999	2	4.4
70,000 – 79,999	1	2.2
Work		
Full Time	15	33.3
Part Time	9	20
Stay at Home	20	44.4

Table 3. Descriptive Statistics of Children and Mothers

	N	M	SD	Minimum	Maximum
Age (Child)	39	4.70	.83	2.62	5.77
Age (Mother)	45	31.64	6.04	19	45
Time in the U.S. (Mother)	39	12.76	6.96	.6	27
Number of Children in Household	44	2.66	1.12	1	5
Number of People in Household	45	4.84	1.11	1	7

Table 4. Characteristics of Teachers

Descriptor	Frequency	Percentage
Role		
Lead Teacher	17	85
Assistant Teacher	1	5
Race/Ethnicity		
White/Caucasian	6	30
Hispanic/Latino	8	40
Black/African American	3	15
Multi-racial/Multi ethnic	1	5
Education Level		
High School or GED	2	10
Associates Degree	1	5
Bachelor's Degree	11	55
Graduate Degree	2	10
Other	2	10
ESOL Certified		
Yes	4	20
No	14	70
Fluent in Spanish		
Not at all	2	11.1
Limited	9	50
Fluent	7	38.9

Table 5. Descriptive Statistics of Teachers

	N	M	SD	Minimum	Maximum
Years of Teaching	18	14.06	7.19	3	29
Number of Students	18	15.61	4.25	8	20
Number of DLL	18	10.94	5.23	2	18
Number of DLL (Spanish)	17	10.29	4.88	2	17

Table 6. Distribution of Children per Classroom

Centers	Classrooms	Number of children
Center A	Classroom 1	3
Center A	Classroom 2	2
Center A	Classroom 2	4
Center A	Classroom 4	3
Center A	Classroom 5	1
Center A	Classroom 6	1
Center B	Classroom 7	2
Center B	Classroom 8	4
Center B	Classroom 9	4
Center B	Classroom 10	3
Center C	Classroom 11	5
Center C	Classroom 12	2
Center C	Classroom 13	2
Center D	Classroom 14	3
Center D	Classroom 15	1
Center E	Classroom 16	1
Center E	Classroom 17	1
Center F	Classroom 18	1

Study Population Inclusion and Exclusion Criteria

Inclusion criteria. To participate in this study, children had to be enrolled in Head Start, between the ages of three and five years, and lived in a home in which Spanish was spoken. Mothers must be Latina or Hispanic, at least 18 years of age, and lived with their child with the above characteristics. Teachers in the study needed to have at least one student in their classroom enrolled in the study.

Exclusion criteria. This study excluded children who were not enrolled in Head Start, were younger than three years or older than five years of age, and resided in a home where Spanish was not spoken. Additionally, this study excluded mothers who were under 18 years of age and did not identify themselves as Hispanic or Latina. Moreover, teachers who do not have a student enrolled in the study could not participate.

Maternal Measures

Demographics. The Bilingual School Readiness Lab developed a demographic questionnaire, available in English and Spanish, for mothers with the aim of identifying child, mother, and home characteristics of the sample. The questionnaire had a total of 24 demographic questions using a multi-choice format to simplify the completion of the form and taking from 2-5 minutes to complete. Example of demographic questions for the child domain included "What is your child's ethnicity?" and "In what country was your child born?" Some examples of the maternal demographic are: "In what country or U.S. territory were you born?", "If you were born outside the U.S, how long have you been in the U.S?", and "What is the highest grade you completed?" Additionally, home demographics examples are "How many people (counting all children and adults) live in your home?" and "Does the child's father lives in your home?" See appendixes C and D.

Maternal Acculturation. Wallace and his colleagues (2010) reviewed acculturation measures for Latinos and suggested that the Bidimensional Acculturation Scale for Hispanics (BAS; Marin & Gamba, 1996) is one of the best acculturation measures available. The BAS is a 24-item self-report measure to assess language use, language proficiency, and media preference by using a 4-point Likert scale. The BAS has 12 questions per each cultural domain, Hispanic and Non-Hispanic, and is available in English and Spanish. See appendixes C and D. The measure is scored by calculating the average of the scores in each domain, proving two scores per participant. The cutoff score is 2.5 to indicate high or low level of acculturation in that domain. For instance, an individual with scores above 2.5 in both domains is considered bicultural. The BAS is available, in English and Spanish, free of charge in Marin and Gamba

(1996). There is no need to obtain permission from the authors to use the BAS for research or clinical work.

Marin and Gamba (1996) created this measure for Latino samples, and Cronbach's alphas ranged from .80 to .90. The validation sample included 252 Hispanics from Mexico and Central America who were older than 18 years. Internal consistency scores ranged from .60 to .96. The BAS also correlated with generation, age at arrival, residence in the U.S., proportion of life in the U.S., education, self-identification, and the Short Acculturation Scale for Hispanics (SASH). Validity coefficients ranged from .58 to .91 between the BAS and the SASH scales. For the current sample, Cronbach's alphas are .95 (Hispanics) and .97 (Non-Hispanics). Mothers in the current study were asked to complete the BAS.

Maternal Parenting Style. The Parenting Styles and Dimensions (PSD; Robinson, Mandleco, Olsen, & Hart, 1995) scale is a 32-item parent report measure that has three dimensions: authoritarian, authoritative, and permissive parenting style. Mothers rate their parenting practices using a Likert scale from 1 (Never) to 5 (Always). See appendixes C and D. Researchers have used this measure with Latino samples, and the scale is available in both English and Spanish. Calzada et al. (2012) reported Cronbach's alphas of .60, .76, and .85 respectively for their sample of 462 mothers of young Latino children attending pre-kindergarten and kindergarten classrooms. Mothers were from Mexico and the Dominican Republic. Cronbach's alphas for the current study are .83, .79, and .78 respectively. Mothers in the current study were asked to complete the PSD.

Maternal Depression. The Quick Inventory of Depressive Symptomatology ($QIDS_{16}$; Rush et al., 2003) is a 16-item self-report measure that assesses depression symptom severity created from the Inventory of Depressive Symptomatology (IDS). The QIDS is available in both

self-report (QIDS-SR_{16}) and clinician-rated (QIDS-C_{16}) formats, which can be used in clinical and research settings. The present study used the self-report format. Participants rate their depression symptoms in the past seven days by selecting the statements that describe them in the areas of sleep, appetite/weight change, concentration, outlook, suicidal ideation, sad mood, general interest, energy levels, and psychomotor. This measure is in the public domain and was obtained from its official website (https://eprovide.mapi-trust.org/instruments/quick-inventory-of-depressive-symptomatology) with the authors' permission to use in research. See appendixes C and D. The total score range from 0-27. Cutoff scores assess the severity of depression as follow: no depression (1-5), mild depression (6-10), moderate depression (11-15), severe depression (16-20), and very severe depression (21-27).

Rush and his colleagues (2003) evaluated the psychometric properties of the QIDS-SR_{16} using a sample of 596 adult outpatients treated for chronic nonpsychotic, major depressive disorder. Results showed that QIDS-SR_{16} had high internal consistency (Cronbach's $\alpha = .86$). Additionally, the QIDS-SR_{16} total scores were highly correlated with IDS-SR_{30} (.96) and the Hamilton Rating Scale for Depression (HAM-D_{24}; .86) total scores. Cusin and her colleagues (2009) identified QIDS-SR_{16} as one of the gold standards for depression clinical research along with the Beck Depression Inventory (BDI) and the HAM-D_{24}. Furthermore, the QIDS-SR_{16} has been validated with Latino samples and has a Cronbach's alpha of .88 (Trujols et al., 2014). Although the QIDS-SR_{16} is in several languages, the current study used the Spanish and English versions. Cusin and her colleagues (2009) listed the QIDS as one of the "Gold Standard Rating Scales" for depression. However, Cronbach's alpha for the current study is .54 ($N = 31$) for the Spanish version and .31 ($N = 13$) for the English. A small number of questions, poor inter-relatedness between items, or heterogeneous constructs can cause low alpha values (Tavakol &

Dennick, 2011). Small Cronbach's alphas for the current sample can be explained by more variability with small samples and sampling error. For instance, there is not much variation in this specific sample because the sample included Head Start families from the same geographical location, likely resulting in participants being very similar to each other.

Teacher Measures

Demographics. The Bilingual School Readiness Lab developed a teacher demographic questionnaire with the aim to identify sample characteristics. Each teacher answered 18 questions related to their ethnicity, years of experience, and schooling using a multiple-choice format. Sample questions includes, "How do you identify your racial or ethnic background?" "How many total years have you worked in a classroom?", and "What is your highest completed educational degree?" See appendix E.

Children's Peer Play Competence. The teacher version of the Penn Interactive Peer Play Scale (PIPPS-T; Fantuzzo et al., 1998) is 32-item teacher report, which measures behaviors that promote or interfere with play interactions. Using a 4-point Likert scale, from Never (1) to Always (4), teachers report the behaviors observed in each child during free play in the past few months. The PIPPS has three dimensions: Play Interaction, Play Disruption, and Play Disconnection. The measures uses T scores, M = 50, SD = 10. Researchers created this scale for Head Start samples with the collaboration of teachers and parents. See appendix E.

Fantuzzo and his colleagues validated the PIPPS in 1998 using a sample of 523 urban African American Children enrolled in Head Start. For the instrument validation, researchers used both teacher reports and direct observation of the children. The PIPPS was correlated with the Social Skills Rating System (SSRS) developed by Gresham and Elliot (1990). The PIPPS scales accounted for 48.8% of the variance in SSRS scales, and the SSRS scales accounted for

42.9% of the variance in PIPPS scales, respectively. Additionally, direct observations of the children targeted quantity and quality of play behaviors using a coding system and 15s interval time sampling over 10 minutes period. The interobserver agreement for the observations ranged from .80 to .96. Correlations between the observation domain and PIPPS domains ranged from .22 to .41. Moreover, Bulotsky-Shearer, Lopez, and Mendez (2016) recently validated the PIPPS-T with a large sample of Latino children attending Head Start and reported Cronbach's alphas ranging from .86 to .90. This study used the item loading reported in Bulotsky-Shearer and colleagues' study because it demonstrated validity for Latino samples. Cronbach's alphas (internal consistency) for the current sample are .75, .88, and .82 respectively.

Head Start Measures

Children's English language proficiency. The oral language/vocabulary subtest of the Florida Voluntary Prekindergarten (VPK) Assessments was used to measure children's English language proficiency. Head Start programs like other VPK providers administer the VPK Assessments pre and post program. The oral language/vocabulary subtest evaluates receptive and expressive language skills in addition to the child's awareness of adjectives, verbs, tenses, prepositions and nouns. Scores fall within three categories: Exceeding Expectations (20 and above), Meeting Expectations (16-19), and Below Expectations (0-15; Florida Department of Education, 2011). The Cronbach's alphas ranged from .79 to .82.

Classroom Quality. The Classroom Assessment Scoring System (CLASS; Pianta, LaParo, & Hamre, 2008) measures classroom quality. CLASS is an observational tool used to measure the quality of teacher-child interactions, in center-based preschool classrooms, across three domains: emotional support, classroom organization, and instructional support. Emotional support includes positive climate, adverse climate, teacher sensitivity, and regard for the student

perspective. The classroom organization component takes into account behavior management, productivity, and instructional learning formats. The instructional support domain consists of three dimensions: concept development, quality of feedback, and language modeling. After observing the classroom for 20 minutes, observers rate the teacher-child interactions within each aspect using a Likert scale from one to seven: Low (1-2), Middle (3-5), and High (6-7).

Downer et al. (2012) validated the CLASS for classroom serving Latinos and Dual Language Learners and found the observation tool measuring classroom quality regardless of the percentage of Latinos and DLLs. Downer et al. (2012) reported a Cronbach's alpha of 0.89 for emotional support, 0.79 for classroom organization, and 0.82 for instructional support. However, other researchers have reported negative relationships between CLASS emotional support scores and DLL outcomes, such as English literacy skills (Partika et al., 2019). As a result, it is unclear the cultural sensitivity of the CLASS emotional support domain for Latino samples. The CLASS is collected in Head Start centers as part of their regular practices to ensure classroom quality. For this study, Head Start administrators provided the CLASS data per classroom in the study and the researcher used the most recent data for the analyses, collected in the spring.

Procedures

The PI met with Head Start administrators to propose the study and obtain permission to collect data in their Centers. Administrators agreed to participate and provided a letter of support. The PI also visited the approved Centers and spoke with Center Directors to coordinate the data collection process. Bilingual research assistants distributed flyers in English and Spanish at Head Start Centers and spoke with teachers about the study. During arrival and dismissal, research assistants recruited Latina mothers. Mothers provided verbal consent before completing a screener checklist. Those who met criteria for the study provided written consent (See Appendix

B) and completed a survey package (demographic questionnaire, the Bidimensional Acculturation Scale for Hispanics, the Parenting Styles and Dimensions, and the Quick Inventory of Depressive Symptomatology). All materials were available in English and Spanish to allow mothers to select their language of preference. The PI or the bilingual research assistants met with the mothers one-on-one or in small group at the Head Start centers and the meeting lasted approximately 30 to 40 minutes. Head Start Centers provided space to complete the screening, informed consent, and questionnaires.

After receiving the informed consent from the mothers, teachers signed their consent form, completed their demographic questionnaire, and filled out one rating scale (Penn Interactive Peer Play Scale) per child in the study. Lastly, Head Start administrators provided the children's Spring scores from the oral language/vocabulary subtest of the Voluntary Prekindergarten (VPK) Assessments and classrooms' scores from the Classroom Assessment Scoring System. Head Start centers collected both measures as part of their usual practices.

Ethical Considerations

The Principal Investigator (PI) obtained permission from the University of South Florida Institutional Review Board (IRB) before collecting the data for this study to comply with ethical guidelines. See Appendix A. Moreover, the researcher provided consent forms to teachers and parents to address ethical issues. Researchers explained the research project to each participant before they signed the consent form. Participants signed the informed consent before completing the survey package and had the right to withdraw from the study at any point without having consequences.

Furthermore, the PI addressed confidentiality and privacy of the participants by assigning ID numbers to participants to de-identify the data. The PI keeps all informed consent forms and

data collected in a locked cabinet at the University of South Florida. Additionally, the PI password protected electronic files. Paper data will be shred and electronic records will be deleted five years after the final report has been submitted.

Data Entry and Screening

To ensure the accuracy of the entered data, research assistants performed quality checks on every 10th items and removed missing values. Data entered incorrectly were verified from the original measure.

Missing Data

The PI removed from the study participants with missing data (i.e., missing rating scale or test). If a questionnaire only had few missing items, the participant remained in the study. The PI had some missing data because some participants did not returning their questionnaires.

Data Analysis

The researcher conducted descriptive statistics analyses, such as frequency, mean, standard deviation, range, skewness, and kurtosis to examine the distribution of each variable. Additionally, scatterplots were created to analyze the distribution of each variable visually. Then, bivariate correlations were conducted to determine whether relationships exist between any of the variables of interest and whether the relationships are linear or curvilinear before running the multilevel models. The analysis mentioned above addressed the assumptions of independence, normality, and linear relationship.

The PI examined research questions 1 through 3 by estimating multilevel regression models because multilevel model models produce more appropriate standard errors for fixed effects estimates for nested data (Raudenbush & Bryk, 2002). In the current sample, children (N = 45) were nested within classrooms (N = 18). In particular, each of the independent variables

was predicting play interaction, play disruption, and play disconnection. Additionally, all of the predictor variables were level 1 and represent fixed coefficients because they should not vary across classrooms. Moreover, a residual analysis was conducted.

CHAPTER FOUR:

RESULTS

Overview

Latino children attending Head Start, their mothers, and their teachers participated in the study with permission and support of Head Start administrators. Bilingual research assistants distributed flyers in English and Spanish at Head Start Centers and spoke with teachers about the study. During arrival and dismissal, research assistants recruited Latina mothers. Mothers provided verbal consent before completing a screener checklist. Those who met criteria for the study provided written consent and completed a demographic questionnaire, the Bidimensional Acculturation Scale for Hispanics (BAS), the Parenting Styles and Dimensions (PSD), and the Quick Inventory of Depressive Symptomatology (QIDS16). Head Start administrators provided the oral language/vocabulary subtest of the Voluntary Prekindergarten (VPK) Assessments per child enrolled in the study and the Classroom Assessment Scoring System (CLASS) per teacher enrolled in the study. Additionally, teachers completed a demographic questionnaire about themselves and the Penn Interactive Peer Play Scale (PIPPS) per child enrolled in the study. This chapter provides a description of the results of the current study.

The purpose of this study was to identify the maternal factors that may relate to Latinos' peer play behaviors in the classroom (play interaction, play disruption, and play disconnection) while controlling for language and classroom quality. First, descriptive statistics were conducted to evaluate the distribution of the variables. Next, correlations were conducted to analyze the

relationship between the variables. Lastly, multilevel models were run to test the relationship between the predictors (maternal factors) and the dependent variables (play interaction, play disruption, and play disconnection). Multilevel modeling was selected as the statistical test due to the nested structure of the data. Specifically, children were nested in classrooms.

Descriptive Statistics of the Variables

Descriptive statistics, such as frequency, mean, standard deviation, skewness, and kurtosis, were run to examine the distribution of each variable. The play interaction (M = 57.97; SD = 8.32), the play disruption (M = 39.79; SD = 13.27) and play disconnection (M = 41.15; SD = 8.75) variables measured by the PIPPS –T were in the average range, suggesting average play interactions and no significant problem behaviors in the sample. Additionally, children's English proficiency measured by the oral language/vocabulary scores of the Florida VPK Assessment fell within the meeting expectations range (M = 19.07.43; SD = 2.93), indicating it is likely the children will score "Ready" for kindergarten on the Florida Kindergarten Readiness Screener (FLKRS). Teachers' emotional support scores fell with the high range (M = 6.14; SD = .42), classroom organization fell within the middle range (M = 5.61; SD = .44), and instructional support fell with the middle range (M = 4.34; SD = 1.10). Mothers' acculturation was high in the Hispanic domain (M = 3.63.43; SD = .61) and low in the Non-Hispanic Domain (M = 2.32; SD = .91), indicating most mothers in the sample would identify with the Latino culture based on their language use, language proficiency, and media preference. Mothers practiced mostly an Authoritative parenting style (M = 4.42; SD = .45), follow by Authoritarian (M = 2.17; SD = .61), and Permissive (M = 2.17; SD = .61). Maternal depression scores fell within the no depression range (M = 3.33; SD = 2.63). Results are presented in Table 7 below.

Table 7. Distribution of the Variables

Variable	N	M	SD	Skewness	Kurtosis
Interaction	39	57.97	8.32	-.74	1.12
Disruption	39	39.79	13.27	-.83	.82
Disconnection	39	41.15	8.75	.27	-.54
VPK Scores	15	19.07	2.93	-.78	-.43
Emotional	41	6.14	.42	-1.88	4.65
Organization	41	5.61	.44	.18	-.88
Instructional	40	4.34	1.10	.14	-1.10
Hispanic	45	3.63	.61	-2.61	7.99
Non-Hispanic	45	2.32	.91	.32	-.95
Authoritative	45	4.42	.45	-.35	-.81
Authoritarian	45	2.17	.61	.65	.94
Permissive	45	1.65	.52	.88	.18
Depression	44	3.33	2.63	.82	.17

Note. Interaction = Children's Play Interaction measured by the Penn Interactive Peer Play Scale; Disruption = Children's Play Disruption measured by the Penn Interactive Peer Play Scale; Disconnection = Children's Play Disconnection measured by the Penn Interactive Peer Play Scale; VPK Scores = Children's Scores on the Voluntary Prekindergarten Assessment; Emotional = Teacher's Emotional Support measured by the Classroom Assessment Scoring System; Organization = Teacher's Classroom Organization measured by the Classroom Assessment Scoring System; Instructional = Teacher's Instructional Support measured by the Classroom Assessment Scoring System; Hispanic = Acculturation to the Hispanic Culture measured by the Bidimensional Acculturation Scale; Non-Hispanic = Acculturation to the American Culture measured by the Bidimensional Acculturation Scale; Authoritative = Authoritative Parenting Style measured by the Parenting Style Questionnaire; Authoritarian = Authoritarian Parenting Style measured by the Parenting Style Questionnaire; Permissive = Permissive Parenting Style measured by the Parenting Style Questionnaire; Depression = Maternal Depression measured by the Quick Inventory of Depressive Symptomatology Self Report.

Research Questions 1, 2, and 3

Correlational analyses. Bivariate correlations were conducted to determine whether relationships existed between any of the variables of interest and whether the relationships were linear or curvilinear before running the multilevel models. The correlation matrix included composite scores (play interaction, play disruption and play disconnection). Visual analysis of the scatter plots showed a linear relationship among the variables. Play interaction was

negatively and moderately correlated to permissive parenting style (r = -.36; p < .05). Play disconnection positively and moderately correlated to permissive parenting style (r = .37; p < .05). Results indicated that mothers that are more permissive tend to have children less engaged in peer play in the classroom. Play disruption was not correlated with any of variables. Another important finding was the correlations between acculturation to the non-Hispanic culture, permissive parenting, and maternal depression with the children's VPK scores (oral language). In particular, acculturation (Non-Hispanic) and VPK scores had a moderate positive correlation (r = .58; p < .05), suggesting that mothers with higher levels of acculturation to the American culture had children with higher VPK scores in oral language subtest. Permissive parenting style and VPK scores had a high negative correlation (r = -.73; p < .01), suggesting more permissive parents had children with lower VPK scores. Similarly, maternal depression and VPK scores had a moderate negative relationship (r = -.56; p < .01), suggesting that mothers with higher levels of depression symptoms had children with lower VPK scores. Results from this analysis are presented in Table 8.

Table 8. Correlation between the Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Interaction	1.00	-.44**	-.53**	.36	.19	.13	.15	.13	.27	.03	-.14	-.36*	-.07
2. Disruption		1.00	-.52**	-.20	.29	.06	.30	-.11	-.28	-0.1	.05	.12	-.02
3. Disconnection			1.00	-.28	.17	-.05	-.01	-.03	-.17	-.03	.19	.37*	.00
4. VPK Scores				1.00	-.07	-.07	.02	-.24	.58*	.14	-.48	-.73**	-.56*
5. Emotional					1.00	.64**	.80**	.01	-.15	.19	-.13	-.08	-.32*
6. Organization						1.00	.74**	-.02	.00	.19	-.45**	-.12	-.17
7. Instructional							1.00	-.04	-.13	.30	-.23	-.20	-.34*
8. Hispanic								1.00	-.49**	.06	.10	-.05	.20
9. Non-Hispanic									1.00	.21	-.13	-.17	.17
10. Authoritative										1.00	-.35*	-.08	.00
11. Authoritarian											1.00	.42**	.19
12. Permissive												1.00	.29
13. Depression													1.00

Note. Interaction = Children's Play Interaction measured by the Penn Interactive Peer Play Scale; Disruption = Children's Play Disruption measured by the Penn Interactive Peer Play Scale; Disconnection = Children's Play Disconnection measured by the Penn Interactive Peer Play Scale; VPK Scores = Children's Scores on the Voluntary Prekindergarten Assessment; Emotional = Teacher's Emotional Support measured by the Classroom Assessment Scoring System; Organization = Teacher's Classroom Organization measured by the Classroom Assessment Scoring System; Instructional = Teacher's Instructional Support measured by the Classroom Assessment Scoring System; Hispanic = Acculturation to the Hispanic Culture measured by the Bidimensional Acculturation Scale; Non-Hispanic = Acculturation to the American Culture measured by the Bidimensional Acculturation Scale; Authoritative = Authoritative Parenting Style measured by the Parenting Style Questionnaire; Authoritarian = Authoritarian Parenting Style measured by the Parenting Style Questionnaire; Permissive = Permissive Parenting Style measured by the Parenting Style Questionnaire; Depression = Maternal Depression measured by the Quick Inventory of Depressive Symptomatology Self Report.
*p<.05 **p<.01

Multilevel modeling. The PI examined the three research questions by estimating multilevel regression models and used the Kenward-Roger modification to adjust for the small sample size. The Level-1 predictors were maternal acculturation-Non-Hispanic, maternal acculturation-Hispanic, authoritative parenting, authoritarian parenting, permissive parenting, and maternal depression. The Level-1 variables represent fixed coefficients since they should not vary across classrooms. The final Level-2 predictor was classroom organization. The study aimed to control for classroom quality and child's language. Since all of the quality indicators were highly correlated among each other and some researchers have reported negative relationships between CLASS emotional support scores and DLL outcomes, the PI selected classroom organization as the Level-2 predictor. The PI did not include the child's vocabulary as measured by VPK scores because there were only 16 VPK scores in the data set.

Due to limited research in the area of young Latino children's development and no studies examining maternal predictors of peer play, the researcher used an exploratory approach to gain a better understanding of the variables. There were a total of 45 models for the present study, fifteen for each type of play (interaction, disruption, and disconnection). The models are presented in Tables 9 through 53. First, the researcher conducted two models for each type of peer play, an unconditional model and a conditional model including all of the predictors, Level-1 and Level-2. Then, the researcher ran six conditional models for each type of play. Those had a Level-1 predictor and the Level-2 predictor (classroom organization). Finally, the predictors were entered independently into a model to adopt a more exploratory approach to understanding the association between these variables, resulting in seven models for each type of play. Play interaction, play disconnection, and play disruption composite scores were calculated based on the findings of Bulotsky-Shearer, Lopez, and Mendez (2016) validated with a Latino preschool sample. Residual analysis was conducted.

Research Question 1: To what extent do maternal level factors (i.e., acculturation-Non-Hispanic, acculturation-Hispanic, authoritative parenting, authoritarian parenting, permissive parenting, and depression symptoms) relate to Latino children's peer play interaction when controlling for classroom organization?

Unconditional model. The unconditional model had no predictors for the predicted level of play interaction. The play interaction conditional model is presented in Table 9, and the equation is provided below.

Level-1: Play Interaction$_{ij}$ = $\beta 0j + r_{ij}$

Level-2: $\beta 0j = \gamma_{00} + \mu_{0j}$

The Intraclass Correlation (ICC) was calculated to determine the degree of dependence between individuals. The ICC for play interaction was .12. The intercepts showed almost no variation across classrooms in the play disruption unconditional model. Tables 9-23 present the parameter estimates and an indication of the precision of these estimates (e.g., standard errors) for the play interaction models.

Assumptions of normality and homoscedasticity. Residuals from the unconditional model were examined for homoscedasticity and normality. Visual analyses of the scatter plot of level-1 residuals by predicted values showed no substantial violation of the homoscedasticity assumption, and Levene's test of homogeneity suggested no statistically significant violation of the homogeneity assumption [$F(15, 36) = 2.57$, $p = .22$]. The overall skewness and kurtosis values of the level-1 residuals were -.72 and .56 respectively, suggesting a small degree of negative skew in the distribution, and the Shapiro-Wilk test for normality suggested a statistically significant departure ($W = .96$, $p < .001$). Given that the interest in this study was primarily within the fixed effects of the models and there is robustness for mild violations of the normality assumption, continuation with using multilevel modeling was appropriate.

Conditional model. The conditional model predicting the level of play interaction including the Level-1 predictors (maternal acculturation - Non-Hispanic, maternal acculturation - Hispanic, authoritative parenting, authoritarian parenting, permissive parenting, and maternal depression) and the level two predictor (classroom organization) was run. Additional models were conducted including the predictors independently and controlling for the Level-2. The play interaction initial conditional model is presented in Table 9, and the equation is provided below.

Conditional model (All the Variables)

Level-1: $Interaction_{ij} = \beta_{0j} + \beta 1j\text{Hispanic} + \beta 2j\text{Non-Hispanic} + \beta 3j\text{Authoritative} + \beta 4j\text{Authoritarian} + \beta j5\text{Permissive} + \beta 6j\text{Depression} + rij$

Level-2:

$\beta 0j = \gamma_{00} + \gamma_{01}\,\text{Organization} + \mu_{0j}$

$\beta 1j = \gamma_{10}$

$\beta 2j = \gamma_{20}$

$\beta 3j = \gamma_{30}$

$\beta 4j = \gamma_{40}$

$\beta 5j = \gamma_{50}$

$\beta 6j = \gamma_{60}$

Results of the play interaction conditional models are presented in Tables 9-23. None of the models were statistically significant, suggesting that none of these variables predict play interaction. A residual analysis of each model also was run and no substantial violations of the multivariate normality were found.

Research Question 2: To what extent do maternal level factors (i.e., acculturation-Non-Hispanic, acculturation-Hispanic, authoritative parenting, authoritarian parenting, permissive parenting, and depression symptoms) relate to Latino children's peer play disruption when controlling for classroom organization?

Unconditional model. The unconditional model had no predictors for the predicted level of play disruption. The play disruption conditional model is presented in Table 24, and the equation is provided below.

Level-1: Play Disruption$_{ij}$ = $\beta 0j + r_{ij}$

Level-2: $\beta 0j = \gamma_{00} + \mu_{0j}$

The Intraclass Correlation (ICC) was calculated to determine the degree of dependence between individuals. The ICC for play disruption was .49. The intercepts showed a variation across classrooms in the play disruption unconditional model. Tables 24-38 present the parameter estimates and an indication of the precision of these estimates (e.g., standard errors) for the play disruption models.

Assumptions of normality and homoscedasticity. Residuals from the unconditional model were examined for homoscedasticity and normality. Visual analyses of the scatter plot of level-1 residuals by predicted values showed no substantial violation of the homoscedasticity assumption, and Levene's test of homogeneity suggested no statistically significant violation of the homogeneity assumption [$F(15, 36) = 1.52$, $p = .18$]. The overall skewness and kurtosis values of the level-1 residuals were -0.08 and 0.38 respectively, suggesting a small degree of negative skew in the distribution, and the Shapiro-Wilk test for normality suggested a statistically significant departure ($W = .98$, $p < .001$). Given that the interest in this study was primarily within the fixed effects of the models and there is robustness for mild violations of the normality assumption, continuation with using multilevel modeling was appropriate.

Conditional model. The conditional model predicting the level of play disruption including the Level-1 predictors (maternal acculturation - Non-Hispanic, maternal acculturation - Hispanic, authoritative parenting, authoritarian parenting, permissive parenting, and maternal depression) and the level two predictor (classroom organization) was run. Additional models were conducted including the predictors independently and controlling for the Level-2. The play disruption initial conditional model is presented in Table 25, and the equation is provided below.

Conditional model (All the Variables)

Level-1: $Disruption_{ij} = \beta_{0j} + \beta 1j Hispanic + \beta 2j Non\text{-}Hispanic + \beta 3j Authoritative + \beta 4j Authoritarian + \beta j5 Permissive + \beta 6j Depression + rij$

Level-2:

$\beta 0j = \gamma_{00} + \gamma_{01} Organization + \mu_{0j}$

$\beta 1j = \gamma_{10}$

$\beta 2j = \gamma_{20}$

$\beta 3j = \gamma_{30}$

$\beta 4j = \gamma_{40}$

$\beta 5j = \gamma_{50}$

$\beta 6j = \gamma_{60}$

Results of the play disruption conditional models are presented in Tables 24-38. None of the models were statistically significant, suggesting that none of these variables predict play disruption. A residual analysis of each model also was run and no substantial violations of the multivariate normality were found.

Research Question 3: To what extent do maternal level factors (i.e., acculturation-Non-Hispanic, acculturation-Hispanic, authoritative parenting, authoritarian parenting, permissive parenting, and depression symptoms) relate to Latino children's peer play disconnection when controlling for classroom organization?

Unconditional model. The unconditional model had no predictors for the predicted level of play disconnection. The play disconnection conditional model is presented in Table 39, and the equation is provided below.

Level-1: Play Disconnection$_{ij}$ = $\beta 0j + r_{ij}$

Level-2: $\beta 0j = \gamma_{00} + \mu_{0j}$

The Intraclass Correlation (ICC) was calculated to determine the degree of dependence between individuals. The ICC for play disconnection was .51. The intercepts showed a variation across classrooms in the play disconnection unconditional model. Tables 39-53 present the parameter estimates and an indication of the precision of these estimates (e.g., standard errors) for the play disconnection models.

Assumptions of normality and homoscedasticity. Residuals from the unconditional model were examined for homoscedasticity and normality. Visual analyses of the scatter plot of level-1 residuals by predicted values showed no substantial violation of the homoscedasticity assumption, and Levene's test of homogeneity suggested no statistically significant violation of the homogeneity assumption [$F(14, 35) = 1.10$, $p = .40$]. The overall skewness and kurtosis values of the level-1 residuals were 0.39 and -.08 respectively, suggesting a normal distribution, and the Shapiro-Wilk test for normality suggested a statistically significant departure ($W = .97$, $p < .001$). Given that the interest in this study was primarily within the fixed effects of the models and there is robustness for mild violations of the normality assumption, continuation with using multilevel modeling was appropriate.

Conditional model. The conditional model predicting the level of play disconnection including the Level-1 predictors (maternal acculturation - Non-Hispanic, maternal acculturation - Hispanic, authoritative parenting, authoritarian parenting, permissive parenting, and maternal depression) and the level two predictor (classroom organization) was run. Additional models were conducted including the predictors independently and controlling for the Level-2. The play disconnection initial conditional model is presented in Table 40, and the equation is provided below.

Conditional model (All the Variables)

Level-1: $Disconnection_{ij} = \beta_{0j} + \beta 1j Hispanic + \beta 2j Non\text{-}Hispanic + \beta 3j Authoritative + \beta 4j Authoritarian + \beta j5 Permissive + \beta 6j Depression + rij$

Level-2:

$\beta 0j = \gamma_{00} + \gamma_{01} Organization + \mu_{0j}$

$\beta 1j = \gamma_{10}$

$\beta 2j = \gamma_{20}$

$\beta 3j = \gamma_{30}$

$\beta 4j = \gamma_{40}$

$\beta 5j = \gamma_{50}$

$\beta 6j = \gamma_{60}$

Results of the play disconnection conditional models are presented in Tables 39-53. None of the models were statistically significant, suggesting that none of these variables predict play disconnection. A residual analysis of each model also was run and no substantial violations of the multivariate normality were found.

Table 9. Play Interaction Unconditional Model

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	57.63	1.70	33.97	0.00**
Variance Estimates			z-Value	
Intercept	9.42	23.88	0.39	0.35
Residual	66.92	23.85	2.81	0.00**

Note. *p<.05 **p<.01

Table 10. Play Interaction Conditional Model

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	20.58	39.92	0.52	0.61
Non-Hispanic	4.01	2.19	1.83	0.08
Hispanic	7.06	4.63	1.53	0.14
Authoritative	0.10	4.80	0.02	0.98
Authoritarian	-0.48	3.59	-0.13	0.90
Permissive	-0.03	0.30	-0.09	0.93
Depression	-0.68	0.74	-0.93	0.37
Organization	0.89	4.73	0.19	0.86
Variance Estimates			z-Value	
Intercept	13.85	35.97	0.39	0.35
Residual	59.28	27.31	2.17	0.02*

Note. *p<.05 **p<.01

Table 11. Play Interaction and Acculturation Non-Hispanic and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	28.23	23.97	1.18	0.30
Non-Hispanic	1.85	1.80	1.03	0.31
Organization	4.50	4.00	1.12	0.32
Variance Estimates			z-Value	
Intercept	10.02	28.85	0.35	0.36
Residual	66.56	25.54	2.61	0.00**

Note. *p<.05 **p<.01

Table 12. Play Interaction and Acculturation Hispanic and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	30.51	21.51	1.42	0.22
Hispanic	4.14	2.69	1.54	0.13
Organization	2.19	4.01	0.54	0.62
Variance Estimates			z-Value	
Intercept	7.42	29.71	0.25	0.40
Residual	65.31	26.76	2.44	0.00**

Note. *p<.05 **p<.01

Table 13. Play Interaction and Authoritative Parenting and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	27.43	24.14	1.14	0.29
Authoritative	4.04	3.27	1.24	0.23
Organization	2.23	4.36	0.51	0.63
Variance Estimates			z-Value	
Intercept	19.69	27.50	0.72	0.23
Residual	60.07	21.02	2.86	0.00**

Note. *p<.05 **p<.01

Table 14. Play Interaction and Authoritarian Parenting and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	32.41	24.65	1.31	0.22
Authoritarian	0.84	3.21	0.26	0.79
Organization	4.24	3.91	1.08	0.33
Variance Estimates			z-Value	
Intercept	2.33	25.93	0.09	0.46
Residual	75.35	28.44	2.65	0.00**

Note. *p<.05 **p<.01

Table 15. Play Interaction and Permissive Parenting and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	47.34	21.72	2.18	0.09
Permissive	-0.26	0.16	-1.57	0.13
Organization	2.04	3.83	0.53	0.62
Variance Estimates			z-Value	
Intercept	5.37	23.23	0.23	0.41
Residual	67.66	24.10	2.81	0.00**

Note. *p<.05 **p<.01

Table 16. Play Interaction and Maternal Depression and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	37.07	23.49	1.58	0.18
Depression	-0.10	0.72	-0.14	0.89
Organization	3.77	4.03	0.94	0.40
Variance Estimates			z-Value	
Intercept	5.99	27.21	0.22	0.41
Residual	72.55	27.41	2.65	0.00**

Note. *p<.05 **p<.01

Table 17. Play Interaction and Classroom Organization

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	36.10	21.80	1.66	0.17
Organization	3.88	3.87	1.00	0.37
Variance Estimates			z-Value	
Intercept	6.23	27.54	0.23	0.41
Residual	70.16	26.82	2.62	0.00**

Note. *p<.05 **p<.01

Table 18. Play Interaction and Acculturation Non-Hispanic

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	54.04	4.38	12.33	0.00**
Non-Hispanic	1.53	1.72	0.89	0.38
Variance Estimates			z-Value	
Intercept	11.11	25.51	0.44	0.33
Residual	65.72	24.12	2.72	0.00**

Note. *p<.05 **p<.01

Table 19. Play Interaction and Acculturation Hispanic

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	41.20	8.96	4.60	0.00**
Hispanic	4.52	2.42	1.87	0.07
Variance Estimates			z-Value	
Intercept	7.23	22.07	0.33	0.37
Residual	63.12	22.85	2.76	0.00**

Note. *p<.05 **p<.01

Table 20. Play Interaction and Authoritative Parenting

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	38.92	13.20	2.95	0.00**
Authoritative	4.23	2.99	1.41	0.17
Variance Estimates			z-Value	
Intercept	17.32	22.81	0.76	0.22
Residual	59.21	19.89	2.98	0.00**

Note. *p<.05 **p<.01

Table 21. Play Interaction and Authoritarian Parenting

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	57.24	6.17	9.28	0.00**
Authoritarian	0.19	2.91	0.07	0.95
Variance Estimates			z-Value	
Intercept	9.40	24.23	0.39	0.35
Residual	69.03	24.60	2.81	0.00**

Note. *p<.05 **p<.01

Table 22. Play Interaction and Permissive Parenting

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	58.67	1.64	35.70	0.00**
Permissive	-0.28	0.15	-1.86	0.07
Variance Estimates			z-Value	
Intercept	5.06	17.99	0.28	0.39
Residual	65.63	21.50	3.05	0.00**

Note. *p<.05 **p<.01

Table 23. Play Interaction and Maternal Depression

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	58.06	2.63	22.16	0.00**
Depression	-0.14	0.65	-0.21	0.83
Variance Estimates			z-Value	
Intercept	8.97	23.94	0.37	0.36
Residual	69.25	24.73	2.80	0.01**

Note. *p<.05 **p<.01

Table 24. Play Disruption Unconditional Model

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	39.97	2.91	13.39	0.00**
Variance Estimates			z-Value	
Intercept	85.19	54.65	1.56	0.06
Residual	89.90	28.77	3.12	0.00**

Note. *p<.05 **p<.01

Table 25. Play Disruption Conditional Model

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	51.11	56.42	0.91	0.38
Non-Hispanic	-4.23	2.51	-1.68	0.10
Hispanic	-4.33	5.05	-0.86	0.40
Authoritative	-6.70	5.50	-1.22	0.23
Authoritarian	1.25	3.83	0.32	0.75
Permissive	-0.37	0.39	-0.96	0.34
Depression	1.13	0.80	1.41	0.17
Organization	6.67	7.92	0.84	0.42
Variance Estimates			z-Value	
Intercept	101.07	60.98	1.66	0.05
Residual	79.44	27.36	2.90	0.00**

Note. *p<.05 **p<.01

Table 26. Play Disruption and Acculturation Non-Hispanic and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	29.26	38.16	0.77	0.46
Non-Hispanic	-3.84	2.18	-1.76	0.08
Organization	3.23	6.53	0.49	0.63
Variance Estimates			z-Value	
Intercept	77.75	49.21	1.58	0.06
Residual	85.63	26.60	3.22	0.00**

Note. *p<.05 **p<.01

Table 27. Play Disruption and Acculturation Hispanic and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	7.11	39.23	0.18	0.86
Hispanic	0.52	3.70	0.14	0.89
Organization	5.21	7.36	0.71	0.49
Variance Estimates			z-Value	
Intercept	97.92	61.16	1.60	0.05
Residual	90.17	28.60	3.15	0.00**

Note. *p<.05 **p<.01

Table 28. Play Disruption and Authoritative Parenting and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	16.32	41.59	0.39	0.70
Authoritative	-6.34	4.34	-1.46	0.15
Organization	8.80	7.57	1.16	0.27
Variance Estimates			z-Value	
Intercept	117.40	64.87	1.81	0.04
Residual	77.36	24.35	3.18	0.00**

Note. *p<.05 **p<.01

Table 29. Play Disruption and Authoritarian Parenting and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	-6.49	40.04	-0.16	0.87
Authoritarian	3.96	3.55	1.12	0.27
Organization	6.51	6.83	0.95	0.36
Variance Estimates			z-Value	
Intercept	91.64	57.83	1.58	0.06
Residual	87.53	28.00	3.13	0.00**

Note. *p<.05 **p<.01

Table 30. Play Disruption and Permissive Parenting and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	13.96	44.08	0.32	0.76
Permissive	-0.10	0.28	-0.37	0.72
Organization	4.40	7.73	0.57	0.58
Variance Estimates			z-Value	
Intercept	102.47	65.15	1.57	0.06
Residual	88.34	28.00	3.15	0.00**

Note. *p<.05 **p<.01

Table 31. Play Disruption and Maternal Depression and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	0.82	40.62	0.02	0.98
Depression	0.51	0.78	0.66	0.52
Organization	6.37	7.11	0.90	0.39
Variance Estimates			z-Value	
Intercept	99.86	61.73	1.62	0.05
Residual	88.00	28.32	3.11	0.00**

Note. *p<.05 **p<.01

Table 32. Play Disruption and Classroom Organization

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	7.21	38.71	0.19	0.86
Organization	5.53	6.87	0.80	0.44
Variance Estimates			z-Value	
Intercept	94.94	58.89	1.61	0.05
Residual	87.63	27.48	3.19	0.00**

Note. *p<.05 **p<.01

Table 33. Play Disruption and Acculturation Non-Hispanic

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	48.45	4.38	8.45	0.00**
Non-Hispanic	-3.99	2.13	-1.87	0.07
Variance Estimates			z-Value	
Intercept	69.88	44.87	1.56	0.06
Residual	87.03	27.19	3.20	0.00**

Note. *p<.05 **p<.01

Table 34. Play Disruption and Acculturation Hispanic

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	34.19	12.90	2.65	0.00**
Hispanic	1.32	3.48	0.38	0.71
Variance Estimates			z-Value	
Intercept	87.12	56.05	1.55	0.06
Residual	92.10	29.71	3.10	0.00**

Note. *p<.05 **p<.01

Table 35. Play Disruption and Authoritative Parenting

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	58.05	18.75	3.10	0.00**
Authoritative	-4.38	4.24	-1.03	0.31
Variance Estimates			z-Value	
Intercept	107.17	63.69	1.68	0.05
Residual	82.12	27.03	3.04	0.00**

Note. *p<.05 **p<.01

Table 36. Play Disruption and Authoritarian Parenting

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	33.49	7.67	4.37	0.00**
Authoritarian	2.70	3.52	0.77	0.45
Variance Estimates			z-Value	
Intercept	88.42	56.60	1.56	0.06
Residual	89.89	29.39	3.06	0.00**

Note. *p<.05 **p<.01

Table 37. Play Disruption and Permissive Parenting

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	39.75	3.13	12.70	0.00**
Permissive	-0.18	0.24	-0.75	0.46
Variance Estimates			z-Value	
Intercept	88.36	57.68	1.53	0.06
Residual	90.22	29.08	3.10	0.00**

Note. *p<.05 **p<.01

Table 38. Play Disruption and Maternal Depression

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	38.29	3.75	10.20	0.00**
Depression	0.22	0.77	0.29	0.77
Variance Estimates			z-Value	
Intercept	88.15	58.29	1.51	0.07
Residual	91.94	30.52	3.01	0.00**

Note. *p<.05 **p<.01

Table 39. Play Disconnection Unconditional Model

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	41.02	1.94	21.17	0.00**
Variance Estimates			z-Value	
Intercept	36.86	24.17	1.53	0.06
Residual	36.04	11.74	3.07	0.00**

Note. *p<.05 **p<.01

Table 40. Play Disconnection Conditional Model

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	56.69	34.66	1.64	0.12
Non-Hispanic	-1.30	1.72	-0.76	0.46
Hispanic	-1.63	3.56	-0.46	0.65
Authoritative	-1.23	3.70	-0.33	0.74
Authoritarian	0.24	2.93	0.08	0.94
Permissive	3.65	3.14	1.16	0.26
Depression	-0.24	0.61	-0.40	0.70
Organization	-1.33	4.57	-0.29	0.78
Variance Estimates			z-Value	
Intercept	25.07	19.36	1.30	0.10
Residual	41.02	13.86	2.96	0.00**

Note. *p<.05 **p<.01

Table 41. Play Disconnection and Acculturation Non-Hispanic and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	53.00	25.08	2.11	0.06
Non-Hispanic	-1.39	1.44	-0.97	0.34
Organization	-1.70	4.32	-0.39	0.70
Variance Estimates			z-Value	
Intercept	28.13	20.37	1.38	0.08
Residual	36.44	11.57	3.15	0.00**

Note. *p<.05 **p<.01

Table 42. Play Disconnection and Acculturation Hispanic and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	52.47	27.59	1.90	0.08
Hispanic	-1.60	2.87	-0.56	0.58
Organization	-1.11	4.56	-0.24	0.81
Variance Estimates			z-Value	
Intercept	33.86	22.54	1.50	0.07
Residual	65.39	11.32	3.13	0.00**

Note. *p<.05 **p<.01

Table 43. Play Disconnection and Authoritative Parenting and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	57.62	27.72	2.08	0.06
Authoritative	-2.87	3.04	-0.94	0.35
Organization	-0.83	4.50	-0.18	0.86
Variance Estimates			z-Value	
Intercept	32.38	21.26	1.52	0.06
Residual	34.95	10.96	3.19	0.00**

Note. *p<.05 **p<.01

Table 44. Play Disconnection and Authoritarian Parenting and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	37.56	27.42	1.37	0.19
Authoritarian	2.00	2.37	0.84	0.41
Organization	-0.28	4.52	-0.06	0.95
Variance Estimates			z-Value	
Intercept	29.21	21.53	1.36	0.09
Residual	36.43	11.84	3.08	0.00**

Note. *p<.05 **p<.01

Table 45. Play Disconnection and Permissive Parenting and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	39.85	23.78	1.68	0.13
Permissive	3.81	2.60	1.47	0.15
Organization	-1.02	4.09	-0.25	0.81
Variance Estimates			z-Value	
Intercept	23.86	18.41	1.30	0.10
Residual	36.37	11.51	3.16	0.00**

Note. *p<.05 **p<.01

Table 46. Play Disconnection and Maternal Depression and Classroom Quality (Organization)

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	49.79	26.26	1.90	0.09
Depression	-0.21	0.50	-0.42	0.70
Organization	-1.58	4.57	-0.35	0.74
Variance Estimates			z-Value	
Intercept	32.17	22.01	1.46	0.07
Residual	36.17	11.57	3.13	0.00**

Note. *p<.05 **p<.01

Table 47. Play Disconnection and Classroom Organization

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	47.14	25.53	1.85	0.10
Organization	-1.23	4.50	-0.27	0.79
Variance Estimates			z-Value	
Intercept	32.82	22.04	1.49	0.06
Residual	34.76	10.94	3.18	0.00**

Note. *p<.05 **p<.01

Table 48. Play Disconnection and Acculturation Non-Hispanic

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	43.69	3.90	11.22	0.00**
Non-Hispanic	-1.17	1.48	-0.79	0.44
Variance Estimates			z-Value	
Intercept	33.32	23.32	1.43	0.08
Residual	37.83	12.52	3.02	0.00**

Note. *p<.05 **p<.01

Table 49. Play Disconnection and Acculturation Hispanic

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	47.69	11.15	4.28	0.00**
Hispanic	-1.78	2.93	-0.61	0.55
Variance Estimates			z-Value	
Intercept	37.61	24.41	1.54	0.06
Residual	36.64	12.11	3.02	0.00**

Note. *p<.05 **p<.01

Table 50. Play Disconnection and Authoritative Parenting

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	51.75	14.10	3.67	0.00**
Authoritative	-2.41	3.13	-0.77	0.45
Variance Estimates			z-Value	
Intercept	37.03	23.98	1.54	0.06
Residual	36.46	11.91	3.06	0.00**

Note. *p<.05 **p<.01

Table 51. Play Disconnection and Authoritarian Parenting

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	39.15	5.15	7.60	0.00**
Authoritarian	0.90	2.32	0.39	0.70
Variance Estimates			z-Value	
Intercept	36.16	24.72	1.46	0.07
Residual	37.50	12.55	2.99	0.00**

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

Table 52. Play Disconnection and Permissive Parenting

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	36.09	4.70	7.68	0.00**
Permissive	3.09	2.71	1.14	0.26
Variance Estimates			z-Value	
Intercept	30.26	22.60	1.34	0.09
Residual	37.98	12.70	2.99	0.00**

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

Table 53. Play Disconnection and Maternal Depression

Parameter	Estimate	Standard Error	*t*-Value	*p*-Value
Fixed Effects				
Intercept	42.00	2.41	17.51	0.00**
Depression	-0.33	0.50	-0.67	0.51
Variance Estimates			z-Value	
Intercept	34.90	23.49	1.49	0.07
Residual	37.51	12.38	3.03	0.00**

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

CHAPTER FIVE:

DISCUSSION

Using the Ecological Model of Human Development with current revisions with culture as part of the microsystem (Bronfenbrenner, 1994; Vélez-Agosto et al., 2017), this study aimed to investigate the maternal variables that may play a role in children's peer play in the classroom while controlling for classroom quality. Statistical analyses were employed to answer three research questions. The research questions explored the possible predictors of Latino children's peer play interaction, disruption, and disconnection. The three questions incorporated the same predictors (i.e., mothers' acculturation, mothers' parenting style, and, mothers' depression symptoms). In this chapter, a summary of the findings, as well as implications for research and practice, are discussed.

Factors Associated with Latino Children Peer Play

Acculturation. Acculturation is the process of changing values, beliefs, and behaviors when interacting with a new culture (Merrell, Ervin, & Gimpel, 2012). Latinos residing in the U.S. show different levels of acculturation depending on their years of residence or generation status. For example, second-generation Latinos are more acculturated to the American culture compared with first-generation Latinos (Marín & Marín, 1991). In the current study, none of the models including acculturation were statistically significant, suggesting that maternal level of acculturation does not predict peer play when considering the nested structure of the data. Acculturation to the Hispanic culture was correlated with children's VPK scores on the oral language/vocabulary subtest. This results are discussed in the other findings section. In the sample, the majority of the mothers preferred Spanish (71.1%), were born outside the U.S. (84.4%), and reported higher levels of

acculturation to the Hispanic culture. Non-significant findings may be related to not having variability in the sample in terms of acculturation. Previous studies have not explored the role of acculturation in peer play behaviors. The closest approximation has been the role of immigration status, as measure by self-reports, on children behaviors. Immigration status has been associated with acculturation because the level of acculturation to the American culture increases as years of residing in the U.S. increases (Marin & Gamba, 1996). For example, De Feyter and Winsler (2009) reported that first-generation immigrant children showed higher social skills and lower problem behaviors compared to the second generation and non-immigrant children suggesting that immigration status influences social competence. As a result, we need more research to understand if maternal acculturation affects children's play behaviors.

Parenting Styles. The present study explored the role of authoritative, authoritarian, and permissive parenting styles in children's peer play. Parenting styles are in a continuum with authoritarian and permissive being extremes and authoritative being in the middle. Authoritarian parents are strict, lack flexibility, employ harsh discipline methods, and do not show affection. On the other hand, permissive parents are affectionate but do not have rules and clear expectations for their children. "Too much control and demandingness may limit children's opportunities to make decisions for themselves or to make their needs known to their parents, while children in permissive/indulgent households may lack the direction and guidance necessary to develop appropriate morals and goals (Bornstein & Bornstein, 2007, p.2)."Authoritative is the combination of the first two in which parents are warm with their children, but have clear rules and expectations for them.

Results showed that parenting styles were not significant predictors of peer play behaviors, suggesting that in this sample parenting styles do not predict peer play in the classroom. Correlation analyses showed permissive parenting style had a negative relationship with peer play interaction and a positive relationship with peer play disconnection. In the sample, the more permissive the parents,

the less engaged and more disconnected the children were from their peers. However, these results should be interpreted with caution because once entered into a hierarchical linear model and accounting for the nested structure of the data, permissive parenting was no longer significant. In the literature, permissive parenting has fewer studies compared with authoritative and authoritarian. The research suggested that permissive parenting is related to children's low levels of happiness and self-regulation. These children are more likely to experience problems with authority and tend to perform poorly in school. Pinquart's and Kauser's (2018) meta-analysis reported associations between permissive parenting and externalizing problems in Latino samples in the U.S. and internalizing problems in children residing in Latin American.

Some researchers have reported authoritarian parenting is correlated with behavior problems in preschool children from low-income families (Calzada et al., 2012; Lequerica & Hermosa, 1995; Qi & Kaiser, 2003) while other researchers indicated that authoritarian parenting has positive effects on collectivistic cultures, such as the Latino culture (Dwairy et al., 2006). In the current sample, there were not any significant findings for authoritarian parenting. Results can be explained by small sample size, and previous studies not reporting a negative impact between authoritarian and negative outcomes in Latino samples (Pinquart & Kauser, 2018). Additionally, authoritarian parenting supports the Latino's core value of respect, in which children have to be obedient to authority figures such as parents and teachers (Sue & Sue, 2013). Based on the inconsistency hypothesis, children's positive or negative outcomes depend wether parent behaviors being consistency or inconsistent with cultural expectations (Farah, 2006). The inconsistency hypothesis states that parenting practices should match cultural expectations to promote positive outcomes for children. Consequently, children's adverse outcomes result from the inconsistency between parenting practices and cultural norms. For example, permissive parenting in a culture that values respect to authority figures can lead to adverse outcomes. Similarly, giving autonomy to children by using an authoritative parenting style

when the culture values conformity to group norms creates inconsistency. The Latino culture values respect and obedience, which matches the authoritarian parenting styles, and such consistency promotes positive outcomes in children. For example, Pinquart and Kauser (2018) conducted a meta-analysis to investigate if the relationship of parenting styles with behavior problems and academic achievement varies by culture. The impact of authoritarian parenting on academic performance was less negative in Latino samples, and authoritarian was acceptable in some cultural contexts (Pinquart & Kauser, 2018).

Depression. Multiple studies have found a relationship between maternal depression and negative childhood outcomes (Campbell, 1995; Goodman et al., 2011; Jones Harden et al., 2010; Qi & Kaiser, 2003). However, the relationship tends to be small across studies, and the specificity and moderators are still emerging in the research (Goodman et al., 2011). Previous studies have reported Latinas having more severe depression symptoms, as evident in both self-reports and interviewers, when compared to African Americans and Caucasians (Myers et al., 2002). Despite the findings showing Latinos being at risk for depression (Alegría et al., 2007; Mendelson et al., 2008; Myers et al., 2002; Perreira et al., 2015), no studies have analyzed the relationship between maternal depression and young Latino children's play behaviors. Depression had no significant correlations nor significant scores in any of the hierarchical linear models, suggesting that in this sample depression does not predict peer play in the classroom. The average of depression symptoms was not elevated in the current sample, and most mothers endorsed no symptoms of depression. Additionally, the internal consistency of the depression measure was low. As a result, it is not evident if the lack of findings were due to the small sample size, low reliability of the scale, or that maternal depression does not influence peer play. Due to the lack of understanding in the field, more research is needed in this area.

Other Findings. Another important finding was the negative correlations between acculturation to the Hispanic culture, permissive parenting style, and maternal depression with

children's VPK scores on the oral language/vocabulary subtest. However, the results need to be interpreted with caution because only 16 children had VPK scores, reducing the sample size. Head Start only conducted VPK assessments for children entering kindergarten, which reduced the number of children with VPK scores. Additionally, the *p*-values for the correlations did not take into account the nested structure of the data. There were also high ICC scores, which suggested variability across classrooms and compromised the p-values of the correlations, which can larger and non-significant.

Acculturation (Non-Hispanic) and VPK scores had a moderate positive correlation, suggesting that mothers with higher levels of acculturation to the American culture had children with higher VPK scores in the oral language subtest. In the current study, VPK scores measured vocabulary in English, which is impacted by acculturation. Results suggested that mothers who spoke more English had children with higher scores on the English vocabulary/oral language subtest. Previous studies identified a relationship between mothers' English proficiency and children's reading and math achievement in Mexican-American samples. In the current sample, 62.2% of the mothers were from Mexico. Baker's studies suggested that parents' higher levels of English proficiency is related to higher levels of acculturation to the mainstream culture. Additionally, parents with higher English proficiency speak to their children in English, which increases their familiarity with the language, resulting in higher test scores (Baker, 2013; 2018).

Additionally, permissive parenting style and VPK scores had a high negative correlation, suggesting more permissive parents had children with lower VPK scores. In the literature, permissive parenting has been related to low achievement in children (Pinquart & Kauser, 2018). Similarly, maternal depression and VPK scores had a moderate negative relationship, suggesting that mothers with higher levels of depression symptoms had children with lower VPK scores. Researchers have reported that maternal depressive symptoms are related to children's early academic achievement (Greenberg et al., 1999). Palermo and his colleagues (2019) studied the role of maternal depression in

academic achievement with a sample of 714 Latino families attending Head Start. The study found that maternal depression decreased academic performance, but it was moderated by maternal level of education (Palermo et al., 2019). Clearly, the preliminary results of this study suggest that maternal predictors of academic achievement of Latino children (i.e., VPK scores) need further exploration to have a better understanding.

Limitations

One of the limitations of this study includes sample size. The sample only included 45 children, their mothers, and teachers. The principal investigator used the Optimal Design program to estimate the sample size for the study, indicating that 140 participants were needed for medium effect size (.5) and power of .8. However, the PI obtained IRB approval at the end of the school year, which reduced the data collection time. Despite the limited number of children, eighteen classrooms from six centers participated in the study. Additionally, only 16 children had their VPK scores because they were the ones transitioning to kindergarten.

Second, the study included a limited number of variables and limited child level data. There may be other factors that also play a role in the relationship tested such as a child's self-regulation abilities, their attitudes towards learning, family composition, social supports, parent involvement, and many others. Some of the children's characteristics that may be important mediators for the relationship, such as disability status or time in Head Start, are unknown.

Third, the ICCs were relatively large for play disruption and play disconnection, indicating a variation between classes in play behaviors. The small number of children per classroom likely contributed to the classroom variation. For instance, some classrooms had only one child in the study. Additionally, another explanation is rater bias. Research suggests differences between Latino teachers and non-Latino teachers when reporting Latino children's behavior based on cross-cultural differences in teacher's expectations and their understanding of the children's language. For instance, teachers

who are less proficient in Spanish tend to rate Latino DLL children as having more positive play interaction skills compared to teachers who are more skilled in Spanish (Greenfader & Miller, 2014). Latino teachers tend to have much higher expectations for classroom behavior because of the Latino cultural value of respect to authority figures and obedience (Reese et al., 1995).

The fourth limitation is the use of self-report measures, which despite their validity and reliability, tend to be biased due to ratings based on reporters' perceptions of the behaviors. For instance, play interaction, play disruption, and disconnection scores were from the Penn Interactive Peer Play Scale, Teacher (PIPPS-T). Although the PIPPS is an appropriate measure for Latino samples (Bulotsky-Shearer, López, & Mendez, 2016), it could contain rater bias as any other rating scale. As a result, the score of the teachers may not represent the reality of the students because it embodies teachers' perceptions of problematic behaviors. Adding obervations conducted by a trained observer could help reduce teacher bias.

Last but not least, the study had limitations related to generalization. The current findings should not be generalized to all Latinos due to the diversity of the Latino population residing in the U.S. in terms of countries of origin, subcultures, level of education, languages, and socioeconomic status. In the current study, 62.2% of the mothers were from Mexico followed by the U.S. and Puerto Rico. Additionally, the findings are representative of Latino children who are three to five years old and attend Head Start programs. However, the findings may not be generalizable to children who do not attend preschool programs (i.e., are in home care). Furthermore, the results of this study may not be generalizable to preschool students residing outside of Florida because Latino populations tend to differ across states.

Implications

Despite the limitations, the current study has implications for both practitioners and researchers. None of the models were statistically significant, suggesting that maternal level of

acculturation, parenting style, or depression do not predict peer play. However, there were significant negative correlations between acculturation to the Hispanic culture, permissive parenting style, and maternal depression with children's VPK scores on the oral language/vocabulary subtest. The implications of these findings are discussed below.

Researchers. Regardless of the advances in understanding the socio-emotional development of DLLs, limited studies are available focused on the socio-emotional functioning and peer interactions of ethnically diverse preschool children (Halle et al., 2014). In 2014, there were only 14 studies exploring DLLs' socio-emotional development. There is a better understanding of the classroom level factors affecting the socio-emotional development of DLLs. For example, researchers have identified classroom factors such as teacher-child relationships, positive climate, a racial-ethnic match between teacher and student, and language match among peers as important factors in the development of socio-emotional skills of ethnically diverse children (Burchinal & Cryer, 2003; Howes et al., 2011; Mendez, Fantuzzo, & Cicchetti, 2002). Child and family factors are still in the early stages of investigation. Halle et al. (2014) identified bilingualism as a child-level variable and generation status as a family variable. Other variables playing a role in young Latino children's problem behavior have not yet been identified. As a result, the current study will add to the literature of the socio-emotional development of young Latino DLLs.

Practitioners. Research suggests that multiple environments impact child development. This study found significant correlations between acculturation, parenting, and depression related to VPK scores. However, the implications of these findings for practitioners are limited because these correlation analyses must be interpreted with caution due to classroom variability. Based on these findings, it is recommended that practitioners collaborate with researchers to allow a better understanding of the factors influencing the development of young Latino children's peer play in the classroom.

Additionally, the current study collected data from children attending Head Start, a comprehensive program to meet the emotional, social, health, nutritional, and psychological needs of preschool children of low-income families. Family involvement is an essential component of Head Start. It is recommended that Head Start continue working with families in providing parent training and checking on mothers' well-being to assure successful outcomes of children.

Directions for Future Research

The interactions of the child with multiple environments shape development (i.e., child, home, school, neighborhood, etc.; Bronfenbrenner, 1994). In the current study, none of the models were statistically significant, suggesting that in this sample maternal level of acculturation, parenting style, or depression do not predict peer play. However, there were significant negative correlations between acculturation to the Hispanic culture, permissive parenting style, and maternal depression with children's VPK scores (oral language/vocabulary). Consequently, future studies should further investigate if these variables influence academic achievement and if any other variables are playing a role in peer play. Researchers should consider using cultural lenses to explore variables that may affect Latinos' outcomes, such as level of acculturation, years in the U.S. language, home country, cultural practices, parenting, and stressors related to immigration. In Latino samples, researchers have found maternal stress, in addition to depression, related to adverse outcomes for children (Palermo et al., 2019) and levels of stress tend to be higher in low-income families (Barry et al., 2005). Consequently, it is recommended that future studies explore the role of maternal stress in children's peer play.

Additionally, the National Academies of Sciences, Engineering, and Medicine (2017) proposed to focus on strengths rather than weakness while studying Latinos. This approach may help to improve the academic and socio-emotional outcomes of Latinos. Halle et al. (2014) stated that Latino preschoolers tend to have higher self-control and interpersonal skills, and experience less

externalizing and internalizing problems, as compared to their monolingual peers. It is essential to know which variables foster positive peer interactions and positive child outcomes, such as academic achievement.

Conclusions

Latinos represent one-third of the Head Start children (Office of Head Start, 2016) and 80% of Dual Language Learners (DLL). However, research involving Latino DLLs is limited, and we do not fully understand all the variables impacting DLLs' development (Halle et al., 2014). Children's interactive play with their peers fully moderates more learning and fewer problem behaviors in Head Start classrooms (Bulotsky-Shearer, Bell, Romero, & Carter, 2012). On the other hand, behavior problems during classroom peer play predicted lower attitudes toward learning. Behavior problems correlate with low academic achievement and low adaptive learning skills, such as motivation, attention, and persistence in academically focused tasks (Fantuzzo et al., 1998). This study aimed to explore the maternal level factors that may predict play interaction, disruption, and disconnection while controlling for classroom quality. None of the models were significant, but there were some significant correlations, which suggest the need for more experimental designs to determine which variables play a role in peer play. Despite the non-significant findings, the current study took a small step towards exploring the variables that may have a role in peer play. Because there is not a clear understanding of the specific factors predicting peer play in Latino DLLs, future studies should consider ecological and cultural approaches to allow for a broader view of Latinos' development.

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APPENDIX A:

IRB APPROVAL LETTERS

USF
UNIVERSITY OF
SOUTH FLORIDA

RESEARCH INTEGRITY AND COMPLIANCE
Institutional Review Boards, FWA No. 00001669
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799
(813) 974-5638 • FAX (813) 974-7091

5/24/2018

Olivia Hernandez Gonzalez
Educational and Psychological Studies
P.O. Box 15822
Tampa, FL 33684-0822

RE: **Expedited Approval for Initial Review**
IRB#: Pro00035126
Title: Play Behaviors in Latino Dual Language Learners: The Relationship between Maternal Characteristics and Classroom Peer Play

Study Approval Period: 5/24/2018 to 5/24/2019

Dear Ms. Hernandez Gonzalez:

On 5/24/2018, the Institutional Review Board (IRB) reviewed and **APPROVED** the above application and all documents contained within, including those outlined below.

Approved Item(s):

Protocol Document(s):

Play Behaviors in Latino Dual Language Learners USF IRB PROTOCOL V0.04 5.5.18.docx

Consent/Assent Document(s)*:

SB Adult Minimal Risk_2.2018 _ MOTHER ENGLISH.docx.pdf
SB Adult Minimal Risk_2.2018 _ TEACHER.docx.pdf
SB Adult Minimal Risk_3.2018_MOTHER SPANISH.docx.pdf
verbal consent for screening_MOTHER ENGLISH - Copy.docx*
verbal consent for screening_MOTHER SPANISH.docx*

*Please use only the official IRB stamped informed consent/assent document(s) found under the "Attachments" tab. Please note, these consent/assent documents are valid until the consent document is amended and approved. *Verbal consent does not get stamped.

It was the determination of the IRB that your study qualified for expedited review which includes activities that (1) present no more than minimal risk to human subjects, and (2) involve only procedures listed in one or more of the categories outlined below. The IRB may review research through the expedited review procedure authorized by 45CFR46.110 and 21 CFR

56.110. The research proposed in this study is categorized under the following expedited review category:

(5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis).

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your study qualifies for a waiver of the requirements for the documentation of informed consent as outlined in the federal regulations at 45CFR46.117(c) which states that an IRB may waive the requirement for the investigator to obtain a signed consent form for some or all subjects if it finds either: (1) That the only record linking the subject and the research would be the consent document and the principal risk would be potential harm resulting from a breach of confidentiality. Each subject will be asked whether the subject wants documentation linking the subject with the research, and the subject's wishes will govern; or (2) That the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context. For the use of the verbal consent only.

Children as Participants (45 CFR 46, Subpart D)

Research Involving Children as Subjects: 45 CFR §46.404 / 21 CFR §50.51

This research involving children as participants was approved under 45 CFR 46.404: Research not involving greater than minimal risk to children is presented.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB. Any changes to the approved research must be submitted to the IRB for review and approval via an amendment. Additionally, all unanticipated problems must be reported to the USF IRB within five (5) calendar days.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

John Schinka, Ph.D.,
Chairperson USF Institutional
Review Board

USF
UNIVERSITY OF
SOUTH FLORIDA

RESEARCH INTEGRITY AND COMPLIANCE
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5/2/2019

Olivia Hernandez Gonzalez
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P.O. Box 15822
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RE: **Expedited Approval for Continuing Review**
IRB#: CR1_Pro00035126
Title: Play Behaviors in Latino Dual Language Learners: The Relationship between Maternal Characteristics and Classroom Peer Play

Study Approval Period: 5/24/2019

Dear Ms. Hernandez Gonzalez:

On 5/1/2019, the Institutional Review Board (IRB) reviewed and **APPROVED** the above application and all documents contained within including those outlined below. **Please note this study is approved under the 2018 version of 45 CFR 46 and you will be asked to confirm ongoing research annually in place of a full Continuing Review. Amendments and Reportable Events must still be submitted per USF HRPP policy.**

Approved Item(s):

Protocol Document(s):
Play Behaviors in Latino Dual Language Learners USF IRB PROTOCOL V0.04 5.5.18.docx

The IRB determined that your study qualified for expedited review based on federal expedited category number(s):

(5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis).

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

The PI used an unstamped consent form with which to consent subjects. There are no differences between the approved stamped version and the unstamped version signed by the subjects. This non-compliance was not serious and not continuing. No further action is needed.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with USF HRPP policies and procedures and as approved by the USF IRB. Any changes to the approved research must be submitted to the IRB via an Amendment for review and approval. Additionally, all unanticipated problems must be reported to the USF IRB within five (5) business days.

We appreciate your dedication to the ethical conduct of human subjects research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

Kristen Salomon, Ph.D.,
Chairperson USF Institutional
Review Board

APPENDIX B:

INFORMED CONSENTS

Parental Permission for Children and Informed Consent to Participate in Research Involving Minimal Risk

Pro # 00035126

You and your child are being asked to take part in a research study. Research studies include only people who choose to take part. This document is called an informed consent form. Please read this information carefully and take your time making your decision. Ask the researcher or study staff to discuss this consent form with you, please ask him/her to explain any words or information you do not clearly understand.

We are asking you to take part in a research study called:

Play Behaviors in Latino Dual Language Learners: The Relationship between Maternal Characteristics and Classroom Peer Play

The person who is in charge of this research study is Olivia Hernandez Gonzalez**.** This person is called the Principal Investigator. However, other research staff may be involved and can act on behalf of the person in charge. She is being guided in this research by Drs. Lisa Lopez and Kathy Bradley-Klug.

The research will be conducted at Head Start Centers.

Purpose of the study

The purpose of the current study is to identify the maternal characteristics that may predict play behaviors in Hispanic/Latino children.

Why are you being asked to take part?

We are asking you to take part in this research study because you are the mother of a Hispanic/Latino child who attends Head Start.

Study Procedures:

If you take part in this study, you will be asked to:

- Complete a survey packet, which includes a demographic questionnaire, parenting practices, acculturation, and depression symptoms rating scales.
- Spend approximately 30 to 40 minutes of your time to complete the survey packet individually or in small group format.

If your child takes part in this study:

- His/Her teacher will be asked to complete a classroom peer play questionnaire regarding your child's behavior during play.
- Head Start administrators will provide his/her scores on the oral language/vocabulary subtest of the Voluntary Prekindergarten (VPK) Assessments and his/her classroom's score on the Classroom Assessment Scoring System (CLASS).

• Total Number of Participants

- About 240 children, 240 mothers, and 20 teachers will take part in this study at Head Start Centers.
-

• Alternatives / Voluntary Participation / Withdrawal

- You or your child do not have to participate in this research study.
- You or your child should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study.

• Benefits

- You or your child will receive no benefit(s) by participating in this research study.
-

- ## Risks or Discomfort

- This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you or your child face every day. There are no known additional risks to those who take part in this study.
-

- ## Compensation

- You or your child will receive no payment or other compensation for taking part in this study.

- ## Costs

- It will not cost you or your child anything to take part in the study.

Confidentiality

We will keep your study records and your child study records private and confidential unless you express thoughts of death or suicide on the QIDS-SR16 question 12. If you rated yourself as 1, 2, or 3 in QIDS-SR16 item 12, we would report to Head Start mental health professionals at the centers to make sure you receive help immediately.

Additionally, certain people may need to see your study records and your child study records. Anyone who looks at your records must keep them confidential. These individuals include:

- The research team, including the Principal Investigator, study coordinator,
- government and university people who need to know more about the study, and individuals who provide oversight to ensure that we are doing the study in the rightway.
- Any agency of the federal, state, or local government that regulates this research.
- The USF Institutional Review Board (IRB) and related staff who have oversight responsibilities for this study, including staff in USF Research Integrity and Compliance.

We may publish what we learn from this study. If we do, we will not include your name or your child's name. We will not publish anything that would let people know who you are who your child is.

You can get the answers to your questions, concerns, or complaints

If you have any questions, concerns or complaints about this study, call Olivia Hernandez Gonzalez at (813) 428-8139.

If you have questions about your child's rights, or have complaints, concerns or issues you want to discuss with someone outside the research, call the USF IRB at (813) 974-5638 or contact by email at RSCH-IRB@usf.edu.

Parental Consent and Consent to Take Part in this Research Study

I freely give my consent to take part in this study and to let my child take part in this study. I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

_____ _____

Signature of Person and Parent of Child Taking Part in Study Date

_____

Printed Name of Person and Parent of Child Taking Part in Study

_____

Printed Name of Child Taking Part in Study

Statement of Person Obtaining Informed Consent

I have carefully explained to the person and parent of child taking part in the study what he or she can expect from their participation. I confirm that this research subject speaks the language that was used to explain this research and is receiving an informed consent form in their primary language. This research subject has provided legally effective informed consent.

_____ _____

Signature of Person obtaining Informed Consent Date

_____

Printed Name of Person Obtaining Informed Consent

_____

Center

UNIVERSITY OF SOUTH FLORIDA

Permiso de los padres y consentimiento informado para participar en investigación que involucra riesgos mínimos

Pro # 00035126

Usted y su hijo/a son invitados a participar de un estudio de investigación. Los estudios de investigación incluyen sólo a personas que deciden participar. Este documento se denomina formulario de consentimiento informado. Por favor, lea esta información atentamente y tómese el tiempo necesario para decidir. Pídale al investigador o al personal del estudio que hable con usted acerca de este formulario. Por favor, pídale que le explique todas las palabras o la información que no entienda con claridad.

Le invitamos a participar de un estudio de investigación llamado:

Comportamientos del Juego de Niños Latinos que Aprenden Dos Idiomas: La Relación entre las Características Maternas y el Juego entre Estudiantes en el Aula

La persona a cargo de este estudio es Olivia Hernandez Gonzalez. Esta persona se denomina el Investigador Principal. Sin embargo, otro personal del estudio también podrá participar y podrá actuar en nombre de la persona a cargo. Ella es dirigida en esta investigación por las doctoras Lisa López y Kathy Bradley-Klug.

El estudio se llevará a cabo en los centros de Head Start.

Propósito del estudio

El propósito del presente estudio es identificar las características maternas que pueden predecir comportamientos de juego en niños hispanos/latinos.

¿Por qué se le invita a participar?

Le invitamos a participar de este estudio porque usted es la madre de un niño hispano/latino que asiste a Head Start.

Procedimientos del estudio:

Si usted participa de este estudio, se le pedirá que:

- Complete un paquete de encuesta, que incluye un cuestionario demográfico, prácticas de crianza, aculturación y escalas de calificación de síntomas depresión.

- Dedique aproximadamente de 30 a 40 minutos de su tiempo para completar el paquete de la encuesta individualmente o en un grupo pequeño.

Si su hijo/a participa en este estudio:

- Se le pedirá a su maestro/a que complete un cuestionario con respecto al comportamiento de su hijo durante el juego.
- Los administradores de Head Start proporcionarán sus puntajes de su hijo/a en el examen de lenguaje oral /vocabulario de las evaluaciones de prescolar y los puntajes del aula/salón desu hijo/a en el sistema de puntaje de evaluación del salón de clase (CLASS).

Cantidad total de participantes

Alrededor de 240 niños, 240 madres, y 20 maestros participarán en este estudio en los Centros Head Start.

Alternativas / Participación voluntaria / Retiro

Usted o su hijo/a no tiene obligación de participar de este estudio.

Usted o su hijo sólo deben participar de este estudio si desea ofrecerse en forma voluntaria. No debe sentirse presionado a participar del mismo. Usted es libre de participar de este estudio o retirarse en cualquier momento. No habrá sanciones ni pérdidas de beneficios a los que tiene derecho si deja de participar de este estudio.

Beneficios

Usted no recibirá beneficio(s) por participar en este estudio de investigación.

Riesgos o molestias

Esta investigación se considera de riesgo mínimo. Es decir, que los riesgos que se asocian a la misma son los mismos que enfrenta cada día. No se conocen riesgos adicionales para quienes participan de este estudio.

Compensación

Usted no recibirá ningún pago ni otro tipo de compensación por participar de este estudio.

Costos

No le costará nada a usted o a su hijo/a participar de este estudio.

Privacidad y confidencialidad

Mantendremos la privacidad y confidencialidad de los registros del estudio de usted y su hijo privados y confidenciales a menos que exprese pensamientos de muerte o suicidio en la pregunta 12 del cuestionario QIDS-SR16. Si califica la pregunta 12 del cuestionario QIDS-SR16 como 1, 2 o 3, le informaremos a los trabajadores de salud mental de los centros de Head Start para asegurarse de que usted reciba ayuda inmediatamente.

Es posible que determinadas personas accedan a sus registros del estudio. Toda persona que acceda a sus registros debe mantenerlos en forma confidencial. Estos individuos incluyen:

- El equipo del estudio, incluido el Investigador Principal, el coordinador del estudio, enfermeros de investigación y demás personal de investigación.
- Determinado personal del gobierno o la universidad que necesitan saber más acerca del estudio e individuos que supervisan para asegurarse de que realicemos el estudio de manera correcta.
- Toda agencia del gobierno federal, estatal o local que regule esta investigación.
- La Comisión de Revisión Institucional (IRB, en inglés) de la USF y personal relacionado que tenga responsabilidades de supervisión para este estudio, incluido personal de Integridad y Conformidad de Investigaciones de la USF.

Podremos publicar lo que aprendamos con este estudio. Si lo hacemos, no incluiremos su nombre o el de su hijo/a. No publicaremos nada que permita a los demás saber quién es usted o su hijo/a.

Usted puede recibir respuestas a sus preguntas, inquietudes o denuncias

Si tiene preguntas, inquietudes o denuncias acerca del estudio, o experimenta algún problema imprevisto, llame a Olivia Hernandez Gonzalez al (813) 428-8139.

Si tiene preguntas acerca de sus derechos como participante de este estudio, o si desea realizar alguna denuncia, tiene problemas o inquietudes que desea discutir con alguien externo a la investigación, llame a la IRB de la USF al (813) 974-5638 o contáctese por correo electrónico RSCH-IRB@usf.edu.

Permiso de los Padres y Consentimiento para participar de este estudio de investigación

Otorgo mi consentimiento libremente para participar de este estudio y para que mi hijo/a participe. Entiendo que al firmar este formulario acepto participar de este estudio y que mi hijo/a también participe. He recibido una copia de este formulario para mí.

_____ _____

Firma de la persona y padre del niño/a que participa del estudio Fecha

_____

Nombre en imprenta de la persona y padre del niño/a que participa del estudio

_____

Nombre del niño/a que participa del estudio

Declaración de la persona que obtiene el consentimiento informado

Le he explicado cuidadosamente a la persona que participa del estudio lo que puede esperar de su participación. Confirmo que el sujeto del estudio habla el idioma que se usó para explicar la investigación y que recibe un formulario de consentimiento informado en su idioma principal. El sujeto de este estudio ha dado un consentimiento informado con validez legal.

_____ _____

Firma de la persona que obtiene el consentimiento informado Fecha

_____

Nombre en imprenta de la persona que obtiene el consentimiento informado

_____

Centro

UNIVERSITY OF SOUTH FLORIDA

Informed Consent to Participate in Research Involving Minimal Risk

Pro # 00035126

You are being asked to take part in a research study. Research studies include only people who choose to take part. This document is called an informed consent form. Please read this information carefully and take your time making your decision. Ask the researcher or study staff to discuss this consent form with you, please ask him/her to explain any words or information you do not clearly understand.

We are asking you to take part in a research study called:

Play Behaviors in Latino Dual Language Learners: The Relationship between Maternal Characteristics and Classroom Peer Play

The person who is in charge of this research study is Olivia Hernandez Gonzalez**.** This person is called the Principal Investigator. However, other research staff may be involved and can act on behalf of the person in charge. She is being guided in this research by Drs. Lisa Lopez and Kathy Bradley-Klug.

The research will be conducted at Head Start Centers.

Purpose of the study

The purpose of the current study is to identify the maternal characteristics that may predict play behaviors in Hispanic/Latino children.

Why are you being asked to take part?

We are asking you to take part in this research study because you are the teacher of Hispanic/Latino children attending Head Start.

Study Procedures:

If you take part in this study, you will be asked to:

- Complete a demographic questionnaire.
- Fill out one teacher version of the Penn Interactive Peer Play Scale per child participant.
- Spend five minutes of your time per child rating scale and five extra minutes for your demographic questionnaire.

Total Number of Participants

About 240 children, 240 mothers, and 20 teachers will take part in this study at Head Start Centers.

Alternatives / Voluntary Participation / Withdrawal

You do not have to participate in this research study.

You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study.

Benefits

You will receive no benefit(s) by participating in this research study.

Risks or Discomfort

This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you face every day. There are no known additional risks to those who take part in this study.

Compensation

You will receive no payment or other compensation for taking part in this study.

Costs

It will not cost you anything to take part in the study.

Privacy and Confidentiality

We will keep your study records private and confidential. Certain people may need to see your study records. Anyone who looks at your records must keep them confidential. These individuals include:

- The research team, including the Principal Investigator, study coordinator,
- Certain government and university people who need to know more about the study, and individuals who provide oversight to ensure that we are doing the study in the rightway.

- Any agency of the federal, state, or local government that regulates this research.
- The USF Institutional Review Board (IRB) and related staff who have oversight responsibilities for this study, including staff in USF Research Integrity and Compliance.

We may publish what we learn from this study. If we do, we will not include your name. We will not publish anything that would let people know who you are.

You can get the answers to your questions, concerns, or complaints

If you have any questions, concerns or complaints about this study, call Olivia Hernandez Gonzalez at (813) 428-8139.

If you have questions about your child's rights, or have complaints, concerns or issues you want to discuss with someone outside the research, call the USF IRB at (813) 974-5638 or contact by email at RSCH-IRB@usf.edu.

Consent to Take Part in this Research Study

I freely give my consent to take part in this study. I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

_____ _____

Signature of Person Taking Part in Study Date

_____

Printed Name of Person Taking Part in Study

_____

Center

_____

Class

Statement of Person Obtaining Informed Consent

I have carefully explained to the person taking part in the study what he or she can expect from their participation. I confirm that this research subject speaks the language that was used to explain this research and is receiving an informed consent form in their primary language. This research subject has provided legally effective informed consent.

_____ _____

Signature of Person obtaining Informed Consent Date

Printed Name of Person Obtaining Informed Consent

APPENDIX C:

MOTHERS' SURVEY PACKAGE (ENGLISH)

Child and Maternal Demographics

Child

Today's Date: _____

1) What is your child's birthday?

Month	Day	Year

2) What is your child's ethnicity?

O White (not of Hispanic origin)
O Black (not of Hispanic origin)
O Hispanic
O American Indian or Alaskan Native
O Asian or Pacific Islander
O Other
O Unknown

3) In what country was your child born?

O United States or U.S. Territory (NOT Puerto Rico).
O Puerto Rico
O Colombia
O Cuba
O Dominican Republic
O Ecuador
O El Salvador
O Guatemala
O Nicaragua
O Honduras
O Mexico
O Peru
O Spain
O Other country: _____

4) If your child was born outside the U.S., how old was he/she when he/she first came to the U.S.?

O less than a year
O 1 year
O 2 years
O 3 years
O 4 years

Mother

5) What is your relationship to this child?

O Mother
O Father
O Stepmother
O Stepfather
O Aunt
O Uncle
O Grandmother
O Grandfather
O Other
Please specify: _____

6) How old are you? _____

7) What is your relationship status?

O Single (Never Married).
O Married
O Living Together (Not Married)
O Separated
O Divorced
O Widow

8) In what country or U.S. territory were you born?

O United States or U.S. Territory (NOT Puerto Rico).
O Puerto Rico
O Colombia
O Cuba
O Dominican Republic
O Ecuador
O El Salvador
O Guatemala
O Nicaragua
O Honduras
O Mexico
O Peru
O Spain
O Other country: _____

9) How old were you when you came to the U.S. for first time? _____

10) How many years have you been living in the U.S.? _____

11) Do you speak any other language or dialect?

- O Yes
- O No

12) If yes, which one? _____

13) Do you use that language/dialect when you speak to your child?

- O Yes
- O No

14) What is the highest grade or year of school have you completed?

- O None
- O Some elementary school (Grades 1-6)
- O Completed elementary school (to Grade 6)
- O Some high school (Grades 7-12)
- O Completed high school (To Grade 12)
- O GED Certificate
- O Vocational/Trade School
- O Some community college
- O Completed two years of community college
- O Some college or university, NOT College or trade school
- O Completed 4-year College
- O Some graduate level education after college (masters)
- O Completed graduate level education after college (masters)
- O Completed graduate level education after college (doctorate)

15) Overall, how many years of formal education have you completed? _____

16) Are you a student?

- O Yes
- O No

17) Do you have a job?

- O Yes, full time
- O Yes, part time
- O No, I do not work

18) If you work, what is your occupation? _____

19) If you were born outside the U.S., did you have a job in your native country?

- O Yes
- O No

20) If you worked in your native country, what was your job?

_____

Home

21) How many children (under 18) live in your home?

□□□□□□□□□□□□□□□□□□□□ (Other) How many? _____

22) How many people (counting all children and adults) live in your home?

□□□□□□□□□□□□□□□□□□□□ (Other) How many? _____

23) Does the child's FATHER lives in your home?

O Yes
O No

24) Which of the following ranges best describe the current annual income of your household?

O under 10,000
O 10,000 - 19,999
O 20,000 - 29,999
O 30,000 - 39,999
O 40,000 - 49,999
O 50,000 - 59,999
O 60,000 - 69,999
O 70,000 - 79,999
O over 80,000

Bidimensional Acculturation Scale for Hispanics (BAS; English)

Language Use Subscale	Almost never	Sometimes	Often	Almost always
1. How often do you speak English?	1	2	3	4
2. How often do you speak in English with your friends?	1	2	3	4
3. How often do you think in English?	1	2	3	4
4. How often do you speak Spanish?	1	2	3	4
5. How often do you speak in Spanish with your friends?	1	2	3	4
6. How often do you think in Spanish?	1	2	3	4

Linguistic Proficiency Subscale	Very poorly	Poorly	Well	Very well

7. How well do you speak English?	1	2	3	4
8. How well do you read in English?	1	2	3	4
9. How well do you understand TV programs in English?	1	2	3	4
10. How well do you understand radio programs in English?	1	2	3	4
11. How well do you write in English?	1	2	3	4
12. How well do you understand music in English?	1	2	3	4
13. How well do you speak Spanish?	1	2	3	4
14. How well do you read in Spanish?	1	2	3	4
15. How well do you understand TV programs in Spanish?	1	2	3	4
16. How well do you understand radio programs in Spanish?	1	2	3	4
17. How well do you write in Spanish?	1	2	3	4
18. How well do you understand music in Spanish?	1	2	3	4

Electronic Media Subscale	**Almost never**	**Sometimes**	**Often**	**Almost always**
19. How often do you watch TV programs in English?	1	2	3	4
20. How often do you listen to radio programs in English?	1	2	3	4
21. How often do you listen to music in English?	1	2	3	4
22. How often do you watch TV programs in Spanish?	1	2	3	4
23. How often do you listen to radio programs in Spanish?	1	2	3	4
24. How often do you listen to music in Spanish?	1	2	3	4

Marín, G., & Gamba, R. J. (1996). A new measurement of acculturation for Hispanics: The bidimensional acculturation scale for Hispanics (BAS). *Hispanic Journal of Behavioral Sciences, 18*, 297–316**.**

Parenting Style Questionnaire (English)

Please rate how often you engage in the different parenting practices. Scores range from "Never" to "Always" on a 5-point scale.

Authoritative Parenting Style	Never	Once in a While	About Half of the Time	Very Often	Always
1. I am responsive to my child's feelings and needs:	1	2	3	4	5
2. I take my child's wishes into consideration before I ask him/her to do something:	1	2	3	4	5
3. I explain to my child how I feel about his/her good/bad behavior:	1	2	3	4	5
4. I encourage my child to talk about his/her feelings and problems:	1	2	3	4	5
5. I encourage my child to freely "speak his/her mind", even if he/she disagrees with me:	1	2	3	4	5
6. I explain the reasons behind my expectations:	1	2	3	4	5
7. I provide comfort and understanding when my child is upset:	1	2	3	4	5
8. I compliment my child:	1	2	3	4	5
9. I consider my child's preferences when I make plans for the family (e.g., weekends away and holidays):	1	2	3	4	5
10. I respect my child's opinion and encourage him/her to express them:	1	2	3	4	5
11. I treat my child as an equal member of the family:	1	2	3	4	5
12. I provide my child reasons for the expectations I have for him/her:	1	2	3	4	5
13. I have warm and intimate times together with my child:	1	2	3	4	5

Authoritarian Parenting Style	Never	Once in a While	About Half of the Time	Very Often	Always
1. When my child asks me why he/she has to do something I tell him/her it is because I said so, I am your parent, or because that is what I want:	1	2	3	4	5
2. I punish my child by taking privileges away from him/her (e.g., TV, games, visiting friends):	1	2	3	4	5
3. I yell when I disapprove of my child's behavior:	1	2	3	4	5
4. I explode in anger towards my child:	1	2	3	4	5
5. I spank my child when I don't like what he/she does or says:	1	2	3	4	5
6. I use criticism to make my child improve his/her behavior:	1	2	3	4	5
7. I use threats as a form of punishment with little or no justification:	1	2	3	4	5
8. I punish my child by withholding emotional expressions (e.g., kisses and cuddles):	1	2	3	4	5
9. I openly criticize my child when his/her behavior does not meet my expectations:	1	2	3	4	5
10. I find myself struggling to try to change how my child thinks or feels about things:	1	2	3	4	5
11. I feel the need to point out my child's past behavioral problems to make sure he/she will not do them again:	1	2	3	4	5
12. I remind my child that I am his/her parent:	1	2	3	4	5
13. I remind my child of all the things I am doing and I have done for him/her:	1	2	3	4	5

Based on: Robinson, C., Mandleco, B., Olsen, S. F., & Hart, C. H. (1995). Authoritative, authoritarian, and permissive parenting practices: Development of a new measure. Psychological Reports,

Quick Inventory of Depressive Symptomatology (QIDS-SR$_{16}$)

Please circle the one response to each item that best describes you for the past seven day

1. Falling Asleep:

0 I never take longer than 30 minutes to fall asleep.

1 I take at least 30 minutes to fall asleep, less than half the time.

2 I take at least 30 minutes to fall asleep, more than half the time.

3 I take more than 60 minutes to fall asleep, more than half the time.

2. Sleep During the Night:

0 I do not wake up at night.

1 I have a restless, light sleep with a few brief awakenings each night.

2 I wake up at least once a night, but I go back to sleep easily.

3 I awaken more than once a night and stay awake for 20 minutes or more, more than half the time.

3. Waking Up Too Early:

0 Most of the time, I awaken no more than 30 minutes before I need to get up.

1 More than half the time, I awaken more than 30 minutes before I need to get up.

2 I almost always awaken at least one hour or so before I need to, but I go back to sleep eventually.

3 I awaken at least one hour before I need to, and can't go back to sleep.

4. Sleeping Too Much:

0 I sleep no longer than 7-8 hours/night, without napping during the day.

1 I sleep no longer than 10 hours in a 24-hour period including naps.

2 I sleep no longer than 12 hours in a 24-hour period including naps.

3 I sleep longer than 12 hours in a 24-hour period including naps.

5. Feeling Sad:

0 I do not feel sad

1 I feel sad less than half the time.

2 I feel sad more than half the time.

3 I feel sad nearly all of the time.

6. Decreased Appetite:

0 There is no change in my usual appetite.

1 I eat somewhat less often or lesser amounts of food than usual.

2 I eat much less than usual and only with personal effort.

3 I rarely eat within a 24-hour period, and only with extreme personal effort or when others persuade me to eat.

7. Increased Appetite:

0 There is no change from my usual appetite.

1 I feel a need to eat more frequently than usual.

2 I regularly eat more often and/or greater amounts of food than usual.

3 I feel driven to overeat both at mealtime and between meals.

8. Decreased Weight (Within the Last Two Weeks):

0 I have not had a change in my weight.

1 I feel as if I've had a slight weight loss.

2 I have lost 2 pounds or more.

3 I have lost 5 pounds or more.

9. Increased Weight (Within the Last Two Weeks):

0 I have not had a change in my weight.

1 I feel as if I've had a slight weight gain.

2 I have gained 2 pounds or more.

3 I have gained 5 pounds or more.

10. Concentration/Decision Making:

0 There is no change in my usual capacity to concentrate or make decisions.

1 I occasionally feel indecisive or find that my attention wanders.

2 Most of the time, I struggle to focus my attention or to make decisions.

3 I cannot concentrate well enough to read or cannot make even minor decisions.

11. View of Myself:

0 I see myself as equally worthwhile and deserving as other people.

1 I am more self-blaming than usual.

2 I largely believe that I cause problems for others.

3 I think almost constantly about major and minor defects in myself.

12. Thoughts of Death or Suicide:

0 I do not think of suicide or death.

1 I feel that life is empty or wonder if it's worth living.

2 I think of suicide or death several times a week for several minutes.

3 I think of suicide or death several times a day in some detail, or I have made specific plans for suicide or have actually tried to take my life.

13. General Interest:

0 There is no change from usual in how interested I am in other people or activities.

1 I notice that I am less interested in people or activities.

2 I find I have interest in only one or two of my formerly pursued activities.

3 I have virtually no interest in formerly pursued activities.

14. Energy Level:

0 There is no change in my usual level of energy.
1 I get tired more easily than usual.

2 I have to make a big effort to start or finish my usual daily activities (for example, shopping, homework, cooking or going to work).

3 I really cannot carry out most of my usual daily activities because I just don't have the energy.

15. Feeling slowed down:

0 I think, speak, and move at my usual rate of speed.

1 I find that my thinking is slowed down or my voice sounds dull or flat.

2 It takes me several seconds to respond to most questions and I'm sure my thinking is slowed.

3 I am often unable to respond to questions without extreme effort.

16. Feeling restless:

0 I do not feel restless.

1 I'm often fidgety, wringing my hands, or need to shift how I am sitting.

2 I have impulses to move about and am quite restless.

3 At times, I am unable to stay seated and need to pace around.

APPENDIX D:

MOTHERS' SURVEY PACKAGE (SPANISH)

Child and Maternal Demographics

Hijo

Fecha de Hoy: _____

1) ¿Cuál es la fecha de nacimiento de su hijo/a)?

Mes	Día	Año

2) ¿Cuál identidad étnica escogería usted para su hijo/a?

O Blanco (no de origen Hispano)
O Negro (no de origen Hispano)
O Hispano
O Indio Americano o nativo de Alaska
O asiático o Isleño del Pacífico
O Otro
O Desconocido

3) ¿En qué país nació su hijo/a?

O Estados Unidos o territorio americano (NO Puerto Rico).
O Puerto Rico
O Colombia
O Cuba
O República Dominicana
O Ecuador
O El Salvador
O Guatemala
O Nicaragua
O Honduras
O México

O Perú
O España
O Otro país: _____

4) Si su hijo/a nació fuera de los Estados Unidos, ¿Cuántos años tenía su hijo/a cuando vino a los Estados Unidos la primera vez?

O menos de un año
O un año
O 2 años
O 3 años
O 4 años

Madre

5) ¿Cuál es su parentesco con el niño/a?

O Mamá
O Papá
O Madrastra
O Padrastro
O Tía
O Tío
O Abuela
O Abuelo
O Otro - por favor
Especifique cuál: _____

6) ¿Cuántos años usted tiene? _____

7) ¿Cuál es su estado civil?

O Soltera (si nunca se ha casado).

O Casada

O Vive con su pareja (sin estar casados)

O Separada (si está separada de su cónyuge).

O Divorciada

O Viuda

8) ¿En país usted nació?

O Estados Unidos o territorio americano (NO Puerto Rico).
O Puerto Rico
O Colombia
O Cuba
O República Dominicana
O Ecuador
O El Salvador
O Guatemala

O Nicaragua
O Honduras
O México
O Perú
O España
O Otro país: _____

9) ¿Cuántos años tenía cuando vino a los Estados por primera vez? _____

10) ¿Cuántos años ha estado en los Estados Unidos? _____

11) ¿Habla algún otro idioma?

O Sí

O No

12) Si Sí, ¿Cuál? _____

13) ¿Usa ese idioma cuando habla con su hijo/a?

O Sí

O No

14) ¿Cuál es el nivel de escuela más alto que ha completado?

O Nada
O Un poco de escuela primaria (grados 1-6)
O Completó escuela primaria (hasta el grado 6)
O Alguna escuela secundaria (secundaria y/o preparatoria) (grados 7-12)
O Completó la escuela secundaria (secundaria y/o preparatoria) (hasta el grado 12)
O Certificado de GED
O Vocacional / escuela de formación profesional (técnica / vocacional de formación, NO universitaria)
O Algún otro instituto de enseñanza superior (NO universidad)
O Completó 2 años del instituto de enseñanza superior (NO universidad)
O Alguna universidad, NO escuela vocacional o la escuela de formación profesional (universidad)
O Completó la universidad, colegio de 4-años, o licenciatura
O Un poco de educación a nivel superior (maestría o doctorado)
O Completó un diplomado de educación al nivel superior (maestría o doctorado)

15) ¿En general, cuántos años de educación académica ha terminado? _____

16) ¿Asiste a la escuela actualmente?

O Si

O No

17) ¿Tiene algún trabajo o trabajos?

O Sí, trabaja tiempo completo
O Sí, trabaja tiempo parcial
O No, no tiene ningún trabajo (s) actualmente

18) Si trabaja. ¿Cuál es su ocupación? _____

29) ¿Trabajó en su país de origen?

O Si

O No

20) Si trabajó en su país de origen, ¿Cuál era su trabajo? _____

Hogar

21) ¿Cuántos niños - menores de 18 – viven en su hogar?

□□□□□□□□□□□□□□□□□□□□O Otro _____

22) ¿Cuántas personas (incluyendo todos los niños y adultos) viven en su hogar?

□□□□□□□□□□□□□□□□□□□□O Otro _____

23) ¿Vive el PADRE del niño en su hogar?

O Sí

O No

24) ¿Cuál de las siguientes opciones es el ingreso anual en su familia actualmente?

O menos de 10,000
O 10,000 - 19,999
O 20,000 - 29,999
O 30,000 - 39,999
O 40,000 - 49,999
O 50,000 - 59,999
O 60,000 - 69,999
O 70,000 - 79,999
O 80,000 o más

Bidimensional Acculturation Scale for Hispanics (BAS, Spanish)

Escala de Uso del Idioma	Casi Nunca	A Veces	A Menudo	Casi Siempre
1. ¿Con qué frecuencia habla usted inglés?	1	2	3	4
2. ¿Con qué frecuencia habla usted en inglés con sus amigos?	1	2	3	4
3. ¿Con qué frecuencia piensa usted en inglés?	1	2	3	4
4. ¿Con qué frecuencia habla usted español?	1	2	3	4
5. ¿Con qué frecuencia habla usted en español con sus amigos?	1	2	3	4
6. ¿Con qué frecuencia piensa usted en español?	1	2	3	4

Escala de Habilidad en el Idioma	Muy Mal	Mal	Bien	Muy bien
7. ¿Qué tan bien habla usted inglés?	1	2	3	4
8. ¿Qué tan bien lee usted en inglés?	1	2	3	4
9. ¿Qué tan bien entiende usted los programas de televisi6n en inglés?	1	2	3	4
10. ¿Qué tan bien entiende usted los programas de radio en inglés?	1	2	3	4
11. ¿Qué tan bien escribe usted en inglés?	1	2	3	4
12. ¿Qué tan bien entiende usted música en inglés?	1	2	3	4
13. ¿Qué tan bien habla usted español?	1	2	3	4
14. ¿Qué tan bien lee usted en español?	1	2	3	4
15. ¿Qué tan bien entiende usted los programas de televisión en español?	1	2	3	4
16. ¿Qué tan bien entiende usted los programas de radio en español?	1	2	3	4

17. ¿Qué tan bien escribe usted en español?	1	2	3	4
18. ¿Qué tan bien entiende usted música en español?	1	2	3	4

Escala de Medios Electrónicos	**Casi Nunca**	**A Veces**	**A Menudo**	**Casi Siempre**
19. ¿Con qué frecuencia ve usted programas de televisión en inglés?	1	2	3	4
20. ¿Con qué frecuencia escucha usted programas de radio en inglés?	1	2	3	4
21. ¿Con qué frecuencia escucha usted música en inglés?	1	2	3	4
22. ¿Con qué frecuencia ve usted programas de televisión en español?	1	2	3	4
23. ¿Con qué frecuencia escucha usted programas de radio en español?	1	2	3	4
24. ¿Con qué frecuencia escucha usted música en español?	1	2	3	4

Marín, G., & Gamba, R. J. (1996). A new measurement of acculturation for Hispanics: The bidimensional acculturation scale for Hispanics (BAS). *Hispanic Journal of Behavioral Sciences, 18*, 297–316.

Parenting Style Questionnaire (Spanish)

Diga con qué frecuencia participa en las diferentes prácticas de crianza. Los puntajes van desde "Nunca" hasta "Siempre" en una escala de 5 puntos.

Authoritative Parenting Style	**Nunca**	**Uno que Otra Vez**	**La mitad del tiempo**	**Casi Siempre**	**Siempre**
1. Soy receptivo a los sentimientos y necesidades de mi hijo/a:	1	2	3	4	5
2. Tomo en cuenta los deseos de mi hijo/a antes de pedirle que haga algo:	1	2	3	4	5
3. Le explico a mi hijo/a cómo me siento sobre su comportamiento bueno / malo:	1	2	3	4	5

4. Animo a mi hijo/a a hablar sobre sus sentimientos y problemas:	1	2	3	4	5
5. Animo a mi hijo/a a "hablar libremente", incluso si no está de acuerdo conmigo:	1	2	3	4	5
6. Explico las razones detrás de mis expectativas:	1	2	3	4	5
7. Proporciono comodidad y comprensión cuando mi hijo/a está molesto/a:	1	2	3	4	5
8. Elogio a mi hijo/a:	1	2	3	4	5
9. Considero las preferencias de mi hijo/a cuando hago planes para la familia (Ej., Los fines de semana y vacaciones):	1	2	3	4	5
10. Respeto la opinión de mi hijo/a y lo/a aliento a que los exprese:	1	2	3	4	5
11. Trato a mi hijo como un miembro igual de la familia:	1	2	3	4	5
12. Proporciono a mi hijo las razones de las expectativas que tengo para él / ella:	1	2	3	4	5
13. Tengo momentos cariñosos e íntimos junto con mi hijo/a	1	2	3	4	5

Authoritarian Parenting Style	**Nunca**	**Uno que Otra Vez**	**La mitad del tiempo**	**Casi Siempre**	**Siempre**
1. Cuando mi hijo/a me pregunta por qué tiene que hacer algo, le digo que es porque yo lo digo, soy su madre, o porque eso es lo que quiero:	1	2	3	4	5
2. Castigo a mi hijo/a quitándole privilegios (por ejemplo, televisión, juegos, visitas de amigos):	1	2	3	4	5
3. Grito cuando desapruebo el comportamiento de mi hijo/a:	1	2	3	4	5
4. Exploto cuando estoy enojada con mi hijo/a:	1	2	3	4	5
5. Le pego a mi hijo/a cuando no me gusta lo que hace o dice:	1	2	3	4	5
6. Uso las críticas para que mi hijo/a mejore su comportamiento:	1	2	3	4	5

7. Uso amenazas como una forma de castigo con poca o ninguna justificación:	1	2	3	4	5
8. Castigo a mi hijo/a al retener expresiones emocionales (por ejemplo, besos y abrazos):	1	2	3	4	5
9. Critico abiertamente a mi hijo/a cuando su comportamiento no cumple mis expectativas:	1	2	3	4	5
10. Me encuentro luchando para tratar de cambiar la forma en que mi hijo/a piensa o siente sobre las cosas:	1	2	3	4	5
11. Siento la necesidad de señalar los problemas de conducta pasados de mi hijo/a para asegurarme de que él /ella no los hará de nuevo:	1	2	3	4	5
12. Le recuerdo a mi hijo que soy su madre:	1	2	3	4	5
13. Le recuerdo a mi hijo todo lo que estoy haciendo y lo he hecho por él / ella:	1	2	3	4	5

Permissive Parenting Style	**Nunca**	**Uno que Otra Vez**	**La mitad del tiempo**	**Casi Siempre**	**Siempre**
1. Me resulta difícil disciplinar/castigar a mi hijo/a:	1	2	3	4	5
2. Cedo ante mi hijo/a cuando da un berrinche/pataleta por algo:	1	2	3	4	5
3. Malcrío a mi hijo/a:	1	2	3	4	5
4. Ignoro el mal comportamiento de mi hijo/a:	1	2	3	4	5

Based on: Robinson, C., Mandleco, B., Olsen, S. F., & Hart, C. H. (1995). Authoritative, authoritarian, and permissive parenting practices: Development of a new measure. Psychological Reports, 77, 819-8

Quick Inventory of Depressive Symptomatology (QIDS-SR$_{16}$, Spanish)

Marque una X en la casilla al lado de la respuesta que lo/la describa mejor a usted durante los últimos 7 días.

Durante los últimos 7 días...

1. Quedarse dormido/a:

[0] ☐ Nunca me toma más de 30 minutos quedarme dormido/a.

[1] ☐ Me toma por lo menos 30 minutos quedarme dormido/a, menos de la mitad de las veces.

[2] ☐ Me toma por lo menos 30 minutos quedarme dormido/a, más de la mitad de las veces.

[3] ☐ Me toma más de 60 minutos quedarme dormido/a, más de la mitad de las veces.

2. Dormir durante la noche:

[0] ☐ No me despierto durante la noche.

[1] ☐ Tengo el sueño superficial, ligero, con pocos y breves despertares cada noche.

[2] ☐ Me despierto al menos una vez por noche, pero me vuelvo a dormir fácilmente.

[3] ☐ Me despierto más de una vez por noche y permanezco despierto/a durante 20 minutos o más, más de la mitad de las veces.

3. Despertarse demasiado temprano:

[0] ☐ La mayoría de las veces, me despierto no más de 30 minutos antes de lo necesario para levantarme.

[1] ☐ Más de la mitad de las veces, me despierto más de 30 minutos antes de lo necesario para levantarme.

[2] ☐ Casi siempre me despierto por lo menos una hora o alrededor de una hora antes de lo necesario, pero después de un rato me vuelvo a dormir.

[3] ☐ Me despierto al menos una hora antes de lo necesario y no me puedo volver a dormir.

4. Dormir demasiado:

[0] ☐ No duermo más de 7-8 horas por noche, sin hacer siestas durante el día.

[1] ☐ No duermo más de 10 horas en un periodo de 24 horas incluyendo las siestas.

[2] ☐ No duermo más de 12 horas en un periodo de 24 horas incluyendo las siestas.

[3] ☐ Duermo más de 12 horas en un periodo de 24 horas incluyendo las siestas.

Marque una X en la casilla al lado de la respuesta que lo/la describa mejor a usted durante los últimos 7 días.

Durante los últimos 7 días...

5. Sentirse triste:

[0] ☐ No me siento triste.

[1] ☐ Me siento triste menos de la mitad del tiempo.

[2] ☐ Me siento triste más de la mitad del tiempo.

[3] ☐ Me siento triste casi todo el tiempo.

Por favor responda la pregunta 6 o la 7 (no ambas)

6. Disminución del apetito:

[0] ☐ Mi apetito habitual no ha cambiado.

[1] ☐ Como con un poco menos de frecuencia o cantidades menores de comida que lo habitual.

[2] ☐ Como mucho menos que lo habitual y sólo con esfuerzo personal.

[3] ☐ Como muy pocas veces en un periodo de 24 horas, y sólo con gran esfuerzo personal o cuando otros me convencen para que coma.

- O -

7. Aumento del apetito:

[0] ☐ Mi apetito habitual no ha cambiado.

[1] ☐ Siento necesidad de comer con más frecuencia que lo habitual.

[2] ☐ Habitualmente como con más frecuencia y/o mayores cantidades de comida que lo habitual.

[3] ☐ Me siento impulsado/a a comer de más tanto a la hora de las comidas como entre las comidas.

10. Concentración/Toma de decisiones:

[0] ☐ No hay cambios en mi capacidad habitual para concentrarme o tomar decisiones.

[1] ☐ Ocasionalmente me siento indeciso/a o noto que mi capacidad de atención es limitada.

[2] ☐ La mayor parte del tiempo, lucho por centrar mi atención o tomar decisiones.

[3] ☐ No me puedo concentrar suficientemente bien para leer o no puedo tomar ni siquiera pequeñas decisiones.

11. Percepción de mí mismo/a:

[0] ☐ Me veo a mí mismo/a tan valioso/a y merecedor/a como el resto de las personas.

[1] ☐ Me siento más culpable que lo habitual.

[2] ☐ Creo en gran parte que le causo problemas a los demás.

[3] ☐ Pienso casi constantemente tanto en mis pequeños como en mis grandes defectos.

12. Pensamientos de muerte o de suicidio:

[0] No pienso en el suicidio o la muerte.

[1] Siento que la vida carece de sentido o me pregunto si vale la pena vivirla.

[2] He pensado en el suicidio o en la muerte varias veces en los últimos 7 dias durante varios minutos.

[3] Pienso en el suicidio o en la muerte con algún detalle varias veces al día, o he realizado planes específicos para suicidarme o realmente he intentado quitarme la vida.

13. Interés general:

[0] No hay cambios fuera de lo habitual en mi interés en los demás o en actividades.

[1] Noto que estoy menos interesado/a en los demás o en actividades.

[2] Encuentro que tengo interés sólo en una o dos de las actividades que solía realizar anteriormente.

[3] Prácticamente no tengo interés en las actividades que solía realizar anteriormente.

14. Nivel de energía:

[0] No hay cambios en mi nivel habitual de energía.

[1] Me canso más fácilmente que lo habitual.

[2] Tengo que hacer un gran esfuerzo para comenzar o finalizar mis actividades diarias habituales (por ejemplo, hacer las compras, las tareas para la casa, cocinar o ir a trabajar).

[3] Realmente no puedo llevar a cabo la mayoría de mis actividades diarias habituales porque no tengo energía.

15. Sentimiento de lentitud:

[0] ☐ Pienso, hablo y me muevo con el ritmo habitual.

[1] ☐ Encuentro que mi pensamiento es más lento o mi voz suena desanimada o apagada.

[2] ☐ Me toma varios segundos responder la mayoría de las preguntas y estoy seguro/a que estoy pensando más lento que lo habitual.

[3] ☐ Con frecuencia soy incapaz de responder preguntas sin tener que hacer un esfuerzo extremo.

16. Sentirse agitado:

[0] ☐ No me siento agitado/a.

[1] ☐ Con frecuencia me siento agitado/a, retuerzo las manos, o necesito cambiar de posición cuando estoy sentado/a.

[2] ☐ Siento el impulso de moverme de un lado a otro y me siento bastante agitado/a.

[3] ☐ A veces, soy incapaz de quedarme sentado/a y necesito caminar de un lado a otro.

APPENDIX E:

TEACHERS' SURVEY PACKAGE

Center: _____

Classroom: _____

1. What is your role in the classroom?
□ Lead teacher
□ Assistant teacher
□ Other (specify) _____

2. How many total years have you worked in a classroom?
_____

3. How do you identify your racial or ethnic background?
□ Latina/o or Hispanic
□ Caucasian or White (non-Hispanic)
□ Asian or Pacific Islander
□ Black or African American
□ Native American or American Indian and Alaskan Native
□ Multi-racial/Multi-ethnic (specify) _____
□Other (specify) _____

4. What is your highest completed educational degree? (Check one):

□ High School or GED
□ Associates degree
□ Bachelor's degree
□ Graduate degree
□ Other (specify) _____

5. What is your degree in?
□ Early Childhood Education
□ Elementary Education
□ Child Development
□ Psychology
□ Other _____

6. What institution was this degree obtained at?

_____

7. Are you ESOL certified?

□ Yes
□ No

8. How many hours of training have you received on working with ELL children and/or cultural competency training?

_____

9. Have you completed your CDA?

□ Yes
□ No

10. If NO: Are you working on completing your CDA?

□ Yes
□ No

11. How many years have you worked in a classroom with children who are second language learners?

_____

12. What language(s) do you speak?
Bubble the correct square concerning your proficiency level (limited, moderate, or fluent) for each of the languages. If you speak a language not indicated please add it under other.

Language	Not at all	limited	moderate	fluent
English	□	□	□	□
Spanish	□	□	□	□
French	□	□	□	□
Portuguese	□	□	□	□
Other_____	□	□	□	□

13. How many children are enrolled in your classroom right now?

_____

14. How many children enrolled in your classroom right now speak a language other than English at home?

_____

15. For how many of these children is Spanish one of the languages spoken at home

PENN INTERACTIVE PEER PLAY SCALE

Teacher Report

In the past few months, indicate how much you have observed the following behaviors in this child during free play by filling in the appropriate circle.

	NEVER	SELDOM	OFTEN	ALWAYS
1. Helps other children	O	O	O	O
2. Starts fights & arguments	O	O	O	O
3. Is rejected by others	O	O	O	O
4. Does not take turns	O	O	O	O
5. Hovers outside play group	O	O	O	O
6. Shares toys with other children	O	O	O	O
7. Withdraws	O	O	O	O
8. Demands to be in charge	O	O	O	O
9. Wanders aimlessly	O	O	O	O
10. Rejects the play ideas of others	O	O	O	O
11. Is ignored by others	O	O	O	O
12. Tattles	O	O	O	O
13. Helps settle peer conflicts	O	O	O	O
14. Destroys others' things	O	O	O	O
15. Disagrees without fighting	O	O	O	O

NEVER SELDOM OFTEN ALWAYS

Continue on the next page

	NEVER	SELDOM	OFTEN	ALWAYS
16. Refuses to play when invited	O	O	O	O
17. Needs help to start playing	O	O	O	O
18. Verbally offends others (name calling)	O	O	O	O
19. Directs others' action politely	O	O	O	O
20. Cries, whines, shows temper	O	O	O	O
21. Encourages others to join play	O	O	O	O
22. Grabs others' things	O	O	O	O
23. Comforts others who are hurt or sad	O	O	O	O
24. Confused in play	O	O	O	O
25. Verbalizes stories during play	O	O	O	O
26. Needs teacher's direction	O	O	O	O
27. Disrupts the play of others	O	O	O	O
28. Seems unhappy	O	O	O	O
29. Shows positive emotions during play (e.g. smiles, laughs)	O	O	O	O
30. Is physically aggressive	O	O	O	O
31. Shows creativity in making up play stories and activities	O	O	O	O
32. Disrupts class during transitions from one activity to another	O	O	O	O

| | NEVER | SELDOM | OFTEN | ALWAYS |