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Predictors of Latino Mothers' Involvement in their Children's Education

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Predictors of Latino Mothers' Involvement in their Children's Education

by

Liza M. Arango

Dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
Department of Psychological and Social Foundations
College of Education
University of South Florida

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Dedication

I want to dedicate this dissertation to my wonderful family. Particularly I have to thank my parents for their endless love and support throughout my life. Thank you both for all your prayers and for giving me strength to follow my dreams. To my big sister Andrea who has never left my side and has been extremely supportive. I must also thank and dedicate this dissertation to my future husband, Santiago, for his love, support, encouragement, patience and for always being there for me throughout the entire doctorate program.

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Abstract

Parental involvement has a major influence on students' academic and overall success; however, Latino parents tend to be less involved than non-Latino parents. Additionally, Latino students have higher dropout rates than other ethnic groups, and their continued underachievement is of great concern to many educators. The purpose of this study is to better understand Latino mothers' involvement and identify the precursor factors that may influence these mothers' involvement in their children's education. Specifically, the study investigated specific family factors that may potentially impact Latino mothers' involvement at school and at home (i.e., mothers' number of years residing in the U.S., mothers' English proficiency, mothers' level of education, and mothers' mental health). Parental involvement and family factors were evaluated using a demographic parent interview, while mothers' mental health was evaluated using the Brief Symptom Inventory (BSI). All participants (N = 165) were Latino mothers of children who attended Head Start programs or kindergarten in public schools in five counties in Florida. Hierarchical linear models were utilized to evaluate the relationship between the different family factors and Latino mothers' involvement at school and at home. Results indicated that at school involvement was correlated to some extent with mothers' English proficiency, mothers' education level, mothers' anxiety (panic), mothers' hostility, and mothers' paranoid ideation. Additionally, findings suggested that mothers' English proficiency increased the predicted at school involvement score for the

participants. The remainder predictors were not found to be statistically significant; thus further research must be conducted to examine and better understand parental involvement of Latino parents given that these parents are less likely to become involved in their children's education.

Chapter 1

Introduction

Statement of the Problem

Parental involvement. Research has reported that parental involvement has a major influence on all students' academic and overall success (Epstein & Sanders, 2000; Fan & Chen, 2001; Henderson & Mapp, 2002; Henrich & Gadaire, 2008; Weiss, Caspe, & Lopez, 2006). Multiple definitions have been shared about parental involvement. Definitions include the degree to which parents invest their time and energy to assist their children in their development and educational success (Grolnick, Kurowski, Dunlap, & Hevey, 2000; Grolnick & Slowiaczek, 1994); as well as a multidimensional construct involving partnerships between parents and schools in practices at home, at school, and in the community to help students succeed (Epstein, 2001). Students tend to be less likely to drop out of school when their parents are more involved in their education, regardless of their socioeconomic status (Henderson & Berla, 2002). Furthermore, children tend to perform better at school when their parents report higher levels of engagement in school-related activities with their children, such as talking to them about school, expecting them to do well, and developing plans with their children to go to college (Henderson, & Berla, 2002).

The literature on parental involvement frequently refers to an understanding of parental involvement as defined by Epstein's (2001) types of involvement. Epstein (1995; 2001) developed a family-school partnership model in which she identified six types of

parental involvement related to schooling. The forms of parental involvement suggested in Epstein's model can be nurtured and sustained in schools, and include basic obligations of parenting (e.g., providing for children's health and safety), communicating with schools (e.g., parent-teacher conferences), volunteering at schools (e.g., assist teachers, administrators and children in classrooms), learning at home (e.g., assist children at home on learning activities aligned with children's class work), decision making (e.g., parents having participatory roles in the advisory councils or other committees), and working together with the community and school (e.g., collaborating and exchanging information with community agencies). Epstein's model is based on the theory of overlapping spheres of home, school, and community, all of which impact students' development and learning (Epstein, 1995). Given the focus on at school and at home involvement in Epstein's model, the comprehensive approach of Epstein's (1995) definition of family-school partnerships as well as the extensive use of this model in the literature, Epstein's conceptualization of parental involvement will be used to better understand and disaggregate the different types of parental involvement activities at school and at home. Furthermore, given that families play a major role in the school-home partnerships (Epstein, 2001), and there is a strong connection between parental involvement and students' overall success (Epstein & Sanders, 2000; Fan & Chen, 2001; Henderson & Mapp, 2002; Henrich & Gadaire, 2008; Weiss, Caspe, & Lopez, 2006), these perspectives are used in order to consider how different family factors may impact parental involvement in schools and at home, specifically focusing on Latino parents' involvement.

Significance of Parental Involvement

The foremost benefit of creating home-school partnerships is that it helps students succeed in their educational careers as well as in their future lives (Epstein, 1995). It is critical to understand that increased efforts made by teachers to collaborate and try to involve parents in the students' educational experiences, the more likely parents are to be reciprocal on their efforts to become involved and collaborate with schools (Seitsinger, Felner, Brand, & Burns, 2008). An effective home-school partnership is likely to not only improve students' academic achievement, but at the same time, have a positive impact on schools and families (Epstein, 2001; Jordon, Orozco, & Averett, 2001). Christenson and Cleary (1990) stated that not only does students' academic achievement improve, but students are also more engaged, attendance rates increase, suspension rates decrease, parents communication with educators increase, and schools are rated as more effective when parental involvement takes place.

Moreover, parental involvement has been reported to have a significant impact on student achievement (Epstein, 1991; Sheldon, 2003; Van Voorhis, 2003), student drop-out rates and attendance (Epstein & Sheldon, 2002; Trusty, 1999), student behavior (Sheldon & Epstein, 2002), opportunities to use community resources (Wynn, Meyer, & Richards-Schuster, 2000), as well as fostering student and adult relationships (Sanders, 1998). Specific to academic achievement, research has shown that parental involvement has a positive impact on achievement in math (Muller, 1998) and reading (Hart, 1989; Shaver & Walls, 1998).

As mentioned previously, schools and families are also greatly impacted by increased parental involvement. Schools that promote parents' involvement in their

children's schooling, tend to experience a more positive school climate and a greater acceptance for the various school cultures (Desimone, Finn-Stevenson, & Henrich, 2000). When parents are more involved in their children's education, teachers' interpersonal and teaching skills tend to be recognized by parents more often, teachers are less likely to request student transfers from their classroom as a result of greater satisfaction with their jobs, and principals tend to rate their performance higher (Christenson, 1995). Parents are also positively impacted by the increased opportunities to become involved. Parents' attitudes towards schools often improve when schools provide them with a variety of opportunities to become involved (Sanders, Epstein, & Connors-Tadros, 1999). Davies (1993) reported that when parents are involved in their children's schooling, their self-efficacy as well as their appreciation and recognition of the role they play in schools tends to increase. Overall, the impact of parental involvement on schools and families consequently influences students' school success and academic achievement (Van Voorhis, & Sheldon, 2004).

Latinos parents' involvement in schools. Educators must understand that the definition of parental involvement may differ among ethnic groups, and they may demonstrate different levels of engagement depending on the opportunities offered to become involved (e.g., at school versus at home; Wong & Hughes, 2006). Furthermore, ethnic minority parents tend to hold the belief that school professionals serve the expert roles in schools, thus their level of involvement may be more passive rather than active (Crozier, 1999). This is supported by Chavkin and Williams (1993) who suggest that Latino parents are more likely to have the belief that schools are responsible for initiating the effort and providing the opportunities for Latino parents to become involved.

Previous research reveals that Latino parents' beliefs of taking a more passive role in their children's schooling may be explained by their tendency to be more respectful, admiring, trusting and feeling less comfortable when communicating and working with teachers and schools (Ritter, Mont-Reynaud, & Dornbusch, 1993). Lack of requisite language, instructional skills and familiarity with the American educational system can also impact Latino parents' beliefs of the respective roles of parents and teachers, and can lead them to take a less active approach to parental involvement (Sosa, 1997).

In order to successfully promote parental involvement, one must take into account the language and culture of the family (Mawjee & Grieshop, 2002). Thus, it is critical to review Latino parents' cultural values about parental involvement (Mawjee & Grieshop, 2002). Research suggests that professionals in schools who collaborate and work with Latino parents tend to see higher academic performance by Latino students (Delgado-Gaitan, 2007). This is supported by Delgado-Gaitan (2004) who suggests that Latino parents of high-achieving students tend to be more involved at school and at home in their children's education, when compared to Latino parents of low-achieving students (Delgado-Gaitan, 2004). However, research on parental involvement indicates that Latino parents are less likely to come to schools and become involved, thus it is common for teachers to think of them as if they do not value or care about their children's education (Gandara, 1995; Moles, 1993). More specifically, professionals in education carry some negative beliefs and perceptions about Latino parents' involvement (Chrispeels & Rivero, 2001; Quiocho & Daoud, 2006; Valdes, 1996). Some of these perceptions include but are not limited to the belief that Latino parents are responsible for the poor performing schools, Latino parents lack educational attainment, Latino parents' lack of support and

care for their children's education result in low student performance, and Latino parents have low expectations for their children (Chrispeels & Rivero, 2001; Quirocho & Daoud, 2006; Valdes, 1996).

Despite the fact that Latino parents tend to report similar beliefs of the degree of importance about education and attitudes towards school involvement to those of White American and African American parents (Chavkin & Williams, 1993; Tinkler, 2002), they often report the lowest levels of involvement in schools (Steinberg, Lamborn, Dornbusch, & Darling, 1992). This is supported by other researchers who state that parents of ethnically and linguistically diverse students often report lower levels of involvement than other majority group parents (Delgado-Gaitan, 1990). Latino parents tend to attend less frequently meetings and school events, are less likely to volunteer in their children's schools, and are less likely to be members of school committees (The National Center for Education Statistics, 2003).

Latino parents' involvement at home. Many Latino parents who immigrated to the U.S. did so for the sole reason of providing their children with better opportunities, despite all the struggles they had to experience (e.g., leaving family behind; Delgado-Gaitan, 2004). It is crucial for educators to be cognizant of this since it serves as a testament to Latino parents' strong value for education (Delgado-Gaitan, 2004). Additionally, many professionals in schools may disregard or be unaware of the strategies Latino parents implement at home to support their children's education (Mehan, Villanueva, Hubbard, & Lintz, 1996). As a form of supporting and becoming involved in their children's education, Lopez (2001) talks about the story of a migrant worker who translated his experiences in the field to his children into the importance of

working hard at school. Delgado-Gaitan (2004) stated that Latino parents tend to support their children's education by offering them a strong emotional environment at home as well as the sharing of family history and stories, which serve as a source of motivation to these students. Furthermore, a number of researchers have reported that Latino parents do have high expectations for their children and want to participate in their schooling (Delgado-Gaitan, 1994; Valdes, 1996; Ada & Zubizaretta, 2001; Nieto, 2004). In fact, it has been suggested that Latino parents are aware of their children's need to attend college and approximately 96% of these parents want their children to receive post-secondary education (Zarate & Pachon, 2006).

It should not be concluded that parents are not involved in their children's education as a result of a lack of physically participating in school's activities since children's education takes place in a variety of ways (Harry & Kalyanpur, 1999). Kupermic, Darnell, and Alvarez-Jimenez (2008) suggest that the effort school personnel invest in increasing Latino parents' involvement may not result in any positive impact if they don't recognize these parents' efforts in reinforcing the importance of education with their children. Lopez and Donovan (2009) stated that Latino parents need to feel respected and need to be seen as effective partners in the home-school collaboration process.

Federal initiatives promoting parental involvement. As a result of the evidence supporting the importance of parental involvement, a series of federal initiatives have been developed to increase parents' involvement in their children's education. Specifically to children with disabilities, the reauthorized Individuals with Disabilities Education Act (IDEA) entails Section 614 and 615, which provide parents with the

opportunity to participate in any procedure where decisions are made in regards to their children's education (Turnbull, 2005). Section 615 of the IDEA also provides parents with the rights to receive the procedural safeguards once a year (Turnbull, 2005). Furthermore, the No Child Left Behind Act (NCLB) includes the sixth principle, which is parent participation and choice (Turnbull, 2005). This school reform act provides parents with the right to be involved in a nondiscriminatory evaluation, be a member of the Individualized Educational Plan (IEP) team, manage and control the release of records, as well as provide parents with the possibility of becoming members of various advisory committees (Turnbull, 2005). School districts that receive Title I, Part A funds are required by the NCLB law to engage in activities and procedures to increase parents' involvement as well as implement programs that target this factor with the collaboration of parents through consultation (Henderson & Berla, 2002). In support for the need to increase parental involvement in schools, The American 2000 national mandate for education also stated: "Every school will promote partnership that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children" (U.S. Department of Education, 2002, p.1). Lastly, state laws and procedural guidelines have also been developed to support parental involvement. The state of Florida passed the Family and School Partnership for Student Achievement Act in 2003, which provides parents with the opportunity to receive information about their children's progress in school (Henderson & Berla, 2002).

Barriers to parental involvement for Latino families. Latino parents often times encounter a series of barriers that may impede them from becoming engaged in their children's education (Marschall, 2006). As a consequence to these barriers and these

parents' lower levels of involvement, it has been reported that not only do Latino parents have less opportunities to advocate for their children, but they are also reinforcing school professionals' view that they do not value their children's educational success (Chrispeels & Rivero, 2001). Latino parents' language, transportation, poor self-worth as well as their work schedules have all been reported to impact their involvement in schools (Jacobson, Huffman, Rositas & de Corredor, 1997). Additionally, the lack of flexibility, and long hours required for participation in schools, have also been reported as barriers to school involvement encountered by these parents (Kuperminc et al., 2008).

Linguistic barriers also impact Latino parents' school involvement (Anderson & Sabatelli, 2007). The parents' English proficiency has been suggested to be one of the biggest barriers encountered by Latino parents (Wong & Hughes, 2006). The lack of English proficiency of many of these parents serves as an obstacle for them to become involved in schools (Tinkler, 2002). Unfortunately, De Gaetano (2007) reported that often times, parents' culture and language is ignored, denigrated, or taken into account only superficially. Kuperminc et al. (2008) reported that the more comfortable these parents feel about their English proficiency, the more likely they are to become involved in schools and the more effective they are in promoting their children's academic success.

Latino parents also struggle to engage and collaborate with their children's schools due to a lack of understanding of the educational system (Valdes, 1996). As a consequence, making connections with the schools can become frustrating for these parents given their limited experience with the U.S. educational system, or they may feel isolated (Delgado-Gaitan, 2004). In connection to this, a lack of knowledge about school professionals' expectations of their role as parents also impacts Latino parents'

involvement (Kuperminc et al., 2008). It has been previously suggested that explaining to Latino parents the definition of involvement, ways to become involved as well as the benefits of parental involvement in their children's education may help increase their knowledge about their roles and the educational system (Quiocho & Daoud, 2006).

A number of psychological barriers may be encountered by parents when trying to become involved in their children's education (Hoover-Dempsey, & Walker, 2002). These barriers may include their experiences with unpleasant school personnel, history of their own lack of academic achievement as well as struggles with physical or mental health, all of which may impact their involvement (Hoover-Dempsey, & Walker, 2002). Additional cultural barriers involving a discrepancy between the school's expectations for the students and the home's expectations may be a result of language differences between the two settings, and/or from limited understanding either of the educational system by the parents or limited understanding of the families' cultural values by the school (Hoover-Dempsey, & Walker, 2002). Economic challenges, family separation and reunification issues, as well as immigration and legal issues may also serve as barriers that decrease Latino parents' level of involvement in schools (Mazur, Courchaine, & Doran, 2010).

Specific Factors that May Impact Latino Parents' Involvement.

Previous research on parental involvement has identified factors (e.g., parental education, parents' work schedules, and parents' psychological distress) that may impact parents' involvement (Hoover-Dempsey, & Walker, 2002; Seefeldt, Denton, Galper, & Younoszai, 1999; Snow, Burns, & Griffin, 1998). The challenges many families experience when trying to become involved in their children's education may emerge

from economic hardships and limited educational attainment of the parents (Hoover-Dempsey, & Walker, 2002). However, less is known about factors that may limit parental involvement, specifically of Latinos parents. Specific family factors previously mentioned in the parental involvement literature as well as barriers often encountered by the Latino population in the U.S. will be discussed in order to better understand the potential impact of these factors on Latino parents' involvement at school and at home.

Number of years residing in the U.S. The Latino population in the U.S. differs in the number of years they have resided in this country (Qian & Cobas, 2004). For example, while Mexicans have a long history in the United States, Cubans exiles began arriving only recently to this country (Qian & Cobas, 2004). More specifically, the number of Cubans in the United States increased during the late 1950s and throughout the 1960s due to thousands of these individuals seeking asylum (Bean & Tienda, 1980). Furthermore, little is known about the relationship between Latino parents' number of years residing in the U.S. and their school involvement, however, it has been reported that the cultural norms present within the family (Hammer & Miccio, 2004), as well as the parents' level of stress (Farver, Xu, Eppe, & Lonigan, 2006) may be impacted by the number of years the parents have resided in the U.S.

Immigration history also plays a function on the language (Portes & Rumbaut, 1996), and literacy practices of Latino families (Hammer, Miccio, & Wagstaff, 2003; Hammer, Rodríguez, Lawrence, & Miccio, 2007). In a study conducted by Hammer, Miccio, and Wagstaff (2003) it was revealed that mothers in their sample who were first in their family to move to the U.S. were more likely to speak only Spanish to their child, while those who were born in the U.S. tended to speak both English and Spanish to their

child. As these mothers became more familiar with the American culture and the school system, their literacy practices with their children were impacted by their number of years residing in the U.S. as well as by the gradual shift in the mothers' child-rearing styles (e.g., changes in values and goals). When compared to mothers who were more likely to speak only Spanish to their child, mothers of the dual language learners (English and Spanish) reported a stronger focus towards achievement and were more likely to be engaged in literacy activities in order to teach their children pre-academic and literacy skills.

Additionally, Latino families' acculturation may also be impacted by the number of years they have resided in the U.S. Acculturation refers to cultural changes that a person experiences as a result of continuous and direct contact with individuals or groups as well as social influences that are culturally dissimilar (Gibson, 2001). It has been reported that Latino immigrant parents gradually adjust to the U.S. culture regardless of SES, however, the changes associated with the families' acculturation may have crucial implications for the immigrant children's success in school (Farver, Eppe, & Ballon, 2006). Findings of a study conducted by Farver et al. (2006) demonstrated that in homes where mothers had a positive orientation towards their own ethnic group as well as to other groups (integrated style of acculturation), the children's literacy skills were shown to be best. When compared to mothers who had lower levels of acculturation, these mothers modeled and engaged in more literacy related activities with their children, and their children reported higher scores on the literacy assessments in both English and Spanish.

Parents' English proficiency. Even though little is known about how Latino parents' English proficiency impacts their children, it is important to be cognizant that research has linked parental engagement in literacy practices with higher early achievement in both low and middle class families (Payne, Whitehurst, & Angell, 1994). Research suggests that at home and in school involvement is positively related with parents' English language proficiency (Garcia-Coll et al., 2002). Kuperminc et al. (2008) stated that Latino parents' English proficiency comfort level not only impacts their involvement in their children's schools but these parents may also be more successful at promoting students' achievement. Moreover, Wong and Hughes (2006) reported that Latino parents who speak more English than Spanish perceived a higher shared responsibility with teachers than that of Latino parents who spoke more Spanish than English.

Anderson and Sabatelli (2007) suggest that Latino parents encounter linguistic barriers when trying to become involved in schools. Their English proficiency has served as an obstacle for many of these parents (Tinkler, 2002), however, it is common for schools to ignore or give little attention to this matter (De Gaetano, 2007). Furthermore, Umbel, Pearson, Fernandez, and Oller (1992) found that home language experience is a variable of great importance specific to bilingual acquisition. These authors conducted a study in which two groups of participants were investigated, the children whose families only spoke Spanish at home (OSH) and children whose families spoke both English and Spanish at home (ESH). Even though both groups of participants were functioning on the same level in the area of receptive language, the English vocabulary performance was

significantly higher for those students whose families spoke both English and Spanish at home (ESH).

Parental education. Numerous researchers have reported the relationship between parents' education level and their children's academic achievement (Seefeldt, Denton, Galper, & Younoszai, 1999; Snow, Burns, & Griffin, 1998). Dollaghan and colleagues (1999) investigated the level of education in mothers of low SES families, and found that it was in fact correlated with higher levels of language abilities. Furthermore, it has been reported that parents' level of education impact their degree of involvement. More specifically, it was found that parents with higher educational attainment are more likely to be involved at home and at school (Dauber & Epstein, 1989). In a study conducted by Kohl, Lengua, and McMahon (2000), a set of family and demographic factors, and their relationship with parental involvement were investigated. The authors suggested that parents' level of education was related not only to their involvement at school and at home, but also to parent-teacher contact, and teachers' perception of the parents' value of education. The authors also suggested that there may be barriers that get in the way of parents with lower educational experiences, including that they may have had specific life experiences that caused them to feel less effective in helping their children or that they are interfering with the schools' authorities. In connection to this, in a study conducted by McWayne, Campos, and Owsianik (2008), results revealed a negative relationship between levels of home-school conferencing and those mothers who had less than a high school education.

Furthermore, parents with higher levels of education tend to report a lower degree of satisfaction than those with lower educational attainment (U.S. Department of

Education, 1996). As stated by Grolnick, Benjet, Kurowski, and Apostoleris (1997), parents are more likely to be involved in their children's education if they perceive themselves as teachers and successful at helping their children in school. Thus, parents' own educational experiences may impact their own perceptions of themselves as effective in helping their children, and feeling comfortable when communicating to teachers their concerns (Kohl, Lengua, & McMahon, 2000).

Parents' mental health. Little is known about mothers' mental health and its impact on parental involvement. However, some researchers have suggested that parental involvement may be serving as a mediating factor between maternal depression and children's academic success (Kohl, Lengua, & McMahon, 2000). Downey and Coyne (1990) implied that maternal depression leads these mothers to view their roles as parents less positive, and at the same time they may feel a lack of energy, motivation and confidence to be involved in their children's schooling, either directly or indirectly through school personnel.

Kohl, Lengua, and McMahon (2000) conducted a study where they investigated a number of family factors (e.g., maternal depression) and their impact on parental involvement. The results demonstrated that a relationship between maternal depression and a number of factors was present, including but not limited to a relationship with parental involvement, parent-teacher relationship, and teachers' perception of the parents' value for education. The authors suggested that mothers' lack of involvement was a consequence of their lack of motivation and energy to become involved, which may impact the teachers' perception of these mothers as well as their relationship with them. On the other hand, additional research suggests that providing mothers who experience

increased psychological risk factors (e.g., depression, anger, substance abuse) with preventative parent training programs can help enhance their engagement in their children's education (Baydar, Reid, & Webster-Stratton, 2003).

Latinos' mental health. Research has reported that Latinos who are born in the U.S. tend to have higher rates of psychopathology (e.g., major depression) when compared to those who were born outside this country, thus it has been suggested that exposure to the U.S. culture may in fact increase individuals' risk for experiencing mental health problems (Alegria et al., 2007; Alegria et al., 2008; Grant et al 2004). Researcher findings have also indicated that the mental health of members of culturally diverse groups tends to be impacted and altered by the stress they experience throughout the acculturation process (Berry, 1997). Acculturative stress has been defined as the negative experiences that take place when immigrating to a new country, thus being exposed to a new culture (Berry, 1990). It is of importance to note that Latino families often experience an array of stressors arising from their immigration experience (e.g., acculturation, language difficulties, and loss of family members and friends; Garrison, Roy & Azar, 1999). Furthermore, a number of researchers have also supported the relationship between acculturative stress and psychopathology (Finch & Vega, 2003; Hovey & Seligman, 2006).

Falcon and Tucker (2000) stated that Latinos who are residing in the U.S. may be at risk of developing mental health problems as a consequence of having to get familiar and adapt to a different culture. Research has identified depression, anxiety and psychosomatic symptoms as the most common mental health issues experienced by these individuals as a result of the acculturation process (Neto, 2010). This is supported by

Moradi and Risco (2006) who examined the relationships among perceived discrimination, psychological distress, self-esteem, sense of personal control, and acculturation of Latinos, and U.S. cultures. Results revealed that perceived discrimination and U.S. acculturation increased the likelihood of greater psychological distress. Overall, the likelihood of Latino immigrants to experience mental health problems increases as a result of the pressures and demands of the new culture in the U.S. as well as residing in an environment where the immigrants' culture is devalued by the majority culture (Organista, 2007). Therefore, Latino parents' involvement may be further impacted by these individuals' higher risk of experiencing mental health issues.

In summary, the studies cited above highlight numerous factors (e.g., immigration history, parents' English proficiency, parental education, parents' mental health) that may influence Latino mothers' school involvement and interactions with their children (Dollaghan, et al., 1999; Garcia-Coll, et al., 2002; Hammer, Miccio, & Wagstaff, 2003; Kohl, Lengua, McMahon, 2000). It is essential to be cognizant that the parents play critical roles in the development of their children, and that their involvement in their children's education is crucial. Given the limited research focusing on parental involvement, specifically of Latinos, and the need to better serve Latino families and support their engagement in schools, further investigation is necessary to better understand which specific family factors influence Latino parents' involvement at school and at home. Additionally, factors such as parental education (Dollaghan et al., 1999) and parents' mental health (Kohl, Lengua, and McMahon, 2000) have been previously identified as precursor factors impacting parental involvement. However, little is known about how these factors as well as others that may impact Latinos in the U.S., affect

Latino parents' involvement in their children's education. Therefore, this research project attempts to add some understanding to the literature on specific family factors that may influence Latino mothers' involvement in schools and at home. This study looks at four precursor family factors that have been previously investigated in research focusing on parental involvement and/or have been identified as barriers encountered by Latinos in the U.S. The precursor factors include Latino mothers' years of residence in the U.S., Latino mothers' level of English proficiency, Latino mothers' level of education, and Latino mothers' mental health. Little is known about how these specific family factors impact parental involvement, specifically of the Latino population of parents in our schools and community.

Latinos in the United States

It is also of great importance to be cognizant of the characteristics of the Latino population in this country in order for educators to best serve these students and their families, and better understand the importance of increasing Latino parents' involvement. More specifically, the population of Latinos in the United States is increasing at a fast rate and it now accounts for over 15% of the population (US Census Bureau, 2008). This minority group has now surpassed African Americans as the largest minority group in the country (U.S. Census Bureau, 2003). It is expected that by the year 2025, the Latino population in the U.S. will make up 21% of the population in the country (The National Center for Education Statistics, 2010). Furthermore, some Latinos have been born in the U.S., are considered English proficient, and have a long history in this country for many generations (Delgado-Gaitan, 2004). Other Latinos have just recently arrived, and are considered recent immigrants who are mainly Spanish speaking (Delgado-Gaitan, 2004).

This population is comprised of diverse national origins, including but not limited to Mexico, Puerto Rico, Cuba and other Latin American countries (Qian & Cobas, 2004). Mexicans and Puerto Ricans residing in the U.S. comprise the largest group of the Latino population in the U.S. (73%), while an increase in the percentage of immigration from Central (7.6% of the population) and South America (5.5% of the population) has been seen in the last decade (U.S. Census Bureau, 2006). The remaining 13.9 percent includes individuals from Cuba, Dominican Republic and other Latin American regions where Spanish is the primary language spoken (U.S. Census Bureau, 2006).

Latino Students in U.S. Schools

Since the 1990-1991 school year the Latino population in the U.S. has been the fastest growing ethnic group in U.S. schools (U.S. Census Bureau, 2008). Additionally, an increase in the number of English language learners (ELL) enrolled in public school was reported by the National Clearinghouse for English Acquisition (2011). More specifically, it was reported that from the 1997-1998 school year to the 2008-2009 school year, the number of ELLs increased from 3.5 million to 5.3 million (National Clearinghouse for English Acquisition, 2011). Furthermore, Lazarin (2006) reported that nearly 80% of English language learners (ELL) currently in schools are native Spanish speakers, and as a result of the rapid growth of the Latino population of students in schools, they currently make up one-fifth of the preschool through high school population (Garcia & Gonzalez, 2006). It is expected that by the year 2020 this minority group will make up one-quarter of the student population in the U.S. (Garcia & Gonzalez, 2006).

Given the alarming rates of underachievement among Latino children in the U.S., their educational outcomes in school should be an area of concern for all educators

(Klinger & Artiles, 2003). It has been reported that in 1998, only 63 percent of Latinos between the ages of 18 and 24 had finished high school or earned a GED, in comparison to 85 percent of the total population (U.S. Department of Education, 2003). The National Center for Education Statistics (2010) reported that in the 2006-2007 school year, only 60% of Latino students received a high school diploma, compared to 80% of white students. Moreover, in 2007, 21% of Latino students dropped out of school, a much higher percentage when compared to other ethnicities (Blacks, 8%; Asians/Pacific Islanders, 6%; Whites, 5%; National Center for Education Statistics, 2010).

In 2007, 12% of Latino students in kindergarten through grade 12 had been retained, a percentage higher than for White students (9%; The National Center of Educational Statistics, 2010). Students who are bilingual, whose primary language is Spanish, and who are from economically disadvantaged homes, are at higher risk for poor literacy outcomes (Hammer, Miccio, & Wagstaff, 2003). When compared to non-Latino White students, they are twice as likely to read below level in English (Snow, Burns & Griffin, 1998). Additionally, Thomas and Collier (2002) reported that it takes ELLs 5 to 7 years to achieve grade level norms if proper instruction is given, which supports the complexity of learning a second language.

Conclusion

As shown by previous research presented above, there is a strong relationship between parental involvement and students' academic success (Epstein, 2001). At the same time, researchers report Latino parents' lower levels of parental involvement when compared to other ethnic groups (Gandara, 1995). Educators must also be cognizant of Latino students' higher dropout rates when compared to non-Latinos (National Center for

Education Statistics, 2010), and their continued underachievement (Klinger & Artiles, 2003). Thus, an increased effort to promote parental involvement in all schools should continue. For these reasons, it is of extreme importance to be knowledgeable of the benefits of parental involvement, better understand Latino parents' involvement and the factors affecting their involvement. Even though the literature has mentioned a number of barriers encountered by Latino parents, more research is still needed to identify specific factors affecting these parents' involvement and further understand how to best serve these parents and their children.

Purpose of the Study

The purpose of this study is to identify the family factors (mothers' years of residence in the U.S., mothers' English proficiency, mothers' education level, and mothers' mental health) that may impact Latino mothers' involvement (at school and at home) in their children's education. To better understand Latino mothers' involvement at school and at home, archival data was analyzed from a longitudinal study looking at the school readiness abilities of Latino English language learner students. Spanish speaking children ages 3-5, attending Head Start or kindergarten in five counties in Florida, and their families participated in the larger study. Given that the majority of the respondents were mothers (92%), the final sample in the current study only included Latino mothers.

Research Questions

1. To what degree and in which activities are Latino mothers involved at school to help their children be successful at school?

2. To what degree and in which activities are Latino mothers involved at home to help their children be successful at school?
3. What factors (mothers' English proficiency, mothers' number of years residing in the U.S., mothers' education level, and mothers' mental health) best predict Latino mothers' involvement at school?
4. What factors (mothers' English proficiency, mothers' number of years residing in the U.S., mothers' education level, and mothers' mental health) best predict Latino mothers' involvement at home?

Significance of the Study

Latino students have higher dropout rates when compared to non-Latinos (National Center for Education Statistics, 2010), and they continue to underachieve at alarming rates (Klinger & Artiles, 2003). At the same time, previous research has revealed the strong relationship between parental involvement and students' academic success (Epstein, 2001); therefore, an increased effort to promote parental involvement in all schools has been supported by many professionals in the field. On the other hand, research findings report that Latino parents tend to show lower levels of involvement in their children's schooling when compared to other ethnicities, and as a consequence it is common for teachers to view these parents as uncaring about their children's education (Gandara, 1995; Moles, 1993). It is crucial to better understand factors impacting Latino parents' involvement. Even though the literature has identified factors that impact the involvement of all parents, as well as some of the barriers often encountered by Latinos in the U.S., further investigation is still needed to identify specific aspects that affect

Latino parents' involvement in order to better understand how to increase these parents' engagement and collaboration with schools.

Due to the decreased likelihood of Latinos parents' reported involvement, the overarching goal of the present study was to better understand Latino mothers' involvement, and to examine specific factors of their home environment that may predict their involvement at school and at home. Specifically, little is known about the impact of Latino mothers' number of years of residence in the U.S., English proficiency, education level and mental health on their involvement, thus these factors were examined in this research study. Information about these specific precursor factors may provide insight on characteristics that may in fact influence their involvement in their children's education. The findings from this study have the potential to add some understanding to the field of school psychology in reference to distinct factors that commonly impact the Latino population in the United States, but most importantly that may affect Latino parents' involvement in their children's educational success. By gaining knowledge in regards to Latino mothers' involvement in their children's schooling, these parents can hopefully receive the necessary accommodations, assistance, and support in order to increase their engagement, and collaboration with schools, which consequently can impact Latino students' educational success.

Operational Definitions of Terms

A brief description of each of the variables included in this study follows.

Dependent variables.

Mothers' school involvement: Mothers' at school involvement refers to activities parents may engage in at their children's school to help them succeed at school. It

was measured using questions from the demographic parent interview that align with Epstein's model of parental involvement. Refer to Appendix B for specific questions.

Mothers' at home involvement: Mothers' at home involvement refers to at-home activities parents may engage in with their children to help them succeed at school. It was measured using questions from the demographic parent interview that align with Epstein's model of parental involvement. Refer to Appendix C for specific questions.

Independent variables.

Years of residence in the U.S.: The total numbers of years the mothers have been residing in the United States.

Mothers' level of English proficiency: Mothers' self-rating of how well they understand, speak, read, and write English.

Mothers' level of education: The highest level of schooling the mothers completed.

Mothers' mental health: The average number of symptoms of specific mental disorders (somatization, obsessive compulsive, interpersonal sensitivity, depression, anxiety (panic), hostility, phobic anxiety, paranoid ideation, and psychoticism) as well as the intensity of perceived stress (Global Severity Index).

Delimitations and Limitations

The findings of this study may be generalizable to similar populations of students given that this study sampled from a population of low income families in Head Start programs and public schools residing in five different counties in the state of Florida. More specifically, the findings may be representative of Latino mothers who are low income and have bilingual learners attending preschool programs, specifically Head Start programs, as well as kindergarten in public schools. Since the sample is limited, the

generalizability of the findings is reduced. Particularly, the findings may not be generalizable to low or high income Latino Mothers who do not have children who attend preschool at all or who do not attend Head Start preschool programs. Furthermore, the results of this study may not be generalizable to Latino mothers who are from low or high income families but who do not reside in the state of Florida or the specific counties from which the population was sampled.

Organization of Remaining Chapters

The next chapters highlight the specifics of this research project. Chapter two includes a review of the literature already published that relates to Latinos in the U.S., parental involvement and its significance, benefits of parental involvement, Latino parents' involvement, and factors in the environment of Latino parents and families that may affect their involvement in their children's education. Chapter three describes the methodology that is used in this study including a description of the participants, variables, assessment instruments, procedure, ethical considerations, research design, and data analysis. Chapter four displays the results of the current research study and chapter five includes a summary of the findings and the implications of this study's results.

Chapter 2

Review of the Literature

Theoretical Framework: Parental Involvement

The literature on parental involvement frequently refers to an understanding of parental involvement as defined by Epstein's (2001) types of involvement. More specifically, Epstein (1995; 2001) developed a family-school partnership model in which she identified six types of parental involvement related to schooling. These forms of parental involvement suggested in Epstein's model can be nurtured and sustained in schools, and include basic obligations of parenting (e.g., establish home environments to support children as students), communicating with schools (e.g., parent-teacher conferences), volunteering at schools (e.g., assist teachers, administrators and children in classrooms), learning at home (e.g., assist children at home on learning activities aligned with children's class work), decision making (e.g., parents having participatory roles in the advisory councils or other committees), and working together with the community and school (e.g., collaborating and exchanging information with community agencies). Epstein's model is based on the theory of overlapping spheres of home, school, and community, all which impact students' development and learning (Epstein, 1995). A critical piece in Epstein's parental involvement model is the fact that it recognizes that students have different needs, and strategies that work for one family may not be a good match for other families (Halgunseth, Peterson, Stark, & Moodie, 2009). Given the focus on at school and at home involvement in Epstein's model of parental involvement, the

comprehensive approach of Epstein's (1995) definition of family-school partnerships as well as the extensive usage of this model in the literature, Epstein's conceptualization of parental involvement will be used to better understand and disaggregate the different types of parental involvement activities in schools and at home. Furthermore, given that families play a major role on the school-home partnerships (Epstein, 2001), and there is a strong connection between parental involvement and students' overall success (Epstein & Sanders, 2000; Fan & Chen, 2001; Henderson & Mapp, 2002; Henrich & Gadaire, 2008; Weiss, Caspe, & Lopez, 2006), these perspectives are used in order to consider how different family factors may impact parental involvement in schools and in the home, specifically, among Latino families.

Numerous research studies have shown that parental involvement has a major influence on students' academic achievement and throughout their lives (Epstein & Sanders, 2000; Fan & Chen, 2001; Henderson & Mapp, 2002; Henrich & Gadaire, 2008; Weiss, Caspe, & Lopez, 2006). Moreover, parental involvement has been described in a variety of ways. Definitions include the degree to which parents invest their time and energy to assist their children in their development and educational success (Grolnick, Kurowski, Dunlap, & Hevey, 2000; Grolnick & Slowiaczek, 1994) as well as the array of activities parents become involved in school (e.g., attending parent-teacher meetings) and in the home (e.g., awareness of children's experiences at school; Kuperminc, Darnell & Alvarez-Jimenez, 2008). For the purpose of this study, the definition of parental involvement will be adopted from Epstein's comprehensive model of school-home partnerships. More specifically, the definition of parental involvement consists of six categories of involvement (parenting, communicating, volunteering, learning at home,

decision making, and collaborating with the community), and identifies practices schools can implement in order for parents to become involved in their children's education in a number of productive ways (Epstein, 2001). This definition requires families and schools to work together and develop goals to best serve the children (Epstein, 2001).

It has been reported that parents who engage in school related tasks with their children, such as talking to them about school, expecting them to do well, and developing plans with their children to go to college, have children who tend to perform much better in school (Henderson & Berla, 2002). Regardless of socioeconomic status, it has been stated that students tend to do best, and are less likely to drop out of school, when their parents are more involved in their education (Henderson & Berla, 2002). For these reasons, it is important to continue to investigate the important benefits of parental involvement and better understand the factors affecting this involvement.

It is critical to understand that family and parental involvement requires a collaboration and partnership between families, schools, and communities (Epstein, 2001). Researchers have reported that when there are increased efforts made by teachers to collaborate and try to involve parents in the students' educational experiences, the parents are more likely to be reciprocal on their efforts to become involved and collaborate with schools (Seitsinger, Felner, Brand, & Burns, 2008). However, previous research findings suggest that as students progressed through school, the level of parental involvement and participation decreases (Rimm-Kaufman & Pianta, 1999). More specifically, parents whose children attended preschool Head Start centers reported a higher degree of participation in schools when compared to parents whose children attended kindergarten or first grade (Fantuzzo, Tighe, & Childs, 2000). Overall, research

reveals that parents are the most involved during the elementary school grades and their participation declines through middle and high school grades (Entwisle, 1990).

Benefits of parental involvement. Overall, the main and foremost benefit of creating home-school partnerships is that it helps the student population succeed in their educational career as well as in their future life (Epstein, 1995). Consistent with the above mentioned literature, an effective home-school partnership is likely to not only improve students' academic achievement, but at the same time, have a positive impact on schools and families (Epstein, 2001; Jordon, Orozco, & Averett, 2001). In other words, there are positive benefits for many individuals when parental involvement is present (Christenson & Cleary, 1990). More specifically, Christenson and Cleary (1990) stated that not only do students' academic achievement improve, but students are also more engaged, attendance rates increase, suspension rates decrease, parents' communication with educators increase, and schools are rated as more effective when parental involvement takes place.

Given the numerous benefits of parental involvement on students' educational success, federal initiatives and policies are now requiring school districts to ensure the provision of opportunities for parents to become involved (Van Voorhis, & Sheldon, 2004). Among the various positive outcomes documented by researchers in the area of parental involvement, student achievement (Epstein, 1991; Sheldon, 2003; Van Voorhis, 2003), student drop-out rates and attendance (Epstein & Sheldon, 2002; Trusty, 1999), student behavior (Sheldon & Epstein, 2002), opportunities to use community resources (Wynn, Meyer, & Richards-Schuster, 2000), as well as the fostering of student and adult relationships (Sanders, 1998) have all been reported to be impacted by parental

involvement. Specific to academic achievement, research has shown that parental involvement has a positive impact on achievement in math (Muller, 1998), and reading (Hart, 1989; Jeynes, 2001). In a longitudinal study conducted by Muller (1998), the impact of parental involvement on students' mathematic achievement was investigated. Students attending grades 8 to 12 completed questionnaires about their background as well as curriculum-based cognitive tests. These students were followed two and four years later in order to evaluate their mathematics achievement and the level of parental involvement. Results revealed that adolescents' gains in mathematics performance are positively impacted by parental involvement for both girls and boys, especially in lower grade levels. On the other hand, Hart (1989) conducted a study in which the effect of parental influence on eight grade students' reading achievement was evaluated. Parents of students from two different middle schools completed surveys about their engagement in their children's reading instruction. Students' scores from the California Achievement Test were also used to better understand their reading performance. Results showed that parental knowledge of their children's reading skills as well as understanding of the schools' reading curriculum was positively correlated with the students' reading achievement.

Additionally, schools and families are also greatly impacted by parental involvement. In a study investigating a school reform model called the CoZi (Comer-Zigler) model involving year-round, after-school and family support services for preschool students, Desimone, Finn-Stevenson, and Henrich (2000) administered written surveys, interviews, achievement tests and classroom observations to evaluate children and parent outcomes. Results suggested that schools who promote parents' involvement

in their children's schooling tend to experience a more positive school climate, and a greater acceptance for the various school cultures (Desimone, Finn-Stevenson, & Henrich, 2000). This is supported by previous research on parental involvement reporting that when parents are more involved in their children's education, teachers' interpersonal and teaching skills tend to be recognized by parents more often, teachers are less likely to request student transfers from their classroom as a result of greater satisfaction with their jobs, and principals tend to rate their performance higher (Christenson, 1995).

Parents' attitudes towards schools often improve when schools provide them with a variety of opportunities to become involved (Sanders, Epstein, & Connors-Tadros, 1999). Sanders, Epstein, and Connors-Tadros (1999) investigated the relationship between parental involvement and school family partnerships at the high school level. A total of 423 parents participated and parents' reports on different types of school-home partnership practices were obtained. Results revealed that high schools that promote parental involvement receive more positive ratings from the parents. Additionally, findings showed a positive correlation between parental involvement and schools' efforts to assist parents with the learning activities taking place at home. A positive relationship was also reported between parents' reports of involvement and schools' practices of promoting volunteering opportunities for parents as well as involving families in school decision making. The strength of the school-home partnership program in the high schools was the strongest predictor of the parents' attitudes towards the school. Among other benefits, when parents are involved in their children's schooling, their self-efficacy as well as their appreciation and recognition of the role they play in schools tends to increase (Davies, 1993).

When increasing parental involvement in schools in their children's education, and in order to develop new family-school partnerships, communication is key (Rimm-Kaufman & Pianta, 1999). Communication has been suggested to be an essential element when working towards increasing the partnership between homes and schools (Delgado-Gaitan, 2004). Rimm-Kaufman and Pianta (1999) described and examined family-school communication in preschool and kindergarten. Teachers recorded parent-school contacts using a daily diary method. Results suggested primary and incidental types of communication, both showing positive effects on school-home partnerships. Primary communication included ways such as parent-teacher conferences, notes from school to home or home to school, and events at school, while incidental types of communication included class newsletters, or communication to the whole classroom of students.

Hoover-Dempsey and Walker (2002) also support the idea that there are different types and/or forms of communication that can be used when collaborating with parents in schools. These authors talk about formal (e.g., statements about school policies, parent trainings and workshops), and informal communication (e.g., classroom drop-in visits, phone calls) with parents. It is suggested that a specific form of communication is not better than the other; instead, authors state that schools must review, choose, adapt and create the best type of communication strategies based on the school population and needs of these families. In addition, the importance of communication on a home-school partnership is also supported by Musti-Rao and Cartledge (2004) who stated that clear communication between parents and teachers in schools can be of benefit not only to children's success but also to teachers. More specifically, teachers and parents are more likely to be on the same page and work together towards the same educational goals for

the children if they successfully communicate with each other. When teachers effectively communicate and assist parents with home-based learning, parents are more likely to practice with their children the same skills taught in the classroom. Thus, teachers can save them time when reviewing material and completing drills in class. In a study conducted by Seitsinger, Felner, Brand, and Burns (2008) the structure of teacher-parent contact practices was investigated. This study involved 1089 teachers from 38 schools, who were assessed in terms of their practices to communicate and contact parents. These authors found that teachers' practices were significantly related to parent report of school involvement as well as students' achievement.

Parental Involvement at Schools

Parental involvement at school is one way parents can help their children succeed in their education (Sheldon, 2002). Parents can become involved in schools in a variety of ways, including interacting and communicating with teachers (Sheldon, 2002). However, this type of parental involvement is often rare (Sheldon, 2002). Muller and Kerbow (1993) reported that only 15% to 26% of mothers tend to volunteer in their children's school. For this reason, substantial research has been conducted on the different ways teachers and other educators can increase parental involvement at their schools. A series of strategies for teachers have been suggested by Musti-Rao and Cartledge (2004) to enable parents to develop and maintain the home-school collaboration. The strategies suggested by these authors included but were not limited to the idea that parents can be involved in schools when teachers schedule regular face-to-face meetings, provide training session in schools focusing on strategies to use with their children at home, set

short-term goals with the parents for the children, as well as make sure that teachers are flexible when scheduling meetings with parents.

Among other strategies, it has been suggested that in order to increase the level of parental involvement in schools, schools must integrate culture and community in their school context, they must provide a welcoming environment, and provide families with resources and referrals (Halgunseth, Moodie, Peterson & Stark, 2009). Halgunseth, Moodie, Peterson and Stark (2009) stated that it is necessary for the families' cultural and ethnic ideals to be respected in the process of collaboration, communication, and involvement of parents in schools. Other researchers state that improving school climate, providing in-service training to parents in schools, and developing in-school resources may help in the family-school collaboration and development of trust (Hoover-Dempsey & Walker, 2002). Lastly, the National Center for Education Statistics (1998), reported that most elementary schools tend to offer parents open houses (97%), parent-teacher conferences (92%) as well as opportunities to volunteer in schools (90%) in order to increase parental involvement at the schools.

In a study conducted by Hindman, Skibbe, and Morrison (2010), teachers' outreach to families in preschool, kindergarten, and first grade and its association with the students' growth in language, literacy, and mathematics were examined. Teachers completed surveys where they reported the frequency of their outreach practices with parents. Findings showed that ways to involve parents at the school included teachers distributing activities and newsletters, inviting parents to volunteer in their classrooms, as well as a number of communication strategies such as phone calls and emails. Results

demonstrated that many of their outreach practices performed by the teachers impacted the students' vocabulary learning, and math skills development.

Latino parents' involvement at schools. When teachers increase their efforts to involve and communicate with parents, it is more likely for parents to engage in their children's education (Epstein, 2001). As mentioned previously, parental involvement requires a partnership between families, schools, and communities (Epstein, 2001), thus schools must work towards meeting the needs of culturally and linguistically diverse students and families (Snow, Barnes, Chandler, Goodman, & Hemphill, 1991). Parents of high-achieving Latino students tend to report a higher degree of school and at home involvement (Delgado-Gaitan, 2004). Latino students perform better academically when educators increase their efforts to involve Latino parents in their children's education. (Delgado-Gaitan, 2007).

It is also of great importance to be cognizant that for Latino parents, understanding the educational system involves knowing the school requirements as well as understanding how to access the various resources, and being able to serve as advocates for their children throughout their education (Delgado-Gaitan, 2007). However, school activities that professionals in the field of education expect parents to engage in tend to ignore the needs of underrepresented groups of parents who are not familiar with the educational system (Delgado-Gaitan, 1991). In a four-year study conducted by Delgado-Gaitan (1991), parental involvement among Spanish-speaking parents was investigated. Observations of parental involvement activities (e.g., parent-teacher conferences) were completed and interviews were conducted with parents, teachers and administrators. Findings of the study demonstrated that schools must

evaluate the needs (e.g., understanding their role as parents in their children's schooling) and types of activities in which Latino parents do participate in order to increase their engagement in school activities. In this study, to facilitate these parents' involvement, a support group for Spanish-speaking parents was developed in which the needs of these parents were recognized and addressed. Delgado-Gaitan (2007) suggests that while no single framework fits all Latino families' needs, certain components must be in place and be part of the model to increase the home-school partnerships, including, commitment, communication, continuity, and collaboration. This author also states that efforts towards involving Latino parents contribute not only to these parents' self-esteem and empowerment but also increases students' success. Quiocho and Daoud (2006) stated that in order to promote and support Latino parents' involvement, efforts should be adapted to the specific families (e.g., sending information to Spanish-speaking families in English and Spanish), and at the same time to the needs of the specific students. Furthermore, explaining to these parents the meaning of parental involvement as well as how it can be done, and the benefits of it can increase their understanding and involvement in their children's schooling (Quiocho and Daoud, 2006).

As it has been suggested that language and culture be taken into account when promoting parent involvement, it is therefore important to review Latino parents' cultural values about parental involvement (Mawjee & Grieshop, 2002). Educators must understand that the definition of parental involvement may differ among ethnic groups, and they may demonstrate different levels of engagement depending on the opportunities offered to become involved (e.g., at school versus at home) (Wong & Hughes, 2006). Furthermore, ethnic minority parents tend to hold the belief that school professionals

serve the expert roles in schools, thus their level of involvement may be more passive rather than active (Crozier, 1999). This is supported by Chavkin and Williams (1993) who suggest that Latino parents are more likely to have the belief that schools are responsible for initiating the effort and providing the opportunities for Latino parents to become involved. Previous research reveals that Latino parents' beliefs of taking a more passive role in their children's schooling may be explained by their tendency to be more respectful, admiring, trusting and feeling less comfortable when communicating and working with teachers and schools (Ritter, Mont-Reynaud, & Dornbusch, 1993). Lack of requisite language, instructional skills and familiarity with the American educational system can also impact Latino parents' beliefs of the respective roles of parents and teachers, and can lead them to take a less active approach to parental involvement (Sosa, 1997). Additionally, some of these parents may become frustrated if who they view as the expert in schools does not acknowledge their efforts in participating and helping their children (Crozier, 1999). Moreover, another cultural value that must be considered is that many Latino parents view education as the vehicle for their children to move out of poverty (Trueba, 1999), however, many times they lack the knowledge of how to help them and the resources that are available (Lareau, 2003).

Lopez and Donovan (2009) stated that Latino parents need to feel respected, and need to be seen as effective partners in the home-school collaboration process, especially because many of these parents immigrated to the U.S. as a means of providing their children with the opportunity for a better education (Suarez-Orozco & Suarez-Orozco, 2001). This is of extreme importance given that Latino parents often report the lowest levels of involvement in schools (Steinberg, Lamborn, Dornbusch, & Darling, 1992)

despite the fact that their reports in regards to the importance of education and attitudes towards school involvement are comparable to those of White American and African American parents (Chavkin & Williams, 1993; Tinkler, 2002). This is supported by other researchers who state that parents of ethnically and linguistically diverse students often report lower levels of involvement when compared to other majority group parents (Delgado-Gaitan, 1990). Furthermore, Latino parents tend to attend meetings as well as school events less frequently, are less likely to volunteer in the children's schools, and are less likely to be members of school committees (National Center for Education Statistics, 2003). Overall, researchers have reported that the lower degree of Latino parents' involvement at schools is associated with their socioeconomic status, their beliefs about their roles in schools, lack of understanding about school professionals' expectations as well as their English proficiency (Chrispeels & Rivero, 2001; Garcia-Coll et al., 2002; Huss-Keeler, 1997; Lopez, 2001).

Furthermore, literature on the involvement of Latino parents in the special education process reports that they have lower levels of participation and awareness of special education procedures, rights and services (Harry, 1992). Harry (1992) stated that these parents express feelings of isolation and helplessness as well as life related challenges (e.g., issues with child care, transportation). These parents also often experience low-self confidence in the collaboration with school staff and feel reluctant to question authority figures at schools. Shapiro, Monzo, Rueda, Gomez, and Blacher (2004) investigated the beliefs of 16 low-income Latina mothers of students with developmental disabilities in regards to their relationship with the educational and service delivery system. A total of three focus groups were completed with the mothers in order

to gather qualitative data and better understand their beliefs about their relationship with the educational system. Findings revealed that these mothers' main preoccupations included but were not limited to the poor communication and negative treatment of parents by school staff.

In connection to this, many professionals in the field of education carry negative beliefs and perceptions about Latino parents' involvement (Chrispeels & Rivero, 2001; Quioco & Daoud, 2006; Valdes, 1996). Numerous educators believe that Latino parents are responsible for the poor performing schools, do not have high expectations for their children, and their children's low academic achievement is the result of their lack of educational attainment, support, and care for their children's education (Chrispeels & Rivero, 2001; Quioco & Daoud, 2006; Valdes, 1996). On the contrary, a number of research articles have reported that Latino parents do have high expectation for their children and want to participate in their schooling (Delgado-Gaitan, 1994; Valdes, 1996; Ada & Zubizaretta, 2001; Nieto, 2004). In fact, it has been reported that Latino parents are aware of their children's need to attend college, and approximately 96% of these parents want their children to seek post-secondary education (Zarate & Pachon, 2006).

The role of culture in engaging Latino parents in schools was investigated in a longitudinal study conducted by De Gaetano (2007). The author addresses how to actively engage this group of parents in their children's schooling and increase their participation in schools. Children attended elementary schools and Latino parents were predominantly from Puerto Rico; however, parents from Dominican Republic, Cuba, Colombia, Ecuador and El Salvador also participated in the study. Parents were provided with two 2-hour workshops per month in each of the schools. In order to obtain a clearer

understanding of Latino parents' lives and understand how adults learn, team members also visited the parents' homes as well as had extended chats with the parents. Parents had the opportunity to do observations and engage in the teachers' classrooms. Additionally, teachers received monthly workshop sessions on topics focused on the parents' backgrounds and experiences, and were also coached in their classrooms. Results of this study supported the assumptions that Latino parents from all social class levels do in fact care about their children and their learning. The author also suggested that often parents teach children a variety of things but are unaware of their role as teachers. Parents in this study substantially increased their knowledge about how schools work (e.g., they were able to recognize that children's reading groups were made based on their reading levels), and became more aware of the role they play at home in their children's learning. An additional benefit for the parents who participated in this study was the increased level of confidence in their personal abilities and strengths as Latino parents. These findings provide additional support for an earlier study conducted by Delgado-Gaitan (1992) which stated that Mexican-American families indeed value the education of their children.

Parental Involvement at Home

A second way parents can help their children succeed in their education is by becoming involved at home, for example engaging in parent-child interactions on school-related activities (Sheldon, 2002). This type of involvement has been shown to significantly impact students' educational success (Sheldon, 2002). Most importantly, parents provide children with resources, establish routines, and assist them in educational planning and decision making, all which are crucial to the educational success of all

children (Shumow, 2010). At home parental involvement has also been referred to as “the curriculum of the home” (Walberg, 1984), and researchers have linked this type of parental involvement with students’ academic achievement (Sheldon, 2002). In a study conducted by Keith (1991), the relationship between parental involvement and high school students’ achievement was evaluated. Students’ test scores and grades were utilized to better understand their academic performance. A total of 28,051 high school students participated and results revealed that parental involvement at home impacts students’ achievement test scores. More specifically, students who had discussions with their parents about school tended to have better test scores and school grades.

Given that parental involvement at schools is more visible to educators, professionals in schools tend to disregard any form of parental involvement taking place at home (Shumow, 2010). However, parents who rarely attend parent involvement activities at schools, are often highly involved in their children’s education at home (Shumow & Miller, 2001). Parental involvement at home consists of a variety of activities parents can do with their children (Shumow, 2010). More specifically, parents can become involved at home by helping their children with their homework, modeling and encouraging their children to read at home, teaching their children knowledge and skills, fostering school learning, promoting respect for education, as well as providing them with educational opportunities (Shumow, 2010). In specific to the area of reading, previous research has documented the importance of parents on students’ reading abilities (Casper, Lopez & Wolos, 2007). In a review of the literature conducted by Casper et al. (2007), results suggested that when parents read books together with their children, it not

only promotes the children's language development but it also fosters their literacy development.

As stated previously, teachers tend to give a greater weight to school-based involvement (Gandara, 1995; Moles, 1993). However, African American and Latino parents are less likely to come to school to participate, thus teachers tend to think of these two minority groups as uncaring about their children's education (Gandara, 1995; Moles, 1993). Hoover-Dempsey and Walker (2002) conducted a review of literature on parental involvement and suggest a number of best practices to help parents become more involved at home. These authors stated that offering parents an array of involvement opportunities, describing to parents the specific achievement-related outcomes that their involvement impacts, as well as providing them with specific strategies for them to use with their children at home may benefit and increase parental involvement. Additionally, providing parents with information about their children's performance, providing them with suggestions on how to increase their involvement in their children's academics, particularly at home, as well as connecting parents with community resources have also been supported by other researchers (Seitsinger, Felner, Brand, & Burns, 2008).

Latino parents' involvement at home. As mentioned above, teachers tend to develop the belief that Latino parents do not place value on their children's education (Gandara, 1995; Moles, 1993). However, as a testament to their strong value for education, many of the Latino parents who immigrated to the U.S., did so for the sole reason of providing their children with better opportunities, despite all the struggles they had to experience (e.g., leaving family behind) (Delgado-Gaitan, 2004). Often times, Latino parents report valuing education, having high expectations for their children, and

carrying the belief that promoting their children's education is critical (Garcia-Coll et al., 2002). Additionally, Latino parents often engage in strategies at home to support their children's education (Mehan, Villanueva, Hubbard, & Lintz, 1996). For example, Lopez (2001) talks about the story of a migrant worker, who translated his experiences in the field to his children, into the importance of working hard at school. In an interview with Mr. Padilla, he expressed "I have shown them what work is, and how hard it is. So they know that if they don't focus in their studies, that is the type of work they'll end up doing. I've opened their eyes to that reality" (Lopez, 2001, p. 427). Delgado-Gaitan (2004) stated that Latino parents tend to support their children's education by offering them a strong emotional environment at home as well as the sharing of family history and stories, which serve as a source of motivation to these students to focus on their education.

The forms of involvement Latino parents often engage in may not always be the typical parental involvement activities expected by school personnel (Delgado-Gaitan, 1992; Valdes, 1996). Instead, they may be more likely to become involved at home in order to promote their children's education (Mehan, Villanueva, Hubbard, & Lintz, 1996). Delgado-Gaitan (2004) explains that home activities Latino parents often engage in with their children (e.g., completing literacy activities together, helping their children with homework, sharing family stories) reinforce their value and care for their children's educational success. Kupermic, Darnell, and Alvarez-Jimenez (2008) suggest that if educators don't recognize parents' efforts to reinforce the importance of education to their children, their attempt to increase Latino parents' involvement may have little impact. It is important to note that children's education takes place in a variety of aspects,

therefore, it should not be concluded that parents are not involved in their children's education as a result of a lack of physically participating in school's activities (Mazur, Courchaine, & Doran, 2010).

Barriers to Parental Involvement

The number of ways in which parents are involved and the levels of parental involvement vary among parents. Parents who are from lower socioeconomic status (SES), have a single parent status, and have a lower educational attainment may be less involved in their children's schooling (Fantuzzo, Tighe, & Chils, 2000; Kohl, Lengua, & McMahon, 2000). It must not be ignored that even though families with a low SES may value their children's education, their limited knowledge about the educational system as well as the scarce resources available to them may impede them from effectively supporting their children's schooling (Delgado-Gaitan, 2004).

Barriers to Latino parents' involvement. Even though the benefits of parental involvement for Latino students are the same as for their White counterparts, Latino parents often times encounter a series of barriers that impedes them from being engaged as much in their children's education (Marschall, 2006). In a case study conducted by the Center for Parent Education at the University of Texas, parental involvement was evaluated using data collected throughout the implementation of a parent training at Tomas Rivera Elementary School (Jacobson, Huffman, Rositas and de Corredor, 1997). Parents who participated in this study were of Hispanic background and had children who were considered high-risk students. A total of seven parents participated in this study and results suggested that Latino parents' language, lack of Spanish translation in school meetings, transportation, poor self-worth as well as their working schedule all impact

their involvement in schools. Additionally, in a study investigating parent involvement in the adjustment of middle and high school immigrant students, Kuperminc, Darnell, and Alvarez-Jimenez (2008) assessed these students' perceptions of parental involvement. Questionnaires were administered and results revealed that the lack of flexibility, and long hours required for participation in schools serve as barriers to school involvement among these parents (Kuperminc, Darnell, & Alvarez-Jimenez, 2008). As a consequence to these barriers and these parents' lower levels of involvement, it has been reported that not only do Latino parents have less opportunities to advocate for their children, but they are also reinforcing school professional's view that they do not value their children's educational success (Chrispeels and Rivero, 2001).

Struggling against stereotypes is not the only challenge encountered by Latino parents; however, linguistic barriers also impact these parents' school involvement (Anderson & Sabatelli, 2007). One of the biggest barriers encountered by these parents involves their English proficiency (Wong & Hughes, 2006). It has been suggested that the lack of English proficiency of many of these parents serves as an obstacle for them to become involved in schools (Tinkler, 2002). Unfortunately, De Gaetano (2007) reported that often times, parents' culture and language is ignored, denigrated, or taken into account only superficially. On the contrary, the more comfortable these parents feel about their English proficiency, the more likely they are to become involved in schools and the more effective they are in promoting their children's academic success (Kuperminc, Darnell, Alvarez-Jimenez, 2008). Even though most of these parents understand the need to learn the English language, they also encounter the challenge of preserving the children's first language in order to communicate with them and maintain traditions

(Worthy & Rodriguez-Galindo, 2006). Furthermore, the educational language jargon frequently used at schools can also serve as a barrier for these parents to become involved (Pena, 2000).

It is also important to mention that many Latino parents struggle to engage and collaborate with their children's schools due to a lack of understanding of their roles as parents in the educational system (Valdes, 1996). While teachers may define parental involvement as the participation in school activities such as parent-teacher conferences, Latino parents may be interpreting their roles as parents in their children's education as engaging in activities at home such as checking their children's homework (Scribner, Young & Pedroza, 1999). As a consequence, making connections with the schools can become frustrating for these parents since they don't have any experience with the U.S. educational system, or they may feel isolated (Delgado-Gaitan, 2004). Latino parents may also feel self-conscious and incapable of collaborating with school personnel due to their limited knowledge with regard to discussing schooling, thus their contact with professionals in schools may be reduced (Delgado-Gaitan, 2007). In connection to this, a lack of knowledge about school professionals' expectations of their role as parents in their children's schooling also impacts Latino parents' involvement (Kuperminc, Darnell, & Alvarez-Jimenez, 2008). There is also often a lack of understanding on the procedure to access the various resources available to support and promote their children's education (Delgado-Gaitan, 2004). It has been previously suggested that explaining to Latino parents the definition of involvement, ways to become involved as well as their benefits of parental involvement in their children's education may help increase their knowledge about their roles and the educational system (Quiocho & Daoud, 2006).

Furthermore, parents may also experience psychological barriers (Hoover-Dempsey, & Walker, 2002). More specifically, Hoover-Dempsey and Walker (2002) conducted a review of the literature for the purpose of identifying the benefits and barriers to parental involvement. The authors reported that the parents' experiences with unpleasant school personnel, any history of their own lack of academic achievement, as well as struggles with physical or mental health may also impact parental involvement (Hoover-Dempsey, & Walker, 2002). Other cultural barriers may involve a discrepancy between the school's expectations for the students and the home's expectations which may have been a result of language differences between the two settings, or from limited understanding either of the educational system by the parents or limited understanding on the families' cultural values by the school (Hoover-Dempsey, & Walker, 2002). Lastly, other barriers impacting Latino parents' involvement in their children's education include economic challenges, family separation and reunification issues, as well as immigration and legal issues (Mazur, Courchaine, & Doran, 2010).

Federal Initiatives to Increase Parental Involvement

Even though there are no federal initiatives specifically for increasing parent involvement among Latinos, the benefits of parental involvement on students' educational success have influenced a number of federal initiatives and policies within the last decade (Van Voorhis, & Sheldon, 2004). Specifically, in order to ensure the provision of opportunities to parents to participate on their children's educational success, the reauthorized individuals with Disabilities Education Act (IDEA) strengthened accountability expectations on students with disabilities and their parents, sending a message of personal responsibility (Turnbull, 2005). That is, Section 614 and 615 of this

school-reform law entails the parent participation principle, which provides parents with the opportunity to participate in any procedure where decisions are made in regards to their children's education (Turnbull, 2005). Additionally, Section 615 of the IDEA provides parents with the rights to receive the procedural safeguards once a year (Turnbull, 2005). In alignment with IDEA, the No Child Left Behind Act (NCLB), includes the sixth principle, which is parent participation and choice (Turnbull, 2005). This principle provides parents with the right to be involved in a nondiscriminatory evaluation, be a member of the Individualized Educational Plan (IEP) team, manage and control the release of records, as well as provide parents with the possibility of becoming members of various advisory boards (Turnbull, 2005). The NCLB also requires school districts that receive Title I, Part A funds to engage in activities and procedures to increase the parental involvement as well as implement programs that target this factor with the collaboration of parents through consultation (Henderson & Berla, 2002). School districts must also provide parents with a written parent involvement policy which is incorporated to the district's plan (Henderson & Berla, 2002). Lastly, NCLB also requires school districts to have a policy that involves additional provisions, including a plan districts will use to assist, support, and coordinate with schools on planning and implementing parental involvement activities in order to increase students' academic achievement (Henderson & Berla, 2002). The American 2000 national mandate for education also stated: "Every school will promote partnership that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children," (U.S. Department of Education, 1996), showing its support for the need to increase parental involvement in schools.

Furthermore, states in the U.S. have also worked on developing laws and procedural guidelines to implement and increase parental involvement. More specifically, in the state of Florida, the Florida Department of Education passed The Family and School Partnership for Student Achievement Act in 2003, which provides parents with the opportunity to receive information about their children's progress in school (Florida Department of Education, 2006). Additionally, this act also provides parents with detailed information on the different choices and opportunities that are offered to them in order to become involved in their children's education as well as a framework for developing and strengthening the relationships between these parents and school staff, including teachers, principals, superintendents, and other personnel (Florida Department of Education, 2006). Furthermore, the Florida Department of Education also requires districts to have a parent guide which provides parents specific information about the various educational procedures and ways in which they can become involved in their children's education (Florida Department of Education, 2006). Finally, the Florida Department of Education formulated guidelines for the development of school board rules in the area of parental involvement. The purpose and focus of these rules are to strengthen family involvement and at the same time empower families in their school districts (Florida Department of Education, 2006).

Specific Factors that May Impact Latino Parents' Involvement

Previous research on parental involvement has identified a number of factors (e.g. parental education, parents' work schedules, and parents' psychological distress) that may impact parents' involvement in their children's education (Hoover-Dempsey, & Walker, 2002; Seefeldt, Denton, Galper, & Younoszai, 1999; Snow, Burns, & Griffin,

1998). Despite the demonstrated benefits of parental involvement (Epstein, 2001), specific factors may constrain parents' ability to enact activities in order to encourage and support their children's schooling (Hoover-Dempsey, & Walker, 2002). The challenges many families experience when trying to become involved in their children's education may emerge from economic hardships and limited educational attainment of the parents (Hoover-Dempsey, & Walker, 2002). However, less is known about factors that may limit parental involvement, specifically of Latinos parents. Even though researchers have investigated specific barriers (e.g., English proficiency) often experienced by the population of Latinos in the U.S. (Marschall, 2006; Wong & Hughes, 2006), the understanding of the impact of these barriers to these parents' involvement is limited. Specific family factors previously mentioned in the parental involvement literature as well as barriers often encountered by the Latino population will be discussed in order to better understand the potential impact of these factors on Latino parents' involvement at school and at home.

Number of years residing in the U.S. A characteristic of the Latino population that may differ among this group is the number of years Latinos have resided in the United States (Qian & Cobas, 2004). For example, while Mexicans have a long history in the United States, Cuban exiles began arriving only recently to this country (Qian & Cobas, 2004). More specifically, the number of Cubans in the United States increased during the late 1950s and throughout the 1960s due to thousands of these individuals seeking asylum (Bean & Tienda, 1980). Even though little is known about the relationship between Latino parents' number of years residing in the U.S. and their parental involvement, it has been reported by previous research that the cultural norms

present within the family (Hammer & Miccio, 2004), as well as the parents' level of stress (Farver, Xu, Eppe, & Lonigan, 2006) are impacted by the number of years the parents have resided in the U.S.

The number of years residing in the U.S. also plays a function on the language (Portes & Rumbaut, 1996), and literacy practices of Latino families (Hammer, Miccio, & Wagstaff, 2003; Hammer, Rodríguez, Lawrence, & Miccio, 2007). In regards to these families' language, it is essential to understand that immigrants residing in the U.S. for longer periods of time tend to speak more English at home when compared to those who just recently arrived to the U.S. (Portes & Rumbaut, 1996). In a study conducted by Hammer, Miccio, and Wagstaff (2003), the relationship between early literacy practices of Puerto Rican mothers and their children's early literacy outcomes was evaluated. A total of 43 mother-child dyads participated and children attended Head Start programs. Mother-child dyads were grouped according to whether the child had learned English and Spanish simultaneously from birth or had learned Spanish from birth and then English in Head Start. Mothers who were first in their family to move to the U.S. spoke only Spanish to their child, while those who were born in the mainland spoke both English and Spanish to their child. As these mothers became more familiar with the American culture and the school system, their literacy practices with their children were impacted by their number of years residing in the U.S. as well as by the gradual shift in the mothers' child-rearing styles (e.g., changes in values and goals). Mothers who spoke to their children in English and Spanish reported engaging more frequently in teaching their children pre-academic and literacy skills (e.g., providing their children with reading instruction) as well as taking their children to the library.

Latino families' acculturation may also be impacted by the number of years they have resided in the U.S. Acculturation refers to cultural changes that a person experiences as a result of continuous and direct contact with individuals or groups as well as social influences that are culturally dissimilar (Gibson, 2001). It has been reported that Latino immigrant parents gradually adjust to the U.S. culture regardless of SES, however, the changes associated with the families' acculturation may have crucial implications for the immigrant children's success in school (Farver, Eppe, & Ballon, 2006). Farver, Eppe, and Ballon (2006), investigated the influence of Mexican and Central American mothers' acculturation level on the children's school readiness skills. Children were 4-5 years old and were all born in the U.S., while most of the parents were born in a Latin American country. Children's school readiness skills were examined by evaluating their phonological sensitivity and their print knowledge. Results revealed that in homes where mothers had a positive orientation towards their own ethnic group as well as to other groups (integrated style of acculturation), the children's literacy skills were shown to be best. More specifically, these mothers modeled and engaged in more literacy related activities with their children, and their children reported higher scores on the literacy assessments in both English and Spanish. Other research has also supported the finding that the development of Latino children's early English language is impacted by acculturation (Hammer & Miccio, 2004; Teichman & Contreras-Grau, 2006). Many parenting strategies, including speaking English at home, and engaging in literacy activities at home are considered evidence of acculturation (Hammer, Miccio, & Wagstaff, 2003).

Parents' English proficiency. Latino parents' English proficiency may also affect their school involvement which consequently can impact their children's academic success. Even though little is known about how these parents' English proficiency impacts these students, it is important to be cognizant that research has linked parental engagement in literacy practices with higher early achievement in both low and middle class families (Payne, Whitehurst, & Angell, 1994). This is supported by a study conducted by Garcia-Coll and colleagues (2002), where parental involvement of immigrant parents in their children's education was investigated, while taking into account sociodemographic and cultural variables. More than 300 parents of children attending either first or fifth grade participated in this study. Parental reports revealed that at home and in school involvement is positively related with parents' English language proficiency. Kuperminc, Darnerll, and Alvarez-Jimenez (2008) stated that Latino parents' English proficiency comfort level not only impacts their involvement in their children's schools but they may also be more successful at promoting students' achievement.

Additional research also suggests that Latino parents encounter linguistic barriers when trying to become involved in schools (Anderson & Sabatelli, 2007). Tinkler (2002) conducted a literature review of Latino parents' involvement in their children's education. The author states that Latino parents' English proficiency have served as an obstacle for many of these parents when trying to become involved (Tinkler, 2002); however, schools tend to ignore or give little attention to this matter (De Gaetano, 2007). Moreover, Wong and Hughes (2006) conducted a study with the purpose of investigating ethnic and language group differences on parent-rated and teacher-rated parent involvement. A total of 481 parents and 179 teachers of first grade students from three

different schools participated in this study. Latino parents' English proficiency was also taken into account by examining separately Latino parents who spoke more English and Latino parents who spoke more Spanish. Parent and teacher questionnaires were completed by the participants and results revealed that Latino parents who self-reported speaking more English than Spanish perceived a higher shared responsibility for their children's education with teachers than that of Latino parents who self-reported speaking more Spanish than English.

Given that parental involvement has been linked to students' achievement (Epstein, 2001), in reference to Latino children's academic performance and their home language, research has revealed findings pertinent to the association between these two. Umbel, Pearson, Fernandez, and Oller (1992) found that home language experience is a variable of great importance specific to bilingual acquisition. These authors conducted a study in which two groups of participants were investigated, the children whose families only spoke Spanish at home (OSH) and children whose families spoke both English and Spanish at home (ESH). Even though both groups of participants were functioning on the same level in the area of receptive language, the English vocabulary performance was significantly higher for those students whose families spoke both English and Spanish at home (ESH). In addition, while both groups performed near the mean of 100 in Spanish, the ESH group performed higher in English.

Parental education. Research on monolinguals as well as on Latino bilingual students has reported the relationship between parents' education level and their children's academic achievement (Seefeldt, Denton, Galper, & Younoszai, 1999; Snow, Burns, & Griffin, 1998). Dollaghan and colleagues (1999) investigated the relationship

between the level of education in mothers of low SES families, and their children's speech and language abilities. A total of 240 3-year-old children and their mothers participated in this study. Three levels of educational attainment were included in this study, including less than high school graduate, high school graduate and college graduate. Spontaneous language samples as well as their performance on the Peabody Picture Vocabulary Test-Revised (PPVT-R; Dunn & Dunn, 1981) were utilized to measure the children's speech and language abilities. Results revealed that it was in fact correlated with higher levels of language abilities. Due to the relationship between these two factors, it has also been recommended to investigate the influence of various risk factors, including parental education, on Spanish-speaking ELL children's oral language skills (Nixon, McCardle, & Leos, 2007).

Furthermore, it has been reported that parents' level of education impacts their degree of involvement. More specifically, it was found that parents with higher educational attainment are more likely to be involved at home and at school (Dauber & Epstein, 1989). Kohl, Lengua, and McMahon (2000) conducted a study in which they investigated a set of family and demographic factors (e.g., parental education level, single-parent status, and maternal depression), and the relationship between these factors and the level of parental involvement. A total of 387 students in kindergarten and first grade, their parents and teachers participated in this study. Information was collected through interviews with teachers and parents about the parents' involvement. The authors suggested that parents' level of education was related not only to their involvement in schools and at home, but also to parent-teacher contact, and teacher's perception of the parents' value of education. As stated by the authors, higher parental education may

increase parents' awareness of the need for directly engaging in their children's education. On the contrary, the authors suggested that there may be barriers that get in the way of parents with lower educational experiences, including that they may have had specific life experiences that caused them to feel less effective in helping their children or that they are interfering with the schools' authorities. Furthermore, in a study conducted by McWayne, Campos, and Owsianik (2008), a total of 171 Head Start parents participated, and participants included different ethnic backgrounds (58% Latinos, 37% White, 5% Other). The purpose of the study involved examining the relationship between family demographics and level of satisfaction with school contact. Results revealed a negative relationship between levels of home-school conferencing and those mothers who had less than a high school education.

Additional research on parental education has investigated parents' satisfaction with schools' practices (U.S. Department of Education, 1996; Grolnick, Benjet, Kurowski, and Apostoleris, 1997). Parents with higher levels of education tend to report a lower degree of satisfaction than those with lower educational attainment, suggesting that parents who are more educated tend to feel more comfortable at criticizing the schools' practices (U.S. Department of Education, 1996). As stated by Grolnick, Benjet, Kurowski, and Apostoleris (1997), parents are more likely to be involved in their children's education if they perceive themselves as teachers and successful at helping their children in school. Thus, it is likely that parents' own educational experiences may impact their self-perceptions about being effective in helping their children and feeling at ease when communicating their concerns to teachers (Kohl, Lengua, and McMahan, 2000).

Parents' mental health. Many research studies have reported the increased risk for psychopathology along with other problems (e.g., social and academic issues) on children whose parents suffer from some type of mental health issue (Cummings & Davies, 1994; Cummings, Keller, and Davies, 2005; Downey & Coyne, 1990; Dumas & Serketich, 1994; Lyons-Ruth, Wolfe, & Lyubchik, 2000). Parents' symptoms of depression may increase the likelihood for children of depressed parents to experience negative outcomes (Cummings, Keller, and Davies, 2005) such as high risk levels for psychopathology (Cummings and Davies, 1994). In addition to this, research studies have suggested that maternal depression is not only a risk factor for children's internalizing problems, but also for many child externalizing behaviors (Cummins & Davies, 1994; Dumas & Serketich, 1994; Lyons-Ruth, Wolfe, & Lyubchik, 2000). Social and academic issues may also be impacted by maternal depression, serving as a risk factor for problems on these two domains (Downey & Coyne, 1990; Lyons-Ruth, Wolfe, & Lyubchik, 2000). Children of depressed mothers have been shown to be less effective in problem-solving, more likely to engage in helpless behaviors, as well as experience school problems (Downey & Coyne, 1990; Hammen, Gordon, Burge, Adrian, Jaenicke, Hiroto, 1987; Nolen-Hoeksema, Wolfson, Mumme, Guskin, 1995).

Goodman, Brogan, Lynch, and Fielding (1993) suggested that the relationship between parental depression and children's problems may be a result of greater family adversity. It is crucial to be cognizant of the fact that psychological parent risk factors occur the most often in families of lower SES, and that experience many environmental stressors (Webster-Stratton & Hammond, 1998). It is of importance to note that among Head Start families, more than one third of families may experience three or more major

risk factors, including but not limited to single-parent homes, depression, poverty, and child abuse, and they may also display harsh or negative discipline with their children (Baydar, Reid, Webster-Stratton, 2003).

However, less is known about mothers' global mental health and its impact on parental involvement. It has been suggested that parental involvement serve as a mediating factor between maternal depression and children's academic success (Kohl, Lengua, McMahon, 2000). Downey and Coyne (1990) conducted a review of the literature on parent depression and the difficulties in parenting these individuals experience. The authors reported that maternal depression leads mothers to view their roles as parents as less positive, and at the same time they may feel a lack of energy, motivation and confidence to be involved in their children's schooling, either directly or indirectly through school personnel. Moreover, since individuals suffering from depression tend to elicit negative responses from others it has been suggested that depressed mothers may experience a difficult time developing relationships with teachers (Coyne, 1976). Lastly, depressed mothers may view their lives more negatively than the average person, thus these negative feelings may also be directed to their children's schools, teachers, and even the child (Kohl, Lengua, McMahon, 2000).

As mentioned previously, Kohl, Lengua, and McMahon (2000), conducted a study where they investigated a set of family and demographic factors (e.g., parental education level, single-parent status, and maternal depression), and the relationship between these factors and the level of parental involvement. Interviews were conducted with parents and teachers of kindergarteners and first graders. The results of this study showed a relationship between maternal depression and a number of factors, including

but not limited to parental involvement, parent-teacher relationship, and teachers' perception of the parents' value for education. More specifically, their findings demonstrated that these depressed mothers may be likely to make contact with their children's school teacher if a problem is occurring, however, they may lack the motivation and energy to be involved in activities with their children at school and at home. The authors suggest that this lack of involvement, or in other words lack of motivation and extra energy to become involve, may impact the teachers' perception of these mothers as well as their relationship with them.

Baydar, Reid, and Webster-Stratton (2003), investigated the way different psychological risk factors influenced the mothers' parenting and participation in a parenting training program (The Incredible Years Parenting Training Program; Webster-Stratton & Hancock, 1998) offered at a number of Head Start centers in the northeast region of the U.S. Parent reports were obtained and home observations of parent-child interactions were completed in order to obtain information about the mothers' negative, positive, and inconsistent/ineffective parenting practices. Overall, the findings of this study demonstrated that mothers' with increased psychological risk factors (e.g., depression, anger, substance abuse) reported poorer parenting practices (e.g., negative discipline, inconsistent parenting). However, after the parent training programs were implemented, these low-income Head Start mothers with high risk factors increased their engagement and improved their supportive and positive parenting, suggesting that providing preventative parent training programs may positively impact students' development and school success.

Latinos' mental health. It has been stated that Latinos who are born in the United States tend to have higher rates of psychopathology (e.g., major depression) when compared to those who were born outside this country, thus it has been suggested that exposure to U.S. culture may in fact increase these individuals' risk for experiencing mental health issues (Alegria et al., 2007; Alegria et al., 2008; Grant et al 2004). Alegria et al. (2008) investigated lifetime psychiatric disorders among immigrant Latinos, U.S. born Latinos, and non-Latino white subjects. Authors utilized data from the National Latino and Asian American Study and the National Comorbidity Survey Replication. Latino individuals who were born in the U.S. reported higher rates of psychiatric disorders when compared to Latino immigrant participants. Given that psychiatric disorders are more common in the U.S. than in many other countries (Kessler et al., 2003), and the unique context and lifestyle experienced by individuals in the U.S., the likelihood of experiencing a psychiatric disorder may be higher for individuals who are born in the U.S. (Alegria et al, 2008).

Furthermore, researchers have also reported that the mental health of members of culturally diverse groups tends to be impacted and altered by the stress they experience throughout the acculturation process (Berry, 1997). Acculturative stress has been defined broadly as the negative experiences that take place when immigrating to a new country, thus being exposed to a new culture (Berry, 1990). Researchers reported the relationship between acculturative stress and psychopathology (Finch & Vega, 2003; Hovey & Seligman, 2006), and it is of importance to note that Latino families often experience an array of stressors arising from their immigration experience (e.g., acculturation, language difficulties, and loss of family members and friends) (Garrison, Roy & Azar, 1999). In a

study conducted by Torres (2010), the relationship between Latinos' acculturation level and their rates of depression was investigated. A total of 148 Latino individuals from a Midwestern city in the U.S. participated in the study and they ranged from 18 to 76 years old. The majority of the participants were Mexican or Mexican-American; however, individuals from Puerto Rico, Central and South America also participated in the project. Data was obtained from The Acculturation Rating Scale for Mexican Americans-II (ARSMa-II; Cuellar, Arnold, & Maldonado, 1995), The Multidimensional Acculturative Stress Inventory (MASI; Rodriguez et al., 2002), The Behavioral Attributes of Psychosocial Competence—Condensed scale (BAPC-C; Zea, Reisen, & Tyler, 1996), and The Center for Epidemiologic Studies—Depression (CES-D; Radloff, 1977). Results revealed that immigrants in the U.S. often experience a series of pressures and demands associated with being an immigrant individual living in a society that devalues one's ethnic group, thus the likelihood of experiencing symptoms of depression increases. The amount of depressive symptoms experienced by Latino immigrants is impacted by their language competency and acculturation ability. The risk for these individuals to experience symptoms of depression increases when they first arrive to the U.S., perhaps due to the challenges they often experience when attempting to manage the new cultural demands of the society in the U.S. (Torres, 2010).

Transitional difficulties as a result of acculturation may even be more salient to immigrants' mental health when they arrive to nontraditional receiving sites where limited cultural resources and support (e.g., bilingual advocates) are available and which may impede their adjustment (Bailey, 2005; Griffith, 2008; Kiang, Grzywacz, Marin, Arcury & Quandt, 2010). Kiang et al. (2010) examined the various stressors experienced

by Latino immigrants who arrive to settings where resources are limited (nontraditional receiving sites), and the relationship between these stressors and Latinos' symptoms of anxiety and depression. A total of 150 Mexican adults participated in the study and completed questionnaires in their language of preference, English or Spanish. Findings demonstrated that immigrants arriving to nontraditional sites experience higher rates of mental health problems when compared to the general population and reported higher levels of anxiety, depression, or comorbidity.

As a consequence of becoming familiar and adapting to a different culture, Falcon and Tucker (2000) also suggest that Latinos who move to and reside in the U.S. may be at risk of developing mental health problems. Researchers have identified the most common mental health issues experienced by these individuals as a result of the acculturation process, such as depression, anxiety and psychosomatic symptoms (Neto, 2010). Hovey and Magana (2002) investigated the psychological functioning of Mexican immigrant farmworkers in the midwest region of the U.S. The purpose of the study was to better understand these individuals' symptoms of anxiety as well as the relationship between their acculturative stress and anxiety symptoms. Participants in this study resided in the southeast and northeast regions of the U.S. and a total of 65 Mexican farmworkers participated. Participants completed questionnaires and results revealed that Mexican immigrant farmworkers had elevated symptoms of anxiety, high levels of acculturative stress, low self-esteem, and ineffective social support. Overall, authors suggest that higher levels of acculturative stress may lead these individuals to experience higher rates of anxiety.

Another factor affecting the likelihood of Latino individuals experiencing mental health problems involves the need of mastering the new language and communication skills. As a result of the low educational attainment of many of the Latinos immigrating to the U.S., the acculturation process, and more specifically the mastery of the English language can be an overwhelming task for these individuals (Vega & Sribney, 2003). Additionally, a positive relationship has been reported between perceived discrimination experiences and psychological distress (Moradi and Risco, 2006). Moradi and Risco (2006) examined the relationships among perceived discrimination, psychological distress, self-esteem, sense of personal control, and acculturation of Latinos, and U.S. cultures. The sample in this study encompassed a total of 128 Latino individuals predominantly Cuban, Puerto Rican, and Colombian. Rating scales were completed by the participants to better understand their perceived discrimination, psychological distress, self-esteem, sense of personal control, and acculturation level. Authors suggest that the population of Latinos in the U.S. is at high risk of being targets of discrimination simply because they are identified as Latinos. Thus, results of the study supported previous findings in that perceived discrimination and U.S. acculturation increased the likelihood of greater psychological distress. This is supported by Collado-Proctor (1999) who conducted a qualitative study where the Perceived Racism Scale for Latinos (PRSL) was developed reflecting the experiences of Latinos. Findings of this study concluded that a positive relationship exists between the frequency of perceived discrimination and anxiety. Overall, the likelihood of Latino immigrants experiencing mental health problems increases as a result of, not only the pressures and demands of the new culture

in the U.S., but also residing in a an environment where the immigrants' culture is devalued by the majority culture (Organista, 2007).

In summary, the studies cited above underscore the numerous factors (e.g., immigration history, parents' English proficiency, parental education, parents' mental health) that may influence Latino mothers' school involvement and interactions with their children (Hammer, Miccio, & Wagstaff, 2003; Garcia-Coll, et al., 2002; Dollaghan, et al., 1999; Kohl, Lengua, McMahon, 2000). It is essential to be cognizant that the parents play critical roles in the development of their children, and that their involvement in their children's education is crucial. Given the limited research focusing on parental involvement, specifically of Latinos, further investigation is necessary to better understand these parents' involvement at school and at home as well as determine the specific factors influencing Latino parents' involvement. Additionally, factors such as parental education (Dollaghan et al., 1999), and parents' mental health (Kohl, Lengua, and McMahon, 2000) have been previously identified as precursor factors impacting parental involvement. However, little is known about how these factors as well as others that may impact Latinos in the U.S., affect Latino parents' involvement in their children's education. Therefore, this research project attempts to add some understanding to the literature on specific family factors that may influence Latino mothers' involvement at schools and at home. More specifically, this study looks at four precursor family factors that have been previously investigated in research focusing on parental involvement and/or have been identified as barriers encountered by Latinos in the U.S. The precursor factors include Latino mothers' years of residence in the U.S., Latino mothers' level of English proficiency, Latino mothers' level of education, and Latino mothers' symptoms

of depression and anxiety. As mentioned previously, little is known about how these specific family factors impact parental involvement, specifically of the Latino population of parents in our schools and community.

The Latino Population in the U.S.

It is of great importance for educators to be cognizant of the specific characteristics of the Latino population in the United States in order to best serve these individuals in schools, as well as understand the importance of promoting and increasing Latino parents' involvement which may consequently impact their children's educational success. The Latino population includes different cultural backgrounds from North America, Central America, and South America (Umana-Taylor & Fine, 2001). In the United States (U.S.), the Latinos have now surpassed African Americans as the largest minority group in the country (U.S. Census Bureau, 2003). This minority group is increasing at a fast rate and it now accounts for over 15% of the population (US Census Bureau, 2008). Furthermore, by the year 2025, the Latino population in the U.S. is expected to make up 21% of the population in the country (National Center for Education Statistics, 2010).

Although the Latino population encompasses the largest minority group in the U.S., this population is highly diverse in culture, immigration history, SES, social dilemmas, language, racial composition, cultural customs and practices, as well as regions of settlement (Suarez-Orozco & Paez, 2002). Some Latinos have been born in the U.S., are considered English proficient, and have a long history in this country for many generations, while others have just recently arrived, and are considered recent immigrants who are mainly Spanish speaking (Delgado-Gaitan, 2004). In addition, it is important to

be cognizant that approximately seventy percent of the Latino population in the U.S. reported speaking a language other than English at home (U.S. Census Bureau, 2000). However, immigrants who have resided in the U.S. for longer periods of time report speaking more English at home compared to fewer of those that recently arrived from their country of origin (Portes & Rumbaut, 1996).

Another characteristic of the Latino population in the U.S. is that it is comprised of diverse national origins, including but not limited to Mexico, Puerto Rico, Cuba and other Latin American countries (Qian & Cobas, 2004). In 2007, approximately 44% of the 45.4 million Latinos living in the U.S. were born outside the 50 states and District of Columbia (National Center of Education Statistics, 2010). Even though there has been an increase in the percentage of immigration from Central (7.6% of the population) and South America (5.5% of the population) in the last decade, Mexicans and Puerto Ricans residing in the U.S. comprise the largest group of the Latino population in the U.S. (73%) (U.S. Census Bureau, 2006). The remainder 13.9 percent includes individuals from Cuba, Dominican Republic and other Latin American regions where Spanish is the primary language spoken (U.S. Census Bureau, 2006). The Latino population is also diverse in terms of racial identification, given that they may be considered White, Amerindian, Black, and other races (Qian & Cobas, 2004). Furthermore, as presented by the U.S. Census Bureau (2000), the U.S. is characterized by multiple dialect regions from Spain and the Americas with the three major Latino groups established in the U.S. including Mexicans, Cubans, and Puerto Ricans.

Latinos' experiences in the U.S. are shaped by various factors including but not limited to their ability to acculturate into the new community, as well as their

immigration history (Sánchez, 1999). More specifically, immigration history plays a crucial role on Latino families' experiences in the U.S. Throughout the last half-century, as a result of political turmoil and/or escaping oppression, the immigration patterns of Latinos have resulted in many individuals moving from their country of origin to the U.S. (Stepick & Stepick, 2002). Other Latinos immigrating to the U.S. have experienced civil conflict in their home country, or in other cases they have been forced to start working at an early age making it hard for them to attend school and receive an education (Delgado-Gaitan, 2001).

Latinos in U.S. Schools

Not only has the Latino population become the fastest growing ethnic minority, but since the 1990-1991 school year, the Latino population in the U.S. has also been the fastest growing ethnic group in U.S. schools (US Census Bureau, 2008). More specifically, it was reported that a high number (7.2 million) of Latino elementary and secondary school students speak a language other than English at home (National Center for Education Statistics, 2010). In 2007, approximately 49% of children under the age of 18 who were born outside the U.S. were Latino (National Center for Education Statistics, 2010). More specifically, the majority of children born outside of the U.S. were Mexican (32%), while the rest of Latino children were born in South America (4%), Puerto Rico (4%), Dominican Republic (2%), El Salvador (2%), other Central American countries (3%), Cuba (1%), and other Latin American countries (1%) (National Center for Education Statistics, 2010).

Furthermore, an increase in the number of English Language Learners (ELL) enrolled in public school was reported by the National Clearinghouse for English

Acquisition (2011). More specifically, it was reported that from the 1997-1998 school year to the 2008-2009 school year, the number of ELLs increased from 3.5 million to 5.3 million (National Clearinghouse for English Acquisition, 2011). Additionally, it was reported that while the whole school population in the U.S. has only increased by 12 percent, the population of ELLs has increased by 105 percent (Lazarin, 2006). Lazarin (2006) reported that nearly 80% of ELLs currently in schools are native Spanish speakers. At the same time, it is important to understand that not all Latino students are ELL, given that this minority group is highly diverse and represents numerous Latino cultures that are discrepant in their history and that have had different experiences (Suarez-Orozco & Paez, 2002). Furthermore, as a result of the Latino population of students in schools increasing at a faster rate, it currently makes up one-fifth of the preschool through high school population; it is expected that by the year 2020 this minority group will make up one-quarter of the student population in the U.S. (Garcia & Gonzalez, 2006). Additionally, thirty five percent of the students enrolled in Head Start, a comprehensive child development program, are Latinos (National Head Start Association, 2009).

Academic achievement of Latinos. Limited research has been conducted with bilingual children; therefore, there is a lack of understanding of Latino children's academic development. Nevertheless, these children's educational outcomes in schools in the U.S. are an area that concerns all educators, given that they continue to underachieve at alarming rates (Klinger & Artiles, 2003). A report from the National Center for Educational Statistics (2000) has indicated that Latino students have higher dropout rates than non-Latinos. In addition, the U.S. Department of Education (2003) reported that in

1998, only 63 percent of Latinos between the ages of 18 and 24 had finished high school or earned a GED, in comparison to 85 percent of the total population. This is supported by the National Center for Education Statistics (2010) which reported that of the 3.9 million students estimated to have entered public high school in the 2003–04 school year, approximately, 80% of white students graduated in 2006-07 school year, compared to only 60% of Latino students who received a high school diploma. Similarly, the National Center for Education Statistics (2010) reported that in 2007, 21% of Latino students dropped out of school, a much higher percentage when compared to other ethnicities (Blacks, 8%; Asians/Pacific Islanders, 6%; Whites, 5%). Previous reports have revealed even higher percentages of Latino students' dropout rates. The National Center of Educational Statistics (2002) reported that in some communities in the U.S., more than 40% of the student population of Latinos drop out of school.

Additionally, given that the experiences of bilingual students in economically disadvantaged environments are multifaceted, research suggests that students, whose first language is Spanish, are at high risk for poor literacy outcomes (Hammer, Miccio, & Wagstaff, 2003) and are twice as likely to read below level in English when compared to non-Latino White students (Snow, Burns & Griffin, 1998). This information indicates that Latino students start out with a disadvantage in literacy skills and the gap widens as time progresses, a phenomenon called the “Mathew Effect.” (Stanovich, 1986). In connection to this, it was reported that in 2007, 12% of Latino students in kindergarten through grade 12, had been retained, a percentage higher than for White students (9%) (National Center of Educational Statistics, 2010).

Nevertheless, students who attend schools where the instructional language differs from their native language encounter the challenge of mastering academic skills in a language that they have not yet mastered (Jongejan, Verhoeven & Siegel, 2007). In reference to ELLs, Durgunoglu (2002) states that these students are bilingual due to the fact that they are exposed to two languages, but they may or may not be truly bilingual in the area of linguistic proficiency. Previous research suggests that variables such as, program type, instructional technique, the child's native language and socioeconomic status have an impact on the oral and literacy proficiency in the child's second language (August & Hakuta, 1997; Fitzgerald, 1995; Hakuta, 1999; Tabors & Snow, 2001).

Conclusion

Previous research has revealed a strong relationship between parental involvement and students' academic success (Epstein, 2001); therefore, an increased effort to promote parental involvement in all schools should continue. On the other hand, researchers report that Latino parents tend to show lower levels of involvement in their children's school when compared to other ethnicities, thus it is common for teachers to view these parents as uncaring about their children's education (Gandara, 1995; Moles, 1993). In connection to this, Latino students' have higher dropout rates than non-Latinos (National Center for Education Statistics, 2010), and continue to underachieve at alarming rates (Klinger & Artiles, 2003). For these reasons, it is crucial to better understand Latino parents' involvement. Even though the literature has mentioned a number of barriers encountered by parents when trying to become involved in their children's education, more research is still needed to further understand how these factors impact Latino parents' involvement in order to best serve these parents and their children.

Purpose of the Study

In addition to the decreased likelihood of Latinos parents' involvement, the understanding of the factors impacting these parents' involvement is limited. Specifically, little is known about how Latino mothers' number of years residing in the U.S., English proficiency, education level and mental health affect the likelihood of collaboration and engagement in their children's schooling. Thus, the purpose of this study was to identify the precursor factors that may influence Latino mothers' involvement in their children's educational success. This research project is conducted with the attempt to add some understanding to the field of school psychology in reference to distinct factors that commonly impact the educational involvement at home and at school of Latino mothers of children attending Head Start preschool programs and kindergarten.

Chapter 3

Methods

Data Source

Archival data was analyzed from a longitudinal study to determine the impact of specific family factors (mothers' number of years residing in the U.S., mothers' English proficiency, mothers' education level and mothers' mental health) on Latino mothers' involvement at school and at home. By the end of the study (Time 3), the larger data set included approximately 218 three to six year old Spanish speaking children attending Head Start or Kindergarten in five different counties in Florida. A total of 198 mothers and 20 fathers also participated in the larger study. The sites were chosen to participate given their location in the south or central regions of the state of Florida, where there is a high density of Latino families.

The majority of the children were born in the United States (92%), while the rest of the children were born in Cuba, Puerto Rico, Mexico, Guatemala, Honduras, Peru and Colombia. Children were assessed between the Fall 2008 and Spring 2010 to measure the children's school readiness abilities as well as the role of these children's families and classrooms in the development of these children's skills. The data was collected at three time points in order to measure the development of the children's school readiness skills in English. The development and maintenance of these abilities in the children's first language, Spanish, were also measured. Two cohorts of students were evaluated. One was assessed as they exited Head Start and during kindergarten, while the second cohort

was assessed at all three time points as they progressed through Head Start. These assessments were administered individually by separate assessors for each language on separate days at the Head Start or Kindergarten sites. Parents completed a parent interview by phone at Time 1 and Time 3, and the teachers filled out a demographic questionnaire and cultural competency survey. For the purpose of the current study, data from the demographic questionnaire from Time 1 was utilized to obtain information pertinent to the mothers' years of residence in the U.S., and mothers' level of education. Additional data obtained from the parent interview at Time 3 was utilized in order to obtain information pertinent to the mothers' level of English proficiency, mothers' involvement in their children's education, and mother's mental health. Additional information about the specific measures and questions utilized will be provided in the next sections.

Participants

Mothers whose children attended either Head Start or kindergarten were participants in the current study. Specifically, the sample included only those mothers who completed the interview and self-identified as Latino (N = 165). The mothers' countries of origin included countries located in South America, Central America, and North America (Refer to Table 1). The participants' countries of origin are a fair representation of Latinos in the U.S. and in Florida but do not include all possible countries of origin of Latinos who reside in the U.S. (e.g., Chile, Uruguay, Costa Rica; U.S. Census Bureau, 2010).

The sample of mothers represented a variety of family backgrounds. More specifically, the families recruited differed in regard to educational attainment, mothers'

English proficiency, and number of years residing in the United States. In addition, given that the majority of the students attending Head Start programs are primarily from low-income families, it is not surprising that the majority of the participants in this study are members of low-income families. Specific information about the participants included in the final sample of the current study is provided in Table 1. Additional descriptive statistics are provided in the next chapter where each one of the predictor variables as well as outcome variables are described based on the sample of the current study.

Ethical Considerations

In order to follow ethical guidelines, and because this research study is part of a larger project directed to English language learners attending Head Start, permission from the University of South Florida Institutional Review Board (IRB) was obtained in order to analyze the data from the parent interviews in this dissertation. No data analysis was conducted until the study was approved by the IRB committee.

Ethical issues were addressed through the provision of consent forms to teachers and parents. More specifically, the mothers were asked to sign consent forms, which were provided in both languages, English and Spanish, prior to conducting any parent interviews. In addition, staff from the Head Start programs explained the research project to each participant before they signed the consent form and gave them one week to be able to take the consent form home to review it and make an informed decision about their participation in the study.

In order to keep all the data confidential and to protect the privacy of the participants, all the participants in this research study were assigned ID numbers in order to identify the data without the need to use their names. Additionally, all informed

consents and data collected were recorded, reviewed, and kept in a locked cabinet at the University of South Florida.

Variables

Family factors. In this research study, the independent variables are different precursor family factors that may be associated with the mothers' involvement at school and at home. These variables were obtained from a parent interview and included mothers' years of residence in the United States ("How many years has the mother been residing in the U.S.?"), mothers' level of English proficiency ("How well does the mother understand, speak, read and write English?"), and mothers' level of education ("What is the highest level of schooling the mother has completed?"). (Refer to Appendix A for specific questions and scales).

Mothers' mental health. An additional independent variable was included in this project: mothers' mental health. Mothers' Global Severity Index (GSI) was examined. The relationship between mothers' GSI with mothers' involvement at school and at home was evaluated. The information about the mothers' GSI was obtained from an additional piece of the parent interviews. More specifically, the Brief Symptom Inventory (BSI) was conducted as part of the interviews with the mothers and it provides the GSI as an indicator of the level of general psychological distress.

Mothers' involvement. The dependent variables in this research study incorporate two types of parental involvement, at school involvement and at home involvement. The measure used to assess the dependent variables was also the parent interviews that were conducted with the children's mothers. Given that there are several questions for each type of involvement (at school, and at home), one composite score for each type of involvement was used, including an at school involvement composite score

and an at home involvement composite score. This parent interview measure will be further described in the next sections and the process completed to develop the composite scores will also be explained.

Measures

Data was gathered using a parent interview as well as the Brief Symptom Inventory (BSI) in the mothers' preferred language, English or Spanish.

The demographic parent interview. This parent interview was administered to the children's mothers via telephone during the first (Time 1) and second year (Time 3) of the larger study focusing on English language learners attending Head Start. It is a demographic survey developed by the Bilingual School Readiness research team, used to obtain information in relation to the home language, home literacy environment, home demographic information, as well as immigration history of the families. These parent interviews provide cross-comparison among the Latino families participating in this study.

In specific to the current research study, data collected with the demographic parent interview during the first year (Time 1) was utilized to obtain information pertinent to the mothers' years of residence in the United States, and mothers' level of education. Mothers' years of residence in the U.S. entailed the self-reported total number of years the mothers have resided in the country, while Mothers' level of education was based on the self-reported level of education by the mothers which ranged from "none" to "completed graduate level education after college."

Data collected with the demographic parent interview during the second year (Time 3) was utilized to obtain information pertinent to the mothers' level of English

proficiency, mothers' involvement in their children's education, and mothers' mental health. In regards to mothers' English proficiency, the mothers were asked to self-rate how well they understood, spoke, read, and wrote in English. Responses for each question were coded on a 0 (not at all) to 3 (very well) scale. Appendix A provides the questions and scales utilized to measure mothers' years of residence in the United States, mothers' level of English proficiency, and mothers' level of education. Additionally, all questions included in the at school and at home involvement composite scores are presented in Appendix B and C respectively, and the dimensions of Epstein's framework of parental involvement that are represented by each item are included. Additionally, Appendix B and C include the original response metrics utilized.

Prior to the current study, the reliability of this measure had not been calculated since it is a measure developed by the research team for the purpose of using it for a larger research study. In order to ensure the content validity of this measure, a panel of 3 members of the research team reviewed all questions in the interview and made sure that all questions were clear and appropriate for the objectives of the project. More specifically, given the focus on parental involvement, questions pertinent to activities parents often do in schools and at home to help their children succeed in their education were included and reviewed by the panel to ensure that they aligned with Epstein's (2001) types of involvement (basic obligations of parenting, communicating with schools, volunteering at schools, learning at home, decision making, and working together with the community and school). On the other hand, a previous research study examined the validity of the self-report language fluency measure utilized to identify mothers' English proficiency. More specifically, Lopez (submitted) evaluated the validity

of this language fluency self-report measure by administering the Peabody Picture Vocabulary Test (PPVT) to the mothers and conducting Pearson correlations between the mothers' score on the PPVT and the mother's self-reported language fluency scales. A strong relationship ($r=.76$; $p<.001$) was found when comparing the mothers' score on the PPVT and the mother's self-reported language fluency. Thus, this supports the use of this self-reported language fluency measure to identify mothers' English proficiency. The reliability of this measure based on the sample of this research project was also calculated.

The Brief Symptom Inventory (BSI; Derogatis, 1993). This is a standardized self-report assessment that evaluates symptoms of psychopathology on individuals as young as thirteen years old. It contains a total of 53 items grouped into nine scales. These scales include nine primary dimensions of psychopathological symptoms, including somatization, obsessive compulsive, interpersonal sensitivity, depression, anxiety (panic), hostility, phobic anxiety, paranoid ideation, and psychoticism. Three global indices associated with distress are provided by the BSI. More specifically, the Global Severity Index (GSI), the Positive Symptom Distress Index (PSDI), and the Positive Symptom Total (PST) are all provided by this measure. The function of these three global measures is to communicate in a single score the level or depth of symptomatic distress currently experienced by the individual. The author suggests that the GSI is the best indicator of the level of general psychological distress. It is the average score of all 53 items, and combines information on the numbers of symptoms as well as the intensity of perceived stress. The PSDI indicates whether a person is augmenting or attenuating to his/her level of distress by the way they respond to the questions, while the PST is the total number of

symptoms the individual reports, including at low levels. Furthermore, the BSI administration, scoring and procedures manual (Derogatis, 1993) provides the characteristics of the normative sample. More specifically, approximately 56 percent of the normative sample were males and 44 percent were females. The average age of the sample was 31.5 years old. Even though the manual does not provide the percentage and/or number of individuals from different ethnic backgrounds, it does provide the number of participants that were identified as White, Black or other. Approximately, 65 percent were White, 28 percent were Black, and 7 percent were identified as other.

All items in this self-inventory are rated on a 5-point scale, ranging from 0 (Not at all) to 4 (Extremely) referring to the manifestation of the symptoms in the past 7 days. It takes approximately 10-15 minutes to complete and requires a reading ability level equivalent to that of a sixth-grade education. However, in the current study, the administration of this measure was completed via telephone with the mothers. Therefore, all items were read by the bilingual research assistant to the mothers and the 5 point-scale was provided at the beginning of the administration as well as at the midpoint (item 28) of the administration. The BSI also provides T scores for each one of the global indices and for the individual dimensions. GSI T scores of 63 or above are considered to be clinically significant, as are cases in which two of the dimension scores are 63 or above. Individual questions from the BSI are not presented due to copyright license requirements.

The GSI is used more frequently in practice and research than individual dimensions and the other two global indices provided by the BSI (Hoe & Brekke, 2009). Even though some research studies that have used the BSI have focused on the individual

dimensions of this measure, the most widespread use of the BSI has been as an indicator of psychological distress (GSI; Ruiperez, Ibanez, Lorente, Moro, & Ortet, 2001). Specific to the GSI, previous research has reported the stability coefficient to be .90, suggesting that the BSI is a reliable measure (Derogatis & Melisaratos, 1983). Researchers have also reported that the GSI may be interpreted as a reliable and valid measure of negative emotionality and psychological distress (Hoe & Brekke, 2009; Ruiperez et al., 2001). Thus, for the purpose of the current study, the GSI was utilized to describe the mothers' mental health. On the other hand, appropriate coefficients of internal consistency of the BSI measure were reported ranging from a low of 0.71 on the Psychoticism dimension to a high of 0.85 on Depression (Derogatis, 1993). In regard to test-retest reliability, coefficients ranging from a low of .68 for Somatization to a high of .91 for Phobic Anxiety were reported (Derogatis, 1993).

In terms of the validity of the BSI, concurrent validity has been demonstrated through correlations between subscales on the BSI and the Minnesota Multiphasic Personality Inventory (MMPI; Boulet & Boss, 1991; Derogatis & Melisaratos, 1983). More specifically, general convergence for the dimensions of the BSI with MMPI scales has been reported (Derogatis & Melisaratos, 1983). Additionally, construct validity of the BSI has not only been confirmed in previous literature (Derogatis & Melisaratos, 1983; Hoe, & Breke, 2008; Schwannauer & Chetwynd, 2007), but it has been suggested that it could have a useful application as both a screening and outcome measure in routine clinical psychology practice (Schwannauer & Chetwynd, 2007).

Breve Inventario de Síntomas (BSI; Derogatis, 1993). This assessment is the Spanish version of the Brief Symptom Inventory (BSI), and it also includes a total of 53

items. It is administered in the same way as the English version of the BSI, and is suitable for individuals as young as thirteen years old. Appropriate coefficients of internal consistency of this measure have been reported ranging from a low of 0.70 on the Hostility/Aggressivity dimension to a high of 0.91 Depression (Ruiperez et al., 2001). Furthermore, the BSI administration, scoring and procedures manual (Derogatis, 1993) does not provide the characteristics of the normative sample for the Spanish version of the BSI in order to compare it to the current study's sample. This measure was used in this study to assess the mothers' GSI for those participants whose language of preference is Spanish.

Procedures

In order to obtain information about home factors that may be influencing these mothers' involvement at school and at home, parent interviews were conducted one-on-one with the children's mothers during Fall and Spring of the 2010-2011 school year. Parent interviews were completed by bilingual research assistants who contacted the mothers via telephone and completed the demographic parent interview. The interviews were completed in the mothers' language of preference (English or Spanish) and lasted approximately 30 to 40 minutes. Additionally, the Brief Symptom Inventory (BSI) was completed after the demographic parent interview via telephone. A computer scanning program was used to enter the demographic parent interview data while the BSI data was hand-scored to obtain the T-scores for the individual dimensions as well as the global indices of the BSI. These were then entered manually into an excel document. As a token for the participants' time, the children's parents were sent a backpack with bilingual children's books.

Qualifications

As mentioned above, data was collected in both languages, English and Spanish, depending on the mothers' language of preference. For this reason, the team of research assistants were undergraduate and graduate students who were required to be bilingual; in other words, fluent in English as well as in Spanish. Each research assistant received extensive training on administering the demographic parent interview and the Brief Symptom Inventory (BSI). Additionally, each assessor spoke only in the language of preference of the child's mother during the interview period. The reason why it was decided to have bilingual research assistants, and using the mothers' preferred language was to provide the participants with the opportunity to express themselves as best as possible, and to fully understand the questions that were asked.

Research Questions

1. To what degree and in which activities are Latino mothers involved at school to help their children be successful at school?
2. To what degree and in which activities are Latino mothers involved at home to help their children be successful at school?
3. What factors (mothers' English proficiency, mothers' number of years residing in the U.S., mothers' education level, and mothers' mental health) best predict Latino mothers' involvement at school?
4. What factors (mothers' English proficiency, mothers' number of years residing in the U.S., mothers' education level, and mothers' mental health) best predict Latino mothers' involvement at home?

Data Entry and Screening

The data screening procedures for this research project entailed evaluating whether there were any outliers, making sure that all data was entered accurately (i.e., by quality checking every 10th item), and getting rid of any missing values. As mentioned previously, data from the first (Time 1) and second year (Time 3) of the larger study were utilized for the current study. A total of 303 parent interviews were completed during Time 1 of the larger study; however, only a total of 218 parent interviews were completed during Time 3. In order to have a complete set of data with all the variables of interest, the participants' ID numbers with complete data from Time 1 (i.e., mother's number of years of residence in the U.S. and mothers' level of education) were matched with the corresponding participants' ID numbers with complete data from Time 3 (i.e., mothers' English proficiency, mothers' involvement in their children's education, and mothers' mental health). After the matching process was completed, participants who self-identified as fathers or mothers from other ethnicities (other than Latino) were taken out from this study's sample. A total of 138 ID numbers were eliminated from the data set. In other words, participants' ID numbers were only included in the current study's sample if mothers self-identified as Latino and if both Time 1 and Time 3 data were available and complete. This process resulted in a full data set for all variables included in the study ($N = 165$).

Data Analysis

In order to evaluate the normality assumptions, data screening procedures included screening all variables for accurate data entry, examining level-1 residuals for

normality, examining level-1 residuals for homoscedasticity, and examining level-1 residuals for outliers.

Research Questions 1 and 2

Descriptive statistics were calculated as preliminary analyses to this study and in order to respond to research questions 1 and 2.

1. To what degree and in which activities are Latino mothers involved at school to help their children be successful at school?
2. To what degree and in which activities are Latino mothers involved at home to help their children be successful at school?

The means and standard deviations for each of the types of involvement (at school, and at home) as well as each one of the predictor variables (mothers' years residing in the U.S., mothers' English proficiency, mothers' education level, and mothers' mental health) were obtained. Appendix B and C present the specific questions utilized for each type of involvement. Descriptive statistics for each type of involvement are presented in the next chapter to better understand the level of involvement and the activities in which Latino mothers are involved at school and at home. Descriptive statistics for all predictor variables (mothers' number of years residing in the U.S., mothers' English proficiency, mothers' education level, and mothers' mental health) are also reported in the next chapter. Descriptive statistics for mother at school and at home involvement, mothers' number of years residing in the U.S., mothers' English proficiency and mothers' education level are based on raw scores, while descriptive statistics for mothers' mental health are based on T-scores.

Research Questions 3 and 4

3. What factors (mothers' English proficiency, mothers' number of years residing in the U.S., mothers' education level, and mothers' mental health) best predict Latino mothers' involvement at school?
4. What factors (mothers' English proficiency, mothers' number of years residing in the U.S., mothers' education level, and mothers' mental health) best predict Latino mothers' involvement at home?

As described in research questions 3 and 4, the main focus of this research project is to evaluate whether specific family factors (mothers' years of residence in the U.S., mothers' English proficiency, mothers' education level, and mothers' mental health) are associated with higher levels of Latino mothers' involvement at school and at home. This was examined by estimating hierarchical linear models (Raudenbush & Bryk, 2002), also referred to as multilevel models, and mixed linear models. The use of hierarchical linear models is motivated by the nested data structure. The individual participants in the sample (Latino mothers) are nested in schools ($N = 62$).

Even though the hierarchical linear model is more complex than conducting multiple regression model, it does have a specific advantages for nested data (Draper, 1995; Raudenbush & Bryk, 2002). It produces more appropriate standard errors for fixed effects estimates (coefficients defining the typical parental involvement and the differences in parental involvement among the schools). Furthermore, it produces estimates of the variation in parental involvement within schools, and estimates of the variation in average parental involvement across schools. These variance estimates helps

us better understand the diversity/variation in parental involvement of Latino mothers of children attending Florida Head Start programs.

For the purpose of conducting the hierarchical linear modeling and given that there were several questions for each type of involvement (at school, and at home), one total composite score for each type of involvement was used, including an at school involvement composite score and an at home involvement composite score. More specifically, raw scores from every question administered were converted into z scores in order to combine specific questions to develop the composite score for each type of involvement. Once z-scores were obtained for individual questions, those for each specific composite score (at school involvement and at home involvement) were averaged together in order to obtain a z-score for each type of involvement. Thus, the composite scores for at school and at home involvement are all z scores.

Mothers' English proficiency also entailed one composite score based on a total of four questions. Mothers were asked to self-rate how well they understood, spoke, read, and write in English. Responses for each question were coded on a 0 (not at all) to 3 (very well) scale (Refer to Appendix A for specific questions). In order to obtain one composite score for mothers' English proficiency, raw scores for every question were converted into z scores. Once z-scores were obtained for individual questions, they were averaged together in order to obtain a z-score for the mother's English proficiency composite score.

Prior to conducting the hierarchical linear models, correlations were conducted in order to determine whether relationships existed between any of the variables of interest without controlling for any of them. This preliminary analysis provided information

about the transparent relationships between the variables as well as the potential impact of the predictor variables on parental involvement when conducting the hierarchical linear models.

Two models for each type of parental involvement (at school and at home) were run using the composite scores obtained. An unconditional model including no predictors for predicted level of parental involvement (at school and at home) was first run. The Intraclass Correlations (ICCs) were calculated to determine the degree of dependence between individuals. Additionally, the conditional model predicting level of parental involvement (at school and at home) including the level 1 predictors (Mothers' number of years in United States, Mothers' education level, Mothers' level of English proficiency, Mothers' mental health) was run. All possible interactions between all the variables were first conducted in order to adopt a more exploratory approach to understanding the association between these variables. However, the models were gradually modified by taking out the non-significant interactions while continually evaluating the significance of the remaining interactions. The initial model as well as the final model for each type of involvement are presented and explained in the next chapter.

Table 1.

Characteristics of the Final Sample

Descriptor	Frequency Count	Percentage in Final Sample
Countries of Origin		
Argentina	1	.5%
Bolivia	1	.5%
Colombia	5	3.5%
Cuba	23	14.5%
Dominican Republic	4	2.5%
Ecuador	1	.5%
El Salvador	2	1%
Guatemala	10	6%
Honduras	7	4%
Mexico	90	55%
Nicaragua	2	1%
Panama	2	1%
Peru	2	1%
Puerto Rico	12	7%
Venezuela	3	2%
Income		
Less than 10,000	57	35%
10,000-19,999	68	41%
20,000-29,999	24	15%
30,000-39,999	12	7%
40,000-49,999	1	.5%
50,000-59,999	2	1%
60,000-69,999	1	.5%
Number of Year Residing in the U.S.		
0	3	2%
2	2	1%
3	3	2%
4	4	2.5%
5	8	5%
6	9	5.5%
7	17	10%
8	22	13%
9	19	11.5%
10	21	12.5%
11	7	4%
12	4	2.5%
13	8	5%
14	8	5%
15	6	3.6%
17	4	2.5%
18	3	2%
19	3	2%
20-35	14	8.4%
Education Level		
None	5	3.5%
Some elementary school	16	10%
Completed elementary school	20	12%
Some secondary school	32	19%
Completed secondary school	58	35%
GED certificate	2	1%
Vocational/ trade school	5	3.5%
Some community college	3	2%
Completed 2 years of community college	4	2.5%
Some college or university	13	7%
Completed 4-year college or university	5	3.5%
Some graduate level education after college	2	1%

Note. N = 165. All participants included self-identified as Latino mothers. All participants had complete data (no missing data).

Chapter 4

Results

Overview

A demographic parent interview and the Brief Symptom Inventory (BSI) were administered to a group of Latino mothers of pre-school Head Start and Kindergarten students in five counties in Florida in order to measure their at school and at home parental involvement. The participants in the sample self-identified as Latino, therefore, each one of the measures were administered in the participant's language of preference, English or Spanish. The analyses for the at school and the at home involvement were conducted separately. Only mothers' data were used due to a large amount of information missing for the children's fathers as well as the mothers completing the majority of the interviews rather than the fathers. This chapter provides a description of the results of the current study.

Given that several questions were posed in this research study in order to better understand the at school and at home involvement of these mothers, one composite score for each type of involvement taken from the demographic parent interview was used, including an at school involvement composite score, and an at home involvement composite score. In order to obtain these composite scores, z scores for each individual question were obtained, thus the composite scores for each type of involvement are based on z-scores. Once z-scores were obtained for individual questions, those for each specific composite score (at school involvement and at home involvement) were

averaged together in order to obtain a z-score for each composite. Furthermore, descriptive statistics were calculated as preliminary analysis to determine the normality of the scores used in the later analyses.

The purpose of the current study is to better understand the degree of parental involvement of Latino mothers and the activities in which they are involved in at school and at home. Descriptive statistics were calculated to identify these mothers' level of involvement and the specific activities they engaged in at school and at home. Refer to Appendix B and C for a list of questions included in each type of parental involvement composite score. The main focus of this research project was to determine whether specific family factors (i.e., Mothers' years of residence in the U.S., Mothers' English proficiency, Mothers' education level, and Mothers' mental health: Global Severity Index) were related to higher levels of parental involvement at school and at home. Correlations were first conducted to identify the relationships between the variables. Hierarchical linear modeling was then completed in order to evaluate the relationships between predictor variables (family factors) and the dependent variable (parental involvement). The use of hierarchical linear models was motivated by the nested data structure. The individual participants in the sample (Latino mothers) were nested in schools.

Descriptive Statistics of Predictors

Descriptive statistics for each one of the family factors that were included in this research study were conducted. More specifically, the means, standard deviations, medians, modes, minimums, and maximums were calculated for the continuous variables (Mothers' number of years residing in the U.S., Mothers' English proficiency, Mothers'

education level, and Mothers' mental health: Global Severity Index) included in this project. Results from the descriptive statistic analyses for the continuous variables are listed in Table 2. Descriptive statistics for mothers' number of years residing in the U.S., mothers' English proficiency and mothers' education level are based on raw scores, while descriptive statistics for mothers' mental health are based on T-scores. In specific to mothers' English proficiency, the mothers were asked to self-rate how well they understood, spoke, read, and wrote in English. Responses for each question were coded on a 0 (not at all) to 3 (very well) scale, and were summed creating a 0-12 scale of reported English language fluency. Descriptive statistics are presented in Table 2 for the English proficiency total summed score and also according to each individual question ("How well does the mother understand, speak, read, and write in English). Mothers' education level was based on the self-reported level of education by the mothers which ranged from "none" to "completed graduate level education after college." (Refer to Appendix A for specific question).

Mothers' mental health was measured using the Global Severity Index (GSI) provided by the Brief Symptom Inventory (BSI) which is a standardized self-report assessment that evaluates symptoms of psychopathology. The BSI provides a T-score for the GSI which serves as the best indicator of the level of general psychological distress. GSI T scores of 63 or above are considered to be clinically significant. Descriptive statistics are presented in Table 2 for the GSI as well as each individual dimension of the BSI (somatization, obsessive compulsive, interpersonal sensitivity, depression, anxiety (panic), hostility, phobic anxiety, paranoid ideation, and psychoticism) in order to

provide a full description of the participants' mental health. (Refer to Table 1 for descriptive statistics of all family variables).

Skewness and kurtosis values for each of the variables were observed to be within the acceptable ranges with the highest skewness value of 1.41 and kurtosis value of 1.99. Table 3 presents this information.

Reliability

In order to obtain a measure of reliability for each of the variables investigated in this research study, Cronbach's alpha was calculated for each individual type of parental involvement (at school and at home involvement). A summary of these findings can be found in Table 4 for both types of parental involvement. Adequate reliability was obtained for the at home involvement. However, in regards to the at school involvement, adequate reliability was not obtained, potentially impacting the results of the current study. In general, the at home involvement composite demonstrated higher reliability than the at school involvement composite that was obtained from the parent interview questions. Additionally, Cronbach's alpha was also calculated for the language fluency measure which provided the mothers' English proficiency composite score. These findings can also be found in Table 4. Overall, the mothers' English proficiency composite score demonstrated high internal consistency reliability. On the other hand, given that the scores for the individual items of the BSI were not available as part of the archival data but rather the T-score for the GSI and individual dimensions, the reliability of this measure was not computed. However, previous research has documented appropriate coefficients of internal consistency for the BSI as well as the GSI composite score.

Research Question 1: To what degree and in which activities are Latino mothers involved at school to help their children be successful at school?

A number of descriptive statistics were conducted to identify the degree of at school involvement as well as the specific activities in which Latino mothers of children attending Head Start or Kindergarten engage in to help them be successful in school. At school involvement included activities such as attending parent meetings, participating in school activities, attending parent-teacher conferences, visiting and helping at school, taking a leadership role among parents as well as being aware of the skills needed to be mastered by the student. The at school involvement composite included a total of six questions which are presented in Appendix B. Results from the descriptive statistics analyses are presented in Table 5. Furthermore, a frequency count and percentages of mothers engaging in each individual at school involvement activity are also reported in Appendix B.

In order to obtain a total percentage of mothers who reported engaging in each specific activity, the responses to each at school involvement question were dichotomized by adding the number of mothers who responded engaging in the activity at some level (i.e., “almost every day,” “1-2 days a week,” “2-3 times a month,” “once a month”) as well as adding the number of mothers who reported a lack of engagement in each activity (e.g., “almost never”). The total number for each individual question was then converted to a percentage which indicated the percentage of mothers who reported engaging in the specific activity.

The majority of the mothers reported engaging the most often in specific at school involvement activities, including attending parent meeting, teacher conferences, or

special celebration (81%), participating in their children's school activities (e.g., award ceremony, school party, open house; 81%), being aware of the information and skills their children need to master by the end of the year (90%), and attending parent-teacher conferences when requested by the teacher (95%). On the other hand, Latino mothers in the current study reported visiting and helping in the classroom, and/or doing a cultural or other special activity in the classroom (24%) and taking a leadership role (e.g., parent council, class parent; 9%) less often than the other at school involvement activities.

Research Question 2: To what degree and in which activities are Latino mothers involved at home to help their children be successful at school?

A number of descriptive statistics were also conducted to determine the specific activities at home in which Latino mothers of children attending Head Start or Kindergarten engage in to help them be successful at school as well as the degree of parental involvement taking place at home. At home involvement included activities such as teaching the students the letters, numbers, colors, shapes, how to read, how books work, how to behave and how to complete tasks, as well as doing work at home to help the teachers, and participating in community events with their child. The at home involvement composite included a total of ten questions which are presented in Appendix C. Results from the descriptive statistics analyses are presented in Table 6. Furthermore, a frequency count and percentages of mothers engaging in each individual at home involvement activity are also reported in Appendix C.

In order to obtain a total percentage of mothers who reported engaging in each specific activity, the responses to each at home involvement question were dichotomized by adding the number of mothers who responded engaging in the activity at some level

(i.e., “almost every day,” “1-2 days a week,” “2-3 times a month,” “once a month”) as well as adding the of mothers who reported a lack of engagement in each activity (i.e., “almost never”). The total number for each individual question was then converted to a percentage which indicated the percentage of mothers who reported engaging in the specific activity.

The majority of the mothers reported engaging the most often in specific at school involvement activities, including teaching their children the letters (97.5%), numbers (97.5%), colors (97.5%), shapes (97%), how to read (92%), how books work (89%), how to behave (97.5%), and to complete tasks (95%). In the contrary, Latino mothers in the current study reported engaging the least on other at home involvement activities including, working at home to help the teachers (e.g., making snacks, helping with a special activity, or other classroom related work; 30%), and participating with their children in community organizations and/or events (44%).

Research Questions 3 and 4

For the purpose of conducting the correlations as well as hierarchical linear modeling, z-scores were utilized in order to obtain one composite score for each type of involvement (at school, and at home) and for mothers’ English proficiency. Thus, the composite scores for at school and at home involvement as well as mothers’ English proficiency are all z-scores. On the other hand, mean centering of the remainder predictor variables (mothers’ number of years residing in the U.S., mothers’ education level, and mothers’ mental health) was employed in order to rescale the predictor variables and to facilitate interpretation of the models. Grand-mean centering subtracts the grand mean of the predictor variable using the mean of the full sample. Specifically, in order to scale

these predictor variables, the grand-mean of the predictor variable (e.g., mothers' number of years residing in the U.S., mothers' education level, and mothers' mental health) was subtracted from each individual score (e.g., mother's education level – mothers' education level grand mean). This addressed the problems with estimation of intercept in the original metric for each predictor variable (mothers' number of years residing in the U.S., mothers' education level, and mothers' mental health). Because the 0 values fell in the middle of the distribution of the predictors after grand-mean centering took place, the intercept estimates were estimated with more precision and were more easily interpreted. Overall, standardized scores (z scores) were utilized for at school involvement, at home involvement, and mothers' English proficiency, while grand-mean centering was completed for mothers' number of years residing in the U.S., mothers' education level and mothers' mental health (GSI).

Correlational analyses. Correlations were calculated as part of the third and fourth research questions to determine if the specific family factors chosen as part of this research study were related to the at school and at home involvement of the participants. The correlation matrix included both composite scores (At School Involvement and At Home Involvement). Pearson correlation was also calculated between the participants' at school involvement and their at home involvement in order to identify if a relationship between the two types of involvement was present. Results from this analysis are presented in Table 7.

In terms of the at school involvement composite score, the correlation matrix indicated that at school involvement was mildly to moderately correlated to mothers' English Proficiency ($r=.34$; $p<.001$), mothers' education level ($r=.27$; $p<.001$), mothers'

anxiety (panic) ($r=-.15; p<.05$), mothers' hostility ($r=-.15; p<.05$), and mothers' paranoid ideation ($r=-.18; p<.05$). On the other hand, at school involvement did not appear to be substantially correlated to at home involvement. In regards to at home involvement, the correlation matrix indicated that at home involvement was not correlated to any of the predictor variables. Findings also demonstrated that mothers' English proficiency was mildly to strongly correlated to mothers' years residing in the U.S. ($r=.24; p<.01$), mothers' education level ($r=.60; p<.001$), mothers' interpersonal sensitivity ($r=-.22; p<.01$), mothers' phobic anxiety ($r=-.16; p<.05$), and mothers' psychoticism ($r=-.26; p<.001$). Additionally, mothers' education level was mildly to moderately correlated to mothers' interpersonal sensitivity ($r=-.23; p<.001$), mothers' depression ($r=-.15; p<.05$), and mothers' phobic anxiety ($r=-.14; p<.05$). Lastly, mild to strong correlations were found among the nine different dimensions of the BSI (i.e., correlations ranged from $-.21$ to $.76$).

Hierarchical linear modeling. Hierarchical linear modeling was conducted in order to answer research questions 3 and 4. Two models for each type of parental involvement (at school and at home) were run, an unconditional model and a conditional model. In addition, both models for each type of parental involvement (at school and at home) were analyzed for 165 participants who had no missing data in either type of parental involvement as well as complete information about the specific family factors. This allowed the researcher to make direct comparisons across the types of parental involvement since the same participants were used in each one of the models that were run. Table 8 presents a comparison between participants included in the final sample of

the current study and the sample dataset from the larger study at Time 1 and Time 3 where data was obtained.

Research Question 3: What factors (mothers' English proficiency, mothers' number of years residing in the U.S., mothers' education level, and mothers' mental health) best predict Latino mothers' involvement at school?

As mentioned above, two models for at school parental involvement were run. An unconditional model including no predictors for predicted level of at school parental involvement was first run. The Intraclass Correlation (ICC) was calculated to determine the degree of dependence between individuals. Additionally, the conditional model predicting level of at school parental involvement including the level 1 predictors (mothers' number of years in United States, mothers' education level, mothers' level of English proficiency, and mothers' mental health) was run. All possible interactions between all the variables were first conducted in order to adopt a more exploratory approach to understanding the association between these variables. However, the model was then gradually modified by taking out the non-significant interactions while continually evaluating the significance of the remaining interactions in the model.

Assumptions of normality and homoscedasticity. The overall skewness and kurtosis of the level-1 residuals were -.39 and 1.48 respectively for the at school involvement initial full model. The largest school specific skewness values ranged from -1.59 to 1.66, and largest school specific kurtosis values ranged from -1.19 to 2.41 suggesting some cautionary values. However, none of the individual Shapiro-Wilks tests were statistically significant for this model. The overall Shapiro-Wilk value of .97 was also not statistically significant suggesting no major violations of the normality

assumption. The differences between schools in the variance of the level-1 residuals was not statistically significant ($F(61, 103)=0.68, p=0.94$), and thus there does not appear to be substantial violation of the homogeneity assumption. Additionally, the overall skewness and kurtosis of the level-2 residuals were $-.77$ and 1.31 respectively for the at school involvement initial full model. The overall Shapiro-Wilk value of $.88$ was not statistically significant suggesting no major violations of the normality assumption. Given that the interest in this study lied primarily within the fixed effects of the models and there is robustness for mild violations of the normality assumption, continuation with using HLM was appropriate.

Unconditional model. The unconditional model included no predictors for predicted level of at school parental involvement. The equation for this unconditional model is provided below.

$$\text{Level-1: At School Involvement}_{ij} = B_{0j} + r_{ij}$$

$$\text{Level-2: } B_{0j} = g_{00} + u_{0j}$$

The Intraclass Correlation (ICC) was calculated to determine the degree of dependence between individuals. The ICC for at school parental involvement was $.064$. The intercepts showed almost no variation across schools in the at school involvement unconditional model. Table 9 presents the parameter estimates and an indication of the precision of these estimates (e.g., standard errors) for the at school involvement model.

Conditional model. The initial conditional model predicting level of at school parental involvement included the level 1 predictors (mothers' number of years residing in U.S., mothers' level of English proficiency, mothers' education level, mothers' mental health) and the interactions between all the variables. All possible two-way interactions

between all the variables were first conducted in order to adopt a more exploratory approach to understanding the association between these variables. However, the model was gradually modified by removing the interaction with the largest p-value first while continually evaluating the significance of the remaining interactions. The at school involvement initial conditional model is presented on Table 10, and the equation is provided below.

$$\text{At School Involvement}_{ij} = B_{0j} + B_{1j} \text{Yrs_US} + B_{2j} \text{ENG} + B_{3j} \text{EDU} + B_{4j} \text{GSI} + B_{6j} \text{Yrs_US} * \text{ENG} + B_{7j} \text{Yrs_US} * \text{EDU} + B_{8j} \text{Yrs_US} * \text{GSI} + B_{10j} \text{ENG} * \text{EDU} + B_{11j} \text{ENG} * \text{GSI} + B_{13j} \text{EDU} * \text{GSI} + u_{0j} + r_{ij}$$

Within the initial conditional model, mothers' English proficiency, $t(64) = 2.72$, $p = .008$ was statistically significant. Mothers' English proficiency had a positive effect with a coefficient value of .14. This suggests that for a mother who is average on all predictors and when all other variables are held constant, for every one unit change in mothers' English proficiency, the predicted at school involvement score will increase by .14. None of the other fixed effects were statistically significant, nor any of the interactions included in the initial conditional model for at school involvement. Thus, interactions were gradually removed from the model while continually evaluating the significance of the fixed effects and interactions within the model. The model was first modified by removing the least statistically significant interaction and then examining the significance of the predictor variables and remainder interactions. After gradually removing all non-significant interactions, the final model included only main effects due to all interactions being non-significant even after gradual modification of the model took place. Additionally, the final at school involvement model was consistent with the initial

at school involvement model in which mothers' English proficiency $t(70) = 3.01, p = .003$ was the only predictor variable that was statistically significant. Mothers' English proficiency in the final model had a positive effect with a coefficient value of .15. This suggests that when all other variables are held constant, for every one unit change in mothers' English proficiency, the predicted at school involvement score will increase by .15.

A residual analysis on the final model was also run and no violations of the assumptions of multivariate normality and homoscedasticity were found. The final at school involvement model is presented in Table 11, and the equation for this final model is provided below. Except for mothers' English proficiency, all predictors included in the final model were shown to be non-significant.

$$\text{At School Involvement}_{ij} = B_{0j} + B_{1j} \text{Yrs_US} + B_{2j} \text{ENG} + B_{3j} \text{EDU} + B_{4j} \text{GSI} + u_{0j} + r_{ij}$$

Research Question 4: What factors (mothers' English proficiency, mothers' number of years residing in the U.S., mothers' education level, and mothers' mental health) best predict Latino mothers' involvement at home?

As mentioned previously, two models for at home parental involvement were run. An unconditional model including no predictors for predicted level of at home parental involvement was first run. The Intraclass Correlation (ICC) was calculated to determine the degree of dependence between individuals. Additionally, the conditional model predicting the level of at home parental involvement including the level 1 predictors (Mothers' number of years in United States, Mothers' education level, Mothers' level of English proficiency, Mothers' mental health) was run. All possible two-way interactions between all the variables were first conducted in order to adopt a more exploratory approach to understanding the association between these variables. However, the model

was then gradually modified by removing the non-significant interactions while continually evaluating the significance of the remainder interactions in the model.

Assumptions of normality and homoscedasticity. The overall skewness and kurtosis of the level-1 residuals were -.85 and 1.26 respectively for the at home involvement initial full model. Additionally, the largest school specific skewness values ranged from -1.8 to 1.5, and largest school specific kurtosis values ranged from -1.76 to 2.30 suggesting some cautionary values. However, none of the individual Shapiro-Wilks tests were statistically significant for this model. The overall Shapiro-Wilk value of .95 was also not statistically significant, suggesting no major violations of the normality assumption. The differences between schools in the variance of the level-1 residuals was not statistically significant ($F(61, 103)=1.74, p=0.34$), and thus there does not appear to be substantial violation of the homogeneity assumption. Additionally, the overall skewness and kurtosis of the level-2 residuals were -.97 and 1.47 respectively for the at home involvement initial full model. The overall Shapiro-Wilk value of .74 was not statistically significant suggesting no major violations of the normality assumption. Given that the interest in this study lied primarily within the fixed effects of the models and there is robustness for mild violations of the normality assumption, continuation with using HLM was appropriate.

Unconditional model. The unconditional model for at home involvement included no predictors for predicted level of at home parental involvement. The equation for this unconditional model is provided below.

$$\text{Level-1: At Home Involvement}_{ij} = B_{0j} + r_{ij}$$

$$\text{Level-2: } B_{0j} = g_{00} + u_{0j}$$

The Intraclass Correlation (ICC) was calculated to determine the degree of dependence between individuals. The ICC for at home parental involvement was .007. The intercepts showed almost no variation across schools in the at home involvement unconditional model. Table 12 presents the parameter estimates and an indication of the precision of these estimates (e.g., standard errors) for the at home involvement model.

Conditional model. The initial conditional model predicting level of parental involvement at home included all level 1 predictors, and the equation is provided below.

$$\text{At Home Involvement}_{ij} = B_{0j} + B_{1j} \text{Yrs_US} + B_{2j} \text{ENG} + B_{3j} \text{EDU} + B_{4j} \text{GSI} + B_{6j} \text{Yrs_US} * \text{ENG} + B_{7j} \text{Yrs_US} * \text{EDU} + B_{8j} \text{Yrs_US} * \text{GSI} + B_{10j} \text{ENG} * \text{EDU} + B_{11j} \text{ENG} * \text{GSI} + B_{13j} \text{EDU} * \text{GSI} + u_{0j} + r_{ij}$$

Within the initial model predicting at home involvement, none of the variables included in the model were statistically significant. The initial model for at home involvement is presented in Table 13. Additionally, all of the interactions included in this model were non-significant. Thus, interactions were gradually removed from the model while continually evaluating the significance of the fixed effects and interactions within the model. The model was first modified by removing the least statistically significant interaction and then examining the significance of the predictor variables and remainder interactions in the model. After gradually removing all non-significant interactions, the final model included only main effects due to all interactions being non-significant even after gradual modification of the at home involvement model took place.

A residual analysis on the final model was also run and no violations of the assumptions of multivariate normality were found. The final at home involvement model

is presented in Table 14 and the equation for this final model is provided below. All predictors included in the final model were shown to be non-significant.

$$\text{At Home Involvement}_{ij} = B_{0j} + B_{1j} \text{Yrs_US} + B_{2j} \text{ENG} + B_{3j} \text{EDU} + B_{4j} \text{GSI} + u_{0j} + r_{ij}$$

In general, none of the variables appear to be strong predictors of mothers' level of at home involvement, and only mothers' English proficiency was statistically significant in predicting level of at school involvement.

Table 2.

Descriptive Statistics of Family Variables

	Mean	SD	Median	Mode	Minimum	Maximum
Yrs. in U.S.	10.58	5.73	9	8	0	35
English Proficiency	5.12	3.56	4	4	0	12
Understand	1.38	0.85	1	1	0	3
Speak	1.32	0.91	1	1	0	3
Read	1.27	0.94	1	1	0	3
Write	1.13	1.02	1	1	0	3
Education Level	4.03	2.53	4	4	0	11
Mental Health (GSI)	45.98	9.96	45	33	33	82
Somatization	45.51	6.97	41	41	41	69
Obsessive-Compulsive	46.36	8.82	45	38	38	76
Interpersonal-	48.75	8.86	41	41	41	76
Sensitivity	47.56	7.42	42	42	42	74
Depression	44.58	8.76	38	38	38	75
Anxiety (Panic)	44.55	8.78	39	39	39	74
Hostility	49.70	7.78	45	45	45	76
Phobic Anxiety	52.75	8.84	52	43	43	76
Paranoid Ideation	50.15	8.13	46	46	44	84
Psychoticism						

Note. All participants (165) had complete data, thus these values are pertinent to all children's mothers. Scores for mothers' number of years residing in the U.S., mothers' English proficiency and mothers' education level are based on raw scores. Scores for all the mental health dimensions are based on T-scores.

Table 3.

Distribution of Predictor Variables

Variable	N	M	SD	Skewness	Kurtosis
Yrs_US	165	10.58	5.73	1.41	1.99
EDU	165	4.03	2.53	1.03	0.52
ENG	165	5.12	3.56	0.73	-0.37
GSI	165	45.98	9.96	0.62	0.24

Note. Yrs_U.S. = mothers' years residing in the U.S.; EDU = mothers' education level; ENG = mothers' English proficiency; GSI = mothers Global Severity Index (mental health measure). Mothers' English Proficiency = Mothers self-rated their ability to understand, speak, read and write in English on scale of 0 (not at all) to 3 (very well).

Table 4.

Reliability of Measures

Measure	Cronbach's alpha
At School Parental Involvement	.44
At Home Parental Involvement	.79
Mothers' English Proficiency	.96

Note. All values are based on Z-scores for n=165. All measures are composite scores obtained from The Demographic Parent Interview.

Table 5.

At School Involvement Activities

Activity	Mean	SD	Median	Mode	Minimum	Maximum
“Do you attend parent meeting, teacher conferences, or special celebration?”	1.03	0.67	1	1	0	3
“Have you participated in any of your child’s school activities (e.g., award ceremony, school party, open house)?”	0.80	0.39	1	1	0	1
“Do you attend parent-teacher conferences when requested by the teacher?”	0.95	0.20	1	1	0	1
“Do you visit and help in the classroom, do a cultural or other special activity in the classroom?”	0.41	0.87	0	0	0	4
“Have you taken a leadership role (e.g., parent council, class parent)?”	0.15	0.59	0	0	0	1
“Are you aware of the information and skills your child needs to master by the end of the year?”	0.89	0.30	1	1	0	1

Note. n = 165. Refer to Appendix B for specific scales utilized for each individual question. Possible total points for at school involvement = 15.

Table 6.

At Home Involvement Activities

Activity	Mean	SD	Median	Mode	Minimum	Maximum
“Have you taught your child how to behave?”	0.98	0.15	1	1	0	1
“Have you taught your child how to complete tasks?”	0.95	0.21	1	1	0	1
“Do you do work at home to help the teachers (e.g., making snacks, helping with a special activity, or other classroom related work)?”	0.55	0.99	0	0	0	4
“Have you taught your child the letters?”	0.98	0.15	1	1	0	1
“Have you taught your child the numbers?”	0.98	0.15	1	1	0	1
“Have you taught your child the colors?”	0.98	0.15	1	1	0	1
“Have you taught your child the shapes?”	0.97	0.17	1	1	0	1
“Have you taught your child how to read?”	0.92	0.27	1	1	0	1
“Have you taught your child how books work?”	0.89	0.31	1	1	0	1
“Do you participate with your child in community organizations and/or events?”	0.47	0.50	0	0	0	1

Note. n = 165. Refer to Appendix C for specific scales utilized for each individual question. Possible total points for at home involvement = 13

Table 7.

Correlations Between Parental Involvement and Family Factors (N = 165)

	At Home	At School	Yrs US	ENG	EDU	GSI	SOM	OC	INT	DEP	ANX	HOST	PHOB	PAR	PSY
At Home	1.00	.08	.00	.06	.03	-.11	.02	.03	-.01	.00	.01	-.04	-.03	.05	-.09
At School		1.00	.04	.34***	.27***	-.02	.01	-.12	-.06	-.03	-.15*	-.15*	-.04	-.18*	.03
Yrs US			1.00	.24**	.13	-.06	-.07	.06	-.08	-.03	-.13	-.02	-.07	-.05	-.06
ENG				1.00	.60***	-.14	.11	.08	-.22**	-.08	-.14	-.04	-.16*	-.07	-.26***
EDU					1.00	-.12	.50	.03	-.23**	-.15*	-.12	-.04	-.14*	-.08	-.13
GSI						1.00	-.21**	.71**	.63***	.70***	.73***	.61***	.69***	.76***	.61***
SOM							1.00	-.21**	-.28***	-.36***	-.22*	-.26***	-.24**	-.22**	-.32***
OC								1.00	.36***	.58***	.48***	.54***	.42***	.47***	.42***
INT									1.00	.47***	.50***	.34***	.45***	.48***	.45***
DEP										1.00	.46***	.41***	.44***	.54***	.55***
ANX											1.00	.49***	.58***	.55***	.44***
HOST												1.00	.42***	.41***	.39***
PHOB													1.00	.48***	.47***
PAR														1.00	.50***
PSY															1.00

Note. YrsUS = Mothers' Years of Residence in the U.S.; ENG = Mothers' English Proficiency; EDU = Mothers' Education Level; GSI = Global Severity Index; SOM = Somatization; OCD = Obsessive Compulsive; INT = Interpersonal Sensitivity; DEP = Depression; ANX = Anxiety (panic); HOST = Hostility; PHOB = Phobic anxiety; PAR = Paranoid Ideation; PSY = Psychoticism.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 8.

Sample Comparison

County	Time 1 Sample	Time 3 Sample	Current Study Sample
A	34	25	22
B	52	40	31
C	42	31	25
D	90	68	45
E	85	54	42
Total	303	218	165

Note. Only participants who self-identified as Latino mothers and who had complete data on the demographic parent interview were included in the final sample in each one of the time points as well as in the current study. Only participants who had no missing data in both Time 1 and Time 3 were included in the final sample of the current study. The counties that participated in the study were de-identified by assigning each one a different letter.

Table 9.

At School Involvement Unconditional Model

Parameter	Parameter Estimate	Standard Error	t-Value	p-Value
Fixed Effect				
Intercept	0.0014	0.0447	0.03	0.97
Variance Estimates				
Intercept	0.02	0.02	1.10	0.13
Residual	0.24	0.03	8.30	<.0001**

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

Table 10.

At School Involvement Initial Conditional Model

Parameter	Parameter Estimate	Standard Error	t-Value	p-Value
Fixed Effects				
Intercept	-0.04	0.04	-0.78	0.44
Yrs_US	0.00	0.01	0.14	0.88
ENG	0.14	0.05	2.72	0.00**
EDU	0.01	0.02	0.37	0.71
GSI	0.00	0.00	0.78	0.43
Yrs_US*ENG	-0.00	0.01	-0.90	0.37
Yrs_US*EDU	0.00	0.00	0.48	0.63
Yrs_US*GSI	0.00	0.00	0.78	0.43
ENG*EDU	0.02	0.01	1.63	0.10
ENG*GSI	-0.01	0.00	-1.19	0.23
EDU*GSI	0.00	0.00	0.50	0.62
Variance Estimates				
Intercept	0.01	0.01	0.64	0.26
Residual	0.22	0.03	7.56	<.0001**

Note. Yrs_US = Mothers' Years of Residence in the U.S.; ENG = Mothers' English Proficiency; EDU = Mothers' Education Level; GSI = Mother's Global Severity Index (Mental health).

*p<.05 **P<.01

Table 11.

At School Involvement Final Conditional Model

Parameter	Estimate	Standard Error	t-Value	p-Value
Fixed Effects				
Intercept	-0.00	0.03	-0.06	0.95
Yrs_US	0.00	0.01	-0.47	0.64
ENG	0.15	0.05	3.01	0.00**
EDU	0.02	0.02	1.13	0.27
GSI	0.00	0.00	0.53	0.60
Variance Estimates				
Intercept	0.00	0.01	0.32	0.37
Residual	0.23	0.03	7.89	<.0001**

Note. Yrs_US = Mothers' Years of Residence in the U.S.; ENG = Mothers' English Proficiency; EDU = Mothers' Education Level; GSI = Mother's Global Severity Index (Mental health).

*p<.05 **P<.01

Table 12.

At Home Involvement Unconditional Model

Parameter	Estimate	Standard Error	t-Value	p-Value
Fixed Effects				
Intercept	-0.00	0.04	-0.01	0.99
Variance Estimates				
Intercept	0.00	0.02	0.11	0.45
Residual	0.34	0.04	7.90	<.0001**

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

Table 13.

At Home Involvement Initial Conditional Model

Parameter	Parameter Estimate	Standard Error	t-Value	p-Value
Fixed Effects				
Intercept	-0.03	0.06	-0.54	0.59
Yrs_US	-0.00	0.01	-0.13	0.89
ENG	0.03	0.06	0.52	0.60
EDU	-0.01	0.02	-0.29	0.76
GSI	-0.01	0.00	-1.40	0.16
Yrs_US*ENG	0.01	0.01	0.97	0.33
Yrs_US*EDU	-0.01	0.00	-1.71	0.09
Yrs_US*GSI	0.00	0.00	0.05	0.96
ENG*EDU	0.01	0.01	0.68	0.49
ENG*GSI	-0.00	0.01	-0.81	0.41
EDU*GSI	-0.00	0.00	-0.39	0.69
Variance Estimates				
Intercept	0.17	0.04	0.51	0.31
Residual	0.34	0.05	7.06	<.0001**

Note. Yrs_US = Mothers' Years of Residence in the U.S.; ENG = Mothers' English Proficiency; EDU = Mothers' Education Level; GSI = Mother's Global Severity Index (Mental health).

*p<.05 **P<.01

Table 14.

At Home Involvement Final Conditional Model

Parameter	Parameter Estimate	Standard Error	t-Value	p-Value
Fixed Effects				
Intercept	-0.00	0.04	-0.03	0.97
Yrs_US	-0.002	0.01	-0.28	0.78
ENG	0.36	0.06	0.58	0.55
EDU	-0.00	0.02	-0.02	0.98
GSI	-0.00	0.00	-1.34	0.18
Variance Estimates				
Intercept	0.01	0.03	0.27	0.39
Residual	0.35	0.04	7.72	<.0001**

Note. Yrs_US = Mothers' Years of Residence in the U.S.; ENG = Mothers' English Proficiency; EDU = Mothers' Education Level; GSI = Mother's Global Severity Index (Mental health).

*p<.05 **P<.01

Chapter 5

Discussion

The main purpose of this study was to better understand parents' involvement at school and at home among a group of Latino mothers of bilingual children attending Head Start or Kindergarten in five counties in Florida. A number of analyses were run in order to explore four different research questions. First, this research study investigated Latino mothers' levels of involvement at home and at school as well as the specific activities they do to help their children succeed at school. Second, the study explored specific family factors that may potentially impact Latino mothers' involvement at school and at home (i.e., mothers' number of years residing in the U.S., mothers' English proficiency, mothers' level of education, and mothers' mental health) and whether each factor was associated with higher levels of parental involvement. In this chapter, a summary of the findings as well as implications for research and practice are discussed.

At School and At Home Involvement

Results of the statistical analyses demonstrated that the Latino mothers in this study are engaging in a variety of activities including attending parent meetings, teacher conferences or special celebrations (69%); participating in their children's school activities (81%); being aware of the information and skills their children need to master by the end of the year (90%); and attending parent-teacher conferences when requested by the teacher (95%). However, previous literature has reported that Latino parents tend to attend meetings as well as school events less frequently than non-Latino parents

(National Center for Education Statistics, 2003). Even though group comparisons were not examined in the current study, results demonstrated that the majority of Latino mothers in the sample do in fact attend school meetings as well as participate in special school events and/or celebrations.

On the other hand, Latino mothers in the current study reported visiting and helping in the classroom (24%) as well as taking a leadership role (9%) less often than the other at school involvement activities. This finding is similar to previous research stating that Latino parents are less likely to volunteer at their children's schools and are less likely to be members of school committees (National Center for Education Statistics, 2003). Latino parents often encounter barriers that impede them from being engaged as much at school (Marschall, 2006). Jacobson, Huffman, Rositas and de Corredor (1997) suggest that Latino parents' transportation, poor self-worth, and work schedules all impact their involvement in schools. All these challenges may serve as impediments for Latino parents to visit and volunteer in the classroom as well as to take a leadership role among parents. Additionally, lack of requisite language, instructional skills, and familiarity with the American educational system can also impact Latino parents' beliefs of the respective roles of parents and teachers, and can lead them to take a less active approach to parental involvement (Sosa, 1997). Latino parents may feel that volunteering in the classroom is not part of their role, and may go against their belief and view of educators as the authority figure. In connection with this, Harry (1992) reported that these parents also often experience low-self confidence in the collaboration with school staff and feel reluctant to question authority figures at schools.

Results from the current study also suggests that Latino mothers engage in specific at home involvement activities, including teaching their children the letters (97.5%), numbers (97.5%), colors (97.5%), shapes (97%), how to read (92%), how books work (89%), how to behave (97.5%), and how to complete tasks (95%). Similarly, Delgado-Gaitan (2004) explains that the at home activities Latino parents often engage in with their children (e.g., completing literacy activities together, helping their children with homework, sharing family stories) reinforce their value and care for their children's educational success. These results along with previous literature, contradict teachers' belief that Latino parents do not place value on their children's education (Gandara, 1995; Moles, 1993), and are in fact involved at home to help their children succeed.

Additionally, Latino mothers in the current study reported engaging the least in other at home school involvement activities, including working at home to help the teachers (30%), as well as participating with their children in community organizations (44%). These two at home involvement activities may require substantial resources from any parent, no matter their ethnicity. Thus, Latino parents may encounter a series of challenges in order to engage in these two parental involvement activities. More specifically, Latino parents' work schedules as well as long hours required for participation in these activities may all impact their involvement (Jacobson, Huffman, Rositas & de Corredor, 1997; Kuperminc, Darnell, & Alvarez-Jimenez, 2008). It is also important to mention that many Latino parents may struggle to engage in these activities due to a lack of understanding of their roles as parents in the educational system (Valdes, 1996). While the definition of parental involvement may include the participation in community organizations as well as doing work at home to help the teachers, Latino

parents may be interpreting their roles as parents in their children's education as engaging in activities at home such as checking their children's homework (Scribner, Young & Pedroza, 1999). Thus, explaining to Latino parents the definition of involvement, ways to become involved as well as their benefits of parental involvement in their children's education may help increase their knowledge about their roles and the educational system (Quiocho & Daoud, 2006).

Overall, a high percentage of Latino mothers participating in this study reported engaging in many of the individual parental involvement activities (69%-97.5%) to help their children succeed in school. These findings support the idea that Latino parents do in fact value education, and have high expectations for their children (Garcia-Coll et al., 2002). In connection to this, many Latino parents who have immigrated to the U.S. did so for the sole reason of providing their children with better opportunities, despite all the struggles they had to experience (e.g., leaving family behind) (Delgado-Gaitan, 2004). This supports the belief that these parents do want and try to help their children be successful at school. It is crucial for educators to be cognizant that for Latino parents, understanding the educational system involves knowing the school requirements as well as understanding how to access the various resources, and being able to serve as advocates for their children throughout their education (Delgado-Gaitan, 2007). However, school activities that professionals in the field of education expect parents to engage in tend to ignore the needs of underrepresented groups of parents who are not familiar with the educational system (Delgado-Gaitan, 1991). Previous research suggest that schools must evaluate the needs (e.g., understanding their role as parents in their

children's schooling) and types of activities in which Latino parents do participate in order to increase their engagement.

The findings of this study also reinforce the idea that children's education takes place in a variety of aspects, therefore, it should not be concluded that parents are not involved in their children's education as a result of a lack of physically participating in school's activities (Mazur, Courchaine, & Doran, 2010). Unfortunately, given that parental involvement at schools is more visible to educators, professionals in schools tend to disregard any form of parental involvement taking place at home (Shumow, 2010). Often times, parents who rarely attend parent involvement activities at schools, are often highly involved in their children's education at home (Shumow & Miller, 2001), thus it is crucial for educators to maintain frequent communication with parents in order to be aware of these activities, and reinforce as well as promote all forms of parental involvement taking place. Providing parents with information about their children's performance, providing them with suggestions on how to increase their involvement in their children's academics, particularly at home, as well as connecting parents with community resources have also been supported by other researchers as ways to increase parental involvement (Seitsinger et al., 2008). This finding demonstrates the need for educators to acknowledge and promote parental involvement of Latino parents, whether it's taking place at home and/or at school.

Factors Associated with Latino Parents' Involvement At School and At Home

The correlational analyses conducted as part of the third and fourth research questions show that some of the variables included in the correlational matrix are related to some degree. This is expected given that research suggests a number of factors (e.g.

parental education, parents' work schedules, and parents' psychological distress) that may impact parents' involvement in their children's education (Hoover-Dempsey, & Walker, 2002; Seefeldt, Denton, Galper, & Younoszai, 1999; Snow, Burns, & Griffin, 1998). More specifically, at school involvement was mildly to moderately correlated with mothers' English proficiency, mothers' education level, mothers' anxiety (panic), mothers' hostility, and mothers' paranoid ideation. Findings also demonstrated that mothers' English proficiency was mildly to strongly correlated to mothers' years residing in the U.S., mothers' education level, mothers' interpersonal sensitivity, mothers' phobic anxiety, and mothers' psychotocism. It is important to note that the strong association between mothers' English proficiency and mothers' education level may have impacted the results of the hierarchical linear modeling conducted for the at school involvement variable. Thus, issues of multicollinearity may have precluded the significance of mothers' level of education as a predictor of Latino mothers' at school involvement. Additionally, mothers' education level was mildly to moderately correlated to mothers' interpersonal sensitivity, mothers' depression, and mothers' phobic anxiety. On the other hand, at school involvement was not correlated to at home involvement. This finding reinforces the idea that educators should not conclude that parents are not involved in their children's education as a result of a lack of physically participating in school's activities (Mazur, Courchaine, & Doran, 2010). Instead, Latino parents' at school involvement may not be strongly related to their at home involvement.

Results from the hierarchical linear models indicated that the variable found to predict Latino mothers' at school involvement was mothers' English proficiency. As mothers' English proficiency increased, the predicted at school involvement score for the

participants was higher. In other words, Latino mothers in this research study obtained higher scores in the at school involvement composite when they reported having higher English language fluency. Previous research supports this finding by suggesting that at school involvement is positively related to parents' English language proficiency. Latino parents' English proficiency comfort level not only impacts their involvement in their children's schools, but they may also be more successful at promoting students' achievement (Kuperminc et al., 2008). Research also suggests that Latino parents encounter linguistic barriers when trying to become involved in schools (Anderson & Sabatelli, 2007), decreasing the likelihood of these parents engaging and collaborating with educators. It is of extreme importance for school professionals to be aware of these struggles since schools tend to ignore or give little attention to this matter (De Gaetano, 2007). Thus, the findings of this study support the belief that it is important to recognize that students and their families have different needs, and strategies that work for one family may not be a good match for other families (Halgunseth, Peterson, Stark, & Moodie, 2009). Educators must promote parental involvement while identifying the needs of Latino parents (e.g., limited English language). Learning about the various cultural characteristics of Latino families schools serve as well as hiring school personnel with similar cultural and language backgrounds, can assist educators to clearly identify the needs of this population (Halgunseth, Peterson, Stark, & Moodie, 2009). School staff can also communicate with parents in a variety of ways (e.g., emails, newsletters, phone calls, home visits, translated materials; Carlisle, Stanley, & Kemple, 2005) while taking into account the families' primary language, to better understand their needs as well as the factors that are impacting their involvement.

Even though previous research on parental involvement has identified factors (e.g., parental education, parents' work schedules, and parents' psychological distress) that may impact parents' involvement (Hoover-Dempsey, & Walker, 2002; Seefeldt, Denton, Galper, & Younoszai, 1999; Snow, Burns, & Griffin, 1998), this study's findings suggest that all other family factors included in the current study (mothers' number of years residing in the U.S., mothers' education level, and mothers' mental health) with the exception of mothers' English proficiency do not have an effect on Latino mothers' parental involvement at school and/or at home. Research on mothers' number of years residing in the U.S. and its impact on Latino parents' involvement has been limited, and previous literature has often not taken this variable into account when exploring these parents' engagement. Contrary to this study's findings, previous research has reported that as Latino mothers become more familiar with the American culture and the school system, their literacy practices with their children tend to increase (Hammer, Miccio, and Wagstaff, 2003). This suggests that these parents' involvement may in fact be impacted by the length of time they have resided in the U.S. Although the current study did not show any impact of this variable on Latino mothers' involvement, further investigation must be conducted in order to better understand the extent to which immigration history does in fact impact parental involvement among the Latino population. This is particularly important given that the population of Latinos in the United States is increasing at a fast rate and it now accounts for over 15% of the population (U.S. Census Bureau, 2008).

It is surprising that the current study found a lack of impact of mothers' education level on these mothers' involvement at school and at home. A large number of previous

research studies focusing on parental involvement have identified the relationship between parents' education level and their children's academic achievement (Seefeldt, Denton, Galper, & Younoszai, 1999; Snow, Burns, & Griffin, 1998). It was found that parents with higher educational attainment are more likely to be involved at home and at school (Dauber & Epstein, 1989). Kohl, Lengua, and McMahon (2000) also suggested that there may be barriers that get in the way of parents with lower educational experiences, including that they may have had specific life experiences that caused them to feel less effective in helping their children or that they are interfering with the schools' authorities. Therefore, it was unforeseen that the current findings did not demonstrate the same connection. However, the strong association between mothers' English proficiency and mothers' education level shown in the correlation matrix, may have potentially impacted the significance of mothers' level of education as a predictor of Latino mothers' at school involvement. It is also of great importance to keep in mind that previous research focusing on Latino parents' involvement and the impact of parental education is limited. Previous research in this area has taken place with a focus often made on the majority population rather than on Latino parents. Additionally, Latino parents often immigrated to the U.S. as a means of providing their children with the opportunity for a better education (Suarez-Orozco & Suarez-Orozco, 2001) which may have been triggered by their own lack of educational attainment. Thus, education level may not be as crucial for this population as for their White counterparts. Having said this, further exploration focusing on Latino parents' education level and the impact on their involvement must take place prior to reporting an effect or lack of effect of this factor on these parents' involvement at school and at home.

The findings of the current study also do not suggest an effect of Latino mothers' mental health on these mothers' involvement at school or at home. It is crucial to mention that little is known about mothers' mental health and its impact on parental involvement. At the same time, Latino individuals may tend to view mental health difficulties as a stigma that is not shared with others. Both of these aspects may have potentially impacted the results of the current study. On the one hand, research has suggested that a relationship between maternal depression and a number of factors exists, including but not limited to a relationship with parental involvement, parent-teacher relationship, and teachers' perception of the parents' value for education (Kohl, Lengua, & McMahon, 2000). The authors suggested that mothers' lack of involvement is a consequence of their lack of motivation and energy to become involved, which may impact the teachers' perception of these mothers as well as their relationship with them (Kohl, Lengua, & McMahon, 2000). It is worth noting that the limited research conducted in this area has not focused on the population of Latino parents. Thus, it is possible that the effect of Latino mothers' mental health on parental involvement is not the same as for parents from other ethnicities. Nevertheless, Latino families often experience an array of stressors arising from their immigration experience (e.g., acculturation, language difficulties, and loss of family members and friends; Garrison, Roy & Azar, 1999), and previous research has identified depression, anxiety, and psychosomatic symptoms as the most common mental health issues experienced by these individuals as a result of the acculturation process (Neto, 2010). At the same time, this study's findings suggest that Latino mothers' at school involvement is mildly correlated to mothers' anxiety (panic), mothers' hostility, and mothers' paranoid ideation. Therefore, further investigation is

needed in order to suggest whether Latino mothers' mental health does in fact impact their involvement at school and/or at home.

Overall, the results of this research study revealed that Latino mothers are engaging in a variety of at school and at home involvement activities, and that mothers' English proficiency and education level may be related to the at school involvement of Latino mothers. Based on the at school and at home involvement components in Epstein's model of parental involvement, the results of this study support the idea that there are multiple ways in which parents can become involved in their children's education and that specific factors can impact their involvement (e.g., English proficiency). However, further research is needed to best identify those factors that best predict Latino parents' involvement and understand the struggles that these parents may experience when trying to become involved.

In summary, parental involvement of Latino parents may be impacted by a variety of factors. Previous research has identified a number of factors (e.g. parental education, parents' work schedules, and parents' psychological distress) that may impact parents' involvement in their children's education (Hoover-Dempsey, & Walker, 2002; Seefeldt, Denton, Galper, & Younoszai, 1999; Snow, Burns, & Griffin, 1998). The challenges many families experience when trying to become involved in their children's education may emerge from economic hardships and limited educational attainment of the parents (Hoover-Dempsey, & Walker, 2002). Although this current research project did not find a relationship between some of the family variables included (e.g., mothers' years of residence in the U.S., and mothers' mental health) and Latino mothers involvement at school and at home, it is crucial to mention that mothers' English proficiency, mothers'

education level, mothers' anxiety (panic), mothers' hostility, and mothers' paranoid ideation were found to be related to their at school involvement. Therefore, further understanding about Latino parents' involvement is needed; however, educators, including school psychologists must always keep in mind that Latinos may experience unique challenges (e.g., English proficiency) when trying to become involved. Thus, as students' advocates, school psychologists can serve as liaisons between parents and educators during the process of increasing the engagement of these parents in the students' educational careers while taking into account all those barriers they may encounter.

Limitations

It is crucial to take some precautions when interpreting the results of this study given that there are several limitations inherent in this research project. Perhaps the greatest limitation existed with the measures used to determine the at school involvement and at home involvement of Latino mothers. The questions asked to the participants in the study were not obtained from a standardized measure focusing on parental involvement. Rather, these questions were developed by the research team as part of a demographic parent interview and for the purpose of using it for a larger research study. Reliability of this measure was not available prior to the current study taking place. However, it is of importance to communicate that the research team made sure that all questions were clear and appropriate for the objectives of the project as well as aligned with Epstein's (2001) types of involvement (basic obligations of parenting, communicating with schools, volunteering at schools, learning at home, decision making, and working together with the community and school). In connection to this, statistical

analysis of the reliability of this measure demonstrated that the at school involvement measure administered to the participants had low internal consistency (.44), potentially impacting the results of the current study.

In addition, the dichotomous items options in the parent involvement questions have several limitations. There is concern with regard to the restriction of range which may have impacted the variability in the dataset utilized, and potentially the significance of the predictor variables that may impact Latino mothers' at home involvement. More specifically, none of the predictor variables (i.e., mothers' years of residence in the U.S., mothers' English proficiency, mothers' education level, and mothers' mental health) were found to predict Latino mothers' at home involvement. In general, precautions must be taken when interpreting the results about the at school and at home involvement of Latino mothers who participated in this study.

Another limitation that needs to be taken into account is that all data collection methods utilized in the study involved self-report measures. Therefore, total reliance on the parents' self-reports may have potentially impacted the results. Specific to the Brief Symptom Inventory (BSI) results, which was administered in order to obtain data about the mothers' mental health, some parents may have not felt comfortable enough to provide true information about their mental health state. Numerous personal and sensitive questions were asked to the parents, and honest answers may have not always been provided. On the other hand, it is critical to explain that administering the BSI after the demographic parent interview was completed was done strategically to limit the self-report bias, and build rapport with each one of the parents prior to completing the BSI. Providing the BSI in the mother's language of preference, English or Spanish was also an

attempt to limit these limitations. Additionally, a different limitation of the BSI is that the characteristics of the normative sample described in the manual do not provide information pertinent to the number of individuals from different ethnic backgrounds (e.g., Latino, African American, Caucasian). Thus, given that T-scores were utilized when analyzing the current study's dataset, precautions must be taken when interpreting the results.

Lastly, a large amount of missing data was also excluded from the final sample utilized in the current study. Mothers who had missing data on the demographic parent interview at Time 1 or Time 3 of data collection were excluded from the final sample. Thus, there is some question as to whether parents who chose to answer the questionnaire may be more involved than parents who chose not to answer the questionnaire. This limitation may have potentially impacted the findings of this study. Overall, the above mentioned limitations should be taken into account when interpreting the results of the current study.

Implications for Practice

The results of this research study demonstrate a vital need for researchers and practitioners in the field of education to work towards increasing their understanding about Latino parents' involvement. Even though there are currently no federal initiatives specifically for increasing parent involvement among Latinos, the benefits of parental involvement on students' educational success have influenced a number of federal initiatives and policies within the last decade (Van Voorhis, & Sheldon, 2004), supporting the need for researchers and practitioners to better understand these parents' involvement.

In order to ensure the provision of opportunities to parents to participate in their children's educational success, the reauthorized Individuals with Disabilities Education Act (IDEA) strengthened accountability expectations on students with disabilities and their parents, sending a message of personal responsibility (Turnbull, 2005). In alignment with IDEA, the No Child Left Behind Act (NCLB), provides parents with the right to be involved in a nondiscriminatory evaluation, be a member of the Individualized Educational Plan (IEP) team, manage and control the release of records, as well as provide parents with the possibility of becoming members of various advisory boards (Turnbull, 2005). NCLB also requires school districts that receive Title I, Part A funds to engage in activities and procedures to increase parental involvement as well as implement programs that target this factor with the collaboration of parents through consultation (Henderson & Berla, 2002). This supports the idea that schools must evaluate the needs (e.g., understanding their role as parents in their children's schooling) and types of activities in which Latino parents do participate in order to increase their engagement in school activities.

Given that Latino mothers in the current study engaged in a variety of both at school and at home involvement activities, school psychologists can help schools and/or districts to extend their understanding of parental involvement, and address the barriers encountered at schools by this population of parents. School psychologists are uniquely qualified to take a consultative role, as well as are in an optimal position to foster connections between teachers and families (Fantuzzo, McWayne, Perry, & Child, 2004). Wong and Hughes (2006) suggest the importance of school psychologists' role in helping teachers connect with minority parents in order to narrow the existent achievement gap

between White and minority students. School psychologists can provide an array of services (e.g., professional development) to enhance educators' skills and knowledge about parental involvement (Wong & Hughes, 2006).

Having said this, it is crucial for school psychologists to understand Latino parents' willingness and interest to help their children succeed in school in order to accurately identify the strategies that can be utilized to meet these families' needs and increase their involvement. At the same time, school psychologists can assist in advocating for these families as well as empower them to successfully become involved in their children's education. The different at school and at home involvement activities reported by most of these parents in the current study, supports the importance of acknowledging their effort to help their children as well as to recognize their value for education. Delgado-Gaitan (2004) stated that Latino parents tend to support their children's education by offering them a strong emotional environment at home as well as the sharing of family history and stories, which serve as a source of motivation to these students to focus on their education. If educators don't recognize parents' efforts to reinforce the importance of education to their children, their attempt to increase Latino parents' involvement may have little impact (Kupermic, Darnell, and Alvarez-Jimenez, 2008).

Educators must understand that the forms of involvement Latino parents often engage in may not always be the typical parental involvement activities expected by school personnel (Delgado-Gaitan, 1992; Valdes, 1996). Instead, they may be more likely to become involved at home in order to promote their children's education (Mehan, Villanueva, Hubbard, & Lintz, 1996). This is supported by the findings of the current

study in which a large number of Latino mothers reported engaging in a variety of at home involvement activities. Not to say that they are not involved in at school activities, but rather that they reported engaging in both at school and at home activities to help their children succeed in their education. The home activities Latino parents often engage in with their children (e.g., completing literacy activities together, helping their children with homework, sharing family stories) reinforce their value and care for their children's educational success (Delgado-Gaitan, 2004). School psychologists must be knowledgeable of the different types of involvement that can take place (e.g., Epstein's types of parental involvement) as well as promote these strategies in schools and among others educators.

Moreover, a recent model of schooling has emerged nationwide known as Problem-Solving/Response-to-Intervention (PS/RtI; Batsche et al., 2005; Reschly, 2008). This new framework reinforces a multi-level system of support while exposing students to evidence-based practices and utilizing multiple sources of data on a continuous basis in order to determine best practice decisions for all students (Batsche et al., 2005). In regards to parental involvement, previous literature suggests that because a PS/RtI framework adopts an ecological approach of educational service delivery, it is essential to have strong home-school partnerships in a PS/RtI model (Reschly, Coolong-Chaffin, Christenson, & Gutkin, 2007). Thus, it is crucial for school psychologists to incorporate in their role, the promotion of parental involvement in schools. An ecological approach should be followed, where information about the child's culture, home, community and school is gathered (Bronfenbrenner, 1994). Therefore, parents must be provided with the appropriate interventions and assistance (e.g., interpreters, school documentation in both

languages, English and Spanish, flexibility when scheduling meetings, information about the educational system and ways to become involved) they need in order to successfully incorporate the culture, home, and community aspects of an ecological approach when working towards meeting the needs of all students.

Along with this, teachers and other school personnel must utilize a variety of approaches in order to increase Latino parents' involvement. A series of strategies for teachers have been suggested by Musti-Rao and Cartledge (2004) to enable parents to develop and maintain the home-school collaboration. These authors suggest that parents can be involved in schools when teachers schedule regular face-to-face meetings, provide training session in schools focusing on strategies to use with their children at home, set short-term goals with the parents for the children, as well as make sure that teachers are flexible when scheduling meetings with parents. Among other strategies, it has been suggested that schools must integrate culture and community in their school context, they must provide a welcoming environment, and provide families with resources and referrals (Halgunseth, Moodie, Peterson & Stark, 2009). Other researchers state that improving school climate, providing in-service training to parents in schools, and developing in-school resources may help in the family-school collaboration and development of trust (Hoover-Dempsey & Walker, 2002). Lastly, previous literature suggest that to involve parents at the school teachers can distribute activities and newsletters, invite parents to volunteer in their classrooms, as well as use a number of communication strategies such as phone calls and emails (Hindman, Skibbe, & Morrison, 2010). Overall, while no single framework fits all Latino families' needs, certain components must be in place and be

part of the model to increase the home-school partnerships, including, commitment, communication, continuity, and collaboration (Delgado-Gaitan, 2007).

Directions for Future Research

Since the researcher is unaware of any other research study focusing on better understanding Latino parents' involvement at school and at home, more investigations with larger sample sizes including mothers, fathers and a variety of Latin American countries should be conducted. The findings of the present study are focused on a specific target population and only include Latino mothers' report. Additionally, the sample of this study entailed a predominately low-income, Latino Head Start population residing in Florida. Therefore, future studies should investigate Latino parents' involvement and the factors that impact their involvement with other Latino populations (e.g., families residing in other states). Given that the primary respondents in this present study were mothers and 50 percent of the sample was originally from Mexico, future research should also investigate whether there are differences in the amount and types of parental involvement activities between Latino mothers and fathers, as well as between different countries of origin. Research should investigate whether these differences have an impact on Latino children's educational outcomes.

Future research incorporating multi-dimensional measurement of parental involvement, multiple informants, and a longitudinal design may expand the knowledge about Latino parents' involvement and provide additional insight on how educators can work towards increasing these parents engagement in their children's schooling. A more complete assessment of parental involvement would include reports from parents and teachers as well as measures that differentiate at school versus at home involvement

activities. The measures utilized in this research study, encompassed parent self-report measures. Thus, future research should also investigate Latino parents' involvement using standardized measures of parental involvement. Considering using standardized parent and teacher report measures such as The Parental Involvement in Schooling Scale (Steinberg Lambom, Dombusch, & Darling, 1992), and the Family Involvement Questionnaire (FIQ, Fantuzzo, Tighe, & Childs, 2000) may provide additional important information about Latino parents' involvement.

The present study was also limited by the relatively short time frame in which data was collected. Thus, future research should explore Latino parents' involvement across longer time periods. Previous research findings suggest that as students progressed through school, the level of parental involvement and participation decreases (Rimm-Kaufman & Pianta, 1999). In specific to Latino parents, this area has not yet been explored. Longitudinal studies are needed to better understand whether Latino parents' involvement at school and at home significantly change as children transition from the primary to secondary grades, and how these changes impact Latino students' outcomes. Additionally, further investigation should be completed on the reasons behind the reduced level of parent involvement and compare Latino parents' involvement to their White counterparts in elementary, middle school, and high school levels, in order for schools to be capable of increasing the home-school collaboration with this population of students across grade levels. Overall, future research studies on Latino parents' involvement should investigate how parental involvement changes across school contexts and over time.

Studies concentrated in understanding the different factors that impact these parents' involvement at school and at home can benefit researchers and practitioners in understanding these families and better serve them. Statistically significant relationships were found between some of the dimensions of the BSI (e.g., anxiety (panic), hostility, depression) and Latino mothers' at school involvement, English proficiency, and education level. Therefore, further investigation must be conducted in order to better understand these parents mental health and its impact on their parental involvement as well as Latino students' academic achievement.

Although this study does not specifically focus on best practices of parental involvement strategies with this population, the findings in this study support further investigation focusing on what practices work best in fostering the enhancement of Latino parents' involvement in their children's education. Research suggests that professionals in schools who collaborate and work with Latino parents tend to see higher academic performance by Latino students (Delgado-Gaitan, 2007). Thus it is crucial for researchers to investigate parental involvement strategies/interventions that work best with the Latino population in schools. Additionally, factors other than parental involvement which may play a role in Latino students' academic achievement and high school dropout rates should be considered in future research studies. For example, Lopez (2009) suggests that one of the biggest reasons for the differences in high school dropout rates between Latino students and students from other ethnicities, tends to be financial pressures to support their families. Latino students' English proficiency skills have also been suggested as a potential factor that may impact their academic success (Lopez, 2009). In general, researchers should explore a variety of factors that may potentially

impact this population of students' educational experience (e.g., family's socioeconomic status, students' English proficiency, Latino students' identity issues, etc.) in order to better understand how to best serve these individuals in schools.

Conclusions

Only a small step was taken in the exploration of Latino parents' involvement at school and at home with the research questions posed in this study. The truth is that when compared to Caucasians, the population of Latinos is tremendously understudied in the area of parental involvement, and much more is left to be investigated in terms of this group. However, the information presented as well as the findings in this research study indicated that Latino parents do engage in a variety of parental involvement activities at school and at home. Additionally, different factors may be related to their engagement. The degree to which these mothers engaged at school depended on their English proficiency, education level, anxiety (panic), hostility, and paranoid ideation. Some of these parents may be less likely to become involved in their children's education due to a number of barriers and challenges they may experience. Thus, educators must focus their efforts in providing the necessary accommodations and support these parents need in order to increase these parents' at school and at home involvement, which consequently impacts their children's educational success. Through the continued effort to increase educators' attention to Latino parents' involvement, professionals in the field of education can become more effective and develop more competencies to improve these parents' involvement as well as Latino students' academic achievement. It is clear that Latino parents want to be more involved in their children's education; therefore, schools must recognize that a large portion of the responsibility lies with them. They must

illustrate their commitment to increasing parental involvement through the provision of services as well as communicating to Latino parents that they are in fact valuable partners in the education and development of their children. Nevertheless, many questions still remain in regards to Latino parents' involvement in their children's education, therefore; it is crucial to consider all possible factors affecting these families when serving the Latino population in schools.

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Appendix A

Family Factors

Mothers' years of residence in the United States.

“How many years has the mother been residing in the U.S.?”

Mothers' level of English proficiency.

“How well does the mother understand English?”

0 = Does not understand

1 = Not very well

2 = Well

3 = Very well

“How well does the mother speak in English?”

0 = Does not understand

1 = Not very well

2 = Well

3 = Very well

“How well does the mother read English?”

0 = Does not understand

1 = Not very well

2 = Well

3 = Very well

Appendix A (Continued)

“How well does the mother write English?”

0 = Does not understand

1 = Not very well

2 = Well

3 = Very well

Mothers' level of education.

“What is the highest level of schooling the mother has completed?”

0 = None

1 = Some elementary school (*primaria*) (Grades 1-6)

2 = Completed elementary school (*primaria*) (to Grade 6)

3 = Some secondary school (*secundaria and/or preparatoria*) (Grades 7-12)

4 = Completed secondary school (*secundaria and/or preparatoria*) (to Grade 12)

5 = GED Certificate

6 = Vocational/trade school (*formación técnica/vocacional, no universitaria*)

7 = Some community college

8 = Completed 2 years of community college

9 = Some college or university (*universidad*)

10 = Completed 4-year college or university (*universidad*) or *licenciatura*

11 Some graduate level education after college (*maestría o doctorado*)

12 Completed graduate level education after college (*maestría o doctorado*)

Appendix B

Additional Tables

Table B1.

At School Involvement Questions

Types of Involvement	Parent Interview Questions	Response Metric	Frequency Count
Communicating with schools	“Do you attend parent meeting, teacher conferences, or special celebration?”	4 = Almost every day	0 (0%)
		3 = 1-2 days a week	4 (2%)
		2 = 2-3 times a month	29 (18%)
		1 = Once a month	101 (61%)
		0 = Almost never	31 (19%)
	“Have you participated in any of your child’s school activities (e.g., award ceremony, school party, open house)?”	1 = “yes, I engage in this activity”	133 (81%)
		0 = “no, I do not engage in this activity”	32 (19%)
	“Do you attend parent-teacher conferences when requested by the teacher?”	1 = “yes, I engage in this activity”	157 (95%)
		0 = “no, I do not engage in this activity”	7 (5%)
Volunteering at schools	“Do you visit and help in the classroom, do a cultural or other special activity in the classroom?”	4 = Almost every day	1 (1%)
		3 = 1-2 days a week	10 (6%)
		2 = 2-3 times a month	7 (4%)
		1 = Once a month	21 (13%)
		0 = Almost never	126 (76%)
Decision making	“Have you taken a leadership role (e.g., parent council, class parent)?”	4 = Almost every day	2 (1%)
		3 = 1-2 days a week	2 (1%)
		2 = 2-3 times a month	0 (0%)
		1 = Once a month	12 (7%)
		0 = Almost never	149 (91%)
Working together with the community and the school	“Are you aware of the information and skills your child needs to master by the end of the year?”	1 = “yes, I engage in this activity”	148 (90%)
		0 = “no, I do not engage in this activity”	17 (10%)

Note. Types of parental involvement are based on Epstein’s (2001) model of parental involvement. Possible total points for at school involvement = 15.

Appendix B (Continued)

Table B2.

At Home Involvement Questions

Types of Involvement	Parent Interview Questions	Response Metric	Frequency Count
Basic obligations of parenting	“Have you taught your child how to behave?”	1 = “yes, I engage in this activity”	161 (97.5%)
		0 = “no, I do not engage in this activity”	4 (2.5%)
	“Have you taught your child how to complete tasks?”	1 = “yes, I engage in this activity”	157 (95%)
		0 = “no, I do not engage in this activity”	8 (5%)
Learning at home	“Have you taught your child the letters?”	1 = “yes, I engage in this activity”	161 (97.5%)
		0 = “no, I do not engage in this activity”	4 (2.5%)
	“Have you taught your child the numbers?”	1 = “yes, I engage in this activity”	161 (97.5%)
		0 = “no, I do not engage in this activity”	4 (2.5%)
	“Have you taught your child the colors?”	1 = “yes, I engage in this activity”	161 (97.5%)
		0 = “no, I do not engage in this activity”	4 (2.5%)
“Have you taught your child the shapes?”	1 = “yes, I engage in this activity”	160 (97%)	
0 = “no, I do not engage in this activity”	5 (3%)		
	“Have you taught your child how to read?”	1 = “yes, I engage in this activity”	152 (92%)
		0 = “no, I do not engage in this activity”	13 (8%)
	“Have you taught your child how books work?”	1 = “yes, I engage in this activity”	147 (89%)
0 = “no, I do not engage in this activity”	18 (11%)		
Working together with the community and the school	“Do you participate with your child in community organizations and/or events?”	1 = “yes, I engage in this activity”	72 (44%)
		0 = “no, I do not engage in this activity”	93 (56%)
	“Do you do work at home to help the teachers (e.g., making snacks, helping with a special activity, or other classroom related work)?”	4 = Almost every day	2 (1%)
		3 = 1-2 days a week	15 (9%)
		2 = 2-3 times a month	4 (2%)
		1 = Once a month	29 (18%)
		0 = Almost never	115 (70%)

Note. Types of parental involvement are based on Epstein’s (2001) model of parental involvement. Possible total points for at-home involvement = 13.