

HISPANIC PRESCHOOLERS' SCHOOL READINESS: A STUDY EXAMINING
THE IMPACT OF CULTURAL, SOCIAL-EMOTIONAL, AND
SOCIODEMOGRAPHIC FACTORS

A Dissertation

by

LEONOR EUGENIA AVILA BRIZUELA

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of
DOCTOR OF PHILOSOPHY

December 2010

Major Subject: School Psychology

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ABSTRACT

Hispanic Preschoolers' School Readiness: A Study Examining the Impact of Cultural, Social-Emotional, and Sociodemographic Factors. (December 2010)

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Co-Chairs of Advisory Committee, Dr. Amanda Jensen-Doss
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The Hispanic population is becoming increasingly prevalent in the United States, facing not only many sociodemographic risks, but academic risks as well. A large number of Hispanics are entering school unprepared to learn. While the importance of school readiness for academic success and achievement has been established, research focusing on school readiness in the Hispanic population has been limited. Furthermore, while research has established the importance of social-emotional skills for school readiness, these have been insufficiently studied in this population in how they relate to school readiness. This study examined school readiness in Hispanic preschoolers and the impact of sociodemographic, cultural, and socio-emotional variables on school readiness. A total of 162 children ages 3 to 5 years old were assessed by a school readiness measure in a Head Start program in central Texas. Children were assessed during the first 45 days of school. Teachers and caregivers completed a social-emotional rating scale on each student's social skills and problem behavior during the first 45 days of school. In addition, caregivers completed a questionnaire that addressed cultural and sociodemographic factors.

The purpose of this study was to fill the gaps of the literature by examining factors that impact school readiness among Hispanic preschoolers. The goal of this study was to determine the extent to which cultural variables can predict school readiness and social-emotional competence, above and beyond sociodemographic factors. This study also sought to determine the extent to which social-emotional competence can predict school readiness above and beyond sociodemographic factors and cultural factors. This study hypothesized that cultural factors and social-emotional competence would have an impact on school readiness, above and beyond sociodemographic factors. This study used hierarchical regression analyses. Results suggest that cultural variables were not good predictors of school readiness or social-emotional competence. Sociodemographic variables were good predictors of social-emotional competence. In addition, social skills were significant predictors of school readiness. Results suggest that Hispanic preschoolers are not that unlike other preschoolers when it comes to factors that have an impact on their school readiness and social-emotional competence.

DEDICATION

A mis padres, porque ustedes siempre me apoyaron en mis sueños e hicieron lo posible por hacerlos realidad. Ustedes me llenaron de fortaleza y de fe para poder superar los más difíciles obstáculos. Además, me enseñaron lo valioso que es la familia. Gracias por formar y conservar la familia que hoy tenemos.

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CHAPTER I

INTRODUCTION

Statement of the Problem

This dissertation examined predictors of school readiness in Hispanic preschoolers. With the Hispanic population becoming increasingly prevalent in the United States, this population is important for school psychologists not only because of its growing numbers, but also because of the risk factors it faces when it comes to the school aged population (Bacallao & Smokowski, 2005). For example, statistics demonstrate that Hispanics are less likely to graduate than their non-Hispanic White counterparts (Ramirez & de la Cruz, 2003), have a higher school dropout rate (Hidalgo, 1992), and achieve at a lower level than European American children (Currie & Thomas, 1996; Kao & Tienda, 1995; Rouse, Brooks-Gunn, & McLanahan, 2005). The literature points specifically to the Hispanic population being unready for school.

Rationale for Studying the Problem

With the literature pointing to the Hispanic population being at risk, especially in regards to their academic outcomes, this study decided to take a closer look at school readiness in low-income Hispanic preschoolers. Specifically, this study looked at factors that may have an impact on school readiness, including social-emotional competence. The literature points to limited data in the area of Hispanic children's school readiness

This dissertation follows the style of *School Psychology Review*.

(Rouse et al., 2005), and when studies do include Hispanics in their samples, many times the numbers are small (e.g., Marks & Coll, 2007; Mueller et al., 1996; Rimm-Kaufman, Pianta, & Cox, 2000). Studying school readiness may ultimately close the racial and ethnic educational achievement gaps (Rouse et al., 2005). The present study attempted to fill these gaps in the literature by examining a population that has constantly been reported as exhibiting poor school readiness skills in hopes of bringing light into the predictors of school readiness for this population.

Literature Background

A literature review on school readiness makes it apparent that there are many different definitions of school readiness that vary both in terms of the skills thought to be important to school readiness, and the point at which these skills are thought to develop. There appears to be a lack of consensus on a concrete definition of school readiness, and some researchers have indicated that the concept of school readiness is not only poorly defined, but is also subject to many interpretations, depending on the person who is discussing it, on the theory, or the context that it is interpreted in (Kagan, 1990; Lewit & Baker, 1995; May & Kundert, 1997). Despite no apparent consensus, there actually is something that the field has agreed on; that school readiness is multidimensional and dependent upon the qualities that children bring to their learning environment and upon the contexts in which learning occurs (Hair, Halle, Terry-Human, Lavelle, & Calkins, 2006). These contexts include home and school environments and the larger community. This multidimensional definition of school readiness seems to be the most endorsed by the literature (Hair et al., 2006).

The way in which school readiness has been measured has also varied, which does not come as a surprise given the disagreements in the literature about how to define school readiness. Historically, chronological age has served as the major criterion for school entry (Lewit & Baker, 1995). In this way, school readiness was “measured,” or determined, by using the child’s age. However, researchers have not reached a consensus regarding what age is the age when children are ready to enter school (Crnic & Lamberty, 1994; Moore, 1985; Uphoff & Gilmore, 1986), which suggests that the chronological age criterion is inconsistent.

Another way that school readiness has and is currently being determined is through the use of readiness tests. However, given that the concept of “readiness” has no clear unit of measurement, researchers have used a variety of tests to measure the skills and behaviors, such as reading, math, and the ability to sit still, that make a child be “ready” to enter school (Rock & Stenner, 2005). There are numerous tests for assessing school readiness available today (Rouse et al., 2005), all claiming to objectively measure children’s school readiness ability to succeed in classroom placement (Garcia, 1992). Some researchers have indicated that tests today are likely to provide a better measure of school readiness than older tests (Rock & Stenner, 2005). Given the literature’s support of measuring school readiness through the use of tests, this dissertation study used an assessment instrument to evaluate Hispanic children’s readiness for school.

An area that is included in definitions of school readiness but has been little studied as it relates to school readiness, especially in Hispanic populations, is social-emotional competence. There is a vast literature that has stressed the importance of

children's social and emotional development to their long-term school success (Brown & Scott-Little, 2003; Peth-Pierce, 2000; Raver & Zigler, 1997). Social and emotional competence is central to success in school, and social and emotional school readiness is related to later school and vocational success (Peth-Pierce, 2000). In addition, social competence at kindergarten entry has been identified as important to school readiness and as a predictor of future academic success (Kagan, Moore, & Bredekamp, 1995). Studies have found that social-emotional competence predicts school readiness (Carlton, 2000; Waajid, 2006). Preschoolers who experience social-emotional deficits (e.g., regulation of negative emotion) are at risk for psychopathology and academic failure, both then and later in life (Denham, Zahn-Waxler, Cummings, & Iannotti, 1991; Robins & Rutter, 1990). Given the apparent relationship between social-emotional competence and school readiness, this study measured social-emotional competence in its sample.

In addition to examining social-emotional competence as a predictor of school readiness, this study looked at the impact of other factors as well. Research points to the importance of looking at environmental factors when studying children's school readiness (Farkas & Hibel, 2008; Farver, Xu, Eppe, & Lonigan., 2006; Hoffer, 1989). Studies that have included Hispanics in their samples have focused on environmental and parent characteristics predictive of school readiness (e.g., Barnett, 1995; Farver et al., 2006; Hoffer, 1989; Ricciuti et al., 1993; White & Casto, 1985). A review of the literature suggests that family size, income, single parent, working caregiver, caregiver education, primary language, child language, length of residency, and caregiver country of birth are associated with social-emotional competence and school readiness (e.g.,

Coley, 2002; Crosnoe & Lopez-Gonzalez, 2005; Currie & Thomas, 1996; Duncan & Magnuson, 2005; Farver et al., 2006; Fowler & Cross, 1986; Hart & Risley, 1995; Rouse et al., 2005; Zill et al., 1995b). This study examined these variables as predictors of school readiness and social-emotional competence in a sample of Hispanic preschoolers.

Statement of Purpose

The literature points to limited research in the area of Hispanic children's school readiness (Rouse et al., 2005). There have been few studies of school readiness that have focused solely on Hispanics. For the most part, Hispanics have been included in the samples and the researchers indicate this in the abstract of the study. However, a closer look reveals that Hispanics only made up a small portion of the entire sample. Studying school readiness in this population is important because it may ultimately close the racial and ethnic educational achievement gaps (Rouse et al., 2005). The present study addressed this gap in the literature by examining a population that has constantly been reported as exhibiting poor school readiness skills.

In addition, research is lacking on social-emotional competence of Hispanic American preschool children (Oades-Sese, 2006), and even fewer studies have examined how it relates to school readiness. Few studies have identified factors which may predict behavioral and emotional problems in Hispanic preschoolers (Weiss, Goebel, Page, Wilson, & Warda, 1999), even though Hispanics have been shown to be rated less favorably than other students by their teachers in regards to their social and emotional competence (Hoffer, 1989; Roberts, Hutton, & Plata, 1985). Until recently, researchers had not explored the relationship of emotional and social competence to school readiness

(Waajid, 2006). There is a lack of information on social and emotional development in Hispanic children that requires further study (Garcia, 1992). This study attempted to fill this gap by studying social-emotional competence as a predictor of school readiness in low-income, Hispanic preschoolers.

Methodology

This study was designed to fill the gaps in the literature by examining factors that impact school readiness among Hispanic preschoolers. A total of 162 children ages 3 to 5 years old were assessed by a school readiness measure in a Head Start program in central Texas. Children were assessed during the first 45 days of school. Teachers and caregivers completed a social-emotional rating scale on each student's social skills and problem behavior during the first 45 days of school. In addition, caregivers completed a questionnaire that addressed cultural and sociodemographic factors.

The study examined the impact of socioeconomic factors, cultural factors, and social-emotional competence on school readiness. Family size, income, single parent, working caregiver, and caregiver highest level of education were grouped into sociodemographic factors and primary language, the child's language, length of residency in the United States, and caregiver country of birth were grouped into cultural factors. While previous literature has examined the effects of sociodemographic factors on school readiness, this study also included cultural factors of specific relevance to the Hispanic population. This study used age, gender, and disability status as control variables.

Both sociodemographic and cultural factors were hypothesized to have an effect on social-emotional competence and school readiness, after controlling for age, gender, and disability. The study also hypothesized that cultural factors have an impact on social-emotional competence and school readiness, above and beyond the effects of sociodemographic factors. In addition, the study proposed that social-emotional competence has an impact on school readiness, above and beyond the effects of sociodemographic and cultural factors. The conceptualized model can be seen in Appendix B as Figure 1.

This study examined these factors using several hierarchical regression analyses that examined the effects of sociodemographic and cultural factors on social-emotional competence and school readiness after controlling for age, gender, and disability. In addition, the effects of cultural factors on social-emotional competence and school readiness, above and beyond sociodemographic factors after controlling for age, gender, and disability, were examined. Finally, the models examined the effects of social and emotional competence on school readiness above and beyond the effects of sociodemographic factors and cultural factors, after controlling for age, gender, and disability. A contribution of the study to the literature was that even though a review of studies suggests that these factors are associated with social-emotional competence and school readiness, they have yet to demonstrate this using hierarchical analyses in low-income Hispanic preschoolers. The models tested were designed to address the gaps in the Hispanic school readiness literature.

Research Questions and Hypotheses

Research Question 1. Do sociodemographic factors account for significant individual differences in social-emotional competence? Specifically, after controlling for age, gender, and disability, do family size, income, single parent status, working caregiver, and caregiver education account for significant individual differences in social-emotional competence?

Hypothesis 1: Family size, income, single parent status, working caregiver, and caregiver education will account for significant individual differences in social-emotional competence, after controlling for age, gender, and disability.

Specifically, lower social-emotional competence is expected to be associated with: a) larger family size, b) lower income, c) single parent status, and d) lower level of caregiver education. No hypotheses are proposed for the direction of the relationship between social-emotional competence and having a caregiver who works.

Research Question 2. Do cultural factors account for significant individual differences in social-emotional competence above and beyond the effects of sociodemographic factors? Specifically, after controlling for age, gender, disability, and sociodemographic factors, do primary language spoken in the home, child language, length of residency in U.S., and caregiver country of birth account for significant individual differences in social-emotional competence?

Hypothesis 2: Language spoken in the home, child language, length of residency in U.S., and caregiver country of birth will account for significant individual

differences in social-emotional competence, after controlling for age, gender, disability, and sociodemographic factors. Specifically, lower social-emotional competence is expected to be associated with a) shorter length of residency in the U.S. and b) caregiver country of birth. No hypotheses are proposed for the direction of the relationship between social-emotional competence and a) language spoken at home and b) language of the child.

Research Question 3. Do sociodemographic factors account for significant individual differences in school readiness? Specifically, after controlling for age, gender, and disability, do family size, income, single parent status, working caregiver, and caregiver education account for significant individual differences in school readiness?

Hypothesis 3: Family size, income, single parent, working caregiver, and caregiver education will account for significant individual differences in school readiness, after controlling for age, gender, and disability. Specifically, lower school readiness is expected to be associated with: a) larger family size, b) lower income, c) single parent status, and d) lower level of caregiver education. No hypotheses are proposed for the direction of the relationship between school readiness and having a caregiver who works.

Research Question 4. Do cultural factors account for significant individual differences in school readiness above and beyond the effects of sociodemographic factors?

Specifically, after controlling for age, gender, disability, and sociodemographic factors, do primary language spoken in the home, child language, length of residency in U.S.,

and caregiver country of birth account for significant individual differences in school readiness?

Hypothesis 4: Language spoken in the home, child language, length of residency in U.S., and caregiver country of birth will account for significant individual differences in school readiness, after controlling for age, gender, disability, and sociodemographic factors. Specifically, lower school readiness is expected to be associated with a) shorter length of residency in the U.S. and b) caregiver country of birth. No hypotheses are proposed for the direction of the relationship between school readiness and a) language spoken at home and b) language of the child.

Research Question 5. Does social-emotional competence account for significant individual differences in school readiness above and beyond the effects of sociodemographic factors and cultural factors? Specifically, after controlling for age, gender, disability, sociodemographic factors, and cultural factors, does social-emotional competence account for significant individual differences in school readiness?

Hypothesis 5: Social-emotional competence will account for significant individual differences in school readiness, after controlling for age, gender, disability, sociodemographic factors, and cultural factors. Specifically, lower school readiness is expected to be associated with lower social skills and higher problem behavior.

Results

Results indicated that the control variables of age, gender, and disability were good predictors in explaining the variance in social-emotional competence and school

readiness. Some sociodemographic variables (i.e., family size, single parent status) were also good predictors and contributed a significant amount of explanatory power when entered as predictors of social-emotional competence, but not school readiness. Contrary to what the study had hypothesized, cultural variables were not significant predictors of either social-emotional competence or school readiness. Finally, social skills, but not problem behavior, were significant predictors of school readiness. What this means is that age, gender, and disability seem to be carrying most of the variance that explains social-emotional competence and school readiness. It also means that some sociodemographic variables seem to be carrying some of the variance, and finally that cultural variables are not carrying a significant amount of explanatory power when entered as predictors of social-emotional competence and school readiness. This implies that for this sample of at-risk Hispanic preschoolers, the cultural variables examined in this study were not strong predictors.

Summary

A review of the literature indicates the importance of addressing the school readiness needs in the at-risk growing Hispanic population. The research shows that Hispanics lag behind Blacks and Whites in terms of educational attainment (Currie & Thomas, 1996), that it faces a high degree of poverty (Ramirez & de la Cruz, 1993), and that a large number of Hispanic children are entering kindergarten unprepared to learn (Rimm-Kaufman et al.2000). The literature also points to limited data in the area of Hispanic children's school readiness (Rouse et al., 2005). This research study attempted to fill the gaps in the literature by examining factors that impact school readiness among

Hispanic preschoolers. The study examined the impact of several predictors on school readiness and social-emotional competence. Results indicated that control and some sociodemographic variables, but not cultural variables, were good predictors in explaining the variance in social-emotional competence and school readiness. It is hoped that the findings lead to important implications for interventions designed for this at-risk population.

CHAPTER II

REVIEW OF THE LITERATURE

The Hispanic population in the United States is estimated at 28 million and representing the fastest growing sociodemographic group in the nation (Gil, Wagner, & Vega, 2000). The U.S. Census Bureau (2008) reported that the Hispanic population increased 1.4 million to reach 45.5 million on July 1, 2007, or 15.1% of the estimated total U.S. population. Specifically, it was reported as exceeding 500,000 in 16 states. This population increased 3.4 % between July 1, 2005 and July 1, 2006, making it the fastest-growing minority group in the nation. Between 2000 and 2006, Hispanics accounted for one-half of the nation's growth and the Hispanic growth rate (24.3%) was more than three times the growth rate of the total population (6.1%; U.S. Census Bureau, n.d.). Hispanics to date represent the largest minority group; about one in three U.S. residents is a minority (U.S. Census Bureau, 2008). By the year 2050, it has been estimated that the number of Hispanic children under age 5 will outnumber non-Hispanic White children, resulting in a country in which children who have traditionally been classified as racial/ethnic minorities will become the majority group (Espinosa, 2007). The state of Texas was reported to have the second largest Hispanic group (8.6 million; U.S. Census Bureau, 2008) and to experience the largest increase in Hispanic population between 2006 and 2007 (308,000). These statistics demonstrate that the Hispanic population in the United States is becoming increasingly prevalent.

Of the Hispanics living in this country, a significant number are foreign born and speak Spanish. In 2002, two in five Hispanics or 40.2% of the Hispanic population were foreign born (Ramirez & de la Cruz, 2003); this number added up to 15 million people. Between the years 1990 and 2002, 52.1% of these foreign born Hispanics came to live in the United States, another 25.6% came in the 1980s, and the rest (22.3 %) immigrated before 1980 (Ramirez & de la Cruz, 2003). In addition, the U.S. Census (2003) reported that 28 million U.S. residents age 5 and older spoke Spanish at home. Spanish speakers represented a ratio of more than 1-in-10 residents and among those who spoke Spanish, more than one-half reported that they also spoke English very well. A substantial percentage of Hispanics, especially those who are recent immigrants, speak Spanish as their primary language (Carney, 2002). These statistics indicate that a large portion of the Hispanic population has just recently arrived and is adapting to life in this country (Bacallao & Smokowski, 2005).

Hispanics are known to face many sociodemographic risks. Hispanics are much more likely than non-Hispanic Whites to be unemployed and to live in poverty (Ramirez & de la Cruz, 1993). Among the Hispanic poor, children constitute almost one-half (47.7%; Perez & Martinez, 1993). In 2002, 26.5% of family households in which a Hispanic person was the householder consisted of five or more people, compared to 10.8% of non-Hispanic White family households that were this large (Ramirez & de la Cruz, 2003). Ramirez and de la Cruz (2003) reported that when looking at all Hispanic family households, Mexican family households were most likely to have five or more people (30.8%). Hispanics are also a young population. Almost 34% of the Hispanic

population in the United States was reported as younger than 18, compared to 25% of the total population (U.S. Census Bureau, 2008). In the year 2002, 34.4 % of Hispanics were under the age 18, compared with 22.8% of non-Hispanic Whites (Ramirez & de la Cruz, 2003). The number of preschoolers (children younger than 5) in the United States was reported to have reached 20.7 million (U.S. Census Bureau, 2008). Out of these preschoolers, Hispanics have been reported to make up about 22% (Calderon, Gonzalez, & Lazarin, 2004 as cited in Espinosa, 2007).

The Hispanic population is important for school psychologists not only because of its growing numbers, but also because of the risk factors it faces when it comes to the school aged population (Bacallao & Smokowski, 2005). Specifically, the Hispanic population aged 25 and older was reported to be less likely to have graduated from high school than non-Hispanic Whites (57.0% and 88.7%, respectively; Ramirez & de la Cruz, 2003). The National Center for Research on Cultural Diversity and Second Language Learning indicated that the Hispanic population has a 40% non-graduation rate, a 35% grade retention rate, and a 2-4 grade level achievement gap (Garcia, 1991). In a review of Puerto Rican children, Hidalgo (1992) described Puerto Rican children as having a higher school dropout rate and achieving at a lower level than European American children. Other researchers agree that Hispanics lag behind Blacks and Whites in terms of educational attainment (Currie & Thomas, 1996; Kao & Tienda, 1995; Rouse et al., 2005). and have a high dropout rate (Alvarez-Ortiz, 1997). These facts suggest that this population's educational attainment is of major concern.

Without a doubt, the literature points to the Hispanic population being at risk, particularly in their academic outcomes. Why do Hispanic children tend to perform so poorly in school? Could it be because they do not have the necessary skills to succeed academically when they begin school? Arriving at school healthy and developmentally ready to participate actively in classroom activities plays a significant part in child's school experiences (Lewit & Baker, 1995). In their discussion of school readiness, Rouse and colleagues (2005) stated that school readiness is important because research findings and common sense suggest that what happens to children early in life has a significant impact on their later achievement. Behavioral and academic skills in children that are entering school are very important because they potentially affect disparities in outcomes (Rouse et al., 2005). Being ready for school is also important because those children who enter school without the proper skills continue to have difficulties later in life. This study examined Hispanic preschooler's school readiness and factors that may have an impact on this construct, including social-emotional competence.

School Readiness

According to Connell (1987), the original purpose of kindergarten was to offer young children's first group experiences outside the home. Kindergarten was a place where children were made to feel comfortable, competent, and confident in school. Some examples of skills that were taught were how to tie shoes, remove and put on jackets, listen to stories, and how to sit on the floor in a circle with folded legs. Interestingly, it was taboo during these times to expose kindergarten children to print because it was supposedly bad for children's developing eyes. It is interesting because

all the recent research on emerging literacy has demonstrated that regular, stress-free, informal exposure to print enables each child as ready to read (Connell, 1987). What was important then was for children to be able to absorb the culture and functioning of the school, not learn specific academic skills (Carlton, 2000). Today though, children are assumed to enter kindergarten with many of the skills that were taught there in the earlier years (Carlton, 2000). It is therefore important for educators and parents to understand what skills are required in their children in order to be ready for school; this is what we will call school readiness.

Much attention was drawn to school readiness in 1990, when the President and State Governors established the National Education Goals, and wrote as the first goal: “by the year 2000 all children in America will start school ready to learn” (Kagan et al., 1995, p. 1). This has been called the “readiness” Goal and has drawn much attention from federal, state, and local levels (Kagan et al., 1995). The three objectives that accompanied this Goal concerning children’s early development and learning were:

All children will have access to high quality and developmentally appropriate preschool programs that help prepare children for school; every parent in the United States will be a child’s first teacher and devote time each day helping his or her preschool child learn, and parents will have access to the training and support parents need; children will receive the nutrition, physical activity experiences, and health care needed to arrive at school with healthy minds and bodies, and to maintain the mental alertness necessary to be prepared to learn,

and the number of low-birthweight babies will be significantly reduced through enhanced prenatal health systems (Kagan et al., 1995, p. 1).

These three objectives suggest that the well-being of America's young children is a shared responsibility of family and society and that it will be necessary to work collaboratively across sectors and institutions (Kagan et al., 1995). They implicate that all children are entitled to early experiences to promote their development and that definitions of readiness need not focus solely on academics, but instead should incorporate physical, social, and emotional well-being. The objectives also suggest that there is a link between early development and learning, and children's later success in school and in life. The implications of the "readiness" Goal called the attention of many in the field who later attempted to define what starting school "ready to learn" (Kagan et al., 1995) really meant. It was then apparent to researchers, policy makers, and educators that coming up with a definition was going to be no less than a challenge.

Defining School Readiness

A review of the literature makes it evident that there are many different definitions of school readiness that vary both in terms of the skills thought to be important to school readiness and the point at which these skills are thought to develop. May and colleagues (1994) indicated that school readiness is typically defined as a quality within the child that allows him to be successful in the regular public school kindergarten curriculum. Garcia (1992) defined school readiness as "cognitive, psychological, and social maturation of the child" (p. 25). James (2006) suggested that school readiness refers to "the development of primary cognitive and language skills that

are needed to perform a variety of intellectual tasks including counting, learning letters and shapes, and writing” (p. 2). Hoffer (1989) described school readiness as “the summation of a child’s innate characteristics and interactions with family members, friends, teachers, and others in the neighborhood” (p. 20). Brenner and Scott (1971) defined school readiness as the result of earlier development and learning which serves as the basis for any further learning. Hoffer (1989) indicated that school readiness:

refers to a stage of development appropriate to meet the formal schooling demands of a kindergarten class in the public schools . . . Many factors combine to determine if a child is ready for formal schooling- home and family background, experiential knowledge, intellectual ability, expressive and receptive language skills, reading and math readiness, physical maturity, behavioral characteristics and emotional maturity (p. 38).

Carlton (2000) argued that teachers and school systems can no longer view school readiness as a unitary concept or specific point in time that a child must reach before being able to successfully participate in kindergarten activities. Meisels (1998) explained that school readiness is a process that occurs over time and that it is not complete by the first day of kindergarten. This author also made the suggestion of thinking about readiness as more than a set of skills seen in the first few weeks of kindergarten, or behavior patterns, that compliant children “who have prodigiously long attention spans” (Meisels, 1998, p. 24) exhibit. By a look at these definitions, there appears to be no consensus among researchers on a concrete definition of school readiness.

Kagan (1990) examined the history of the theoretical and empirical work in school readiness. The author indicated that the history focused on the following three major issues: (1) distinguishing between readiness to learn and readiness for school, (2) discerning the various differences between chronological and maturational approaches to readiness, and (3) differentiating correlates of readiness (predominantly specific child abilities). These three will be addressed in this literature review. According to Kagan (1990), the concept of readiness has been defined by two concepts: readiness for learning and readiness for school. Readiness to learn is viewed as the “level of development at which an individual (of any age) is ready to undertake the learning of specific materials” (Kagan, 1990, p. 273). In other words, it refers to the age at which the average individual has the specified capacity to be ready to learn. Compared to readiness to learn, readiness for school embraces specific cognitive and linguistic skills (e.g., copying a square, identifying four colors by name). “School readiness” combines both the readiness to learn concept and readiness to perform in the classroom concept. However, there is a lack of consensus regarding what that standard should include (Crnic & Lamberty, 1994).

Some researchers have argued that deciding whether a child is ready to learn may appear like a simple task, but when one tries to establish operational definitions, guidelines, and timelines, the complexity of the issue is evident (Carlton & Winsler, 1999). Kagan (1990) indicated that defining readiness has been a difficult task, and that the concept has been poorly defined given that researchers, policy makers, and practitioners have failed to reach an agreement as to what should be included in the

definition. The concept of school readiness is not only poorly defined, but it is also subject to many interpretations, depending on the person who is discussing it, on the theory, or the context that it is interpreted in (Kagan, 1990; Lewit & Baker, 1995; May & Kundert, 1997). Crnic and Lamberty (1994) indicated that “despite the best intentions of those concerned with the educational process, young children’s readiness for school remains a critical yet controversial, complex, and perhaps misunderstood construct” (p. 1). It has been made apparent that the definition of readiness and knowing how the child will become ready is still a mystery (Carlton & Winsler, 1999).

In an attempt to identify the skills needed for school readiness, a number of studies have involved the use of surveys given to teachers and parents, asking them what their views are about children’s readiness (Connell, 2001). One of these surveys, which was carried out by the National Center for Education Statistics in 1993, was called the National Household Education Survey (NHES; National Center for Education Statistics, 1994) and another survey was the Kindergarten Teacher Survey on Student Readiness (KTSSR; National Center for Education Statistics, 1993). These two surveys asked parent and teachers to rate the importance of specific characteristics to being ready to start kindergarten. Results from these two surveys indicated that the most common problem with kindergarten students is the lack of enthusiasm. Results also indicated that parents and teachers viewed “communicates needs, wants, and thoughts verbally” and “enthusiastic and curious in approaching new activities” as important characteristics of being ready to start kindergarten. In addition, a lot more parents considered taking turns and sharing as a “very important skill” than teachers did.

Caldwell (1974) listed parameters that should be assessed during the testing for school readiness. These parameters included number concepts and ordination; basic information and vocabulary; concepts of size, motion, color, and times; social function; visual motor ability; level of independence; and ability to follow instructions. Brenner and Scott (1971) listed the following seven factors that best indicated school readiness: (a) cognitive readiness, (b) chronological age, (c) reading readiness, (d) body of knowledge, (e) biochemical maturity, (f) physical development, and (g) perceptual differentiation. Milan (1983) examined school readiness in three ethnically different groups of children. The author listed five crucial factors in academic readiness: (a) chronological age, (b) general knowledge, (c) intelligence, (d) task persistence, and (e) gender. It is therefore apparent that researchers have not come into an agreement to what the skills pertinent to school readiness should be.

Piotrkowski, Botsko, & Matthews (2000) studied the beliefs of preschool teachers, kindergarten teachers, and parents in a mostly Hispanic and Black high-need urban school district to learn their views about what children should know and be able to do at kindergarten entry. Beliefs regarding the importance of 12 school readiness “resources” were assessed with the CARES survey designed for this study. Results indicated that Hispanic parents placed slightly more importance on a child being able to communicate needs and feelings in his or her own language, being emotionally mature, and somewhat stronger emphasis on children being interested and engaged. Seven out of ten parents, Hispanic and Black alike, believed it necessary for children to be able to express their feelings and needs in English. There were also no significant differences

among Hispanic parents by language spoken at home. Limitations of the study included the findings not being generalized to parents who stay home with their preschoolers or to Hispanic parents who speak only Spanish.

In the past, readiness for school was equated with reading readiness, but other domains have been shown to correlate with school readiness as well, including children's printing, self-concept, drawing, perceptual skills, school adaptation skills, fine and gross motor skills, social skills, SES, family size, and absent fathers (Kagan, 1990). Most of the research has focused on academic skills, such as spoken language, vocabulary size, familiarity with the alphabet and books, classification, basic counting and what is known as "general knowledge" (Rouse et al., 2005, p. 6). According to Crnic and Lamberty (1994), research suggests that there are certain fixed skills that children must have with them when they enter school. However, there has been little agreement on what exactly affects readiness to learn, ranging from motivation, physical development, intellectual ability, emotional maturity, and health (Kagan, 1990).

The maturational perspective, often been accredited to Gesell and his colleagues (Ilg & Ames, 1972), is a theory that has been dominant in research and practice on school readiness to date (Meisels, 1998). The maturational perspective believes that children are ready to start school when they reach a level of maturity that allows them to sit quietly, focus on work, accept directions, and engage with peers in socially acceptable ways (Meisels, 1998). According to Crnic and Lamberty (1994), the idea behind the maturational approach is that there is a specific set of developmental abilities that should be met before school entry, with the acknowledgement that not all children

acquire these skills by the same age. At the same time, children need to have acquired these skills before they were placed in a school setting. The theory holds that development is only minimally influenced by external factors (Meisels, 1998). For example, the maturational perspective takes the focus away from external influences, such as parental nurturance, educational inputs, social factors, or the economic environment and instead places all responsibility in the child.

In the maturational theoretical perspective, school readiness is “the task of allowing the psychological forces underlying learning to unfold so that physiological and constitutional structures can eventually emerge” (Meisels, 1998, p. 13). In other words, children will be ready to learn when they are ready and little can be done to speed up this process. The maturational model states that biological development and developmental age are the primary pathway to academic readiness, unlike chronological age as supported by the age-of-entry approach (Connell, 2001). The maturational approach supports testing for determining when children are best ready to begin school, as opposed to treating all children of a set age as being ready for school (Connell, 2001). Given the focus on the child, the best way to prevent failure in school would be to provide more time for maturation by delaying the child’s entry into kindergarten (Diamond, Reagan, & Bandyk, 2000).

The maturational theory has been subject of much criticism. For example, it has been criticized for not explaining why low-income children are at disparate risk for school readiness deficits (Connell, 2001). This is because the approach does not consider any external factors on influencing school readiness, and low-income children are at-risk

of experiencing hardships due to economic disadvantages. Crnic and Lamberty (1994) explain that “this approach assumes the primacy of biological maturation for learning and development, a view that has not been well supported in the recent developmental literature” (p. 95). Critics also state that the maturational model does not allow for the influence of environmental experience on cognitive development (Connell, 2001).

The idea of placing the school readiness responsibility on the schools themselves has also been brought up in the literature. Lewit and Baker (1995) indicated that the use of readiness testing places the responsibility on parents and children to meet a standard set by the school, and that the National Goal (Kagan et al., 1995) implies that the child should be ready for school, not the other way around (Lewit & Baker, 1995). Some researchers agree that readiness can be thought of as the school’s responsibility and not the child’s, with schools having individual plans for each of the children’s needs (Kagan, 1992) and others have argued that schools need to be equally ready for children (Boyer, 1993). Other researchers have added that school readiness includes the readiness of elementary school teachers, staff, children, and parents (Rouse et al., 2005). However, this view would imply that readiness assessments should focus on the schools’ characteristics and quality, and putting the focus on the school may require complicated institutional changes which could take time to implement (Lewit & Baker, 1995). This view would bring big changes to the way that educators, parents, and scholars see school readiness by taking the focus away from the children and the parents.

Despite no apparent consensus, there actually is something that the field has agreed on; that school readiness is multidimensional and dependent upon the qualities

that children bring to their learning environment and upon the contexts in which learning occurs (Hair et al., 2006). These contexts include home and school environments and the larger community. Several researchers (e.g., Love, Aber, & Brooks-Gunn, 1999 as cited in Hair et al., 2006; Hair et al., 2006; Zaslow, Calkins, & Halle, 2000) have cited a literature review conducted by members of the National Education Goals Panel (Kagan et al., 1995) as the guiding framework for defining the multiple dimensions of school readiness (Hair et al., 2006). The National Education Goals Panel established Technical Planning Groups to help with tracking the nation's progress toward meeting the National Education Goals set forth in 1990 (Kagan et al., 1995). The Technical Planning Group developed a definition of school readiness that incorporated five dimensions comprising early development and learning. This represented a multi-faceted approach to define the full concept of school readiness consistent with previous research (Hair et al., 2006). The Technical Planning Group developed this definition of early learning and development in order to address concerns regarding the narrowness of current school readiness definitions (Kagan et al., 1995). Their comprehensive definition of readiness is rooted in the developmental orientation which builds upon cognitive, maturational, and Vygotskian theory (Kagan, 1992).

The five dimensions listed by the Technical Planning Group of the National Education Goals Panel are: “(1) physical well-being and motor development; (2) social and emotional development; (3) approaches toward learning; (4) language development; and (5) cognition and general knowledge” (Kagan et al., 1995, p. 3). Hair and colleagues (2006) explained that when looking at children's school readiness, each of the five

dimensions is necessary but not sufficient. These dimensions have been well received by the profession (Prince, 1992). Specifically, Prince (1992) indicated that over one-third of all respondents in a report done on reactions to the Goal 1 on school readiness specifically mentioned their support for this idea. These 63 included early childhood educators, parents/parent representatives, teacher/teacher representatives, health care providers, specialists in bilingual education and second language learning, specialists in educational disabilities/exceptionalities, researchers and assessment specialists, and employees of state and federal government agencies. No respondents reported that they were opposed to this multidimensional definition. What makes this definition of school readiness distinctive is that it suggests a comprehensive vision of child well-being (Kagan, 1992). The present study embraced this definition of readiness given its comprehensive nature and its past support in the literature.

Measuring School Readiness

Because of disagreements in the literature about how to define school readiness, it is not surprising that there is also no clear consensus on how to measure how ready children are to learn when they enter school, or even if the schools are well equipped to receive children at different levels of development (Lewit & Baker, 1995). What the following section will demonstrate is how school readiness has been measured in the past and how this has varied as well.

Historically, chronological age has served as the major criterion for school entry (Lewit & Baker, 1995). School readiness based on chronological age means that the schools required a specific chronological age for children to enter school and that by a

certain age most children were seen as “ready” to enter school (Connell, 2001).

Therefore, school readiness was “measured,” or determined, by using the child’s age.

Crnic and Lamberty (1994) indicate that age five has become a common standard against which readiness for school has been judged. However, little evidence exists that suggests that age five is necessarily the optimal age for school readiness and there is even less evidence to suggest that some other age is better (Crnic & Lamberty, 1994).

Age five has not always been considered the prime age for entering school. In Massachusetts in the early 19th century, for example, where kindergarten was originally developed, the age of entry ranged from the ages of three to seven. In addition, about 8% of children are held back each year to begin school when they are six (Lewit & Baker, 1995). Several researchers have argued that age five is too young of an age for children to enter school (Moore, 1985; Uphoff & Gilmore, 1986). Other researchers have found that older children tend to do better in school during the early grades than their younger peers (Shepard & Smith, 1986). However, Langer, Kalk, & Searls (1984) found contradicting evidence. In an examination of nine-, thirteen-, and seventeen-year-old data, the researchers found a significant advantage for the oldest students at age nine for achievement scores. However, this advantage decreased at age thirteen and diminished by age seventeen. Therefore, the variability in children’s age of school entry suggests that the chronological age criterion is inconsistent.

There have been several researchers who have argued against the chronological age criterion. For example, Lewit and Baker (1995) indicated that given that children develop at different rates, the requirement of a specific chronological age range for them

to enter school will allow some children who satisfy the chronological age criteria to enter school and not be able to fulfill all of the school's requirements like their peers. Another researcher argued that educators should not focus on birthdays or cut-off days to define school entrance, but should instead focus on children's "academic readiness" as determined by an agreement between the parents, the child and the school (Parsons, 1985). The author, however, failed to explain what would happen if the three parties disagree or the bases upon which such decisions should be made (Crnic & Lamberty, 1994).

Other researchers have argued for deferring school entry for some children who are judged as not being ready for school so that they have the skills necessary for school when they do enter it at a later age (Crnic & Lamberty, 1994). There have been criticisms of this position as well. For example, some researchers have argued that this does not really address age-related variability in the abilities of children in an entering class because the average age of the students simply increases and the age span in a class remains unchanged (Lewit & Baker, 1995). Furthermore, by increasing the age of entry, schools are encouraged to make kindergarten curricula more demanding because of the older children in the class that were held back (Lewit & Baker, 1995). As Crnic and Lamberty (1994) state, the age of entry controversy is still in debate and has yet to be resolved. It was evident that not all children were meeting the schools' requirements in their first year, arguing against the chronological age criterion.

The chronological age criterion illustrates how a lot of the early research on school readiness examined child-related variables associated with readiness- particularly

chronological and developmental age at school-entry (Connell, 2001). However child-centered approaches to school readiness have been highly criticized (Connell, 2001) because by placing all the responsibility on the child for readiness, they have ignored all contextual and ecological influences. This suggests that schools and families have no explicit role or responsibility for their children's readiness (Crnic & Lamberty, 1994). As we will see in a later section, social and contextual influences have in fact been shown to have an impact on school readiness, thus arguing against child-centered approaches.

Another way that school readiness has and is currently being determined is through the use of readiness tests. Readiness tests are important because if the nation will be able to say that Goal 1 of the National Education Goals (Kagan et al., 1995) has been met, that "all children will enter school ready to learn," children's readiness must be able to be assessed for purposes of accountability (Meisels, 1998). However, given that the concept of "readiness" has no clear unit of measurement, researchers have used a variety of tests to measure the skills and behaviors, such as reading, math and the ability to sit still, that make a child be "ready" to enter school (Rock & Stenner, 2005). There are numerous tests for assessing school readiness available today (Rouse et al., 2005) that have been designed to objectively measure children's school readiness and their ability to succeed in classroom placement (Garcia, 1992). Assuming that a school readiness test is accurate, a child's score can be used to predict his future achievement or success (Rock & Stenner, 2005). Researchers have noted that school readiness and success in the first years of schooling have a positive influence on later academic

achievement (Schweinhart & Weikart, 1986). As Hoffer (1989) stated, this results in access to higher education, improved job opportunities and increased social mobility for the Hispanic population. Some researchers have indicated that readiness tests have improved substantially in the last 10 years or so and tests today are likely to provide a better measure of school readiness (Rock & Stenner, 2005).

Traditionally, school readiness has been assessed by tests that are variations of achievement tests (Meisels, 1998). Readiness tests, however, are administered at the beginning of the year and achievement tests are administered usually at the end of the year. These tests may be administered to groups or to individuals (Rock & Stenner, 2005). Anastasi (1968 as cited in Garcia, 1992) argued that individual testing is more effective than group testing. For younger children, an individual administration is preferred due to various reasons, including giving the child enough time to finish and taking advantage of the fact that younger children enjoy the individual attention (Rock & Stenner, 2005). Anastasi (1968) argued that individual testing provides more specific predictive information regarding school readiness (as cited in Garcia, 1992). According to researchers, the best readiness tests are adaptive, meaning that they adapt to the children's correct responses by administering harder questions; unfortunately, these are expensive (Rock & Stenner, 2005). For obvious reasons, a good readiness test must be reliable, meaning that it will produce basically the same results at different times (Rock & Stenner, 2005). A reliability score of at least .90 is considered to be representative of good reliability; in the .80s, medium reliability; and in the .60s or .70s, low but still

acceptable reliability. Researchers should be cautious of using tests with reliability scores of .50s, as it raises serious questions about how useful the test is.

The literature suggests that there are numerous school readiness tests that have been used and preferred in the past. For example, Rogers and Rogers (1975) reported that the ABC inventory could identify children not ready for school. Dunleavy, Hansen, Szasz, and Baade (1981) indicated that the Draw-A-Person test was useful in determining school readiness. Lambert (1967) argued that experienced kindergarten teachers' evaluations of readiness were valid and reliable. In her study of low income Hispanic children, Hoffer (1989) developed a teacher rating scale that was pilot tested on 20 children in two kindergarten classes.

Carlton and Winsler (1999) summarized some of the main studies that have examined the predictive validity of popular readiness tests. These tests were the Gesell Screening Test (Ilg, Ames, Haines, & Gillespie, 1978), Gesell School Readiness Test-Kindergarten (Ilg et al., 1978), Metropolitan Readiness Tests (MRT; Nurss, 1995), Brigance K-1 Screen (Brigance, 1992), Denver II (Frankenburg et al., 1990), and the Developmental Indicators for the Assessment of Learning, Revised DIAL-R (Mardell-Czudnowski & Golderberg, 1998). The MRT was reported to possibly be the most widely used readiness test (Carlton & Winsler, 1999). However, this test was intended for instructional planning and program information, not for individual placement purposes (Bredekamp & Shepard, 1989). Gredler (1992) stated that the tests outlined above tests are correctly placing more than one-half of the children screened but that they show little correlation between children who were identified as at-risk for failure by the results of

these tests and those who subsequently failed the first grade. In other words, a large percentage of the children labeled at risk did not perform poorly in the first grade.

Rock and Stenner (2005) reviewed the major school readiness tests that focused on academic achievement. The first was the Peabody Picture Vocabulary Test-Revised (PPVT-R; Dunn & Dunn, 1981), an individually administered test of receptive vocabulary. Reliability estimates for this test were reported to range from the .60s to the .90s. A newer version of this test is available today, the PPVT-IV (Dunn & Dunn, 2007). A Spanish version of the PPVT was also developed, called the TVIP: Test de Vocabulario en Imagenes Peabody (Dunn, Padilla, Lugo, & Dunn, 1986). The second test reviewed by the authors was the Wechsler Preschool and Primary Scale of Intelligence-Revised (WPPSI-R; Wechsler, 1989), an individually administered test of general cognitive functioning for children ages 3 to 7 and three months. Reliability estimates for this test were reported as high and to range from the mid .80s to the mid 90s (Rock & Stenner, 2005). However, this test is not used often to assess readiness because it is often administered to learning-disabled or gifted children, who are not randomly selected.

The third test reviewed was the Stanford-Binet Intelligence Scale, fourth edition (SB-IV; Thorndike, Hagen, & Sattler, 1986), a measure of cognitive abilities. Reliability estimates for this test were reported as high and to range from .80 to .99. The last test reviewed was the Woodcock-Johnson Psycho-Educational Battery-Revised (WJ-R; Woodcock & Johnson, 1989), an extensive battery of cognitive and academic achievement tests. Reliability estimates for this test were reported as high and to be in

the .90s. As in the PPVT-R, it should also be noted that a newer version is available today, called the WJ-III (Woodcock, McGrew, & Mather, 2001). Historically, it appears that there have been several school readiness tests available for use. Also, there does not appear to be a consensus as to which school readiness test should be selected over others.

There seems to be some disagreement among researchers regarding the quality and use of school readiness instruments available as well. According to Lewit and Baker (1995), there currently is no good tool to measure children's school readiness and the meaning of current data is being debated. Other researchers have indicated that the number of valid and reliable instruments that have been devised and subjected to rigorous standardization are few (Meisels, 1998). Additional concerns regarding school readiness assessments regards the appropriateness of testing very young children because of young children's rapid, episodic, and individualized growth (Kagan, 1990). Young children are also restless and often have very short attention spans, making them poor test takers. Lewit and Baker (1995) have indicated that presently, direct measurement of kindergarten readiness is nearly impossible due to the lack of consensus on the definitions and standards of data of children's abilities when they begin school. Several experts in the field have even suggested that it is not only difficult but even impossible to assess a child's academic performance before the age of six (Shephard, Kagan, & Wurtz, 1998). These are all issues that are pertinent to the use of school readiness instruments.

Some school systems have implemented testing for school readiness by using school readiness tests as tools for determining fitness to enter school (Lewit & Baker, 1995). In a survey by Canella and Reiff (1989), results indicated that school entrance screening tests were required in 16 states, and in 7 additional states, more than half of the districts mandated testing. The use of readiness screening tests used for determining when children are ready to enter school, however, is frequently criticized (American Academy of Pediatrics, 1995). The use of readiness testing that is designed for screening should not be used to make placement decisions (American Academy of Pediatrics, 1995). For example, some researchers have argued that standardized tests are misused in the sense that they are being used to sort children into and out of programs and to classify them for retention or promotion when these tests were never designed for such purposes (Kagan, 1990). These statements suggest that schools can face criticism from using school entrance screening tests for the purposes of deciding which children they should accept into Kindergarten and which children should be delayed an extra year.

School Readiness and Hispanics

Evidence clearly points specifically to the Hispanic population being unready for school. For example, the South Carolina State Department of Education (1998) assessed student readiness in first grade using the Cognitive Skills Assessment Battery (CSAB; Boehm & Slater, 1981). They found that in the fall, 81.2% of the first graders met the readiness standard for the state. However, even though increases in students passing the state standard were noted for African American and White children, decreases were seen for Hispanic children. Specifically, only 58.8% of Hispanic students met the standard,

contrary to 87.7% of White students. In a survey of more than 3,500 kindergarten teachers (Rimm-Kaufman et al., 2000), results demonstrated that 46% of teachers reported that in their classrooms, at least half of the children were having problems following directions. Problems were more prevalent among Black and Hispanic children than among Whites. Rock and Stenner (2005) indicated that, over the past ten years, researchers from different fields using a variety of testing approaches would find a gap between the school readiness of White and the school readiness of Hispanic children. Lopez and Cole (1999) stated that regardless of parents' educational level, ethnic background, or income level, most parents report they want their children to succeed in school although they do not know how to help their children. Given that Hispanics have been found to have problems with school readiness, and given the apparent parent's interest in wanting their children succeeding in school, it is imperative that this at-risk population be studied more in the area of school readiness. The discussion on school readiness studies in Hispanic samples will begin by describing a term used to describe those Hispanic children who are learning English as a second language.

Swail, Cabrera, and Lee (2004) of the Pew Hispanic Research Center stated that Hispanics who are Limited-English-Proficient, or English Language Learners (ELLs), are educationally at-risk. The term English-language learners refers to those children whose home language is not English (Espinosa, 2007). The Spanish-speaking language group comprises approximately one-third of the limited English proficient population of the United States. Children who have a lack of proficiency in English when they enter

school are at greater risk for reading difficulties and difficulty in succeeding academically (Regalado, Goldenberg, & Appel, 2001).

Young Hispanic children who speak Spanish in the home are also much more likely to be from low socioeconomic status (SES) households and score significantly behind their English-speaking peers on measures of language, early literacy, and mathematics at kindergarten entry (Espinosa, Laffey, & Whittaker, 2006 as cited in Espinosa, 2007). The Head Start Bureau (2004 as cited in Espinosa 2007) has indicated that recent program evaluation data may not be as effective for Spanish-speaking children as for English -speaking children. Statistics have indicated that children whose first language was Spanish were at risk for poor literacy outcomes and were also twice as likely than non-Hispanic whites to read below grade level in English (Snow, Burns, & Griffin, 1998). These are all causes of concern regarding this population.

While “school readiness” has been a concern of educators and policymakers for more than four decades, little data have been available to assess that readiness across the national population of children (Coley, 2002). An important study of school readiness that used national data was the 1998 Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K; National Center for Education Statistics, 2001). Duncan and Magnuson (2005) called this study the nation’s “most comprehensive assessment of school readiness among kindergarteners” (p. 36). The ECLS-K study has been cited several times in the literature (Barnett, 1995; Coley, 2002; Duncan & Magnuson, 2005; Espinosa, 2007). The study was developed by the Goals Panel of the National Educations Goals who called on the U.S. Department of Education to conduct a national

longitudinal study of the academic, physical, and social development of children across the nation, beginning with their entry into kindergarten. ECLS-K followed a nationally representative sample of children from kindergarten through fifth grade and assessed kindergarteners' readiness for school.

A total of 21,260 kindergarteners were tested in the fall of the first year of the study and then tested again in the spring of their kindergarten year and in the spring of first and third grade. The children were tested with several measures that assessed several dimensions. Out of all the children in the sample, almost 13% were classified as Spanish speaking (Espinosa et al., 2006 as cited in Espinosa, 2007). The exact number of Hispanic children is not known to the investigator given that the National Center for Education Statistics does not offer the exact numbers publicly; one needs to obtain a license to see the data. Results indicated that Hispanic children scored about two-thirds of a standard deviation below whites in math (the equivalent of roughly 10 points on a test with a mean of 100 and a standard deviation of 15) and just under half a standard deviation (7–8 points) below whites in reading (Duncan & Magnuson, 2005). In addition, low SES Hispanic children in the ECLS-K sample scored more than half of a standard deviation below the national average in math and reading achievement at kindergarten entry (Lee & Buram, 2002). The study found 80% of the Spanish speakers who were judged to be least fluent in English to be in the lowest two SES quintiles (Espinosa et al., 2006 as cited in Espinosa, 2007). Results revealed inequalities in children's school readiness; particularly, being a minority student put a student at-risk for school failure (Coley, 2002).

Coley (2002) analyzed the data from the ECLS-K study and found group differences as well. The author's analyses indicated that girls were more likely than boys to be proficient in letter recognition and in recognizing the beginning and ending sounds of words, although the differences were not large. Girls were also more likely to be proficient in recognizing numbers and shapes, while males were more likely than females to be proficient in addition and subtraction and multiplication and division. In addition SES was related to proficiency across all reading tasks, where children in higher SES groups were more likely to be proficient than children in lower SES groups. SES was also related to proficiency in all mathematics tasks, where children in higher SES groups were more likely to be proficient than were children in lower SES groups. Age seemed to be related to reading proficiency for all kindergarteners. Older students were more likely to demonstrate various skills than younger children. The ECLS-K study therefore found group differences when it came to Hispanics achieving lower school readiness scores and also in age, gender, and SES. It should be noted, however, that Coley's (2002) analyses did not include Spanish-speaking Hispanic children.

Another study that has been cited several times in the literature (Espinosa, 2007; Magnuson & Waldfogel, 2005) is the Tulsa prekindergarten program, which is part of Oklahoma's universal prekindergarten initiative (Magnuson & Waldfogel, 2005). After having administered a targeted program aimed at economically disadvantaged children for 8 years, Oklahoma established a universal pre-K program for 4-year-old children in 1998 (Gormley, Gayer, Phillips, & Dawson, 2005). As of 2002-2003, 91% of Oklahoma's school districts were participating. Participants consisted of 1,567 pre-K

and 3,727 kindergarten children. In the sample, 16.8% of the children in pre-K were Hispanic and 15% of the children in kindergarten were Hispanic. Two groups of children were created, those who were at the beginning of their pre-K year and those who were at the beginning of their kindergarten year. These two groups of children participated and were then compared. The children tested in their kindergarten year had participated in the same pre-K program. Participants were administered three subtests from the Woodcock-Johnson Achievement Test (Mather & Woodcock, 2001).

Gormley and colleagues (2005) studied the effects of the Tulsa prekindergarten program. The authors looked at school-based universal pre-K attendance on children at the point of kindergarten entry and reported on the school readiness of children who attended this program during the 2002-2003 school year. The program was found to have statistically significant effects on children's performance on cognitive tests of prereading and reading skills, prewriting and spelling skills, and math reasoning and problem-solving abilities. The researchers argued that their results support the proposition that a universal pre-K program financed by state government and implemented by the public schools can improve prereading, prewriting, and prenumeracy skills for a diverse cross-section of young children. The researchers noted that future studies should examine a broader spectrum of assessments, including socio-emotional outcomes. It should be noted that teachers administered the tests only in English, even to those children who came from Spanish-speaking households. Teachers also administered the test to all children, unless it was impossible for them to get any meaningful response.

A close look at the ECLS-K and the Tulsa prekindergarten program reveals several limitations. For example, in the ECLS-K, there was a high percentage of Spanish speakers judged to be fluent in English (80%). Coley's (2002) analysis of the ECLS-K data removed the Spanish speakers entirely. Given the large number of Hispanics who have recently immigrated to the U.S. and the amount of Hispanics who only speak Spanish, Spanish speaking Hispanic children are crucial subjects in studies of school readiness. Regarding the Tulsa prekindergarten program, only 16.8% of children in pre-K and 15% of children in kindergarten were Hispanic. Even though this comparable to other studies that have included Hispanics in their samples (Marks & Coll, 2007; Mueller et al., 1996; Rimm-Kaufman et al., 2000), Hispanics do not comprise the majority, which could give us more valuable information about this population. The Tulsa prekindergarten program also did not include social emotional outcomes and teachers administered the tests only in English, even to those children who came from Spanish-speaking households. These are important limitations that the current study addressed.

Other studies that have included Hispanics in their samples have focused on environmental and parent characteristics predictive of school readiness. Ricciuti and colleagues (1993) identified maternal and family environmental characteristics predictive of school readiness in Black, Hispanic, and Caucasian children, and examined how these predictors operate in the three ethnic groups. Approximately 600 6- and 7-year old children and their mothers participated. Results indicated that several maternal and family predictors (including maternal ability level, maternal education, and family

poverty status) showed consistent significant correlations with children's school readiness and achievement in the three ethnic groups. Traditional maternal attitudes toward women's role was a significant predictor primarily among Hispanic families. Maternal education for the most part did not carry independent predictive value, except for Hispanic children and Math. The measures of children's school readiness and early achievement were the PPVT (Dunn, 1959) and two Peabody Individual Achievement Tests: PIAT Reading Recognition and PIAT Math (Markwardt, 1989).

Another study of parent characteristics was done by Farver and colleagues (2006), who studied two school readiness skills (oral language and social functioning) in a sample of Hispanic preschoolers in Head Start. The authors found that when controlling for children's age and other factors that could limit children's opportunities for acquiring school readiness skills (e.g., family size, parents' education, literacy habits), the relation between parents' literacy involvement and children's receptive vocabulary skills and social functioning was mediated by children's interest in literacy. Also, mother's perceived parenting stress was directly associated with children's receptive vocabulary skills and social functioning.

There have been many other studies that have demonstrated positive results for participation in an early education program for at-risk children, as measured by school readiness tests. Yao, Snyder, Burnett, Lindsay, and Tenenbaum (2000) researchers examined a half-day child development program for 4- year-olds to help children who were most at risk for school failure get ready to learn before they entered first grade. The authors found that the program had a positive effect in reducing the degree of risk for

student readiness at the first grade. Also, significantly more females and Hispanic students in the 4-year-old program scored ready for the first grade than did the females and Hispanic students who were not in the program. The authors used the DIAL-R (Mardell-Czudnowski & Goldenberg, 1990), a developmental screening instrument for school readiness. Marks and Coll (2007) studied the cognitive skill development in a group of diverse kindergarteners including Hispanic children. Results indicated that Hispanic children who entered kindergarten with greater mathematical knowledge were much more likely to grow academically at a faster rate thereafter.

In the Early ON School Readiness Project (Winter, Zurcher, Hernandez, & Yin, 2007), Hispanic preschool children participated in early intervention programs that included specific interventions, including community awareness, parent education, teacher professional development, increased child care quality, and transition to school activities. Head Start programs participated in the study. Children were assessed with the Developmental Indicators for the Assessment of Learning-Third Edition (DIAL-3; Mardell-Czudnowski & Goldenberg, 1998) during the fall and spring of each year. Results indicated that DIAL-3 scores were not statistically significantly different from fall to spring. However, language scores did show increases. These data support the success of early intervention for Hispanic children placed at economic risk.

Yet another study showing positive impacts was conducted by Hoffer (1989). The author investigated social, educational, and linguistic factors influencing school readiness in Hispanic children between the ages of 4 and 6 and the impact that formal preschool experience had on school readiness of Hispanic children beginning

kindergarten. The author attempted to determine relationships between school readiness, language proficiency, and preschool experience in Hispanic kindergarteners, and identify which type of preschool program, by language of instruction, optimizes language proficiency and school readiness.

Results from Hoffer's (1989) study indicated that children from formal preschool programs were rated significantly higher on most aspects of school readiness (these school readiness skills were basic concepts, general ability, English language skills, math readiness, gross motor skills, fine motor skills attendance, following directions, task completion, emotional maturity, and overall school readiness); preschool attendance had no significant effect on subjects' English or Spanish language proficiency; school readiness showed a consistent relationship to Spanish language proficiency level, but not to English; teachers rated Spanish dominant and bilingual students higher on school readiness than semilingual and English dominant students; school behavior was rated higher for children from the English only preschool class than for bilingual classroom students; and younger kindergarteners rated below middle and older groups consistently on school readiness. Hoffer (1989) found low SES, Mexican American background and close ties to Mexico, high unemployment rates, large families, and segregation and segregated schools to be significant societal factors. Results in this study were in general positive for Hispanic children.

Yet another program reported positive impacts on Hispanic children and their parents. The Parent Institute for Quality Education (PIQE; Parent Institute, 2004 as cited in Chrispeels & Rivero, 2001) provides services to low-income, ethnically diverse

parents to help them learn skills they need to work with the school systems their children will attend. Specifically, the PIQE offered new information about the school, communication, discipline; it helped parents practice new skills; it addressed parental involvement at home and school; and it explored issues of school-family relations in a culturally sensitive environment (Chrispeels & Rivero, 2001). Results indicated that PIQE classes appeared to have a positive impact on parents participating in the program by helping the parents be more effective advocates for their children and have a positive influence on their children's school-related behaviors (Espinosa, 2007). Lopez and Cole (1999) examined the effects of a parent implemented intervention on the academic readiness skills of five Puerto Rican kindergarten students in an urban school. The author found that the five children in the study showed increases in the number of letters known and several children also increased the speed at which they were able to identify the letters.

The studies described above are only some of the many studies that have demonstrated positive impacts of preschool or early intervention attendance on school readiness (e.g., Barnett, 1995; White & Casto, 1985). Even though countless studies have looked at the impact of preschool attendance on school readiness and positive outcomes, the literature points to limited data in the area of Hispanic children's school readiness (Rouse et al., 2005). In addition, when studies do include Hispanics in their samples, many times the numbers are small. In the 1996 Transition Practices Survey that examined teachers' judgments of the prevalence and types of problems children present upon entering kindergarten, only 5% of the sample in this study was Hispanic (Rimm-

Kaufman et al., 2000). Marks and Coll (2007) studied the cognitive skill development in a group of diverse kindergarteners out of which 19% were Hispanic. Mueller and colleagues (1996) studied the academic performance and classroom behavior of first and second graders of different ethnic backgrounds. In this sample, 14-16% were Hispanic, American Indian, and other Asian background. Results for the Hispanic population in particular were not reported.

In addition to these gaps in the literature, other issues arise when testing Hispanic preschoolers; these deal with the school readiness tests available for this population. In a search for tests which might be useful for measuring school readiness with Spanish-speaking preschoolers, Chew and Lang (1993) turned to the Educational Testing Service's (1991 as cited in Chew & Lang, 1993) Test Bibliographies Collection and found only six tests which might be useful for measuring school readiness with Spanish-speaking preschoolers. Other researchers reported that based on library searches, no school readiness test appeared to be well-established in the literature or psychometrically equal with English versions (Chew & Lang, 1993).

Another issue with school readiness tests regards the fact that they have been demonstrated to show large racial and ethnic differences at the time of school entry (Rouse et al., 2005). It has even been suggested that the differences in school readiness measures across ethnicities depend on the type of test used (Rouse et al., 2005). For example, vocabulary tests usually show gaps of 1 standard deviation or more, whereas reading and math achievement tests show gaps that vary from four-tenths to six-tenths of

a standard deviation (Rouse et al., 2005). To date, researchers are still trying to determine what exactly accounts for the difference in the values (Rouse et al., 2005).

When children from a minority population are administered readiness tests, a common concern is that the gap in school readiness is caused by test bias (Rock & Stenner, 2005). A test is construct biased if the items have a tendency to be more familiar to one group, say Whites, than others, like Hispanics. A test exhibits prediction bias if the test scores predict differently for different ethnicities. What some researchers have done to check this is look at similarities in the breakdown of right and wrong answers on each question of the test in groups of White and minority children who have the same overall scores on the test (Rock & Stenner, 2005). Therefore, school readiness tests seem to face criticism when it comes to using them for minority populations.

Until a definition of school readiness is consensually accepted, parents, practitioners, and policymakers will face confusion over how to best assess children for school readiness (Kagan, 1992). In fact, a suitable answer is yet to be found to how to determine school readiness (Carlton, 2000). Despite these difficulties, demands for assessment of young children are increasing due to the demands for greater accountability and enhanced educational performance (Shephard et al., 1998). Screening children through testing has been recommended in the past for determining school readiness (Carlton, 2000) and despite the apparent limitations, the widespread use of assessment for readiness suggests that a screening measure may be the most attractive approach to determining school readiness (Carlton, 2000). In addition, while assessment

measures of school readiness have been criticized, evidence suggests that the average developmental differences between groups of children tend to be both reliable and prognostic (Sattler, 1992). Therefore, the use of an assessment instrument seems to be the best way to determine school readiness.

The National Education Goals Panel (1998) outlined several requirements of school readiness assessments (DeBois, 2002). School readiness assessments must have adequate psychometric properties and they must assess several dimensions of child development. Because of the rapid growth and variation in physical, linguistic, and cognitive ability between birth and age 8, assessments should be age-appropriate in content and method of data collection. This means that tests for young children may typically need to be briefer and more interactive instead of being purely paper-and-pencil tests. Also, early childhood assessments should be culturally and linguistically appropriate, meaning that children's primary language should be taken into consideration when selecting assessment methods.

The Developmental Indicators for the Assessment of Learning- Third Edition (DIAL-3; Mardell-Czudnowski & Goldenberg, 1998) is a screening instrument that meets the standards set forth by the National Goals Panel described above. The DIAL-3 assesses developmental skills that are considered essential for academic learning by preschool, kindergarten, and first-grade teachers (Chen, Wang, Mardell-Czudnowski, & Goldenberg, 2000). In addition, the DIAL-3 items represent samples of behaviors that are directly related to successful classroom functioning in the domain measured (Chen et al., 2000). Research has validated these samples of behaviors as predictive of learning

problems (Chen et al., 2000). More importantly for this study with Hispanic children, the DIAL-3 is available for educational and psychological professionals to assess the developmental skills of English speaking as well as monolingual, limited English speaking Hispanic children (Chen et al., 2000). Given these characteristics of the DIAL-3 and how it meets the standards set forth by the National Education Goals Panel, particularly with regards to its use with the Hispanic population, this study used a shortened version of the DIAL-3, the Speed DIAL.

Summary

To summarize the main points of this section on school readiness, there appears to be a lack of consensus on what the definition of school readiness entails and the skills that are needed for school readiness. However, researchers seem to have agreed in that school readiness is multidimensional and dependent upon the qualities that children bring to their learning environment and upon the contexts in which learning occurs. The field has used chronological and maturational approaches and school readiness testing for determining readiness. There are numerous school readiness tests available today, although there seems to be a disagreement among researchers in the quality, preference, and use of these tests.

A review of the literature suggests that Hispanics have consistently scored below other groups in school readiness tests. The literature also suggests that early intervention programs are beneficial for Hispanics, as measured by school readiness tests. There are also some studies examining the relationships between environmental factors, parent factors, and school readiness.

The literature also suggests that there have been few studies of school readiness that have focused solely on Hispanics. For the most part, Hispanics have been included in the samples and the researchers indicate this in the abstract of the study. However, a closer look reveals that Hispanics only made up a small portion of the entire sample. Studying school readiness may ultimately close the racial and ethnic educational achievement gaps (Rouse et al., 2005). The present study addressed this gap in the literature by examining a population that has constantly been reported as exhibiting poor school readiness skills. The following section will review an area that is included in definitions of school readiness but that has been little studied as it relates to school readiness, especially in Hispanic populations.

Social-Emotional Competence

The preschool period is a time of rapid growth and change where the child is developing in many areas, including social-emotional development. Preschoolers are trying to understand and manage their emotions and are learning new forms of self-awareness and social understanding (Luby, 2006). Their psychological development is very much influenced by their close relationships with caregivers as well. Even though most of the school readiness research focuses on academic skills, such as vocabulary size, complexity of spoken language, familiarity with the alphabet, basic counting, classification, familiarity with books, and what is called “general knowledge” readiness for school also includes social and emotional skills (Rouse et al., 2005). During the last several years, more attention has been directed to social and emotional domains of development during early childhood.

A significant body of research has stressed the importance of children's social and emotional development to their long-term school success (Raver & Zigler, 1997; Brown & Scott-Little, 2003; Peth-Pierce, 2000). The social and emotional domains have been recognized as being crucial for current and future well-being and mental health (Peth-Pierce, 2000). Bukowski, Newcomb, and Hartup (1996) stressed the importance of studying social competence since it was found to be an important part of children's well-being, related to both relationships with parents and peers. Blankemeyer, Flannery, and Vazsonyi (2002) indicated that high social competence seems to operate as a buffer to school related issues and relationships with teachers. The authors found that poor school adjustment, an index of social competence, was associated with more negatively perceived child teacher relationships. According to the authors, the findings suggested that although aggression typically leads to poor child-teacher relationships, school adjustment may serve as a protective factor for aggressive children. A recent study by Liew, McTigue, Barrois, and Hughes (2008) supported the notion that early self-regulatory abilities and skills appear to foster both school-related confidence and competence in the early grades.

Social competence at kindergarten entry has been identified as important to school readiness and as a predictor of future academic success (Kagan et al., 1995), and prior studies that have found social skills to predict school readiness (Carlton, 2000) and social skills to be related to school performance (Ladd, 1990; Normandeau & Guay, 1998). Peth-Pierce (2000) stated that children's early relationships are the foundation for social and emotional competence in early childhood. Other researchers have found a

positive association between positive social behavior and IQ and grade point average, along with a negative correlation with absence from school (Wentzel, 1991). Peth-Pierce (2000) indicated that social and emotional competence is central to success in school and that social and emotional school readiness is related to later school and vocational success. Overall, social and emotional development has been found to affect children's academic competence (Marquez, 2007); specifically, children having internalizing or externalizing problem behaviors may suffer from deficits in their academic performance (Marquez, 2007).

Surveys of kindergarten teachers have shown that children's social and relational skills are one of the primary prerequisites for children's school readiness (National Center for Educational Statistics, 2000 as cited in Farver et al., 2006), and are among the best predictors of children's academic and social functioning at school entry (Barth & Parke, 1992). Pianta, Smith, and Reeve (1991) found that teacher ratings of social competence and behavior problems in school were significantly correlated with child affection, task orientation, self-esteem, parent support, and instruction. Furthermore, when teachers view children positively, particularly at-risk children, they are more likely to give them opportunities to participate and perceive them as having academic ability (Espinosa & Laffey, 2003). A survey of kindergarten teachers actually found that they rated knowledge of letters and numbers as less important readiness skills than being physically healthy, able to communicate verbally, able to take turns and share, and able to communicate verbally (Brooks-Gunn & Markman, 2005). Yet another study that examined teachers' judgements of the prevalence and types of problems children present

upon entering kindergarten (Rimm-Kaufman et al., 2000) indicated that teachers viewed “readiness to learn” and “teachability” as characterized by positive emotional expressiveness, enthusiasm, and ability to regulate emotions and behaviors. Social-emotional development, therefore is a central piece to a child’s school readiness.

Zill and Wolpow (1990) explain that perhaps even more important than mastery of simple facts and concepts is learning appropriate social and emotional maturity for coping with challenges that school poses to the child. For example, the child must be able to be separated from his or her parents for most of the day without becoming upset. A child must also be willing to follow directions and able to sit alone or less still for more than a few minutes, get along with other children without doing things like hitting, biting, or kicking, on the one hand, or being overly shy or withdrawn on the other. In addition, a child must be capable paying attention to the teacher without becoming distracted by the intense stimulation that a classroom full of other children provides. Finally, the child should show at least some interest in the subject matter that is taught in elementary school as well as be able to absorb the material on some level.

Preschoolers who experience social-emotional deficits (e.g., regulation of negative emotion) are at risk for psychopathology and academic failure, both then and later in life (Denham et al., 1991; Robins & Rutter, 1990). Several researchers have demonstrated links between peer difficulties and poor social, emotional, and academic adjustment (Hartup, 1992; Newcomb, Bukowski, & Pattee, 1993). Yet other studies have shown a connection between early behavioral and social difficulties and later academic achievement (e.g., Hinshaw, 1992; McGee, Partridge, Williams, & Silva, 1991; McGee,

Share, Moffitt, Williams, & Silva, 1988; Taylor, Anselmo, Foreman, Schatschneider, Angelopoulos, 2000). Higgins (1980) argued that a child who lacked social and emotional maturity were more likely to experience adjustment problems that lead to poor academic achievement. Research has documented the negative influence of social, regulatory, and emotional problems on children's early school experiences (Fantuzzo, Bulotsky-Shearer, Fusco, & McWayne, 2005).

A growing body of research documents the negative influence of early behavior problems on children's academic and social outcomes (Fantuzzo et al., 2005). Some studies have found children with behavior and social problems to be at risk of dropping out (Cairns, Cairns, & Neckerman, 1989). Children who exhibit poor self-regulation may experience academic difficulties and elicit more negative reactions from their peers and teachers, which will affect their social skills and may encourage them to be disengaged from school (Rouse et al., 2005). Malara (2007) indicates that children's maladaptive behaviors, such as aggression, impulsivity, lack of focus, noncompliance, and social reticence can be problematic in that they can interfere with children's ability to learn; they can also impede their success in preschool and in later grades. Challenging behaviors interfere with a child's availability for instructional time in the preschool classroom and with the development of important social skills (Malara, 2007). Overall, there seems to be a general agreement among those in the field that social-emotional development is important to school readiness.

Some studies have found evidence for the influence of social emotional development in preschoolers in their own behaviors and in teachers' perceptions of

them. In a study that examined the relationship between multiple dimensions of classroom behavioral adjustment problems and salient social-emotional competencies for urban Head Start children, Fantuzzo and colleagues (2005) found that socially negative behavior in the classroom predicted emotional lability, maladaptive learning behaviors, and disruptive social play in the home at the end of the year. The authors also found that withdrawn behavior uniquely predicted lower affective engagement in the classroom and disconnection from peers in the home context. The study used the Adjustment Scales for Preschool Intervention (ASPI; Lutz, Fantuzzo, & McDermott, 2002). In this study, only 1% were Hispanic. Lindsey and Colwell (2003) studied 44 preschool children's emotion regulation as measured by child interviews and parent and teacher ratings. Findings suggested that emotion regulation and emotion understanding make unique contributions to teacher ratings of children's emotional competence with peers. High levels of pretend play were associated with high emotion understanding scores for both boys and girls and physical play was associated with boys', but not girls', emotional competence with peers. This study included 44 participants, out of which only 2 were Hispanic.

Abbott-Shim, Lambert, and McCarty (2000) did a randomized design study with a wide range of outcomes related to school readiness, including health, social skills, cognitive skills, and pre-literacy skills in a sample of eligible four-year-old applicants and their parents within a Head Start program. Children and their families in the Head Start treatment and control groups were given a battery of assessments. Results indicated that the social functioning measure showed no significant interactions or main effects for

the social skills and positive approach to learning scale. Also, the Head Start parents gave consistent ratings of problem behaviors, while the control group parents initially (in the fall) rated their children as having more problem behaviors. At the spring assessment, the problem behavior ratings were very similar. This study used a sample from an almost entirely African American community; the number of Hispanic preschoolers used was not reported.

Other studies have found that social-emotional competence predicts school readiness. Carlton (2000) studied school readiness and motivation in a sample of 50 kindergarten children and used a six-variable regression model, including age, previous school experience, parent rating of competence, social skills, intrinsic motivation, and completion of a puzzle. The author used the Preschool and Kindergarten Behavior Scales- Second Edition (PKBS-2; Merrell, 1994) as a measure of children's social skills. The author found that this regression model was more predictive of academic success than a typical school readiness test. The strongest predictor of school readiness was social skills. This study, however, did not examine problem behavior and only 2% of its sample was of Hispanic origin.

Waajid (2006) studied the relationship between preschooler's school readiness and social-emotional competence. Children's emotional competence, defined as the demonstration of self-efficacy in emotion-eliciting social interactions, was assessed using child interviews. Social competence and teacher-student relationships were measured using teacher surveys. School readiness was assessed with the Developmental Indicators of Assessment Learning (DIAL; Mardell-Czudnowski & Goldenberg, 1986).

Results indicated that social competence was not significantly related to school readiness but that emotional competence was significantly related to school readiness. Regression analyses indicated that emotional competence added to the prediction of school readiness after controlling for age. Out of the 58 participants, 3 were Hispanic. Findings indicated that social-emotional development appears to have an impact on school readiness.

Bracken and Fischel (2007) highlight the significant relationship between social and behavioral skills and school readiness skills in the preschool period. In their study of Head Start children, children with more behavior problems were more likely to demonstrate weaker school readiness skills. Results demonstrated a significant relationship between social and behavioral skills and the attainment of school readiness skills (Bracken & Fischel, 2007). Williford (2004) found the presence of absence of behavior problems, particularly disruptive behavior, to be predictive of early difficulties or success in school, respectively. Fantuzzo and colleagues (2005) found that preschool children who displayed aggressive and inattentive behavior demonstrated lower levels of motivation and persistence and poorer attitudes toward learning.

Defining Social-Emotional Competence

Despite the attention and recognition that social and emotional development has received, there seems to be a lack of consensus in how this construct is defined. This construct has been defined in many different ways (e.g., Anderson & Messick, 1974; Izard, 2007; Hubbard & Coie, 1994) and researchers have stated that there is little agreement on the defining attributes of socially competent behavior (Anderson & Messick, 1974). Anderson and Messick (1974) add that the problem of defining the full

range of human competence is an ancient one. In their review of social competence, Rose-Krasnor (1997) listed 13 definitions of social competence. For example, Atteli (1990 as cited in Rose-Krasnor, 1997) defined it as “social success” (p. 241); Duck (1989) defined it as the “ability to achieve desired outcomes and show adaptability across contexts” (p. 92); McFall (1982) defined it as a “judgment by another that an individual has behaved effectively” (p.1). These definitions indicate the lack of consensus among researchers on the definition of being socially and emotionally competent.

Social competence has more recently been defined to encompass children’s ability to engage in positive relationships with parents, peers, siblings, and teachers (Raver & Zigler, 1997). Peth-Pierce (2000) explained that emotional and social competency can be defined and measured and add that “a description of a socially and emotionally healthy child, ready for kindergarten, could be a child who is confident, friendly, has good peer relationships, tackles and persists at challenging tasks, has good language development, can communicate well, listens to instructions, and is attentive” (p. 17). A socially and emotionally healthy, school ready child is essentially one who can make friends, gets along with his or her peers, and communicates well with his teachers (Peth-Pierce, 2000). This definition is pertinent to this study since it examined how social-emotional competence relates to school readiness.

Rose-Krasnor (1997) indicated that social-emotional competence has been defined by a ‘specific skills’ operational definition in the past. Social competence is being frequently defined as a set of desirable skills (Gresham, 1986). Mize and Ladd

(1990) explain that skill-based approaches are reflected in the use of behavior checklists to identify competent children and made an attempt to create a skills-training curriculum for preschoolers. The U.S. Office of Child Development (Anderson & Messick, 1974) sponsored a committee of experts to define social competence. These experts agreed that social competency was something more than general intelligence. The results were a list of twenty-nine 'statements' that represent facets of social competence, including social, emotional, and cognitive abilities. As Rose-Krasnor (1997) explains, the skills approach is difficult to implement because of having to determine which behaviors constitute social competence. The skills approach has been criticized for locating social competence in the individual as a trait or ability, instead of emerging from interactions between individuals (Rose-Krasnor, 1997). The use of a social skills approach to competence has several strengths, though, such as the simplicity of devising a list of targeted behaviors and creating a good basis for assessment checklists an intervention programming (Rose-Krasnor, 1997).

Despite the apparent disagreement on the skills needed for a child to be socially and emotionally competent, empirical evidence exists for the importance of certain skills: emotional regulation skills, social cognition skills, and social interaction with peers (Raver & Zigler, 1997). Regarding emotional regulation skills, Denham (2006) explains that an important developmental task in the early childhood years is regulating emotional experience and expressiveness (Parker & Gottman, 1989). Much developmental research has examined how young children handle stressful, emotionally-taxing experiences, from a perspective that emphasizes children's skills in the self-

regulation of their own emotions and behaviors (Raver & Zigler, 1997). In general, research on emotion regulatory skills is carried out in laboratory contexts, using observational measures to assess children's regulatory skills. Emotional regulation is an important predictor of later mental health and well-being, starting in preschool and continuing through the school years (Robins & Rutter, 1990).

Regarding social cognition skills, Raver and Zigler (1997) explain that children's thoughts, beliefs, and attitudes about relationships and social situations are considered by many researchers to play an important role in their competence with peers. Social cognition research has focused on children's knowledge of emotions and on examining children's social cognitions about how children feel about themselves. Positive associations between children's understanding of emotion expression, or emotional knowledge, and their prosocial behavior have been found for low-income preschoolers and middle-income, school-aged children (Garner, 1996). Interviews and scales are examples of measures used in assessing children's social cognitions.

Regarding social interaction with peers, research has also focused on children's prosocial behaviors in the context of interactions with peers (Raver & Zigler, 1997). Howes (1987) argued that social competence with peers can be measured within the domain of peer relations. Researchers have analyzed clusters of behavior that lead alternately to success or failure in entering a peer group and making friends (Raver & Zigler, 1997). These researchers offer great insight into the things children do to make and keep friends. Social competence has also been measured by the quality of a child's relationships (Rose-Krasnor, 1997). There is a lot of support in the literature for the

importance of friendships (Newcomb & Bagwell, 1995). A friendship relation provides the setting for the emergence of social competencies related to collaboration and offers children opportunity to exercise skills and gain competencies, such as experience with closeness and loyalty (Newcomb & Bagwell, 1995).

The National Education Goals Panel (1999) defined social and emotional school readiness as:

Children's school experience is more positive and productive when they have a sense of personal well-being, grounded in stable, caring relationships in their early lives. Unhappy, fearful, or angry children are preoccupied, unable to give their full attention and engagement to learning experiences. A solid base of emotional security and social competence enables children to participate fully in learning experiences and form good relationships with teachers and peers. In building and maintaining such relationships, key social skills are: respecting the rights of others, relating to peers without being too submissive or overbearing, being willing to give and receive support, and treating others as one would like to be treated. To the extent that children develop these social skills and attitudes, they function better in the school setting (p. 3)

This definition will be embraced for this study given that it defines social-emotional competence to how it relates to school readiness and because it was written by the National Education Goals Panel who developed the definition on school readiness described and embraced previously in this dissertation.

Despite the different definitions of social and emotional development, Raver and Zigler (1997) explain, while researchers, policy makers, and parents might differ on which tasks are more indicative of social and emotional health, they would all probably agree that children cannot thrive in isolation. Children are drawn upon the love and encouragement of siblings, caregivers, peers, and others as they go through infancy and early childhood. Children must also be able to recognize themselves as social actors within their communities and how they learn about their identities and roles as members of their families, peer groups and neighborhoods. Also, even though no single definition of social skills exists, most definitions include the pragmatic relationship between positive social behavior and positive social outcomes (Merrell, 1995).

Measuring Social-Emotional Competence

There are many different ways that social competence is measured. The use of sociometric assessments to measure social competence has been used frequently in the past. Sociometric assessments measure the judgment of peers (Hops, 1983) and a child's acceptance by peers (Raver & Zigler, 1997). What usually happens in sociometric assessments is that a child is interviewed by an adult experimenter, and invited to nominate her peers by answering to questions such as "who are your three best friends" (Raver & Zigler, 1997). Sociometric assessments show relatively good temporal stability (Asher, Parker, & Walker, 1996), can be useful for identifying children who lack social competence (Rose-Krasnor, 1997) and are relatively easy to employ (Raver & Zigler, 1997). However, they do not provide a useful basis for explaining the nature or source of the children's difficulties (Dodge, 1985 as cited in Rose-Krasnor, 1997). They have also

been criticized for having validity problems. Hymel (1983) explained that although elementary school-age children's nomination scores have been found to be reliable over time, due to the greater instability of nomination scores among younger children, preschool children's nomination scores tend to be unreliable. Same gender peers have a tendency to rate each other in a more positive light than they would if they were opposite in gender (Landau & Milich, 1990). Sociometric assessments also do not necessarily assess the child's ability to initiate and maintain relationships (Atteli, 1990 as cited in Rose-Krasnor, 1997). Researchers have argued that measures used to assess classroom behavioral adjustment problems be examined for validity and reliability and be tested and refined for use with low-income preschool populations (Lopez, Tarullo, Forness, & Boyce, 2000).

Behavioral ratings scales have been shown to be objective, reliable, and time efficient for measuring social-emotional competence (Oades-Sese, 2006). Behavior rating scales completed by parents, teachers, or other caregivers are less time consuming screening measures and should be the first step in the process of screening children to identify those in need for intervention (Merrell, 1996). Instruments developed specifically for the preschool population are the best indicators of present functional level and the next predictors of future functioning (Feil & Becker, 1993) given that social-emotional behavior is specific to developmental level (Caldarella & Merrell, 1997). A significant subset of young children are affected by internalizing and externalizing behavior problems (Carney & Merrell, 2002). Researchers have cited estimates ranging from 7-20 % for children ages 5-18, although the majority of studies

have cited ranges in the 15-18% range (Cicchetti & Toth, 1991). The prevalence of behavior problems in preschool children are usually the same as the findings in older children, with estimates in the 15-20% range (Cicchetti & Toth, 1991). Disadvantages to behavioral rating scales include (a) response biases like the halo effect, (b) leniency effects, and (c) central tendency effects. However, researchers that have examined the social development of young children have successfully used behavior rating scales to assess social competence (Denham et al., 2001). In their study, Denham and colleagues (2001) used parent and teacher ratings of children's social competence. Social competence has also been assessed by using adults as informants to children's successes with peers (Raver & Zigler, 1997).

There are multiple checklists that include competence with peers as a dimension of children's social and emotional maturity. Raver and Zigler (1997) listed several measures as having demonstrated adequate reliability and validity with samples of low-income, preschool-aged children are: The Social Competence and Behavior Evaluation (SCBE; LaFreniere, & Dumas, 1995), the Penn Interactive Peer Play Scale (PIPPS; McWayne, Sekino, Hampton, & Fantuzzo, 2002), and the Social Skills Rating System (SSRS; Gresham & Elliott, 1990). Raver and Zigler (1997) embrace these because they address dimensions of: (1) success in actively engaging with peers, (2) social withdrawal, and (3) aggressive/acting out dimensions of problem behaviors. Parent and teacher reports offer a relatively quick and simple means of collecting information on young children's social competence.

Behavior rating scales seem to be preferred over other methods since they are less time consuming. Merrell (1995) argues for measuring social-emotional problems by direct behavioral observation, behavior rating scales, and interviews with parents, teachers, and other caregivers. Any other assessment methods have little, if any, use for kindergarteners and preschoolers because these children are usually preliterate and have limited experience and cognitive maturity. Behavioral rating scales are the only one of these preferred methods that tends to be standardized and norm-referenced. Jentsch and Merrell (1996) add that self-report measures and structured clinical interviews may not be as useful with preschool children because 3- to 5-year old children usually do not have the reading ability required for self-report measures. Direct observation can be time consuming, requires lengthy training, and may provide only fragmented information because preschoolers may behave differently in varied settings.

There are very few early childhood social-emotional instruments that have adequate psychometric properties, and even fewer Spanish-language versions of these instruments. Carney and Merrell (2002) cite Achenbach's (1991a, 1991b) Child Behavior Checklist/Teacher's Report Form crossinformant system, the preschool parent and teacher rating scale versions of the Behavior Assessment System for Children (BASC; Reynolds & Kamphaus, 1992), the 3-5 year old parent and teacher versions of the Social Skills Rating System (SSRS; Gresham & Elliott, 1990). Rock & Stenner (2005) reviewed major behavior readiness tests used at the time; using the rationale that kindergarten involves behavior as in the ability to work well with others. The test is the Achenbach System of Empirically Based Assessment, which offers a variety of

diagnostic tests to measure behavior. The Child Behavior Checklist (CBC; Achenbach, 1991a, 1991b) can be used to diagnose many behavioral issues and looks at “internalizing” (e.g., sad) and “externalizing” (e.g., destroying objects) behaviors. Direct observation using coders is also used when assessing a child’s behavioral readiness (Rock & Stenner, 2005). Farver and colleagues (2006) used the Behavior Assessment System for Children (BASC; Reynolds & Kaphaus, 1992) for their study of school readiness in a sample of Hispanic preschoolers. Marks and Coll (2007) used a 24-item scale derived from the Social Skills Rating System (SSRS; Gresham & Elliott, 1990) in their study of kindergarten skills and academic skills. Mueller and colleagues (1996) used the Social Skills Questionnaire of the Social Skills Rating System (Gresham & Elliott, 1990) in his study of first and second grade children from different ethnic backgrounds.

However, these instruments have their limitations. For example, the CBCL/TRF and BASC are available in Spanish versions, but they are relatively long (over 100 items each), and are designed to be tools for screening and assessing significant psychopathology in young children (Carney & Merrell, 2002). A briefer tool may be more useful in situations where one is needed, or when the assessment focus is on routine child social-emotional behaviors. The SSRS is a briefer screening tool that focuses on typical social skills and problem behaviors, but it is not available in a Spanish version. Given the need for additional social-emotional assessment tools that focus on typical child behavior competencies and problems, and that are available in Spanish given the increasing U.S. population of Hispanic children, Merrell (1994) developed the

Preschool and Kindergarten Behavior Scales- Second Edition (PKBS-2). This instrument is one of the few standardized socio-emotional behavior rating scales used to assess young children that have good psychometric properties with content devised from developmentally specific constructs tailored to the early childhood population (Riccio, 1995 as cited in Carney & Merrell, 2002). Most of the studies that have investigated the social-emotional correlates of social skills development have focused on the externalizing domain of psychopathology than on the internalizing domain (Merrell, 1995). The PKBS-2 assesses social skills and internalizing problems in hopes of gathering information on these two areas that is lacking in the literature. The PKBS-2 was the measure used in this study given that it can be administered in English and in Spanish.

Social-Emotional Competence and Hispanics

Even though current studies highlight the negative influence of preschool emotional and behavioral problems, research on this topic is relatively scarce for low-income preschool children (Fantuzzo et al., 2005). Low-income children are at the highest risk of developing emotional and behavioral difficulties (Brooks-Gunn & Duncan, 1997). The prevalence of emotional and behavioral difficulties among low income, minority children is higher as well (Lavigne et al., 1996). Research is lacking on social competence of Hispanic American preschool children (Oades-Sese, 2006) and even fewer studies have examined how it relates to school readiness. With a significant number of Hispanic children in Head Start programs, and with Head Start programs listing emotional-behavioral issues among their top priorities for training and technical

assistance (Buscemi, Bennett, Thomas, & Deluca, 1995), research on social and emotional issues in the low-income Hispanic population is necessary. Few studies have identified factors which may predict behavioral and emotional problems in Hispanic preschoolers (Weiss et al., 1999).

Espinosa (2007) has suggested that preschoolers who are learning English as a second language face additional social-emotional challenges. In particular, children may experience a variety of negative emotional and motivational factors that may interfere with their ability to learn a second language (Krashen & Terrell, 1983). Factors include anxiety, boredom, self-consciousness, fear, and embarrassment. When a child experiences these factors, he will shut down and not actively engage in the process of learning English (Krashen & Terrell, 1983). Farver and colleagues (2006) argue that children's social functioning is an important part of Hispanic child socialization. The authors explain that *Educación* differs from the English word education in that it refers to a predominant childrearing goal of raising socially competent child who will become *un persona de bien* (a good person) or *bien educado* (well brought up), respectful of adults, behaves properly with others, and therefore is on *el buen camino* (the good path; Reese, 2002). As Reese (2002) explained, Hispanic parents spoke about schooling as part of *el buen camino* that they hoped their children would continue to follow in life. In their sample of Hispanic preschoolers, Farver and colleagues (2006) found a link between the two school readiness skills or oral language and social functioning that is consistent with research. The social and emotional development of children born to Hispanic parents is an important factor in their development into adults that can

influence society (Garcia, 1992). However, there is a lack of information on social and emotional development in Hispanic children that requires further study (Garcia, 1992). In addition, school readiness has been found to be a valid indicator of cognitive, social, and emotional maturity in children (Plumb, 1988 as cited in Garcia, 1992).

Hispanics have been shown to being rated less favorably than other students by their teachers in regards to their social and emotional competence. Roberts and colleagues (1985) studied teacher ratings of Hispanic, Anglo, and Black students' classroom behavior using a teacher checklist of school behavior. Results indicated that Hispanics were rated less favorably than the other ethnic groups. Hispanic students avoided peer and teacher interaction and also demonstrated more physical reactions. Hoffer (1989) explained that these negative perceptions may be based on solely limited English language skills and may delay the learning process.

Some researchers have looked at parenting styles and teacher ratings of their children. Brown-Pullman (1999) studied parenting styles on teacher ratings of social competence behaviors of 4- and 5-year-old African American, White, and Hispanic children. The author used the School Social Skills Rating Scale and the Social Competence and Behavior Evaluation to rate the social competence of the 4- and 5-year-olds with peers, teachers, and other adults in the school. The author found that Hispanic parents had the highest ratings in nurturing parenting style and that Hispanic children scored the lowest in adherence to school rules and classroom behavior, indicating some school rule infractions and classroom discipline problems. Out of the 60 children that made up the sample, 20 were Hispanic. Fagan (2000) examined African American and

Puerto Rican American parenting styles and involvement, and Head Start children's social competence. The author found that Puerto Rican American mothers and fathers who reported higher levels of responsiveness/consistency had children whose Head Start teachers rated them as having higher levels of social competence. A look at these two studies shows discrepant findings regarding parenting style and teachers perceptions of their children's social competence.

Summary

A review of the literature indicates that children's social and emotional development has been associated to a child's school success, life success, well-being, and mental health. Deficits in social and emotional development have also been associated with being at risk for psychopathology and academic failure. The literature also suggests that there is a lack of agreement on a definition of social and emotional development and that it has been difficult to even come up with a list of skills needed for a child to be socially and emotionally competent.

When assessing for social and emotional competence, behavioral rating scales seem to be a good choice given their brevity, objectivity, reliability, and efficiency. In addition, the literature makes the need of psychometrically sound Spanish social-emotional instruments. Low-income Hispanic preschoolers are also at risk for emotional and behavioral difficulties. Research is also lacking on social-emotional competence of Hispanic preschool children. This study attempts to fill this gap by studying social-emotional competence as a predictor of school readiness in low-income, Hispanic preschoolers.

Predictors of School Readiness and Social-Emotional Competence

Most research on school readiness has focused on family risk factors, and the ways that multiple risk factors in families negatively affect school readiness in children (Farkas & Hibel, 2008). Families that experience economic, social, and/or psychological hardship, and have few resources to cope with these tend to experience higher rates of school “unreadiness” than do more advantaged families (Farkas & Hibel, 2008, p. 3). There are some researchers who argue that the children’s home environments do not provide the best support for the early development of their school readiness skills, especially in families who are low-income and come from culturally diverse backgrounds (Farver et al., 2006). Marks and Coll (2007) used an integrative theoretical model of child development formulated specifically for understanding development among children of color. According to the model, among ethnic minority children, developmental outcomes such as academic cognitive skill must be understood in terms of demographic contexts such as poverty and geographic location that influence and interact with the child and the family. Hoffer (1989) explained that the social-political-cultural aspects of the environment of the children, their homes and schools, played a significant role in the daily life of the sample of Hispanic children used in the study. The author adds that the children in the study came from lower socioeconomic neighborhoods with a high crime rate and a low employment rate. The children also lived in small houses and crowded streets. Research therefore points to the importance of looking at environmental factors when studying children’s school readiness.

Presently, researchers are expanding how we understand the ecological influences on the development of academic readiness skills, including both family and school-related factors (Connell, 2001). Unfortunately, researchers still cannot determine which aspects of socioeconomic conditions (e.g., income, parental occupation) contribute to the improvement of a child's readiness for school (Rouse et al., 2005). In addition, the authors warn the reader to be cautious of other authors who provide estimates of how much different factors contribute to the overall readiness gap. Given that these factors are highly correlated with one another, any one factor can pick up the effects of others, therefore making it extremely difficult to look at one factor individually.

When it comes to researching the effects of socioeconomic resources on children's development, researchers have insisted on the importance of conducting experimental studies with random assignment to a treatment and control group (Duncan & Magnuson, 2005). Duncan and Manguson (2005) state that the best evidence of the effects of socioeconomic resources on children's development have come from such studies. However, these kinds of studies are rare in the social sciences. A different alternative would be to incorporate large samples into studies and follow the participants for many years, using various statistical ways to rule out other explanations for any apparent effects. Duncan and Magnuson (2005) also stress caution in inferring that any risk factor determines achievement, given that causation is difficult to prove in the social sciences. The authors add that it may be the case that there is a relationship between

income and child achievement because both are higher when looking at better-adjusted parents.

The next section describes the factors that were included in this study as predictors of school readiness and social-emotional competence.

Sociodemographic Variables

Socioeconomic Status (SES) or Income. A relationship between SES and school readiness has been demonstrated in the literature (Rouse et al., 2005). The literature suggests that income matters more for preschoolers than for older children and much more for poor children than for children from more economically advantaged situations (Duncan & Magnuson, 2005). Accounting studies find that differences in SES explain about half a standard deviation of the initial achievement gaps (Rock & Stenner, 2005).

Family SES appears to explain a great amount of variance of racial and ethnic gaps in school readiness (Rouse et al., 2005). Family SES is important for school readiness because it underlies many of the factors that affect school readiness (Rouse et al.). Life for a family in a low socioeconomic household is very different than for a family living in a more advantageous situation (Duncan & Magnuson, 2005). The first family may provide a lower quality home environment for a child and provide fewer learning opportunities in the home or in an outside lower-quality child care (Duncan & Magnuson, 2005). The second family, however, may be the total opposite, where parents read to their children, visit museums, and engage in conversations.

In families with a low SES, parents are less likely to read or talk to their children than are parents in more a more economically advantaged situation. The results of these

behaviors are associated with school readiness given the relationship between school readiness and socioeconomic conditions and parenting behaviors (Rouse et al., 2005). Differences such as these suggest that SES plays a significant role in school readiness and why it is necessary to take it into account in studies of children's school readiness.

Studies have found a relationship between SES and school readiness. In an analysis of the data of the 1998 Early Childhood Longitudinal Study (ECLS-K; National Center for Education Statistics, 2001), Coley (2002) found that SES was related to proficiency across all reading tasks, where children in higher SES groups were more likely to be proficient than children in lower SES groups. SES was related to proficiency in all mathematics tasks, where children in higher SES groups were more likely to be proficient than were children in lower SES groups. In addition, Coley (2002) found that being a minority student put a student at-risk for school failure. Farver and colleagues (2006) found that SES was a factor which potentially restricted the possibilities for children's development in general in their sample of Hispanic preschoolers. Holtzman (1985) indicated that the SES of Hispanic children has been found to be a significant factor in their level of achievement in school. Previous studies have shown that low SES children were educationally behind when they began elementary school; this deficit persisted and even increased through elementary school (Hoffer, 1989).

Espinosa (2007) indicated that economic and educational resources of the family influence a child's academic knowledge at kindergarten entry. According to McIntyre (1997), in the past, SES was one of the two sociocultural factors which appeared to be the most related to performance on cognitive measures for Hispanic children; the other

factor was language background. Other studies have found that families with low-income experience greater hardships, have limited access to resources, and must cope with higher stress levels, all of which negatively affect children's likelihood to succeed in school (Raver & Knitzer, 2002). In their study of the beliefs of preschool teachers, kindergarten teachers, and parents in a mostly Hispanic and Black high-need urban school district regarding school readiness, Piotrkowski and colleagues (2000) found that lower income was associated with increased hardship, higher stress, lower parenting behavior, and lower social skills in the kindergarten teachers' ratings.

A relationship between SES (SES) and social-emotional competence has also been demonstrated in the literature. Low-income children are at the highest risk of developing emotional and behavioral difficulties (Brooks-Gunn & Duncan, 1997). The prevalence of emotional and behavioral difficulties among low income, minority children is higher as well (Lavigne et al., 1996). McLoyd (1998) reported that poverty status and SES are significant predictors of children's early language skills and academic achievement, and social competence.

In addition, Hispanic children are more likely than White children to come from economically disadvantaged homes (Magnuson & Waldfogel, 2005). Currie and Thomas (1996) found that in their Hispanic sample, Head Start children came from families with much lower household income than children in other preschools. Studies have shown that young Hispanic ELLs at school entry were more likely than White or African American peers to live in low-income homes (Espinosa et al., 2006 as cited in Espinosa, 2007).

Researchers, however, cannot be completely certain that if the economic situation would change for these poor families, the parents would really decide to spend the extra money on child care or on more learning materials (Rouse et al., 2005). Some researchers believe there is no strong evidence that increasing parental income positively affects the school readiness of children (Rouse et al.). Also, despite the apparent impact of SES on school readiness, it is uncommon for researchers to find that SES differences account for all the racial and ethnic score gaps (Duncan & Magnuson, 2005).

Results described previously indicate the impact of SES on children's school readiness and social emotional development. This study looked at children from a low SES background, and annual family income was utilized as a predictor variable. It was hypothesized that children from families with lower income would have lower school readiness and social-emotional competence.

Family Size. Head Start children tend to have mothers who come from large families and households that are less likely to have had either an adult male or an adult female working when the mother was 14 (Currie & Thomas, 1996). Ramirez and de la Cruz (1993) reported that when looking at all Hispanic family households, Mexican family households were most likely to have five or more people (30.8%).

The extended household is the common pattern for Hispanic families, although due to the high housing costs in many cities low-income families many times are forced to live in large households which usually include unrelated adults and their children (Farver et al., 2006). It is not uncommon to find two or three unrelated families sharing the same home in urban inner city neighborhoods. This tends to raise the family's stress

levels (Farver et al., 2006). Hoffer (1989) measured family size in her study of social, educational, and linguistic factors influencing school readiness in preschool Hispanic children. Family size was measured by number of siblings. The author reported that 49% had families with two or more children; 30.9% had one sibling; and 20.1% were only children. However, family size was not considered a variable influencing school readiness.

Crowded home environments have been associated with disparities in children's social functioning, vocabulary growth rates, and cognitive abilities (Hart & Risley, 1995). Parents have also been rated as being less responsive to their children when compared to those who were living in less crowded homes (Wachs & Camli, 1991). The degree of stress associated with high density home environments has been shown to be negatively correlated with the frequency of parent to child speech (Wachs & Camli, 1991). Farver and colleagues (2006) found that family size was negatively associated with children's literacy interest, such that children who engaged in literacy-related behaviors had smaller families. Scott and Seifert (1975) found that children from small families (one sibling or less) had higher scores on expressive language skills than children from large families (three siblings or more). In addition, Sameroff (1998) found that family size of four or more children was a risk factor in poor cognitive and social-emotional development in preschool children.

This study looked at how many adults and children live in the household as a predictor of school readiness and social-emotional competence. It was hypothesized that

children from larger families would have lower school readiness and social-emotional competence.

Single Parents. Some researchers have reported that about one-third of all children are born outside marriage and more than half of all children live in a single-parent family at some point during their childhood (Duncan & Magnuson, 2005). In an analysis of the data of the 1998 Early Childhood Longitudinal Study (ECLS-K; National Center for Education Statistics, 2001), Coley (2002) found that living in a single-parent household put a student at-risk for school failure. Zill and colleagues (1995b) found that children who lived with two parents were more likely to identify primary colors or read or pretend to read than children who live in single-parent or other households. Also, children in two-parent households demonstrated more accomplishments than children in other households. Lastly, prior studies have found that children from single-parent homes are more likely to demonstrate behavioral and social difficulties than children living in two-parent homes (Carlson, 1992; Gringlas & Weinraub, 1995).

Differences are evident between racial and ethnic groups regarding the family structure (Duncan & Magnuson, 2005). Currie and Thomas (1996) found that in their Hispanic sample, Head Start children were less likely to live in a household with a father or father-figure at age 3. The highest poverty rate of all family types can be found in Hispanic female-headed families, where almost half of these families (48.3%) lived in poverty in 1990 (Perez & Martinez, 1993). An explanation to this is that female-headed households experience a weak family support structure (Perez & Martinez, 1993). In addition, Hispanic children who grow up in single-parent families are more likely to be

poor than those in married couple families (Perez & Martinez, 1993). The number of Hispanic single parents has been reported to increase at a faster rate than Black or White female-headed families and a significant portion of Hispanic families are supported by women (Perez & Martinez, 1993). Studies have also found that young Hispanic ELLs at school entry were more likely than White or African American peers to live with both parents (Crosnoe & Lopez-Gonzalez, 2005).

A study that identified maternal and family environmental characteristics predictive of school readiness in Hispanic, Black, and Caucasian children found that single parenthood was unrelated to school readiness (Ricciuti et al., 1993). Ricciuti and colleagues (1993) labeled this result to be an “interesting and somewhat puzzling finding” (p. 5). Ricciuti and colleagues (1993) gave a partial explanation to the result by stating that single-parent families tended to have a grandparent living in the household.

In spite of this last study, the trend in the literature is that single parenthood has a negative effect on children’s school readiness and social-emotional competence. Ricciuti (1999) in a later article stated that children from single-parent homes have tended to be viewed as being at risk for school performance and social or behavioral problems, and that “there is considerable evidence to support this general view” (p. 451). Given the apparent impact of single parenthood on a child’s academic and social-emotional success, this study used single parent status as a predictor variable. It was hypothesized that lower school readiness and social-emotional competence would be associated with children of caregivers who were single parents.

Education of the Caregiver. Among Hispanics, parents' completed schooling is mostly low (Perez & Martinez, 1993) and among those age 25 or older, fewer complete high school than do African Americans and Whites ("Latinos in School," 2001). Hispanic families are more likely to be headed by persons without a high school diploma, as compared to non-Hispanic families (Perez & Martinez, 1993). Hispanic children with parents who have low levels of educational attainment are more likely to be poor (Perez & Martinez, 1993). In addition, research has also shown that Mexican Americans have the lowest rate of high school graduation compared to other Hispanic groups (Perez & Martinez, 1993). Also, the enrollment of Hispanic children in preschool increases as parent educational attainment increases ("Latinos in School," 2001). However, research has only provided few interventions that have been able to produce gains and close the readiness gap in maternal schooling (Rouse et al., 2005).

The most studied form of human capital is formal schooling (Duncan & Magnuson, 2005). Research has shown that parental education plays a role in determining a child's educational experience (Perez & Martinez, 1993). In addition, children who have highly educated parents typically obtain higher scores on cognitive and academic achievement tests than do children of parents who have less education (Duncan & Magnuson, 2005). Other researchers have stated that children from low education parents tend to perform less adequately in cognitive skills than children from better educated parents (Roe & Bronstein, 1988). In an analysis of the data of the 1998 Early Childhood Longitudinal Study (ECLS-K; National Center for Education Statistics, 2001), Coley (2002) found that having parents with less education put a student at-risk

for school failure. Fowler and Cross (1986) found that maternal education was associated with academic achievement and successful grade completion.

In addition to these studies, other researchers have supported parental education's role in school readiness. Zill and colleagues (1995b) found that level of maternal education was strongly related to each of the literacy-numeracy accomplishments. Farver and colleagues (2006) found maternal education to be correlated with receptive language. Lastly, using a sample of Mexican-Americans, Laosa (1993) found mother's schooling attainment level to be a significant predictor of children's emergent school readiness scores. In addition, Sameroff (1998) found that minimal maternal education (no high school degree) was a risk factor in poor cognitive and social-emotional development in preschool children. Given the apparent impact of parental education on a child's success in education, this study used the caregiver's highest level of education as a predictor variable. It was hypothesized that lower school readiness and social-emotional competence would be associated with children of caregivers with a lower level of education.

Working Caregiver. The research on having a caregiver that works as a predictor of school readiness and social-emotional competence has been little studied and mixed. Head Start children have been found to be less likely to have mothers that work (Currie & Thomas, 1996). Hispanics have also been reported to suffer the consequences of a low minimum wage (Perez & Martinez, 1993). Duncan and Magnuson (2005) indicated that the research on the effects of occupation on young children is sparse. Rodriguez (2008) found that maternal employment increased the likelihood that children would experience

“high stable” environments. Children in “high stable” environments had higher scores in school readiness than children in “low rise” environments. Rodriguez (2008) indicates that given the financial benefits of working, mothers who are employed might be better able to invest in stimulating learning materials and engage in educational activities (e.g., visiting a museum) that may in turn promote learning in their children. Contrary to Rodriguez’s (2008) findings, Brooks-Gunn, Han, and Waldfogel (2002) found that maternal employment by the ninth month was found to be linked to lower school readiness scores at 36 months. The effects were stronger when mothers were working 30 hours or more a week.

This study treated this variable as an exploratory variable since the research on its effects on school readiness and social-emotional competence appears to be inconclusive. Given that Hispanic mothers tend to stay in the home, it was possible that this variable might have a different relationship with the study’s dependent variables than in prior studies utilizing samples in which it was more common for mothers to work outside of the home. No hypotheses were proposed for the direction of the relationship between working caregiver and school readiness and social-emotional competence.

Cultural Variables Specific to the Hispanic Population

Differences Between Subgroups of Hispanics. Currently, the U.S. Hispanic population is comprised of more than 20 ethnic groups (U.S. Census Bureau, 2008), indicating that Hispanics are not a homogenous group. Researchers have stated the importance of looking at the different sub-groups of Hispanics in the United States because even though they are united by one common language (Spanish), they vary

considerably based on their country of origin, time and reasons for migration, amount and type of education received in the home country, SES, English-language fluency, and how they have been received in the United States (Portes & Rumbaut, 2001). Within the Mexican American community, there are wide variations in educational level, occupational status, and income within the Mexican American community. Although some Mexican Americans actively work in agricultural occupations (e.g., migrant farm laborers), the majority now work in industrial and service sectors (Portes & Rumbaut, 2001). Hoffer (1989) indicated that in the case of the Hispanic child, it is important to acknowledge that the Hispanic population is heterogeneous. The Hispanic population includes individuals of different races and ethnic backgrounds; it is linguistically diverse, consists of various generations and has people in all SES groups (Cummins, 1986).

Currie and Thomas (1996) found that the benefits of Head Start were not evenly distributed across sub-groups in their study of the effects of participation in the Head Start program. The authors found that when compared to siblings who do not attend preschool, the gains from Head Start were greatest among children of Mexican origin and children of U.S. -born mothers, especially among those whose mothers have more human capital. Hispanic children whose mothers were foreign-born appeared to obtain little benefit from attending Head Start, relative to their siblings who did not attend (Currie & Thomas, 1996). The authors used the Picture Peabody Vocabulary Test (PPVT; Dunn, 1959), the Peabody Individual Achievement Test in Mathematics (PIAT-MATH; Markwardt, 1989), and the Peabody Individual Achievement Test in Reading

Recognition (PIAT-READING; Markwardt, 1989) as measures of school readiness.

Studies such as this one explain why it is important to look at children's country of birth as a possible predictor of school readiness and social-emotional competence. Contrary to this finding, a study that examined characteristics of children's home environments, oral language, and social functioning found no significant within-Hispanic subgroup differences associated with country of origin of the caregiver (Farver et al., 2006).

However, as the authors note, the number of individuals representing these different countries was small (5 Hondurans, 8 Guatemalans, 9 Salvadorans, 27 Mexicans, and 43 U.S.-born). Therefore, the number of individuals in each group may have been too small to detect any differences.

In sum, researchers have found gains from Head Start to be greatest among children of U.S.-born mothers (Currie & Thomas, 1996) and the study that found no differences of school readiness skills between sub-groups of Hispanics had a small number of individuals comprising the sub-group categories, which could have been the reason why no differences were found (Farver et al., 2006). Also, children of immigrant parents have been found to be at greater risk of starting kindergarten at a disadvantage in relation to their peers (Zucker, Howes, & Garza-Mourino, 2007). Furthermore, on average, Latino children and those children who have immigrant parents have been found to score lower on reading and math tests than other children (Lara-Cinisomo et al., 2004). Given these results, this study hypothesized that lower school readiness and social-emotional competence would be associated with children of caregivers who were not born in the U.S.

Length of Time Caregiver Has Lived in the U.S. This study treated the length of time caregiver has lived in the U.S. as a predictor variable as well. Recent immigrant households have been found to mostly likely have limited English fluency, low levels of formal education, and low family incomes (Crosnoe & Lopez-Gonzalez, 2005). Current immigrants are also more likely than natives to be poor and less educated (Magnuson, Lahaie, & Waldfogel, 2006). Farver and colleagues (2006) examined the ethnic composition of their sample and found that for the 79 immigrant families, their years of residency in the U.S. was negatively correlated with family size and parenting stress, and positively correlated with parents' literacy habits. Recent immigration could also give us an idea of how acculturated the caregiver is to living in the U.S. Given that no prior studies were found that looked at the number of years the caregiver had lived in the U.S. as a predictor of social skills, problem behavior, or school readiness, the current study's hypothesis, therefore, was theoretically-based. It would appear that recent immigrants are at risk for a whole host of factors that one might expect to be associated with poor child outcomes. It was hypothesized that lower school readiness and lower social-emotional competence would be associated with children of caregivers who have lived in the U.S. for a shorter period of time.

Language Spoken at Home. Language at home seems to play a role in participation in education or group care for Hispanic preschoolers (Espinosa, 2007). For example, the preschool enrollment rate has shown to drop from 37% to 32% among Hispanic preschoolers who live in a household in which no one over the age of 14 speaks English fluently (Lopez & de Cos, 2004). These statistics are very different when

they are compared to about 50% of Asian children who attend preschool or child care regardless of the ability of people older than 14 to speak English fluently (Lopez & de Cos, 2004). In their analyses of data from the Early Childhood Longitudinal Study, (ECLS-K; National Center for Education Statistics, 2001), Espinosa and colleagues (2006 as cited in Espinosa, 2007) found that homes where Spanish was spoken were more likely to come from a low socioeconomic status.

Homes where both Spanish and English were used have been found to be more likely to produce college graduates, when compared with Hispanic homes where only English is spoken (Long & Padilla, 1970). Other research has shown that the language of the home contributes to children's school readiness, preschool enrollment, and educational outcomes (Farver et al., 2006). This is particularly true with regard to their emergent literacy skills (Farver et al., 2006).

Studies have found mixed results regarding a link between language spoken at home and school readiness. Klein and Jimerson (2005) found that reading scores of students whose home language is Spanish were found to be significantly lower than those students whose home language is English. Zill, Collins, West, and Hausken (1995a), in their analysis of parent reports of children's developmental accomplishments and difficulties, found that children of Hispanic mothers who were non-English speaking mothers were less likely to demonstrate each of the accomplishments than children of English-speaking mothers. For example, the authors found that 87% of 4-year-olds of English-speaking mothers identified primary colors, compared to only 55% of others. Magnuson and colleagues (2006) measured reading and math skills in preschool children

of immigrants and non-immigrants. They found that preschool was more beneficial for children, as measured by reading and math skills, whose mothers spoke a language other than English at home. When children from Spanish-speaking homes have been examined, they were seen to do obtain lower scores on math and reading assessments than European and Asian-speaking homes (Espinosa et al., 2006 as cited in Espinosa, 2007).

Contrary to these findings, in their study of two school readiness skills (oral language and social functioning) with a sample of Hispanic preschoolers in Head Start, Farver and colleagues (2006) found differences in regard to the language spoken in the home, but these were not significantly related to any of the school readiness skills.

There has been limited research examining how language in the home relates to social-emotional competence. While several studies have examined child language as predictors of externalizing and internalizing symptoms (e.g., Dawson & Williams, 2008; Oades-Sese, 2006), and several have examined how language in the home is related to children's achievement (Duran, 1983; Espinoza et al., 2006; Laosa, 1993; Nielsen & Fernandez, 1981), no studies could be found that examined language spoken at home as a predictor of social-emotional competence. To date, little is known about the relationship between language status and internalizing and externalizing symptoms among Hispanic children (Dawson & Williams, 2008). Given the lack of research that has examined the language used in the home, this study used this as an exploratory variable of school readiness and social-emotional competence.

Child Language. Studies have found mixed results regarding a link between language spoken by the child and school readiness. A substantial percentage of Hispanics, especially those who are recent immigrants, speak Spanish as their primary language (Carney & Merrell, 2002). Studies have found that non-English proficient children are about twice as likely to live in poverty as English-proficient children in grades K-5 and that only about 50% have parents with a high school education (Capps, Fix, & Reardon-Anderson, 2003). Hoffer (1989) found that teacher ratings of school readiness were significantly correlated with children's language proficiency in Spanish, and not English. However, in their analyses of data from the Early Childhood Longitudinal Study, (ECLS-K; National Center for Education Statistics, 2001), Espinosa and colleagues (2006 as cited in Espinosa, 2007) found that children who were limited English proficient scored below their native English-speaking peers on math and reading assessments.

Studies have found mixed results regarding a link between language spoken by the child and social-emotional competence. A study that looked at Hispanic preschoolers found that Hispanics who were monolingual English-speakers scored lower on teacher ratings of social competence than Hispanics who were monolingual Spanish-speakers (Oades-Sese, 2006). Contrary this finding, another study found that Hispanics in bilingual classrooms (these students were not fluent in English) were consistently rated lower by teachers in social competence than Hispanics in regular classrooms (these students were fluent in English) (Edl, Jones, & Estell, 2008). One study that looked at Hispanic kindergarteners (Hoffer, 1989) found that school behavior was rated

significantly higher for children from the English only preschool class than for bilingual classroom students. Preciado, Horner, and Baker (2009) explain that since Hispanic students who are English Language Learners tend to demonstrate lower academic achievement, they are at risk for developing problem behaviors related to escape from difficult academic tasks. Other researchers have indicated there is a high prevalence of primary Spanish speakers and reports of problematic behaviors among Hispanic children (Dawson & Williams, 2008). Given these mixed results, this study treated this variable as an exploratory variable of school readiness and social-emotional competence.

Control Variables

Other Health or Developmental Disabilities. Other health or developmental disabilities appear to have an impact on children's school readiness. For example, low birth weight has been linked to school readiness problems (Reichman, 2005). Health problems, maternal health conditions, and health-related behaviors can have consequences for a child's school readiness (Currie, 2005). Lead poisoning and asthma have also been discussed as negatively affecting school readiness in children (Currie, 2005).

Other health or developmental disabilities also appear to have an impact on children's social-emotional competence. Researchers have repeatedly found that children who manifest delays and children with communication impairments demonstrate deficits when it comes to peer interactions when compared to normally developing children (Guralnick & Weinhouse, 1984; Lederberg, Ryan, & Robbins, 1986). Young children with developmental disorders may be at particular disadvantage when it comes to the

various skills that underlie successful interaction with peers (Hay, Payne, & Chadwick, 2004). Researchers have found that in preschool children, early low language skills may lead to poor social skills development and early peer rejection (Dionne, Tremblay, Boivin, Laplante, & Perusse, 2003). Research also indicates that language delays may be good predictors of later disruptive behavior (Dionne et al., 2003). Children with limited communication may react with disruptive behavior as they become frustrated in face of their limited communication (Dionne et al., 2003).

There have been several researchers that have controlled for or decided not to include children with other health or developmental disabilities in their studies of school readiness. Farver and colleagues (2006) did not include children who were receiving resource help for speech or language delays in their study of two school readiness skills (oral language and social functioning) in a sample of Hispanic preschoolers in Head Start. Abbott-Shim, Lambert, and McCarty (2003) excluded children with disabilities from their sample. Garcia (1992) examined school readiness in children born to Hispanic adolescent mothers compared to children of Hispanic post-adolescent mothers. The author included only healthy Hispanic children who had no birth trauma or prematurity at time of birth. Reynolds (1992) used assignment to special education as a predictor in his study of the effects of preschool intervention. Children assigned to special education classrooms in grades 1 to 3 were coded 1 and all others were coded 0. Consistent with previous studies, the current study controlled for other health or developmental disabilities in its analyses of variables that predict school readiness and social-emotional competence.

Age and Gender. Chronological age has been considered by some researchers to be a critical factor in school readiness (Brenner & Scott, 1971). Older children have been shown to be more likely to demonstrate various school readiness skills than younger children, including reading proficiency skills (Coley, 2002; Hoffer, 1989). Hoffer (1989) found significant differences between age groups for each measure of school readiness. The author reported that chronological age was determined to be a significant independent variable for the sample. Age, he explains, was a significant factor in school readiness and most aspects of school readiness were found to be directly linked to maturation level and overall development. Zill and others (1995b) also found a significant effect for age. They explained that for the most part, the developmental accomplishments addressed in the report (e.g., child is able to identify four primary colors, child is able to recognize most or all letters) were associated with the age of the child and are acquired by children as they grow older. For example, in the analyses, a majority of children demonstrated the accomplishments by age 4 and large majorities (more than three-quarters) by age 5.

Age has also been found to be associated with social-emotional competence. In a study looking at social competencies and their relationship to school readiness in a Head Start sample, Fantuzzo and colleagues (2007) found that younger children consistently demonstrated higher problem behavior than older children. The authors stated that these findings are consistent with developmental expectations for younger versus older children. Researchers have repeatedly found that social competence is greater in older relative to younger children (Howes & Matheson, 1992), including in studies of Head

Start students (e.g., Mendez, McDermott, & Fantuzzo, 2002) and students in other preschool settings (Coolahan, Fantuzzo, Mendez, McDermott, 2000). A widely-cited model by Rose-Krasnor (1997) proposes a model of developmental sequences and individual differences in social competence with peers from infancy to early childhood. The model presents a series of four stages, with older children being at a more advanced stage than younger children regarding their social competence. Rose-Kransor (1997) proposes that movement through the stages depends on the child's developing cognitive and linguistic skills, specifically linked to advances in interaction and friendship. Age was considered a control variable in this study.

Gender has also been considered by some researchers to be a critical factor in school readiness (Brenner & Scott, 1971). In a study of Hispanic kindergarteners, Hoffer (1989) found that girls were rated higher than boys on task completion, an indicator of school readiness. In an analysis of the data of the 1998 Early Childhood Longitudinal Study (ECLS-K; National Center for Education Statistics, 2001), Coley (2002) found that girls were more likely than boys to be proficient in letter recognition and in recognizing the beginning and ending sounds of words, although the differences were not large. Girls were also more likely to be proficient in recognizing numbers and shapes, while males were more likely than females to be proficient in addition and subtraction and multiplication and division. Yet another study by Walk (2005) found an association between gender and school readiness, which was measured by the same test as in the current study. The author found that the mean score for females was almost 4 points higher than the mean for males.

Gender has also been found to be associated with social-emotional competence. Researchers have found gender differences on many social behaviors relating to social competence (Crombie, 1988; Rose-Krasnor, 1997). Girls have been found to be significantly more interactive than boys (Coolahan et al., 2000; Mendez et al., 2002) and more pro-social than boys (Denham, McKinley, Couchoud, & Holt, 1990; Waajid, 2006). Boys have been found to display higher levels of disruptive and disconnected play than girls (Coolahan et al., 2000). Keenan and Shaw (1997) indicate that gender differences in the prevalence of problem behavior emerge during the preschool period. According to the authors, a possible explanation for this difference could be that toddler and preschool girls are more mature than boys in developmental skills that are associated with control of impulsivity and aggression. Consistent with this proposal, researchers have indicated a difference between preschool boys and girls regarding incidence of behavior problems, where boys have a higher incidence of behavior problems than girls (Sanson, Oberklaid, Pedlow, & Prior, 1991; Olson, Sameroff, Kerr, Lopez, & Wellman, 2005). Gender was also considered a control variable in this study.

Participation in Early Education Programs. Hundreds of research studies have examined the immediate and short-term (i.e., within one to two years after children exit a program) effects of early childhood care and education programs of many different types (Barnett, 1995; White & Casto, 1985) and there are thousands of articles that have studied whether early intervention is effective (White & Casto, 1985). According to Reynolds (1991), much of the attention has been paid to the effects of intervention programs. The link between early education or preschool or early childhood care and

education and improved student outcomes has been well researched and demonstrated in the literature (Barnett, 1995; Campbell & Ramey, 1994; Gray & Ramsey, 1982; Garber 1988; Guralnick, 1997; Haskins, 1989; Schweinhart, Barnes, & Weikart, 1993; Yoshikawa, 1994; Zigler, 1985).

Hoffer (1989) examined a sample of low income, Hispanic children and found that preschool experience, if it is well planned and implemented, can help prepare children for kindergarten and create a higher level of school readiness than was evident in children with no formal preschool experience. Poor Hispanic children can benefit from programs that offer specific features of child development services, promote parent services, and provide adequate health care and nutrition services (U.S. General Accounting Office, 1995). One of these programs is the Head Start program, the federal government's largest such program. The participants in this study were participating in a Head Start program, a federally funded comprehensive child development and readiness program that offers disadvantaged children, mostly those categorized as poor, with all the services needed to be prepared to enter school (Achhpal, Goldman, & Rohner, 2007). Head Start programs also provide a variety of services, such as preventive medical care and about one-third of the child's daily nutritional needs in the form of meals and snacks (Currie & Thomas, 1996). Specifically, the program aims to improve the skills of poor children so that they begin school like children who come from more advantaged backgrounds (Currie & Thomas, 1996).

Zill and colleagues (2003) used data from the Family and Child Experiences (FACES) study, which used a national random sample of Head Start programs. The

sample included 2,800 children and their families in 43 Head Start programs (Zill et al., 2003). The researchers examined 4 phases of data collection that followed 3- and 4-year-olds from program entry, through 1 or 2 years of program experience to the Spring of their kindergarten year. The authors found that children showed growth in social skills and reduction in hyperactive behavior during the Head Start year. Specifically, children with higher levels of aggressive, shy, or hyperactive behaviors showed a significant decrease in these behaviors.

Due to results such as these, children who were new to Head Start were coded differently than children who were returning to another year in Head Start and this variable was entered as a control variable in the models. This way, school readiness and social and emotional competence results were not confounded by the Head Start program intervention.

Summary

In summary, this study considered several factors as possible predictors of Hispanic children's school readiness and social-emotional competence. These factors are based on the findings and the lack of research in the literature for certain factors. Sociodemographic factors were family size, income, single parent, working caregiver, and caregiver education. Cultural factors were primary language, child language, length of residency in U.S., and caregiver country of birth. The study used age, gender, and disability status as control variables.

Conclusions

A review of the literature indicates the importance of addressing the school readiness needs in the at-risk growing Hispanic population. Data suggest the Hispanic population faces a high degree of poverty (Ramirez & de la Cruz, 1993) and lags behind blacks and whites in terms of educational attainment (Currie & Thomas, 1996), and that a large number of Hispanic children are entering kindergarten unprepared to learn (Rimm-Kaufman et al., 2000). There has also been a lack of emphasis on Hispanics' score gaps in school readiness as well (Rouse, et al., 2005). Furthermore, the literature points to limited data in the area of Hispanic children's school readiness (Rouse et al., 2005).

Researchers have also pointed out that in the past, psychologists have focused on children's social and emotional development whereas educators have focused on children's cognitive or academic development instead of looking at these two constructs together (Denham, 1986). Evidence, however, suggests that emotional and social development are critical in all areas of learning, and that a conceptual model for educating young children must be comprehensive in nature (Denham, 1986). The literature also suggests that social skills development is a domain not routinely included in readiness testing (Connell, 2001), that there is limited research on emotional and social skills important for school readiness (Waajid, 2006), and that it can contribute useful information to the assessment process. Until recently, however, researchers have not explored the relationship of emotional and social competence to school readiness (Waajid, 2006).

Finally, while current studies have highlighted the negative influence of preschool emotional and behavioral problems, these study findings are limited for low-income preschool children (Fantuzzo et al., 2005). There is a lack of information on cognitive, social, and emotional development in Hispanic children (Garcia, 1992). Taken together, these statements suggest there is limited research in the area of school readiness and social emotional development in Hispanic preschool children.

Purpose of the Study

The study attempted to fill the gaps in the literature by examining factors that impact school readiness among Hispanic preschoolers. Specifically, the study looked at the impact of socioeconomic factors, cultural factors, and social-emotional competence on school readiness.

A review of the literature suggests that family size, income, single parent, working caregiver, parent education, primary language, child language, length of residency, and caregiver country of birth are associated with social-emotional competence and school readiness (e.g., Coley, 2002; Crosnoe & Lopez- Gonzalez, 2005; Currie & Thomas, 1996; Farver et al., 2006; Fowler & Cross, 1986; Hart & Risley, 1995; Rouse et al., 2005; Duncan & Magnuson, 2005; Zill et al., 1995b) but has yet to demonstrate this using hierarchical analyses in low-income Hispanic preschoolers. This study grouped family size, income, single parent, working caregiver, and caregiver education into sociodemographic factors and primary language, child language, length of residency, and caregiver country of birth into cultural factors. The model allowed us to examine the effects of sociodemographic and cultural factors on social-emotional

competence and school readiness after controlling for age, gender, and disability, and to examine the effects of cultural factors above and beyond sociodemographic factors on social-emotional competence and school readiness, after controlling for age, gender, and disability. Examining the effects of cultural factors above and beyond sociodemographic factors, after controlling for age, gender, and disability, was of interest for this study given its focus on the Hispanic population. In addition, the literature suggests that social and emotional competence plays an important part of a child's school readiness (e.g., Kagan et al., 1995; Peth-Pierce, 2000). The current model allowed this analysis, given that it was designed to examine the effects of social and emotional competence on school readiness above and beyond the effects of sociodemographic factors and cultural factors, after controlling for age, gender, and disability. The conceptualized model can be seen in the Appendix B as Figure 1.

Both sociodemographic and cultural factors were hypothesized to have an effect on social-emotional competence and school readiness, after controlling for age, gender, and disability. This model also hypothesized that cultural factors have an impact on social and emotional competence and school readiness, above and beyond the effects of sociodemographic factors. In addition, this model proposed that social-emotional competence has an impact on school readiness, above and beyond the effects of sociodemographic and cultural factors.

A major contribution of this theoretical model is the exploration of the impact of sociodemographic and cultural factors on social-emotional competence and school readiness in a sample of low-income Hispanic preschoolers. In particular, this model

investigated the impact of cultural factors on social-emotional competence and school readiness above and beyond the effects of sociodemographic factors, which aids in our understanding of social-emotional competence and school readiness in a sample of low-income, Hispanic preschoolers. This model was designed to address the gaps in the Hispanic school readiness literature.

Research Questions and Hypotheses

Research Question 1. Do sociodemographic factors account for significant individual differences in social-emotional competence? Specifically, after controlling for age, gender, and disability, do family size, income, single parent status, working caregiver, and caregiver education account for significant individual differences in social-emotional competence?

Hypothesis 1: Family size, income, single parent status, working caregiver, and caregiver education will account for significant individual differences in social-emotional competence, after controlling for age, gender, and disability.

Specifically, lower social-emotional competence is expected to be associated with: a) larger family size, b) lower income, c) single parent status, and d) lower level of caregiver education. No hypotheses are proposed for the direction of the relationship between social-emotional competence and having a caregiver who works.

Research Question 2. Do cultural factors account for significant individual differences in social-emotional competence above and beyond the effects of sociodemographic factors? Specifically, after controlling for age, gender, disability, and sociodemographic factors,

do primary language spoken in the home, child language, length of residency in U.S., and caregiver country of birth account for significant individual differences in social-emotional competence?

Hypothesis 2: Language spoken in the home, child language, length of residency in U.S., and caregiver country of birth will account for significant individual differences in social-emotional competence, after controlling for age, gender, disability, and sociodemographic factors. Specifically, lower social-emotional competence is expected to be associated with a) shorter length of residency in the U.S. and b) caregiver country of birth. No hypotheses are proposed for the direction of the relationship between social-emotional competence and a) language spoken at home and b) language of the child.

Research Question 3. Do sociodemographic factors account for significant individual differences in school readiness? Specifically, after controlling for age, gender, and disability, do family size, income, single parent status, working caregiver, and caregiver education account for significant individual differences in school readiness?

Hypothesis 3: Family size, income, single parent, working caregiver, and caregiver education will account for significant individual differences in school readiness, after controlling for age, gender, and disability. Specifically, lower school readiness is expected to be associated with: a) larger family size, b) lower income, c) single parent status, and d) lower level of caregiver education. No hypotheses are proposed for the direction of the relationship between school readiness and having a caregiver who works.

Research Question 4. Do cultural factors account for significant individual differences in school readiness above and beyond the effects of sociodemographic factors?

Specifically, after controlling for age, gender, disability, and sociodemographic factors, do primary language spoken in the home, child language, length of residency in U.S., and caregiver country of birth account for significant individual differences in school readiness?

Hypothesis 4: Language spoken in the home, child language, length of residency in U.S., and caregiver country of birth will account for significant individual differences in school readiness, after controlling for age, gender, disability, and sociodemographic factors. Specifically, lower school readiness is expected to be associated with a) shorter length of residency in the U.S. and b) caregiver country of birth. No hypotheses are proposed for the direction of the relationship between school readiness and a) language spoken at home and b) language of the child.

Research Question 5. Does social-emotional competence account for significant individual differences in school readiness above and beyond the effects of sociodemographic factors and cultural factors? Specifically, after controlling for age, gender, disability, sociodemographic factors, and cultural factors, does social-emotional competence account for significant individual differences in school readiness?

Hypothesis 5: Social-emotional competence will account for significant individual differences in school readiness, after controlling for age, gender, disability, sociodemographic factors, and cultural factors. Specifically, lower

school readiness is expected to be associated with lower social skills and higher problem behavior.

Important Definitions

Caregiver: Parent, grandparent, uncle, aunt, foster parent or other adult who enrolled his or her child in Head Start. It is assumed that he/she is the primary caregiver.

Hispanic: Hispanic ethnicity was defined by the caregiver at enrollment. The caregiver decided if their child who they were enrolling was of Hispanic ethnicity.

Social Skills: Social Skills was defined as the Social Skills Standard score as measured by the Preschool and Kindergarten Behavior Skills (PKBS-2).

Problem Behavior: Problem Behavior was defined as the Problem Behavior Standard score as measured by the Preschool and Kindergarten Behavior Skills (PKBS-2).

Social-Emotional Competence: This was defined by the Social Skills and Problem Behavior Standard scores as measured by the Preschool and Kindergarten Behavior Skills (PKBS-2).

Family Size: The number of adults and children in the home as reported by the caregiver at enrollment.

Participant Child: Child whom the caregiver enrolled in Head Start.

First Years: This term referred to those children who were starting their first year in Head Start. These children have not had previous Head Start experience, as reported by the caregiver.

Primary Language: Language used most often in the home. This was defined by three categories: English, Spanish, and Both Equally.

School Readiness: School readiness was defined as the cumulative score obtained by children in Head Start using the Speed DIAL assessment instrument.

Child Language: Language the child was tested in, assumed to be the language the child is most comfortable with.

Length of Residency in U.S.: This term refers to how long the caregiver has lived in the U.S. and was reported by the caregiver.

Child Country of Birth: Country where child was born, reported by the caregiver.

Caregiver Country of Birth: Country where the caregiver was born, reported by the caregiver.

Income: This term refers to the family's annual income. This term was reported by the caregiver at enrollment.

Single Parent: Single parent status was reported by the caregiver at enrollment.

Working Caregiver: This term refers to whether the caregiver reported having an occupation outside of the home.

Caregiver Education: Highest level of education obtained as reported by the caregiver.

Age: Age of the child when the child was tested.

Gender: Gender of the child as reported by the caregiver at enrollment.

Disability: Disability was defined as any health or developmental disability that the child is receiving services for (e.g., speech disability). This was reported by the caregiver at enrollment.

Caregiver Questionnaire: Questionnaire that assessed sociodemographic and cultural factors.

Control Variables: Child's age, child's gender, and disability served as control variables.

Sociodemographic Factors: These served as predictor variables, and included: family size, income, single parent, working caregiver, and caregiver education.

Cultural Factors: These served as predictor variables, and included: primary language, child language, length of residency in U.S., and caregiver country of birth.

CHAPTER III

METHOD

This study was a predictive study of school readiness and social-emotional competence in a sample of Hispanic preschoolers.

Participants

Description of Sample

Descriptive statistics were first used to describe the sample. Participant children were 91 (56.2%) three-year-olds, 69 (42.6%) four-year-olds, and 2 (1.2%) five-year-olds enrolled in the Head Start Program served by a Head Start program in central Texas during the 2008-2009 school year. Most children, 87 (53.7%) were male and 75 (46.3%) were female. As for the caregivers who filled out the questionnaires, 159 (98.1%) were the children's mother and 3 (1.9%) were the children's father. Details can be found in Tables 1 and 2 in Appendix A.

The Head Start Program where participants came from in this study enrolls about 500 children each year, out of which about 45% are Hispanic (225). In the current academic year, 221 Hispanic children were enrolled. During enrollment, caregivers went to the Head Start centers to enroll their children. Although the enrollment period occurred from August 11th to August the 22nd, caregivers continued to enroll children throughout the academic year. As part of the enrollment process, caregivers reported the ethnicity of the child they are enrolling in Head Start. Caregivers eligible to participate

were those who reported that their child was “Hispanic.” Both first-timers to Head Start and returnees were eligible to participate.

Procedures

At the time of enrollment, teachers gave the caregivers some information and demographic forms to fill out; this is where much of the information for the sociodemographic variables was taken from. The teachers also gave the caregivers the Preschool and Kindergarten Behavioral Scales (PKBS-2; see measures below) to fill out. It took approximately 10-15 minutes to complete the PKBS-2. Teachers also presented the caregivers with a flyer in English or in Spanish that described the study. The flyer can be found in Appendix C. The teachers asked the caregivers if they were interested in participating and if the caregivers expressed interest, the teachers presented them with the informed consent. The consent form can be found in Appendix C. The flyer explained that the caregivers could participate over the phone or in person and listed the days and times that the investigator would be at their Head Start center to hand out the questionnaires. The informed consent included a space for the caregivers to write their phone number and permission for the investigator to contact them about the study. Other than consenting to fill out a questionnaire, the caregivers consented to allow the investigator to access their children’s records. The flyer also indicated that if they participated they would be entered into a drawing for a chance to win a \$30 Wal-Mart gift card. A total of three drawings were made, and three \$30 Wal-Mart gift cards were distributed.

Data collection took place from August 15th, 2008 to February 17th, 2009.

Children began school on August 25th. Data collection occurred in person (during the times of enrollment and during the times that the caregivers dropped off and picked up their children from Head Start) and over the phone. When participation was in person, caregivers were provided with a questionnaire to assess sociodemographic and cultural factors and were instructed to fill it out in a room at the Head Start centers. When participation was over the phone, the investigator followed a script where she introduced herself and reminded the caregiver of what the study consisted of. The investigator then read the questionnaire over the phone and took note of the caregivers' answers. It took approximately 5 minutes for all caregivers to complete the questionnaire.

All study materials, including consent forms and measures, were available in English and in Spanish. The investigator or the teacher read the materials to caregivers who could not read. Finally, the investigator accessed the children's files to obtain the children's Speed DIAL Total scores, PKBS-2 scores, children's birthdates, gender, child language, single parent status, income, disability status, and family size.

All children were assigned a unique study identifier. Questionnaires and other data were stored and entered using this study identifier and the signed consent forms were stored separately from the data. All questionnaires and other paper copies of data were kept in a locked cabinet. Electronic data files were stored on a password protected computer and were only accessible by the investigator.

Instruments

Caregiver Questionnaire

This questionnaire was used to assess sociodemographic factors and cultural factors. Caregivers were asked their child's name, whether this was their child's first year in Head Start, whether their child had participated in a previous preschool before Head Start, what their relationship was to the child, whether he/she worked outside the home, how many hours he/she worked, whether there was a secondary caregiver (and if there was one whether the secondary caregiver worked outside the home and how many hours he/she worked), their highest completed education level, the language mostly spoken at home, their birthday, whether or not they had lived in the United States all of their lives or if they had moved here (and if they moved here, how long it had been since they had moved to the United States), whether or not they were born in the United States, their country of birth if they had not been born in the United States, and what country their child was born in. The questionnaire was translated in both languages by the investigator, a bilingual native Spanish speaker, and a University professor, a bilingual native English speaker.

Social-Emotional Competence

Data for social-emotional competence was archival; it was collected by the Head Start Program within the first 45 days of enrollment as mandated by the U.S. Department of Health and Human Services and in compliance with the No Child Left Behind Act (PL 107-110, 2001). Caregivers were administered the Preschool and Kindergarten Behavior Scales, Second Edition (PKBS-2; Merrell, 1994) during the time of enrollment.

Teachers completed the PKBS-2 scales after the first 30 days of enrollment, but before the first 45 days of enrollment. The PKBS-2 was designed to be used in evaluating social skills and problem behaviors of preschool- and kindergarten-age children, ages 3 through 6 years. Teachers, parents, or others familiar with the child may complete the PKBS-2. Items are rated on a 4-point scale (never, rarely, sometimes, and often) based on the rater's perception of how frequently he or she observes the behavior specified. The PKBS-2 is composed of 2 scales, a 34- item Social Skills scale and a 42- item Problem Behavior scale. The Social Skills scale includes items that describe positive social skills characteristic of well-adjusted children in this age group. The Problem Behavior Scale includes items that describe several problem behaviors commonly seen among children in this age group. The Social Skills scale includes three subscales: Social Cooperation, Social Interaction, and Social Independence subscales. The Problem Behavior scale contains two subscales: Internalizing and Externalizing subscale. The Internalizing scale includes Social Withdrawal and Anxiety/Somatic Problems subscales while the Externalizing scale includes Self-Centered/Explosive, Attention Problems/Overactive, and Antisocial/Aggressive subscales.

Norms are provided for both teacher and parent ratings (Merrell, 1994). Standard scores ($M = 100$, $SD = 15$) and percentiles are provided for the Social Skills and Problem Behavior subscales and for the Composites (Merrell, 1994). The test manual explains that higher scores for Social Skills indicate greater levels of social skills, whereas higher scores for Problem Behavior indicate greater levels of problem behavior. In other words, high Standard Scores for Social Skills are desirable, whereas low

Standard Scores for Problem Behavior are desirable. This study used the Social Skills and the Problem Behavior Composite Standard Scores, which are derivatives of the sum of subscale Standard Scores.

The PKBS-2 was developed using a normative sample of 2,855 children from 18 different states that represented four geographic regions and was comparable to the general U.S. population (Merrell, 1994). The author explains that based on a comparison with the most recent U.S. Census Bureau data, the racial and ethnic composition of the normative sample was very similar to that of the general U.S. population. According to the test manual, 11.2% were Hispanic; the percentage of Hispanics in the general U.S. population at that time was 11.9%. The PKBS-2 manual (Merrell, 1994) provides psychometric information and indicates significant internal consistency ($\alpha > .80$) and stability estimates ($Mdn_r = .66$) for the PKBS-2 global scales and subscales within the Social Skills and Problem Behavior domains. Interrater agreement was higher between teachers and their aides than between teachers and parents. However, mean differences between the raters were not reported, so level of interrater agreement (McDermott, 1988 as cited in Canivez & Bordenkircher, 2002) across the retest interval cannot be assessed (Canivez & Bordenkircher, 2002).

Validity studies provided in the PKBS-2 manual show moderate to strong correlations (.32 to .76) between the PKBS Social Skills scales with the Social Skills Rating System (SSRS; Gresham & Elliott, 1990). The Problem Behavior scores of the two measures correlated at varying degrees (.25 to .83), with the highest correlations between the problem behavior Standard score totals. Moderate to high correlations (.61

to .87) were found between the PKBS-2 Problem Behaviors and the Conner's Teacher Rating Scales (CTRS-39; Conners, 1990). Researchers have provided empirical support for the convergent and divergent validity of the PKBS-2 (Merrell, 1995; Merrell & Holland, 1997; Merrell & Wolfe, 1998; Jentzsch & Mettall, 1996). The PKBS-2 has received favorable comments in the past (Watson, 1998) and it has been recommended for screening children and for research purposes. The PKBS-2 has also received criticism. For example, it has been criticized that the manual offers no predictive validity evidence; that standardization sample limitations exist (e.g., overrepresentation of children in the western region, males, and certain socioeconomic status children and underrepresentation of children in other categories); and that parts of the test are characterized by moderate to weak interrater reliability (Allin, 2004).

A Spanish language form of the PKBS-2 has recently been developed (Carney & Merrell, 2002). The items and score derivation procedures are basically the same to those contained on the English language version. Translation of the PKBS-2 involved a team of native Spanish speakers, one Puerto Rican and one Mexican American, and a native English speaker. The translated protocol was reviewed by a University Spanish department instructor.

To assess the reliability and validity of the translation, Carney and Merrell (2002) had a measure development sample complete both the Spanish and English forms of the measure. Both versions of the measure were found to have identical levels of internal consistency on the Social Skills (both .93) and Problem Behavior (both .96) scales. Correlations between the Social Skills and Problem Behavior Standard scores on the

English and Spanish language versions of the PKBS-2 using Pearson's bivariate product-moment correlation technique were .93 for the Social Skills Standard scores and .94 for the Problem Behavior Standard score. The Social Skills and Problem Behavior Standard score mean scores were similar to each other, suggesting that children were rated nearly identically on both forms and standard deviations were close enough to each other, indicating that variability within the samples on both forms was basically identical. The authors concluded that their findings provide encouraging evidence for the comparability between the Spanish and English versions of the PKBS-2.

School Readiness

Data for school readiness was archival; it was collected by the Head Start Program within the first 45 days of enrollment as mandated by the U.S. Department of Health and Human Services and in compliance with the No Child Left Behind Act (PL 107-110, 2001). Children are administered the Speed Developmental Indicators for the Assessment of Learning (Speed DIAL; Mardell-Czudnowski & Goldenberg, 1998). The Speed DIAL is an individually administered instrument designed for preschool age children and standardized for children ages 3-0 through 6-11 months designed to assess children's developmental skills. The Speed DIAL is an abbreviated version of the Developmental Indicators for the Assessment of Learning (DIAL-3) and may be used to assess children's abilities in terms of three indicators: motor, conceptual, and language. These three scales combine in a Total Score given the brevity of the test. The Total Score was used in the analyses.

The format of the Speed DIAL consists of ten DIAL-3 items, can be administered by one operator, and takes only about 15 minutes to complete (approximately half the time of the full DIAL-3). The authors report that nine of ten items cover the entire four-year age span. In the development and selection of items for the DIAL-3, the authors used items that were developmentally appropriate, were precursors of school success, had enough floor for younger children, were good discriminators, easy to administer, unambiguous to score, the majority of the items covered the entire age range, and the area administration time was limited to 10 minutes (Mardell-Czudnowski & Goldenberg, 1998). The abilities assessed by the items are visual-motor integration, short-term memory, previous learning association, pre-academic skills, and speech and language. The following items are the ones that are included in the Speed DIAL that assess the Motor Area: Jump, Hop & Skip; Building; and Copying. These items in the Speed DIAL assess the Concepts Area: Body Parts; Colors; Rapid Color Naming; Concepts. These items in the test assess the Language Area: Actions; Letters and Sounds; Problem Solving. These 10 items were included because they are quick to administer and score, and because they provide a good sampling content over the entire age range within each area.

The DIAL-3 was developed using a normative sample of 1,560 children from 36 different states that represented four geographic regions and was comparable to the then current U.S. population. The authors explain that the proportion of the total sample in each race or ethnic group approximated the proportion reported for the U.S. population.

According to the test manual, 9.6 % were Hispanic; the percentage of Hispanics in the general U.S. population at that time was 12.8%.

The Speed DIAL has been referred to as a reliable and valid assessment instrument (Strawser & Sileo, 1998-1999 as cited in Waajid, 2006). In addition, the correlation between the DIAL-3 Total and the Speed DIAL scores is very high (.94). Validity studies provided in the DIAL-3 manual show low to moderate correlations (.42 to .64) between the Speed DIAL score and the Early Screening Profile (ESP; Harrison et al., 1990). The highest correlation was between the Speed DIAL score and the Language subscale. The scores of the Speed DIAL score and the Battelle Developmental Inventory Screening Test (BDIST; Newborg, Stock, Wnek, Guidubaldi, & Svinicki, 1984) correlated at varying degrees (.39 to .63), with the highest correlations between the Speed DIAL score and the BDST Total score. A low correlation (.48) was found between the Speed DIAL score and the Brigance Preschool Screen (Brigance, 1985). Correlations ranged from low to high (.31 to .81) between the Speed DIAL score and the Differential Ability Scales (DAS; Elliott, 1990), with the highest correlation (.81) between the Matching Letter-Like Forms and the Speed DIAL score. Lastly, correlations were moderate to moderately-high (.50 to .68) between the Speed DIAL score and the Social Skills Rating System (Gresham & Elliott, 1990).

According to the test manual, reliability coefficients for the ages of 3-0 to 4-11 ranged from .76 for the age group of 4-6 to 4-11 to .85 for the age group of 3-0 to 3-5. Furthermore, the Speed DIAL's reliability with the population from the Head Start program used in this study has been found to be acceptable (Gonzales, Pizzitola, Team,

& Ash, 2002 as cited in Team, 2008). The authors conducted a test-retest reliability study that yielded a reliability coefficient of 0.82, $p < .01$.

The Speed DIAL is available in English and Spanish. The authors indicate that the Spanish version is not only a translation of the DIAL-3, but that it has been normed on a national sample of young Spanish-speaking children. The goal was to make the two versions be as similar as possible, while keeping the linguistic and cultural differences in English- and Spanish- speaking communities in mind (Chen, et al., 2000). The Speed DIAL items are the same for both English and Spanish versions. The Spanish DIAL-3 is an adaptation of the English version and takes into account the different semantic, phonological, and syntactic characteristics of the Spanish language, as well as different cultural experiences and expectations that influence children's development. Adaptation usually took place due to psychometric and/or linguistic/cultural reasons (Chen et al., 2000).

An expert in English-Spanish translation whose first language was Spanish and who was fully fluent in English completed the Spanish translation of the DIAL-3 (Mardell-Czudnowski & Goldenberg, 1998). When the translation was finished, it was reviewed by individuals with knowledge of various dialect groups, many of whom were early childhood professionals. The authors decided to equate the performance of Spanish-speaking children with the performance of English-speaking children, allowing a Spanish-speaking child's performance to be compared to the national norm for all children in the United States (Mardell-Czudnowski & Goldenberg, 1998). Results from tests of reliability between the English and Spanish versions appeared to be satisfactory,

with the magnitude and pattern of the coefficients being very similar in both languages (Chen et al., 2000).

Data Analyses

The study hypotheses were conducted using bivariate correlations, hierarchical regression, and logistic regression. For the purposes of data analysis, variables were grouped into sociodemographic factors, cultural factors, and social-emotional competence. Family size, income, single parent, working caregiver, and caregiver education were grouped into sociodemographic factors and primary language, child language, length of residency, and caregiver country of birth were grouped into cultural factors. The Social Skills scales and the Problem Behavior scales from the PKBS-2 were used as the social-emotional competence variables. The specific analyses used to test each hypothesis are described below with their respective results.

Given that social-emotional competence was drawn from both caregiver and teacher reports, two separate analyses were run for every regression, one that included the caregiver PKBS-2 scores and one that included the teacher PKBS-2 scores. Nominally-scaled variables that had more than two categories were dummy-coded in order to run the regression models.

All of the statistics utilized in the analyses assume the study variables are normally distributed. However, tests of normality using skewness and kurtosis revealed that the following variables were not normal: the number of years the caregiver has lived in the U.S., the caregiver Social Skills Standard Score, and income. The data were then examined for outliers, resulting in the deletion of five cases. Deletion of these cases, as

well as two additional cases with missing data, resolved the problems with normality. See Table 1 in Appendix A. The final sample therefore consisted of 162 preschoolers and their caregivers.

The original hypotheses included child country of birth. However, a look at the data revealed that the variable had little variability (156 were born in the U.S. and only 6 were born in Mexico). The variable caregiver country of birth was characterized by more variability; therefore, it was decided to change this variable for caregiver country of birth to allow for a better model. For purposes of analyses, the seven caregivers who were born in a Latin American country other than Mexico were grouped together with those caregivers who had been born in Mexico.

Power analyses revealed that the investigator needed at least 140 participants to run the hierarchical models given the 14 predictors. A sample size total of 162 allowed for low probabilities of Type I and Type II error and for sufficient power to conduct the planned analyses with all 14 predictor variables; therefore, all 14 variables were able to be reliably be considered.

The following coding schemes were applied to the categorical variables: male as 0 and female as 1; no disability identified as 0 and disability identified as 1; not a single parent as 0 and single parent as 1; caregiver does not work as 0 and caregiver works as 1; child language as English as 0 and child language as Spanish as 1; and caregiver was born outside the U.S. as 0 and caregiver was born in the U.S. as 1. Highest level of education and language spoken at home were dummy coded with the categories of “college degree” and “both English and Spanish” used as the reference groups.

Descriptive analyses for the sample and predictors are reported in Table 2 in Appendix A and correlations between the intervally-scaled variables are presented in Table 3 in Appendix A with Pearson product-moment correlations, symbolized as r , numerically summarizing observed bivariate relationships.

CHAPTER IV

RESULTS

Hypothesis 1

Hypothesis 1: Family size, income, single parent status, working caregiver, and caregiver education will account for significant individual differences in social-emotional competence, after controlling for age, gender, and disability.

Specifically, lower social-emotional competence is expected to be associated with: a) larger family size, b) lower income, c) single parent status, and d) lower level of caregiver education. No hypotheses are proposed for the direction of the relationship between social-emotional competence and having a caregiver who works.

Four multiple regression analyses were used to test Hypothesis 1. The first hierarchical regression analysis tested the impact of sociodemographic factors on social-emotional competence (reported by the caregiver) after controlling for age, gender, and disability. The PKBS-2 Social Skills Standard Score for the caregiver form was the dependent variable. Age, gender, disability, family size, income, single parent, working caregiver, and caregiver education were the predictor variables. For the first block, age, gender, and disability were entered as the control variables. For the second block, family size, income, single parent, working caregiver, and caregiver education were entered. The impact of each of the predictors on Social Skills was examined, over and above that

which could be accounted for by the previously entered predictors while controlling for age, gender, and disability.

As indicated in Table 3 in Appendix A, separate correlation analyses indicated that caregiver-reported social skills were significantly positively correlated with child age and negatively correlated with family size and disability status (such that children without disabilities had higher social skills). The results of the regression analyses examining the simultaneous effects of these variables are presented in Table 4 in Appendix A. The first model was a good fit and explained 10% of the variance in social skills. Age and disability status were both significant predictors of social skills (p 's < .05), such that social skills increased with age and were lower among children with disabilities than among those without. When sociodemographic variables were added to the equation, model 2 explained an additional 13% of the variance in social skills, a significant increase ($p < .05$). In this model, age and disability status remained significant predictors of social skills. In addition, family size was a significant predictor, such that social skills decreased as family size increased. Having graduated from high school or having obtained a GED was a marginally significant predictor of social skills ($p = .083$), such that social skills increased for caregivers who had graduated from high school or obtained a GED. Speaking mostly English in the home was also a marginally significant predictor of social skills ($p = .073$), such that social skills increased for children who had homes where English was mostly spoken. Finally, caregiver born in the U.S. was marginally significant ($p = .098$), such that social skills decreased for those children who had caregivers who were born in the U.S.

To test the impact of sociodemographic variables on teacher-reported social skills, an identical analysis was conducted, utilizing the PKBS-2 Social Skills Standard Score from the teacher form. As indicated in Table 3 in Appendix A, separate correlation analyses indicated that teacher-reported social skills were significantly positively correlated with child age and gender (such that girls had higher social skills than boys). The results of the regression analyses examining the simultaneous effects of these variables are presented in Table 5 in Appendix A. The first model was a good fit and explained 10% of the variance in social skills. Age and gender were both significant predictors of social skills (p 's < .05), such that social skills increased with age and were higher for girls than boys. When sociodemographic variables were added to the equation, model 2 did not significantly explain an additional amount of the variance in social skills. In this model, age and gender remained significant predictors of social skills. In addition, family size and single parent status were significant predictors, such that social skills decreased as family size increased, and social skills decreased among children who had caregivers who were single parents than among those who did not.

The impact of sociodemographic variables on caregiver-reported problem behaviors was examined by conducting a third analysis using the PKBS-2 Problem Behavior Standard Score from the caregiver form as the dependent variable. As indicated in Table 3 in Appendix A, separate correlation analyses indicated that caregiver-reported problem behavior was not significantly correlated with any predictor variable. The results of the regression analyses examining the simultaneous effects of these variables are presented in Table 6 in Appendix A. Neither one of the models were

a good fit meaning that they did not explain a significant amount of variance in problem behavior (p 's $> .05$). None of the variables in either of the two models were significant predictors of problem behavior.

Finally, to test the impact of sociodemographic variables on teacher-reported problem behavior, an identical analysis was conducted, utilizing the PKBS-2 Problem Behavior Standard Score from the teacher form. As indicated in Table 3 in Appendix A, separate correlation analyses indicated that teacher-reported problem behavior was significantly negatively correlated with child gender (such that girls had lower problem behavior than boys). The results of the regression analyses examining the simultaneous effects of these variables are presented in Table 7 in Appendix A. The first model was a good fit and explained 6% of the variance in problem behavior. Gender was a significant predictor of problem behavior (p 's $< .05$), such that problem behavior was lower among girls than boys. When sociodemographic variables were added to the equation, model 2 did not significantly explain an additional amount of the variance in problem behavior. In this model, age was a marginally significant predictor of problem behavior ($p = .055$), such that problem behavior was lower with increased age. Family size was also a marginally significant predictor of problem behavior ($p = .054$), such that problem behavior increased as family size increased. Gender remained a significant predictor of problem behavior.

Hypothesis 2

Hypothesis 2: Language spoken in the home, child language, length of residency in U.S., and caregiver country of birth will account for significant individual

differences in social-emotional competence, after controlling for age, gender, disability, and sociodemographic factors. Specifically, lower social-emotional competence is expected to be associated with a) shorter length of residency in the U.S. and b) caregiver country of birth. No hypotheses are proposed for the direction of the relationship between social-emotional competence and a) language spoken at home and b) language of the child.

Four additional multiple regression analyses were used to test Hypothesis 2. The fifth hierarchical regression analysis tested the impact of cultural factors on social-emotional competence after controlling for age, gender, and disability, and beyond the effects of sociodemographic factors. The PKBS-2 Social Skills Standard Score for the caregiver form was the dependent variable. Age, gender, disability, family size, income, single parent, working caregiver, caregiver education, primary language, child language, length of residency in U.S., and caregiver country of birth were the predictor variables. For the first block, age, gender, and disability were entered as the control variables. For the second block, family size, income, single parent, working caregiver, and caregiver education were entered. For the third block, primary language, child language, length of residency in U.S., and caregiver country of birth were entered. The impact of each of the cultural predictors on Social Skills was examined, over and above that which could be accounted for by the previously entered sociodemographic predictors while controlling for age, gender, and disability.

Given that the fit and prediction of the first two models have already been tested and explained during the first analyses, only the addition of the cultural variables will be

examined. As indicated previously, separate correlation analyses indicated that caregiver-reported social skills were significantly positively correlated with child age and negatively correlated with family size and disability status (such that children without disabilities had higher social skills). In addition, social skills were also positively correlated with years in the United States. The results of the regression analyses examining the simultaneous effects of these variables are presented in Table 4 in Appendix A. The third model was not a good fit and did not significantly explain an additional amount of variance in social skills. In this model, age, disability, and family size remained significant predictors of social skills. Having graduated from high school or having obtained a GED was a marginally significant predictor of social skills ($p = .084$), such that social skills increased among caregivers who had graduated from high school or obtained a GED. None of the cultural variables in the third model were significant predictors of social skills.

To test the impact of cultural variables on teacher-reported social skills, an identical analysis was conducted, utilizing the PKBS-2 Social Skills Standard Score from the teacher form. As indicated previously, separate correlation analyses indicated that teacher-reported social skills were significantly positively correlated with child age and gender (such that girls had higher social skills than boys). The results of the regression analyses examining the simultaneous effects of these variables are presented in Table 5 in Appendix A. Given that the fit and prediction of the first two models have already been tested and explained during the second analyses, only the addition of the cultural variables will be examined. The third model was not a good fit and did not

significantly explain an additional amount of variance in social skills. In this model, age, gender, and family size remained significant predictors of social skills. Single parent status became marginally significant ($p = .073$). None of the cultural variables in the third model were significant predictors of social skills.

The impact of cultural variables on caregiver-reported problem behaviors was examined by conducting a third analysis using the PKBS-2 Problem Behavior Standard Score for the caregiver form as the dependent variable. As indicated previously, separate correlation analyses indicated that caregiver-reported problem behavior was not significantly positively correlated with any predictor variable. The results of the regression analyses examining the simultaneous effects of these variables are presented in Table 6 in Appendix A. Given that the fit and prediction of the first two models have already been tested and explained during the third analyses, only the addition of the cultural variables will be examined. The third model was not a good fit and did not significantly explain an additional amount of variance in problem behavior. In this model, disability and family size were marginally significant predictors of problem behavior (p 's = .088. and .066, respectively), such that problem behavior was higher for children with a disability and increased as family size increased. None of the cultural variables in the third model were significant predictors of problem behavior.

Finally, PKBS-2 Problem Behavior Standard Score from the teacher form was predicted from the cultural variables. As indicated previously, separate correlation analyses indicated that teacher-reported problem behavior was significantly negatively correlated with child gender (such that girls had lower problem behavior than boys). The

results of the regression analyses examining the simultaneous effects of these variables are presented in Table 7 in Appendix A. Given that the fit and prediction of the first two models have already been tested and explained during the fourth analyses, only the addition of the cultural variables will be examined. The third model was not a good fit and did not significantly explain an additional amount of variance in problem behavior. In this model, gender remained a significant predictor of problem behavior, such that problem behavior was lower for girls than for boys. Age and family size remained marginally significant predictors of problem behavior (p 's = .064 and .079, respectively). None of the cultural variables in the third model were significant predictors of problem behavior.

Hypothesis 3

Hypothesis 3: Family size, income, single parent, working caregiver, and caregiver education will account for significant individual differences in school readiness, after controlling for age, gender, and disability. Specifically, lower school readiness is expected to be associated with: a) larger family size, b) lower income, c) single parent status, and d) lower level of caregiver education. No hypotheses are proposed for the direction of the relationship between school readiness and having a caregiver who works.

One multiple regression analysis was used to test Hypothesis 3. The ninth hierarchical regression analysis tested the impact of sociodemographic factors on school readiness after controlling for age, gender, and disability. The Speed DIAL score was the dependent variable. Age, gender, disability, family size, income, single parent, working

caregiver, and caregiver education were the predictor variables. For the first block, age, gender, and disability were entered as the control variables. For the second block, family size, income, single parent, working caregiver, and caregiver education were entered. The impact of each of the predictors on school readiness was examined, over and above that which can be accounted for by the previously entered predictors while controlling for age, gender, and disability.

As indicated in Table 3 in Appendix A, separate correlation analyses indicated that school readiness was significantly positively correlated with child age. The results of the regression analyses examining the simultaneous effects of these variables are presented in Table 8 in Appendix A. The first model was a good fit and explained 24% of the variance in school readiness. Age was a significant predictor of school readiness (p 's < .01), such that school readiness increased with age. Disability was marginally significant ($p = .068$), such that school readiness was lower among children with disabilities than among those without. When sociodemographic variables were added to the equation, model 2 did not significantly explain an additional amount of the variance in school readiness. In this model, age remained a significant predictor of school readiness (p 's < .01), and disability remained a marginally significant predictor of school readiness ($p = .090$), such that school readiness increased with age and was lower among children with disabilities than among those without. None of the sociodemographic variables in the second model were significant predictors of school readiness.

Hypothesis 4

Hypothesis 4: Language spoken in the home, child language, length of residency in U.S., and caregiver country of birth will account for significant individual differences in school readiness, after controlling for age, gender, disability, and sociodemographic factors. Specifically, lower school readiness is expected to be associated with a) shorter length of residency in the U.S. and b) caregiver country of birth. No hypotheses are proposed for the direction of the relationship between school readiness and a) language spoken at home and b) language of the child.

One multiple regression analysis was used to test Hypothesis 4. The tenth hierarchical regression analysis tested the impact of cultural factors on school readiness after controlling for age, gender, and disability, above and beyond the effects of sociodemographic factors. The Speed DIAL score was the dependent variable. Age, gender, disability, family size, income, single parent, working caregiver, caregiver education, primary language, child language, length of residency in U.S., and caregiver country of birth were the predictor variables. For the first block, age, gender, and disability were entered as the control variables. For the second block, family size, income, single parent, working caregiver, and caregiver education were entered. For the third block, primary language, child language, length of residency in U.S., and caregiver country of birth were entered. The impact of each of the cultural predictors on school readiness was examined, over and above that which can be accounted for by the

previously entered sociodemographic predictors while controlling for age, gender, and disability.

Given that the fit and prediction of the first two models have already been tested and explained during the ninth analyses, only the addition of the cultural variables were examined. As previously noted, separate correlation analyses indicated that school readiness was significantly positively correlated with child age. In addition, school readiness was significantly positively correlated with the number of years the caregiver has lived in the U.S. The results of the regression analyses examining the simultaneous effects of these variables are presented in Table 8 in Appendix A. The third model was not a good fit and did not significantly explain an additional amount of variance in school readiness. In this model, age remained a significant predictor of school readiness (p 's < .05), such that school readiness increased with age, and disability remained a marginally significant predictor of school readiness ($p = .063$), such that school readiness was lower among children with disabilities than among those without. None of the cultural variables in the third model were significant predictors of school readiness.

Hypothesis 5

Hypothesis 5: Social-emotional competence will account for significant individual differences in school readiness, after controlling for age, gender, disability, sociodemographic factors, and cultural factors. Specifically, lower school readiness is expected to be associated with lower social skills and higher problem behavior.

One multiple regression analysis was used to test Hypothesis 5. The eleventh hierarchical regression analysis tested the impact of social-emotional competence on school readiness after controlling for age, gender, and disability, and beyond the effects of sociodemographic factors and cultural factors. The Speed DIAL score was the dependent variable. Age, gender, disability, family size, income, single parent, working caregiver, caregiver education, primary language, child language, length of residency in U.S., caregiver country of birth, Social Skills, and Problem Behavior were the predictor variables. For the first block, age, gender, and disability were entered as the control variables. For the second block, family size, income, single parent, working caregiver, and caregiver education were entered. For the third block, primary language, child language, length of residency in U.S., and caregiver country of birth were entered. For the fourth block, the PKBS-2 Social Skills and Problem Behavior Standard Scores as reported by the caregiver were entered. The impact of social-emotional competence variables (Social Skills and Problem Behavior) on school readiness was examined, after controlling for age, gender, and disability, and over and above that which can be accounted for by sociodemographic and cultural predictors.

Given that the fit and prediction of the first three models have already been tested and explained during the tenth analyses, only the addition of the PKBS-2 Social Skills and Problem Behavior Standard Scores from the caregiver form were examined. As indicated previously, separate correlation analyses indicated that school readiness was significantly positively correlated with child age and the number of years the caregiver has lived in the U.S. In addition, school readiness was positively correlated with the

PKBS-2 Social Skills Standard Score for the caregiver form. School readiness was negatively correlated with the PKBS-2 Problem Behavior Standard Score for the caregiver form. The results of the regression analyses examining the simultaneous effects of these variables are presented in Table 9 in Appendix A. The fourth model was a good fit and explained an additional 4% of the variance in school readiness, a significant increase ($p < .05$). In this model, age remained a significant predictor of school readiness. In addition, social skills were a significant predictor, such that social skills increased as school readiness increased.

To test the impact of teacher-reported social-emotional competence on school readiness, an identical analysis was conducted, utilizing the PKBS-2 Social Skills and Problem Behavior Standard Scores from the teacher form. As indicated previously, separate correlation analyses indicated that school readiness was significantly positively correlated with child age and the number of years the caregiver has lived in the U.S. In addition, school readiness was positively correlated with the PKBS-2 Social Skills Standard Score for the teacher form. Also, school readiness was negatively correlated with the PKBS-2 Problem Behavior Standard Score for the teacher form. The results of the regression analyses examining the simultaneous effects of these variables are presented in Table 10 in Appendix A. Given that the fit and prediction of the first three models have already been tested and explained during the tenth analyses, only the addition of the PKBS-2 Social Skills and Problem Behavior Standard Scores from the teacher form were examined. The fourth model was a good fit and explained an additional 12% of the variance in school readiness, a significant increase ($p < .01$). In

this model, age remained a significant predictor of school readiness and disability status remained a marginally significant predictor of school readiness ($p = .092$). In addition, social skills were a significant predictor, such that school readiness increased as social skills increased. Interestingly, the amount of years that the caregiver has lived in the U.S. becomes a significant predictor as well, such that school readiness increased as the number of years the caregiver has lived in the U.S. increased.

Secondary Analyses

Given that disability status seemed to account for much of the variance of school readiness and social-emotional competence, and for the purposes of examining whether disability status was related to the other predictors in case some of the risk factors of interest in this study could also be risk factors for being labeled with a disability, a logistical regression was used to predict disability status from sociodemographic and cultural variables. Disability status was the dependent variable. Income, family size, single parent, working caregiver, caregiver education, primary language, child language, length of residency in U.S., and caregiver country of birth were the predictor variables; these were all entered in a single block. The impact of each of the sociodemographic and cultural predictors on disability was examined. The results of these analyses are presented in Table 11 in Appendix A. Results indicated that none of the variables were significant predictors of disability status.

The next question that came to mind was whether the models might have been impacted by the fact that the sample consisted of both new-enrollees to Head Start and returning students. Given the literature's support that Head Start participation has a

positive impact on children's school readiness and social-emotional competence (e.g., Abbott-Shim et al., 2003; Barnett, 1995; Brown & Scott-Little, 2003; Currie & Thomas, 1996; Haskins, 1989; Zill et al., 2003), it was hypothesized that being a returnee to the Head Start program could be a predictor of these outcomes. Five multiple regression analyses were run to test the impact of being a returnee in Head Start on the PKBS-2 Social Skills and Problem Behavior Standard Scores as reported by the caregiver, on the PKBS-2 Social Skills and Problem Behavior Standard Scores as reported by the teacher, and on the Speed DIAL. The "first year" variable coded children into 2 categories: children who were returning to Head Start for another year as 0, and children who were new to Head Start as 1. The PKBS-2 Standard Scores and the Speed DIAL score alternated being the dependent variable. For the first block of all the analyses, age was entered as the control variable. For the second block, family size, income, single parent, working caregiver, caregiver education, primary language, child language, length of residency in U.S., and caregiver is U.S.-born were entered. For the third block, the variable first year was entered. Results indicated that when the variable first year was included in the models, this variable did not affect all models or previous results.

Following the regression analyses, it was thought that the variable first year could be interacting with some of these variables, which could account for why main effects were not being found. Given the literature's support that Head Start causes an impact on children's school readiness (e.g., Abbott-Shim et al., 2003; Barnett, 1995; Brown & Scott-Little, 2003; Currie & Thomas, 1996; Haskins, 1989; Zill et al., 2003), it was thought that being a returnee to the Head Start program was an important variable to

examine. Therefore, it was decided to test its interaction with the predictor variables, which in turn could explain why we were not finding main effects on some of these variables. Two-way Analyses of Variance (ANOVA) analyses were run to test the interactions between first year status and the variables that were expected to interact with this variable. Social-emotional competence and school readiness alternated in being the dependent variable. Results of these analyses testing for interaction effects were not significant.

Lastly, given that caregiver- and teacher- reported social-emotional competence had a different set of predictors, the degree to which these differed was examined. Bivariate correlations indicated that caregiver- and teacher-reported social skills were weakly positively related to each other ($r = .28$). Results also indicated that caregiver- and teacher- reported problem behavior were weakly positively related to each other ($r = .17$).

CHAPTER V

DISCUSSION

This study was designed to fill gaps in the literature by examining factors that impact school readiness among Hispanic preschoolers. Specifically, the study examined the impact of socioeconomic factors, cultural factors, and social-emotional competence on school readiness. Family size, income, single parent, working caregiver, and caregiver highest level of education were grouped into sociodemographic factors and primary language, the child's language, length of residency in the United States, and caregiver country of birth were grouped into cultural factors. While previous research has examined the effects of sociodemographic factors on school readiness, this study also included cultural factors of specific relevance to the Hispanic population. Also, the literature suggests that social and emotional competence plays an important part of a child's school readiness (e.g., Kagan et al., 1995; Peth-Pierce, 2000). This study examined the effects of social and emotional competence on school readiness above and beyond the effects of sociodemographic factors and cultural factors, after controlling for age, gender, and disability.

The study was the first one known to explore the impact of sociodemographic and cultural factors on social-emotional competence and school readiness in a sample of low-income Hispanic preschoolers. This study investigated the impact of cultural factors on social-emotional and school readiness above and beyond the effects of sociodemographic factors, which aids in our understanding of social-emotional

competence and school readiness in a sample of low-income, Hispanic preschoolers. The models tested were designed to address the gaps in the Hispanic school readiness literature.

Sociodemographic Predictors of Social Skills

First, sociodemographic predictors of social skills were examined. Taken together, the sociodemographic variables were good predictors of caregiver-reported social skills, explaining 13% of the variance in social skills, above and beyond the 10% explained by the control variables of age, gender and disability status. However, they did not contribute a significant amount of explanatory power when entered as predictors of teacher-reported social skills.

When individual predictors were examined, the strongest predictors of social skills were actually found among the control variables. When correlations between social skills and the individual predictors were examined, caregiver- and teacher-reported social skills were significantly correlated with age, such that older children had higher scores on social skills than younger children. Age remained a significant predictor of social skills in all models tested, regardless of what other variables were included in the models. As predicted, age was positively associated with social skills. This finding is consistent with prior studies. Researchers have repeatedly found that social competence is greater in older relative to younger children (Howes & Matheson, 1992), including in studies of Head Start students (e.g., Mendez et al., 2002) and students in other preschool settings (Coolahan et al., 2000).

Disability status was found to be a significant predictor of social skills but only for the caregiver form. When correlations between social skills and the individual predictors were examined, caregiver-reported social skills were significantly correlated with disability status. As predicted, disability status was negatively associated with social skills, such that children with a disability had lower social skills than children without a disability. Disability status remained a significant predictor of caregiver-reported social skills in all models tested, regardless of what other variables were included in the models. This finding is also consistent with prior studies. Researchers have repeatedly found that children who manifest delays and children with communication impairments demonstrate deficits when it comes to peer interactions when compared to normally developing children (Guralnick & Weinhouse, 1984; Lederberg et al., 1986). Young children with developmental disorders may be at particular disadvantage when it comes to the various skills that underlie successful interaction with peers (Hay et al., 2004). Researchers have found that in preschool children, early low language skills may lead to poor social skills development and early peer rejection (Dionne et al., 2003). In the current study, of the 22 children identified with a disability, 18 were identified with speech or language impairments.

Gender was also found to be a significant predictor of social skills, but only for the teacher form. When correlations between teacher-reported social skills and the individual predictors were examined, they were significantly correlated with gender. As predicted, gender was positively associated with social skills, such that girls had higher social skills than boys. Gender remained a significant predictor of teacher-reported

social skills in all models tested, regardless of what other variables were included in the models. Again, this finding is also consistent with prior studies. Researchers have found gender differences on many social behaviors relating to social competence (Crombie, 1988; Rose-Krasnor, 1997). Girls have been found to be significantly more interactive than boys (Coolahan et al., 2000; Mendez et al., 2002) and more pro-social than boys (Denham et al., 1990; Waajid, 2006). Boys have been found to display higher levels of disruptive and disconnected play than girls (Coolahan et al., 2000).

Among the sociodemographic predictors, only family size and single parent status were found to be significant predictors of social skills. When correlations between social skills and the individual predictors were examined, caregiver-reported social skills were significantly correlated with family size, such that social skills decreased as family size increased. Although family size was not individually correlated with teacher-reported social skills, family size was a significant predictor of social skills as reported by both teachers and caregivers when entered into the regression models. As predicted, family size was negatively associated with child social skills, such that social skills decreased when family size increased. Family size remained a significant predictor of caregiver- and teacher-reported social skills in all models tested, regardless of what other variables were included in the models. This finding is consistent with prior studies. Researchers have found that family size is a factor that potentially restricts the possibilities for children's development in general (Farver et al., 2006). Crowded home environments have been associated with disparities in children's social functioning, vocabulary growth rates, and cognitive abilities (Hart & Risley, 1995). Parents have also

been rated as being less responsive to their children when compared to those who were living in less crowded homes (Wachs & Camli, 1991). Lastly, the degree of stress associated with high density home environments has been shown to be negatively correlated with the frequency of parent to child speech (Wachs & Camli, 1991).

As hypothesized, single parent status was also a significant predictor of teacher-reported social skills, such that social skills were lower among children who had caregivers who were single parents than among those who did not. This finding is consistent with prior studies that have found that children from single-parent homes are more likely to demonstrate behavioral and social difficulties than children living in two-parent homes (Carlson, 1992; Gringlas & Weinraub, 1995). However, single parent status did not remain a significant predictor when cultural variables were entered into the models, suggesting that single parent status does not have effects that are independent from those of the cultural variables.

To summarize, as a collective set, sociodemographic variables were good predictors of caregiver-reported but not teacher-reported social skills. Control variables were the strongest predictors of social skills when the individual predictors were examined. Among the sociodemographic predictors, only family size and single parent status were found to be significant predictors of social skills. In addition, the pattern of individual predictors differed by who was reporting on the children's social skills, with teacher-reported social skills being predicted by age, gender, family size, and single parent status, and caregiver-reported social skills being predicted by age, disability status, and family size.

Sociodemographic Predictors of Problem Behavior

Next, sociodemographic predictors of problem behavior were examined. Taken together, the sociodemographic variables did not contribute a significant amount of explanatory power when entered as predictors of both caregiver- and teacher-reported problem behavior.

When individual predictors were examined, the strongest predictors of problem behavior were again found among the control variables. When correlations between problem behavior and the individual predictors were examined, teacher-reported problem behavior was significantly correlated with gender, such that girls had lower problem behavior than boys. Gender remained a significant predictor, but again only for the teacher form, even when cultural variables were entered into the model. This finding is consistent with prior studies that have found differences between preschool boys and girls regarding incidence of behavior problems, where boys have a higher incidence of behavior problems than girls (Sanson et al., 1991; Olson et al., 2005). Contrary to prior research, neither age nor disability status were significant predictors. Prior studies have documented differences between younger and older children's problem behavior, such that younger demonstrate higher levels of problem behavior than older children (e.g., Fantuzzo et al., 2007). Prior studies have also found that language delays may be good predictors of later disruptive behavior due to frustration in face of limited communication (Dionne et al., 2003). However, these studies had much larger samples than the current study. Therefore, it is possible that this study could have found age and disability status as a predictor of problem behavior if it had a larger sample.

To summarize, as a collective set, sociodemographic variables did not contribute a significant amount of explanatory power when entered as predictors of both caregiver- and teacher-reported problem behavior. When examined individually, no sociodemographic predictors were found to be significant predictors of problem behavior.

Cultural Predictors of Social Skills

Next, cultural predictors of social skills were examined. Taken together, the cultural variables did not contribute a significant amount of explanatory power when entered as predictors of both caregiver- and teacher-reported social skills. When correlations between social skills and the individual predictors were examined, caregiver-reported social skills were significantly correlated with the number of years the caregiver has lived in the U.S., such that school readiness increased as the number of years the caregiver had lived in the U.S. increased. However, when the predictors were examined simultaneously, none of the cultural variables were significant predictors. It was hypothesized that the number of years the caregiver had lived in the U.S. would be a predictor of social skills. However, this hypothesis was not supported. Although prior studies have documented low levels of formal education (Crosnoe & Lopez-Gonzalez, 2005; Magnuson et al., 2006), low family incomes (Crosnoe & Lopez-Gonzalez, 2005; Magnuson et al., 2006), and larger family size and parenting stress (Farver et al., 2006) among recent immigrants, the present study suggests that these differences did not lead to differences in social skills among this group of Hispanic preschoolers.

Caregiver country of birth (U.S.- or non-U.S. born) was used as a proxy to measuring sub-group differences. It was hypothesized that lower social skills would be associated with children of caregivers who were not born in the U.S. This hypothesis was not supported. However, the initial intention of this variable was to study sub-group differences in Hispanics; this was not possible due to the lack of variability in the sample. Instead of measuring sub-group differences, this question really addressed immigrant status. Future studies using larger and more diverse samples of Hispanics are recommended to address this question.

In addition to these hypotheses, exploratory variables were included. The first exploratory variable was language spoken by the child. Given mixed findings in the literature regarding the relationship between language spoken by the child and social competence (Oades-Sese, 2006; Edl et al., 2008), this study treated this variable as an exploratory variable. However, contrary to these studies, the present study used a different social-emotional measure than these studies, and unlike these studies, had a smaller sample size, consisted of only preschoolers, and completed the social-emotional at the beginning of the school year. Future research examining language spoken by the child in a larger sample of Hispanic children using a larger age span is needed.

Lastly, given the limited research examining language spoken at home as a predictor of social skills, this study also treated this variable as an exploratory variable. To date, little is known about the relationship between language status and internalizing and externalizing symptoms among Hispanic children (Dawson & Williams, 2008). The present study suggests that there may not be differences in social skills that are due to

language spoken at home. Like it was recommended before, future research could further examine this question using a larger sample of Hispanic children with a larger age span.

To summarize, as a collective set, cultural variables did not contribute a significant amount of explanatory power when entered as predictors of social skills. Given the lack of research examining the number of years the caregiver had lived in the U.S., language in the home and language of the child, and country of birth for the caregiver as predictors of social skills, this study attempted to fill these gaps in the literature. No other studies could be found that looked at the cultural variables used in this study as predictors of social skills. The current study was the first study, to our knowledge, to look at years in the U.S., caregiver country of birth, child language, and language spoken at home as predictors of social skills.

Cultural Predictors of Problem Behavior

Next, cultural predictors of problem behavior were examined. Taken together, the cultural variables again did not contribute a significant amount of explanatory power when entered as predictors of both caregiver- and teacher-reported problem behavior. No correlations between problem behavior and the individual cultural predictors were found. When the predictors were examined simultaneously, none of the cultural variables were significant predictors. It was hypothesized that number of years the caregiver had lived in the U.S. would be a predictor of problem behavior. However, this hypothesis was not supported. As discussed above, the present study suggests that these differences did not lead to differences in problem behavior among this group of Hispanic preschoolers.

Caregiver country of birth (U.S.- or non-U.S. born) was used as a proxy to measuring sub-group differences. It was hypothesized that higher problem behavior would be associated with children of caregivers who were not born in the U.S. This hypothesis was not supported. However, as explained previously, the initial intention of this variable was to study sub-group differences in Hispanics; this was not possible due to the lack of variability in the sample. Instead of measuring sub-group differences, this question really addressed immigrant status. Future studies using larger and more diverse samples of Hispanics are recommended to address this question.

In addition to these hypotheses, exploratory variables were included. The first exploratory variable was language spoken by the child. Given the limited research that has examined the relationship between language spoken by the child and problem behavior in Hispanic children (Hoffer, 1989), this study treated this variable as an exploratory variable. However, contrary previous studies, the present study used younger children (mostly 3- and 4-year-olds versus 4-, 5- and 6 year-olds). Furthermore, this study was limited in that it included only two 5-year-olds. Future research examining this question among a more diverse age group of Hispanic children is needed to address this question.

Lastly, given the limited research examining language spoken at home as a predictor of problem behavior, this study treated this variable as an exploratory variable. To date, little is known about the relationship between language status and internalizing and externalizing symptoms among Hispanic children (Dawson & Williams, 2008). The present study suggests that there may not be differences in problem behavior that are due

to language spoken at home. As indicated previously, future research could further examine this question using a larger and more diverse sample.

To summarize, as a collective set, cultural variables did not contribute a significant amount of explanatory power when entered as predictors of problem behavior. Given the lack of research examining the number of years the caregiver had lived in the U.S., language in the home and language of the child, and country of birth for the caregiver as predictors of problem behavior, this study attempted to fill these gaps in the literature. No other studies could be found that looked at the cultural variables used in this study as predictors of problem behavior. The current study was the first study, to our knowledge, to look at years in the U.S., caregiver country of birth, child language, and language spoken at home as predictors of problem behavior.

Sociodemographic Predictors of School Readiness

Next, sociodemographic predictors of school readiness were examined. Taken together, the sociodemographic variables did not contribute a significant amount of explanatory power over and above the control variables when entered as predictors of school readiness.

When individual predictors were examined, the strongest predictors of school readiness were again found among the control variables. When correlations between school readiness and the individual predictors were examined, school readiness was significantly correlated with age, such that older children had higher scores on school readiness than younger children. Age remained a significant predictor of school readiness in all models tested, regardless of what other variables were included in the

models. This finding is consistent with prior studies that have found differences between younger and older children's school readiness, such that older children demonstrate more school readiness skills than younger children (Coley, 2002; Hoffer, 1989).

Contrary to prior research, neither gender nor disability were significant predictors. Prior studies have documented differences between boys' and girls' school readiness, such that girls demonstrate more school readiness skills than boys (Coley, 2002; Hoffer, 1989; Walk, 2005). Researchers have also documented the impact of health or developmental disabilities on school readiness (Currie, 2005; Reichman, 2005). However, all of these studies had much larger samples than the current study, two included other ethnicities in their samples, and one had a small number of Hispanics in a mostly middle class sample. Future research examining lower income Hispanic preschoolers in using a larger and more diverse sample is needed to address these questions.

It was hypothesized that socioeconomic status would be a predictor of school readiness. However, this hypothesis was not supported. Although prior studies have documented differences in school readiness skills between different socioeconomic groups (Coley, 2002), the present study suggests that these differences in school readiness may not be due to differences in socioeconomic status. However, the present study was limited to examining differences between family income in a purely low-income sample, thus it possible that the sample lacked sufficient variability to find an effect of SES. Future research examining this question among a more economically diverse sample of Hispanics is needed.

It was also hypothesized that family size would be a predictor of school readiness. However, this hypothesis was not supported. Again, even though prior studies have found differences in school readiness skills (Hart & Risley, 1995; Scott & Seifert, 1975) and in literacy-related behaviors (Farver et al., 2006) between children of different family sizes, the current study suggests that these differences in school readiness may not be due to differences in family size. However, contrary to previous studies (Hart & Risley, 1995; Scott & Seifert, 1975), the present study was examined differences in an all-Hispanic sample of preschoolers. This study also did not treat family size as a control variable, as in a prior study (Farver et al., 2006).

It was also hypothesized that caregiver highest level of education would be a significant predictor of school readiness. However, this hypothesis was not supported. Although prior studies have found differences in school readiness skills between different caregiver levels of education (Coley, 2002; Farver & colleagues, 2006; Laosa, 1993; Zill et al., 1995a), the current study suggests that these differences in school readiness may not be due to differences in caregiver education. However, the current study included a solely Hispanic sample of preschoolers and did not control for parental education, as in two of these studies (Farver et al., 2006; Laosa, 1993). Future research examining these differences in a larger sample of purely Hispanic preschoolers is needed.

Furthermore, it was hypothesized that single parent status would be a significant predictor of school readiness. However, this hypothesis was not supported. Given that this study used a much smaller sample than prior studies that have examined single

parent status and school readiness (Coley, 2002; Ricciuti et al., 1993; Brooks-Gunn et al., 2002; Rodriguez, 2008; Zill et al., 1995b), future research examining this question in a larger sample of Hispanic preschoolers is needed to address this question.

In addition to these hypotheses, an exploratory variable was included. Given that research on working caregiver and school readiness appears to be inconclusive (Brooks-Gunn et al., 2002; Duncan & Magnuson, 2005; Rodriguez, 2008), this study treated this variable as an exploratory variable. This study was limited by the fact that it did not consider the amount of hours that the caregivers worked. In this study, caregivers indicated they worked from 3 hours to 45 hours per week, at an average of 14 hours per week. Future studies including full-time or part-time caregivers are needed to better assess the effects of a working caregiver on a child's school readiness.

To summarize, as a collective set, sociodemographic variables did not contribute a significant amount of explanatory power when entered as predictors of school readiness. When examined individually, no sociodemographic predictors were found to be significant predictors of school readiness.

Cultural Predictors of School Readiness

Next, cultural predictors of school readiness were examined. Taken together, the cultural variables did not contribute a significant amount of explanatory power when entered as predictors of school readiness. When correlations between school readiness and the individual predictors were examined, school readiness was significantly correlated with the number of years the caregiver had lived in the U.S., such that school readiness increased as the number of years the caregiver had lived in the U.S. increased.

However, when the predictors were examined simultaneously, none of the cultural variables were significant predictors. It was hypothesized that number of years the caregiver had lived in the U.S. would be a predictor of school readiness. However, this hypothesis was not supported. As described above, the present study suggests that these differences did not lead to differences in school readiness among this group of Hispanic preschoolers. It was also hypothesized that lower school readiness would be associated with children of caregivers who were not born in the U.S. This hypothesis was not supported. As discussed above, this question really addressed immigrant status. Future studies using larger and more diverse samples of Hispanics are recommended to address this question.

In addition to these hypotheses, exploratory variables were included. The first exploratory variable was language spoken by the child. Given the mixed findings regarding the relationship between language spoken by the child and school readiness in Hispanic children (e.g., Hoffer, 1989, Espinosa et al., 2006 as cited in Espinosa, 2007), this study treated this variable as an exploratory variable. However, contrary previous studies (Hoffer, 1989; Espinosa et al., 2006 as cited in Espinosa, 2007), this study used solely preschoolers, and a much smaller sample. Future research examining this question among a larger sample of Hispanic children of larger age span is needed to address this question.

Lastly, given the mixed findings examining language spoken at home as a predictor of school readiness, this study treated this variable as an exploratory variable. Although prior studies have documented lower scores on school readiness skills among

children from Spanish-speaking homes (Espinosa et al., 2006 as cited in Espinosa, 2007; Klein & Jimerson, 2005) and among children whose mothers were non-English speaking (Zill et al., 1995a), other studies have found more school readiness skills among preschoolers who had mothers who spoke a language other than English in the home (Magnuson et al., 2006). The present study suggests that there may not be differences in school readiness that are due to language spoken at home. However, contrary to previous studies, this study was limited to a smaller sample size that included only Hispanic preschoolers. Future research examining this difference in a larger sample of Hispanic preschoolers is needed to better assess this question.

To summarize, as a collective set, cultural variables did not contribute a significant amount of explanatory power when entered as predictors of school readiness. Given the lack of research examining the number of years the caregiver had lived in the U.S., language in the home and language of the child, and country of birth for the caregiver as predictors of school readiness, this study attempted to fill these gaps in the literature. No other studies could be found that looked at the cultural variables used in this study as predictors of school readiness. The current study was the first study, to our knowledge, to look at years in the U.S., caregiver country of birth, child language, and language spoken at home as predictors of school readiness.

Social-Emotional Competence Predictors of School Readiness

Next, social-emotional predictors of school readiness were examined. Taken together, social-emotional competence was a good predictor of school readiness,

explaining 4% and 12% of the variance in school readiness, respectively, above and beyond the 2% explained by the control, sociodemographic, and cultural variables.

When individual predictors were examined, the strongest predictors of school readiness were caregiver- and teacher-reported social skills. As predicted, social skills were positively associated with school readiness, such that school readiness increased as social skills increased. When correlations between school readiness and the individual predictors were examined, school readiness was significantly correlated with caregiver- and teacher-reported social skills, such that school readiness increased as social skills increased. School readiness was also found to be significantly related to caregiver- and teacher-reported problem behavior, such that children who had high scores on school readiness had low scores on problem behavior (i.e., had low incidences of problem behavior). This finding for caregiver- and teacher-reported social skills as a predictor of school readiness is consistent with prior studies that have found social skills to predict school readiness (Carlton, 2000). Other studies have found social skills to be related to school performance (Ladd, 1990; Normandeau & Guay, 1998), and yet other studies have found children with behavior and social problems to be at risk of dropping out (Cairns et al., 1989).

It was hypothesized that problem behavior would be a predictor of school readiness. However, this hypothesis was not supported. Prior studies have documented a relationship between early behavioral and social difficulties and later academic achievement (e.g., Bracken & Fischel, 2007; Fantuzzo et al., 2005; Hinshaw, 1992; McGee et al., 1991; McGee et al., 1988; Taylor et al., 2000; Williford, 2004), as well as

the negative influence of early behavior problems on children's academic and social outcomes (Fantuzzo et al., 2005; Malara, 2007). However, the present study suggests that these differences in school readiness may not be due to differences in problem behavior. However, contrary to previous studies, this study was limited to a smaller sample size that included only Hispanic preschoolers. Future research examining this difference in a larger sample of Hispanic preschoolers using a larger age span is needed to better assess this question.

Interestingly, when social skills and problem behavior were entered in the model, the number of years that the caregiver had lived in the U.S. became a significant predictor of school readiness as well, but only for the model with the teacher form. Thus, the hypothesis of length of residency in the U.S. as a predictor of school readiness was supported in this model, and in this model only. When correlations between school readiness and the individual predictors were examined, the amount of years the caregiver had lived in the U.S. was significantly correlated with school readiness, such that school readiness increased as the number of years the caregiver has lived in the U.S. increased. As predicted, the number of years a caregiver had lived in the U.S. was positively associated with school readiness, such that school readiness increased as the length of residency in the U.S. increased. Given that length of residency in the U.S. is one of the most common indicators of acculturation (Korzenny, 1998), the finding that length of residency in the U.S. is related to school readiness is suggestive that future research should examine the role of acculturation more closely.

To summarize, as a collective set, caregiver- and teacher-reported social skills contributed a significant amount of explanatory power when entered as predictors of school readiness. The amount of years the caregiver had lived in the U.S. was found to be a strong predictor, but only in the model on the teacher form. In addition, the pattern of individual predictors differed little by who was reporting on the children's problem behavior and social skills.

Secondary Analyses to Clarify the Study Findings

Finally, three sets of post-hoc analyses were follow-up on the main study analyses. First, given that disability status was a strong predictor of caregiver-reported social skills and a marginally significant predictor of school readiness, predictors of disability status were examined. Neither sociodemographic nor cultural factors were significant predictors. When correlations between disability status and the individual predictors were examined, disability status was significantly correlated with child age, such that disabilities were more present in younger children than in older children. Results were unexpected given that disability status had been a significant predictor before.

Secondly, the impact of having returning students together with new-enrollees in the models was examined. The variable for first years was included as a predictor variable in the models. Age was controlled for and social skills, problem behavior, and school readiness alternated being the predictors. First year was not a significant predictor and did not provide additional explanation of the variance in the dependent variables. In addition, when the variable first year was included in the models, this variable did not

affect all models or previous results. In addition, the variable first year did not interact with any of the sociodemographic or predictor variables.

What these results could mean is that previous experience in Head Start was not predictive of social-emotional competence or school readiness. Does this mean that Head Start did not make a difference in these children? These results are inconsistent with the great amount of literature on the positive effects of Head Start. McKey and colleagues (1985) explained that hundreds of studies have been conducted on the success of Head Start in particular. Hoffer (1989) found preschools to have a positive impact on preparing Hispanic children for kindergarten, with Spanish language proficiency being identified as a most critical factor related to a Hispanic child's school readiness. Abbott-Shim and colleagues (2003) examined whether Head Start made an impact on participant outcomes related to school readiness in a Head Start program using random assignment. The authors used a treatment and a wait list comparison group and found that the growth rates for the Head Start children were statistically significantly faster than the comparison group on receptive vocabulary and phonemic awareness measures (Abbott-Shim et al., 2003).

On the other hand, McKey and colleagues (1985) reviewed the characteristics of studies on Head Start and found that the findings of these studies varied extensively; some showed a significant impact of Head Start, others indicated no impact or even a negative impact (McKey et al., 1985). While numerous studies have found positive effects of Head Start on its participants (e.g., Abbott-Shim et al., 2003; Barnett, 1995; Brown & Scott-Little, 2003; Currie & Thomas, 1996; Haskins, 1989; Zill et al., 2003).

several have found no or mixed effects (e.g., “Head Start’s Impact,” 1998; McKey et al., 1985). Put in more explicit terms, Hoffer (1989) indicated that the Head Start program has been designed to improve school readiness, but has been criticized as being “ineffective, wasteful, and futile” (p. 38). As is the case for the current study, it appears that it joins the group of studies that found Head Start to be ineffective in impacting children’s school readiness. However, given that the impact was assessed for students who were returning to Head Start, rather than “graduating” from Head Start, it is possible that the program will have impacted the children by the time they are ready to leave the program.

The third set of post-hoc analyses examined the degree to which the caregiver- and teacher-reported social-emotional competence differed from each other. Results indicated that caregiver- and teacher- reported social skills as well as caregiver- and teacher-reported problem behavior were weakly positively associated with each other.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Summary and Interpretation of Findings

In sum, this study found the control variables of age, gender, and disability as good predictors in explaining the variance in social-emotional competence and school readiness. Some sociodemographic variables were also good predictors and contributed a significant amount of explanatory power when entered as predictors of social-emotional competence, but not school readiness. Contrary to what the study had hypothesized, cultural variables were not significant predictors of either social-emotional competence or school readiness. Finally, social skills, but not problem behavior, were significant predictors of school readiness. What this means is that age, gender, and disability seem to be carrying most of the variance that explains social-emotional competence and school readiness. It also means that some sociodemographic variables seem to be carrying some of the variance, and finally that cultural variables are not carrying a significant amount of explanatory power when entered as predictors of social-emotional competence and school readiness. This implies that for this sample of at-risk Hispanic preschoolers, the cultural variables examined in this study were not strong predictors.

A major finding of this study is that it demonstrated that Hispanic preschoolers are not that unlike from other preschoolers when it comes to factors that have an impact on their school readiness and social-emotional competence. For example, previous studies that used little or no Hispanics in their samples had demonstrated that social

skills had an impact on school readiness (e.g., Carlton, 2000). This is significant for school psychologists and educators because it suggests that Hispanic preschoolers should not be looked at differently from their peers. In other words, cultural factors, such as language spoken at home, do not seem to hinder Hispanic preschoolers' school readiness or social-emotional competence. Therefore, these factors cannot be "blamed" for deficits in both school readiness and social-emotional competence for preschoolers from this population.

There were several instances when teacher-reported social skills and problem behavior differed from the caregiver reports. Teacher and caregiver social-emotional ratings differed in regards to what variables were predictive of teacher- and caregiver-rated social skills and problem behavior. As a whole, more variables were predictive of teacher-rated social-emotional competence than caregiver-rated social-emotional competence (i.e., age, disability, family size were significant predictors for caregiver-rated social-emotional competence and age, gender, family size, single parent status were significant predictors for teacher-rated social-emotional competence). In addition, the only cultural variable that was a significant predictor in all models tested was the number of years the caregiver had lived in the U.S.; this predictor was significant in the model including teacher-rated social-emotional competence, cultural variables, and sociodemographic variables as predictors of school readiness.

In her study of social-emotional development as a predictor of school success, Team (2008) explains that teachers were more familiar with the questions asked on the social-emotional measure, and therefore better understood the questions. Given that a

number of teachers had used the social-emotional measure sometime during the previous year, Team's (2008) explanation could be one possibility as to why teacher-reported social skills and problem behavior differed from the caregiver reports. Another possibility is that contrary to the caregivers, the teachers completed the social-emotional measures after 30 days and before 45 days of knowing the child. It may be that this did not give the teachers sufficient time to get to know the child. Likewise, it may be that 30 days is not enough time for a child who is new to Head Start to adjust to being away from their caregiver and in a preschool setting. Thus, teachers present a more negative picture of the children that is influenced by the fact that the children are still adjusting to their new environment. The ethnicities of the teachers who completed the social-emotional rating scales were also not known. It may in fact be that teacher ethnicities influence the way they rate their students, thus explaining the differences seen between teacher-and caregiver-reported social skills and problem behavior. It may also be that the context where the child is observed influences the caregiver and teacher perceptions of the problem behaviors. Again, this could explain the differences seen between teacher-and caregiver-reported social skills and problem behavior.

In search for answers to these apparent differences, studies on informant discrepancies were explored. In what has been called "an influential meta-analysis" (Hinshaw, Han, Erhardt, & Huber, 1992, p. 143), Achenbach, McConaughy, and Howell (1987) found stronger correlations among similar informants (e.g., teachers and teacher aides; pairs of parents) regarding ratings of behavioral/emotional problems, than among different types of informants (e.g., teachers, parents). The authors conclude that in the

assessment of children's behavioral and emotional problems, different informants experience children in diverse situations, and each of these informants brings in a different view of the child. In their study that examined the prevalence and demographic, school-related, and familial correlates of childhood disorders, Offord, Boyle, and Racine (1990) found that the prevalence and correlates of disorders differed as a function of the informant. The authors explain that the lack of agreement between informants on the individuals who exhibit clinically important symptomatology evidences that the identification of childhood disorder is much influenced by the informants' perceptions and the contexts in which the assessments are done.

De los Reyes and Kazdin (2005) indicate that research has generally failed to explain informant discrepancies, and usually no theoretically relevant rationale has been provided to explain these discrepancies. In studies that have found a relation between ethnicity ethnic differences and informant discrepancies (e.g., Kaufman, Swan, & Wood, 1980), authors have often argued that this relation suggests differences in how informants from different cultures perceive children's behavior as being more or less problematic (De los Reyes & Kazdin, 2005). However, the role of ethnicity as it relates to variables with which informant discrepancies are related has not been defined (De los Reyes & Kazdin, 2005). As for the preschool age group is concerned, there are few data regarding the association of parent and teacher reports for this group (Hinshaw et al., 1992).

Given the apparent gap in the literature in explaining why different informants' ratings of childhood psychopathology are frequently discrepant from one another, De los

Reyes and Kazdin (2005) present a theoretical framework to guide research and theory examining discrepancies in the clinic setting. Their model, called the ABC Model, proposes that informant discrepancies exist in the clinic setting, partly because informants differ in the attributions they have of the causes of the child's behavior. Next, the model proposes that discrepancies in informants' perspectives (meaning the perspective informants have with regard to whether or which of the child's behaviors warrant treatment) may in turn lead to discrepancies in the information of the child's behavior that informants will access from memory and use to rate the child's levels of behavior and emotional problems. Lastly, the model proposes that informant discrepancies in the clinic setting exist, in part, because informant's attributions and perspectives may be discrepant from the goal of the clinical assessment process. The goal of the clinical assessment process involves gathering information of a child's behavior and emotional problems for such purposes of determining if treatment is needed. These components interact to contribute to informant discrepancies on ratings of child psychopathology in the clinic setting. Overall, informants' ratings may be discrepant because of differences in both informants' perspectives and the context in which different informants observe the child's behavior.

In the case of discrepancies between parent and teacher informants, De los Reyes and Kazdin (2005) explain that these may happen because each informant may recall information of the child's problems from memory that is consistent with their discrepant perspectives with regard to which of the child's problems warrant treatment. Differences between parents and teachers with regard to the contexts in which they observe the

child's behavior make the discrepancies between their ratings even bigger. When applying the ABC model to the current study, caregiver and teacher ratings of problem behavior, for example, may be different not necessarily because one sees the child's behavior as negative, whereas the other does not, but because the caregiver views the child's tantrum behavior at home to be primarily problematic, whereas the teacher views the child's aggressive behavior at school to be primarily problematic. Therefore, a child's behavior may be problematic in both settings, but the caregivers' and teacher's perspectives may still be, in part, different because each perceives the problematic behaviors exhibited in the context in which he or she observes the child's behavior to be of most importance for treatment planning (De los Reyes & Kazdin, 2005).

Limitations of This Study

The findings from the current study are a mix between expected and unexpected results, even though possible explanations of those findings were suggested. The study limitations are implied by these possible explanations, which in turn can make for recommendations for future research. The first limitation of the study is that some of the predictor variables were marked by a little variability (i.e., child is a first year in Head Start), which could explain why they were not significant predictors of school readiness or social-emotional competence.

A second limitation is that children who were reported as being identified as having a disability could have been underestimated. The reason for this is because the majority of children were new to Head Start and a child care setting for that matter; therefore, they were less likely to have been tested for speech and language impairments

before they were enrolled into the program. As is accustomed in Head Start, teachers screen the children for speech and language impairments during the first 45 days of enrollment. Children who do not pass the screener are then formally evaluated by a speech pathologist to determine if they are in need of speech therapy. If the speech therapist finds that the child's speech or language impairment warrants treatment, the child is referred to the school district. The school district then determines if the child qualifies for speech services. The child would then be identified with a speech or language impairment. The process is similar for children who demonstrate hearing or vision impairments or other developmental delays. As is evident, children who have spent all of their first years of life with their parents in the home would not have yet gone through this process. It is unknown who, of all the children in the sample, qualified for speech services after enrolling. Therefore, this is considered a limitation to the study.

The third and fourth limitations regard the measures used. A third limitation to the study regards the use of questionnaires to assess children's social-emotional competence. Disadvantages to behavioral rating scales include (a) response biases like the halo effect, (b) leniency effects, and (c) central tendency effects (Denham et al., 2001). As would happen with the use of other rating scales, the limitations of the rater's comfort and understanding of the test may have an impact on the scores (Team, 2008). However, researchers that have examined the social development of young children have successfully used behavior rating scales to assess social competence (Denham et al., 2001). Using a behavioral rating scale was the most convenient measure for this study. A fourth limitation is that children's school readiness tests were administered by several

different assessors, which could possibly result in inconsistencies. However, all assessors underwent a thorough training on the school readiness measure.

A fifth limitation regards the time that passed between enrollment and when the caregiver questionnaires addressing cultural variables were filled out. Although the enrollment period occurred from August 11th to August the 22nd, caregivers continued to enroll children throughout the academic year. The caregiver questionnaire addressing cultural variables was gathered from August 8th, 2008 to February 17th, 2009. Even though school readiness and caregiver- and teacher- reported social-emotional competence were assessed within the first 45 days of enrollment, some caregiver questionnaires addressing cultural variables were gathered within the first 45 days while others were not. Even though there is a time difference, this is not considered a great limitation given that the questions addressed on the caregiver questionnaire were more constant than irregular (e.g., language spoken at home, caregiver education, child is new to Head Start, caregiver country of birth). The variables that could have been more susceptible to change were caregiver works and years the caregiver has lived in the U.S. The time gap is considered as a limitation to the study.

Along with the fifth limitation, another limitation regards the amount of time that had passed for teachers to complete the social-emotional competence measure. As explained previously, caregivers completed the social-emotional competence measure at enrollment, and teachers were instructed to complete the social-emotional competence measure after 30 days had passed since the child started school, but before the first 45 days had passed. Head Start policies delineated this so that teachers would have

sufficient time to know the child in order to fill out the social-emotional competence measure with the most knowledge of the child possible, before the 45-day deadline. The manual for the social-emotional measure, however, recommends that the rater know the child at least 6 weeks before completing the measure (Merrell, 1994). Given Head Start regulations to screen children with a social-emotional measure during the first 45 days of enrollment, teachers were restricted to completing the social-emotional measure before the 6-week recommendation. Hence, a possible explanation for the discrepancies seen between the teacher and caregiver social-emotional measures could be that the teachers did not have sufficient time to get to know the child. Likewise, it could be that 30 days did not give first-timers to Head Start sufficient time to adjust to the preschool setting, which could in turn negatively affect how they behaved in the classroom and with others. The time constraint for teachers to complete the measure is considered a limitation to the study.

Lastly, another limitation is that this study did not consider other factors that have been shown to be related to school readiness and social-emotional competence. For example, several studies have found parenting to have an impact on children's readiness for school and social and emotional development (Deater-Deckard & Dodge, 1997; Fagan, 2000; Florsheim, Tolan, & Gorman-Smith, 1998; Gershoff, 2002; Kelley, Smith, Green, Berndt, & Rogers, 1998; Lopez & Cole, 1999). Other researchers have found language and reading to be associated with school readiness (Bradley & Bryant, 1983; Denton & West, 2002; Noble, Tottenham, & Casey, 2005). Aspects related to the family, such as stress, psychopathology, and the learning environment appear to impact school

readiness as well (Bigatti, Cronan, & Anaya, 2001; Espinosa, 2007; Reynolds, Weissberg, & Kasrow, 1992). It is recommended that future research explore these factors in a sample of Hispanic preschoolers to find out if they are strong predictors of school readiness and social-emotional competence in this population.

Contributions

Despite these limitations, this study is the first known to examine sociodemographic and cultural predictors of school readiness and social-emotional competence in a solely Hispanic sample. A literature review suggests that there have been few studies of school readiness that have focused solely on Hispanics, and for those studies that have included Hispanics, a close look reveals that Hispanics only made up a small portion of the entire sample. The sample also included both Spanish- and English-speaking children and caregivers. Research has indicated that children who have a lack of proficiency in English when they enter school are at greater risk for reading difficulties and difficulty in succeeding academically (Regalado et al., 2001). This is a cause of concern regarding English Language Learners, which triggered this study to include these children in the sample. In addition, the sample was comprised of low-income families. Researchers have noted the even though current studies highlight the negative influence of preschool emotional and behavioral problems, research on this topic is relatively scarce for low-income preschool children (Fantuzzo et al., 2005). Low-income children are at the highest risk of developing emotional and behavioral difficulties (Brooks-Gunn & Duncan, 1997). This study addressed the literature's recommendations by focusing on a low-income sample that included Hispanics who

were not fluent in English. Also, the study looked at the relationship between school readiness and social-emotional competence, which until recently, had not been explored (Waaqid, 2006).

Implications for the Field of School Psychology

The study's findings may facilitate the identification of Hispanic preschoolers who are presenting to Head Start as less ready to enter school. According to the findings, Hispanic preschoolers presented as being at-risk for poor school readiness outcomes are preschoolers who have poor social skills. Also among those at-risk are preschoolers who are younger and have caregivers that recently moved to the U.S. The findings from this study can be helpful for educators and mental health specialists because they can identify those preschoolers who come in at-risk, which in turn will allow educators and mental health specialists to allocate extra attention to their progress. Preschool is a period of time to improve variables related to school readiness so that when the time comes for these children to move on to Kindergarten, they are "ready to go." It is important to remember, however, that the fact that these variables were correlated with school readiness does not mean that these variables cause school readiness.

Findings also suggest that social skills seem to be uniquely associated with school readiness. Social skills were found to have independent effects on school readiness when considered in the context of the other predictors included in this study. This finding suggests that perhaps enhancing social skills might be of benefit to children, even when they also have a host of other risk factors for low school readiness. Future

studies should examine the impact of such interventions on the school readiness of children.

Directions for Future Research

In light of the findings, limitations, and contributions of the current study, recommendations for future research are presented. First of all, given the findings that social skills seem to be uniquely associated with school readiness, future studies should examine the impact of interventions focusing on improving social skills on children's school readiness. The second recommendation is brought about because many of the children in the sample, even though they came from low socioeconomic backgrounds and were facing various other risks, obtained high scores on school readiness and social-emotional competence. These high scores suggest that these children may in fact carry some protective factors that make them resilient to their environment. Future research should focus on exploring these protective factors and resiliency in preschoolers from this population. Knowledge about the protective factors can aid in the creation of interventions for this at-risk population.

Another recommendation is that this study be replicated in another Head Start setting where the Hispanic population is more diverse. All of the children in this study were either born in Mexico or in the U.S. A sample that includes children of other Hispanic sub-groups will allow for a comparison across subgroups in school readiness and social-emotional competence. Together with this recommendation, it is also recommended that the study be replicated in other regions so as to be able to make national generalizations of the findings. Given that Head Start children face many risks

that other preschool children from more affluent families do not face, it would be interesting to see what variables are predictive of school readiness and social-emotional competence in middle-or-upper class Hispanic families.

Given that the Hispanic culture has strong connections regarding family (Dixon, Graber, & Brooks-Gunn, 2008), it would be interesting to find out how if adherence to traditional values of family is a predictor of school readiness and social-emotional competence. Adherence to traditional family values could include the following: having a deep sense of family loyalty, extended family and social support networks, an emphasis on interpersonal relatedness, relationships, and mutual respect (Fitzpatrick & Travieso, 1980 as cited in Dixon et al., 2008; Garcia Coll, Meyer, & Brillon, 1995 as cited in Dixon et al., 2008; Vega, Hough, & Romero, 1983 as cited in Dixon et al., 2008). Adherence to traditional family values could also serve as a protective factor, which aids in building resiliency in the preschooler.

A final recommendation for future research is to examine the role of acculturation in predicting school readiness and social-emotional competence. Acculturation has been suggested to have an impact on school readiness. Researchers have suggested that acculturation may be a child-level factor influencing academic outcomes in special populations, such as Hispanic-Americans (Riggs & Greenberg, 2004). Hispanic students may show lower academic achievement and be more susceptible to other academic difficulties than Caucasian students because of a less acculturated child's lack of English language proficiency or a lack of a social network familiar with the academic goals and expectations in American schools (Buenning &

Tollefson, 1987). Parental beliefs regarding the cognitive, social, and emotional development of immigrant children have been shown to be influenced by parental education and acculturation (Harkess & Super, 1996). Given these findings, future research could examine acculturation in Hispanic families and its impact on social-emotional competence and school readiness

In conclusion, the results of this study demonstrate the importance of examining a population that has been shown specifically to be unready for school and at risk regarding their academic outcomes. This study attempted to examine variables pertaining specifically to this population that could explain school readiness and social-emotional competence. With research lacking on both school readiness and social-emotional competence of Hispanic preschoolers, this study hopes to instigate others into focusing their efforts on this at-risk population. For it is only through empirically-based research that the needs of this population can be better understood, allowing for the creation of effective interventions that can be implemented starting in the preschool age.

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APPENDIX A

TABLES

Table 1

Original and Corrected Values of Variables after Deletion of Outliers

Variable	Original	Original	Corrected	Corrected
	Skewness	Kurtosis	Skewness	Kurtosis
Years in U.S.	.657	2.40	-.08	-1.03
Speed DIAL	.81	.34	.83	.35
Caregiver SS	-1.24	2.34	-.94	1.22
Caregiver PB	.47	-.12	.49	.00
Teacher SS	-.90	.40	-.84	.03
Teacher PB	1.04	.52	1.04	.58
Child's age	.46	-1.23	.46	-1.20
Family size	.48	1.03	.44	1.04
Income	3.57	21.34	.69	.79

Table 2

Demographics of child participants (N = 162)

Characteristics	N	%
Age at time of data collection		
3 yrs.	91	56.2%
4 yrs.	69	42.6%
5 yrs.	2	1.2%
Gender		
Male	87	53.7%
Female	75	46.3%
Language Tested		
English	93	57.4%
Spanish	69	42.6%
Country born		
U.S.	156	96.3%
Mexico	6	3.7%
First Year or Returnee		
First Year	122	75.3%
Returnee	40	24.7%

Table 2

Continued

Characteristics	N	%
Previous preschool participation before Head Start		
Yes	8	4.9%
No	154	95.1%
Language Questionnaire Was Filled Out		
English	84	51.9%
Spanish	78	48.1%
Participated in Person or by Phone		
Person	145	89.5%
Phone	17	10.5%
Relationship to Child		
Mother	159	98.1%
Father	3	1.9%
Caregiver Worked Outside the Home		
Yes	76	46.9%
No	86	53.1%
Is There a Secondary Caregiver		
Yes	49	30.2%
No	111	68.5%

Table 2

Continued

Characteristics	N	%
Language Mostly Spoken at Home		
Spanish	74	45.7%
English	56	34.6%
Both Equally	32	19.8%
Family Status		
Single Parent	77	47.5%
Not Single Parent	85	52.5%
Country born		
U.S.	80	49.4%
Mexico	75	46.3%
Honduras	3	1.9%
Guatemala	2	1.2%
El Salvador	1	.6%
Belize	1	.6%
Child Identified with a Disability		
Yes	22	13.6%
No	140	86.4%

Table 2

Continued

Characteristics	N	%
Highest Level of Education		
6 th Grade or Less	24	14.8%
7 th through 11 th Grade	51	31.5%
Graduated from High School/ GED	67	41.4%
Associate or Professional Degree	6	3.7%
College Degree	14	8.6%

Table 3
Intercorrelations for Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Speed DIAL score	---												
2. Caregiver SS	.298**	---											
3. Caregiver PB	-.163*	-.342**	---										
4. Teacher SS	.434**	.282**	-.171*	---									
5. Teacher PB	-.251**	-.104	.168*	-.696**	---								
6. Child age	.467**	.188*	.005	.238**	-.127	---							
7. Family size	.092	-.230**	.122	-.061	.067	.118	---						
8. Disability	-.032	-.194*	.134	-.025	.026	.210**	-.040	---					
9. Child gender	.068	.100	-.085	.206**	-.201*	.052	.169*	-.151	---				
10. Income	-.056	-.150	.082	.043	-.067	-.004	.137	.059	.041	---			
11. Years in U.S.	.231**	.168*	-.128	-.049	.075	.159*	.020	.023	-.046	-.182*	---		
12. Caregiver age	.029	-.029	.096	-.021	-.021	.039	.215**	.033	.086	.190*	-.053	---	
13. Caregiver work hrs	.007	.047	-.081	.028	.080	-.053	-.139	.029	-.129	-.012	.261**	-.135	---
M	10.57	98.33	99.27	102.99	88.09	3.45	4.54	.14	1.46	\$14,608.32	18.47	27.86	14.08
SD	7.10	13.35	15.06	14.42	12.71	.523	1.34	.34	.50	\$7,157.30	9.16	5.61	17.07

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

Table 4
 Summary of Hierarchical Regression Analysis for Variables Predicting Social Skills Standard Score for Caregiver form ($N = 162$)

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Intercept		78.25			84.39			86.34	
Age	5.99	1.98	.24***	6.32	1.94	.25***	6.33	1.95	.25***
Gender	1.40	2.05	.05	2.22	2.09	.08	2.48	2.10	.10
Disability	-9.15	3.05	-.24***	-9.24	2.93	-.24***	-9.63	2.91	-.25***
Family size				-2.38	.81	-.24***	-2.73	.83	-.27***
Income				.00	.00	-.05	.00	.00	-.08
Single parent				2.30	2.56	.09	1.84	2.76	.07
Working caregiver				-.38	2.06	-.01	-.37	2.08	-.01
Highest edu 6 th				.93	4.22	.03	2.41	4.35	.06
Highest edu 11 th				3.02	3.90	.11	3.05	4.03	.11
Highest edu HS				6.38	3.66	.24*	6.97	3.80	.26*
Highest edu Assoc				1.08	6.08	.02	1.46	6.15	.02
Home lang Sp							-2.94	3.19	-.11
Home lang Eng							5.55	3.08	.20*
Child language							1.37	2.97	.05
Years in U.S.							.08	.17	.05
U.S.-born							-5.60	3.36	-.21*
R^2		.10			.22			.26	
Adjusted R^2		.08			.17			.18	
R^2 change		.10***			.13***			.04	

* $p < .10$. ** $p < .05$. *** $p < .01$.

Table 5
Summary of Hierarchical Regression Analysis for Variables Predicting Social Skills Standard Score for Teacher form (N = 162)

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Intercept		78.12			84.44			84.21	
Age	6.57	2.14	.24**	7.66	2.17	.28**	7.73	2.22	.28***
Gender	5.38	2.21	.19**	5.40	2.34	.19**	5.52	2.39	.19**
Disability	-1.96	3.29	-.05	-2.34	3.28	-.06	-2.47	3.31	-.06
Family size				-2.17	.91	-.20**	-2.19	.95	-.20**
Income				-7.8E-5	.00	-.04	.00	.00	-.06
Single parent				-5.91	2.87	-.21**	-5.54	3.13	-.19*
Working caregiver				.33	2.31	.01	.94	2.37	.03
Highest edu 6 th				.63	4.73	.02	.18	4.95	.00
Highest edu 11 th				2.66	4.37	.09	3.46	4.58	.11
Highest edu HS				5.63	4.10	.19	6.65	4.33	.23
Highest edu Assoc				8.18	6.82	.11	7.84	7.00	.10
Home lang Sp							.81	3.63	.03
Home lang Eng							4.80	3.50	.16
Child language							1.79	3.38	.06
Years in U.S.							-.16	.20	-.10
U.S.-born							-.38	3.82	-.01
<i>R</i> ²		.10			.16			.18	
<i>Adjusted R</i> ²		.08			.10			.09	
<i>R</i> ² change		.10**			.07			.02	

p* < .10. *p* < .05. ****p* < .01.

Table 6
Summary of Hierarchical Regression Analysis for Variables Predicting Problem Behavior Standard Score for Caregiver form (N = 162)

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Intercept		101.27			102.29			99.08	
Age	-5.40	2.32	-.02	-1.12	2.40	-.04	-.89	2.43	-.03
Gender	-1.95	2.40	-.07	-3.23	2.58	-.11	-4.22	2.63	-.14
Disability	5.64	3.57	.13	5.75	3.62	.13	6.24	3.63	.14*
Family size				1.44	1.01	.13	1.93	1.04	.17*
Income				8.2E-5	.00	.04	5.6E-5	.00	.03
Single parent				-1.85	3.16	-.06	.66	3.42	.02
Working caregiver				-1.10	2.54	-.04	-.51	2.59	-.02
Highest edu 6 th				-4.25	5.21	-.10	-8.67	5.68	-.21
Highest edu 11 th				-5.10	4.82	-.16	-5.14	5.06	-.16
Highest edu HS				-5.13	4.52	-.17	-4.70	4.74	-.15
Highest edu Assoc				-10.66	7.51	-.13	-11.29	7.65	-.14
Home lang Sp							2.18	4.01	.07
Home lang Eng							-.93	3.61	-.03
Child language							1.97	3.60	.07
Years in U.S.							-.05	.20	-.03
U.S.-born							-10.57	7.07	-.13
<i>R</i> ²		.02			.07			.10	
<i>Adjusted R</i> ²		.00			.00			-.01	
<i>R</i> ² change		.02			.05			.02	

p* < .10. *p* < .05. ****p* < .01.

Table 7
Summary of Hierarchical Regression Analysis for Variables Predicting Problem Behavior Standard Score for Teacher form (N = 162)

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Intercept		100.41			99.53			101.97	
Age	-2.95	1.93	-.12	-3.82	1.98	-.16*	-3.77	2.02	-.16*
Gender	-4.87	2.00	-.19**	-4.75	2.13	-.19**	-4.59	2.18	-.18**
Disability	.82	2.97	.02	1.41	2.98	.04	1.49	3.02	.04
Family size				1.61	.83	.17*	1.56	.86	.17*
Income				-8.2E-5	.00	-.05	-4.9E-5	.00	-.03
Single parent				1.72	2.61	.07	1.39	2.85	.06
Working caregiver				2.61	2.10	.10	2.08	2.15	.08
Highest edu 6 th				-4.88	4.30	-.14	-3.57	4.51	-.10
Highest edu 11 th				-3.61	3.98	-.13	-3.62	4.18	-.13
Highest edu HS				-5.32	3.73	-.21	-5.40	3.94	-.21
Highest edu Assoc				-9.58	6.20	-.14	-8.33	6.37	-.12
Home lang Sp							-2.72	3.31	-.11
Home lang Eng							-3.05	3.19	-.12
Child language							-2.34	3.08	-.09
Years in U.S.							.06	.18	.05
U.S.-born							-1.36	3.48	-.05
<i>R</i> ²		.06			.11			.12	
<i>Adjusted R</i> ²		.04			.04			.03	
<i>R</i> ² change		.06**			.06			.02	

p* < .10. *p* < .05. ****p* < .01.

Table 8
 Summary of Hierarchical Regression Analysis for Variables Predicting Speed DIAL score (N = 162)

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Intercept		-12.28			-11.36			-11.76	
Age	6.69	.97	.49***	6.38	1.00	.47***	6.14	1.02	.45***
Gender	.317	1.00	.02	-.22	1.08	-.02	-.21	1.10	-.02
Disability	-2.74	1.49	-.13*	-2.59	1.51	-.13*	-2.73	1.53	-.13*
Family size				.33	.42	.06	.16	.44	.03
Income				-4.3E-5	.00	-.04	-4.0E-5	.00	-.04
Single parent				.56	1.32	.04	-.20	1.44	-.01
Working caregiver				-.49	1.07	-.04	-.70	1.09	-.05
Highest edu 6 th				-2.52	2.18	-.13	-2.30	2.28	-.12
Highest edu 11 th				-1.13	2.02	-.07	-2.16	2.11	-.14
Highest edu HS				.60	1.89	.04	-.36	1.99	-.03
Highest edu Assoc				-1.72	3.15	-.05	-2.40	3.22	-.06
Home lang Sp							.88	1.67	.06
Home lang Eng							1.09	1.61	.07
Child language							-.10	1.56	-.01
Years in U.S.							.15	.09	.19
U.S.-born							-.56	1.76	-.04
<i>R</i> ²		.24			.27			.28	
Adjusted <i>R</i> ²		.22			.21			.20	
<i>R</i> ² change		.24***			.03			.02	

p* < .10. *p* < .05. ****p* < .01.

Table 9
 Summary of Hierarchical Regression Analysis for Variables Predicting Speed DIAL score (N = 162)

Variable	Model 1			Model 2			Model 3			Model 4		
	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β
Intercept		-12.28			-11.36			-11.76			-14.36	
Age	6.69	.97	.49***	6.38	1.00	.47***	6.17	1.01	.46***	5.54	1.04	.41***
Gender	.32	1.00	.02	-.22	1.08	-.02	-.02	1.10	-.00	-.61	1.09	-.04
Disability	-2.74	1.49	-.13*	-2.59	1.51	-.13*	-2.84	1.52	-.14*	-1.59	1.55	-.08
Family size				.33	.42	.06	.11	.44	.02	.49	.44	.09
Income				-4.3E-5	.00	-.04	-4.2E-5	.00	-.04	-2.5E-5	.00	-.03
Single parent				.56	1.32	.04	-.51	1.43	-.04	-.39	1.42	-.03
Working caregiver				-.49	1.07	-.04	-.73	1.08	-.05	-.70	1.07	-.05
Highest edu 6 th				-2.52	2.18	-.13	-1.40	2.38	-.07	-2.82	2.24	-.14
Highest edu 11 th				-1.13	2.02	-.07	-1.93	2.12	-.12	-2.64	2.07	-.17
Highest edu HS				.60	1.89	.04	-.23	1.98	-.02	-1.20	1.97	-.08
Highest edu Assoc				-1.72	3.15	-.05	-2.31	3.20	-.06	-3.10	3.18	-.08
Home lang Sp							.60	1.68	.04	1.20	1.64	.09
Home lang Eng							.91	1.51	.06	.50	1.60	.03
Child language							.07	1.51	.01	-.07	1.53	-.01
Years in U.S.							.12	.08	.15	.13	.09	.17
U.S.-born							3.73	2.96	.10	.14	1.74	.01
Caregiver SS Comp										.09	.04	.17**
Caregiver PB Comp										-.05	.04	-.11
R ²		.24			.27			.28			.32	
Adjusted R ²		.22			.21			.20			.24	
R ² change		.24**			.03			.02			.04**	

*p < .10. **p < .05. ***p < .01.

Table 10
 Summary of Hierarchical Regression Analysis for Variables Predicting Speed DIAL score (N = 162)

Variable	Model 1			Model 2			Model 3			Model 4		
	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β
Intercept		-12.28			-11.36			-11.76			-31.54	
Age	6.69	.97	.49** *	6.38	1.00	.47***	6.17	1.01	.46***	4.68	.10	.35***
Gender	.317	1.00	.02	-.22	1.08	-.02	-.02	1.10	-.00	-1.20	1.03	-.09
Disability	-2.74	1.49	-.13*	-2.59	1.51	-.13*	-2.84	1.52	-.14*	-2.27	1.41	-.11*
Family size				.33	.42	.06	.11	.44	.02	.56	.41	.11
Income				-4.3E-5	.00	-.04	-4.2E-5	.00	-.04	-1.5E-5	.00	-.02
Single parent				.56	1.32	.04	-.51	1.43	-.04	.88	1.35	.06
Working caregiver				-.49	1.07	-.04	-.73	1.08	-.05	-.94	1.01	-.07
Highest edu 6 th				-2.52	2.18	-.13	-1.40	2.38	-.07	-2.24	2.11	-.11
Highest edu 11 th				-1.13	2.02	-.07	-1.93	2.12	-.12	-2.76	1.95	-.18
Highest edu HS				.60	1.89	.04	-.23	1.98	-.02	-1.56	1.85	-.11
Highest edu Assoc				-1.72	3.15	-.05	-2.31	3.20	-.06	-3.76	2.98	-.10
Home lang Sp							.60	1.68	.04	.79	1.54	.06
Home lang Eng							.91	1.51	.06	.21	1.49	.01
Child language							.07	1.51	.01	-.39	1.44	-.03
Years in U.S.							.12	.08	.15	.18	.08	.23**
U.S.-born							3.73	2.96	.10	-.45	1.62	-.03
Teacher SS Comp										.20	.05	.41***
Teacher PB Comp										.03	.05	.05
R ²		.24			.27			.28			.40	
Adjusted R ²		.22			.21			.20			.33	
R ² change		.24***			.03			.02			.12***	

* $p < .10$. ** $p < .05$. *** $p < .01$.

Table 11

Summary of Logistical Regression Analysis for Variables Predicting Disability Status (N = 162)

Variable	B	SE B	Wald	e ^B
Intercept	-1.94			
Income	.00	.00	.94	1.00
Family size	-.13	.21	.35	.88
Single parent	-.25	.70	.13	.78
Caregiver works	-.07	.50	.02	.93
Highest edu 6 th	-.41	1.02	.16	.67
Highest edu 11 th	.42	.97	.19	1.52
Highest edu HS	.21	.91	.05	1.23
Highest edu Assoc	.07	1.41	.00	1.07
Home lang Sp	-.51	.85	.36	.60
Home lang Eng	-.83	.85	.96	.44
Child language	.19	.73	.07	1.21
Years in U.S.	.03	.04	.49	1.03
U.S.-born	.51	.86	.35	1.66

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

APPENDIX B**FIGURES**

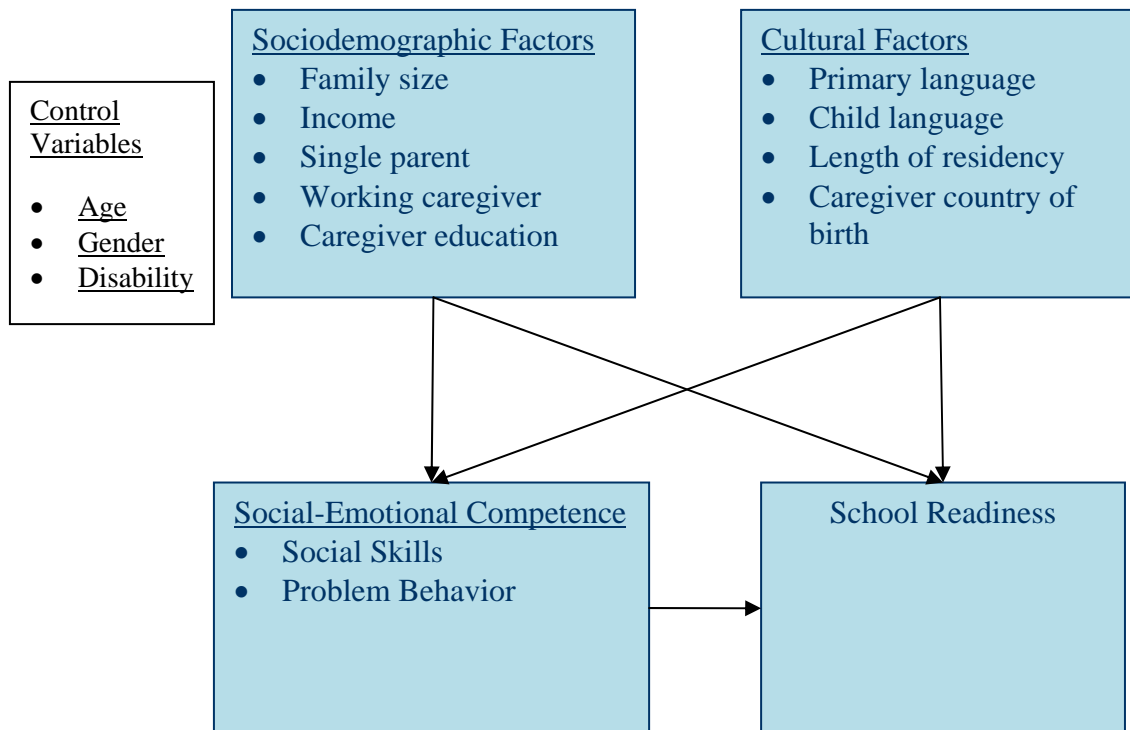


Figure 1. Hypothesized conceptual model.

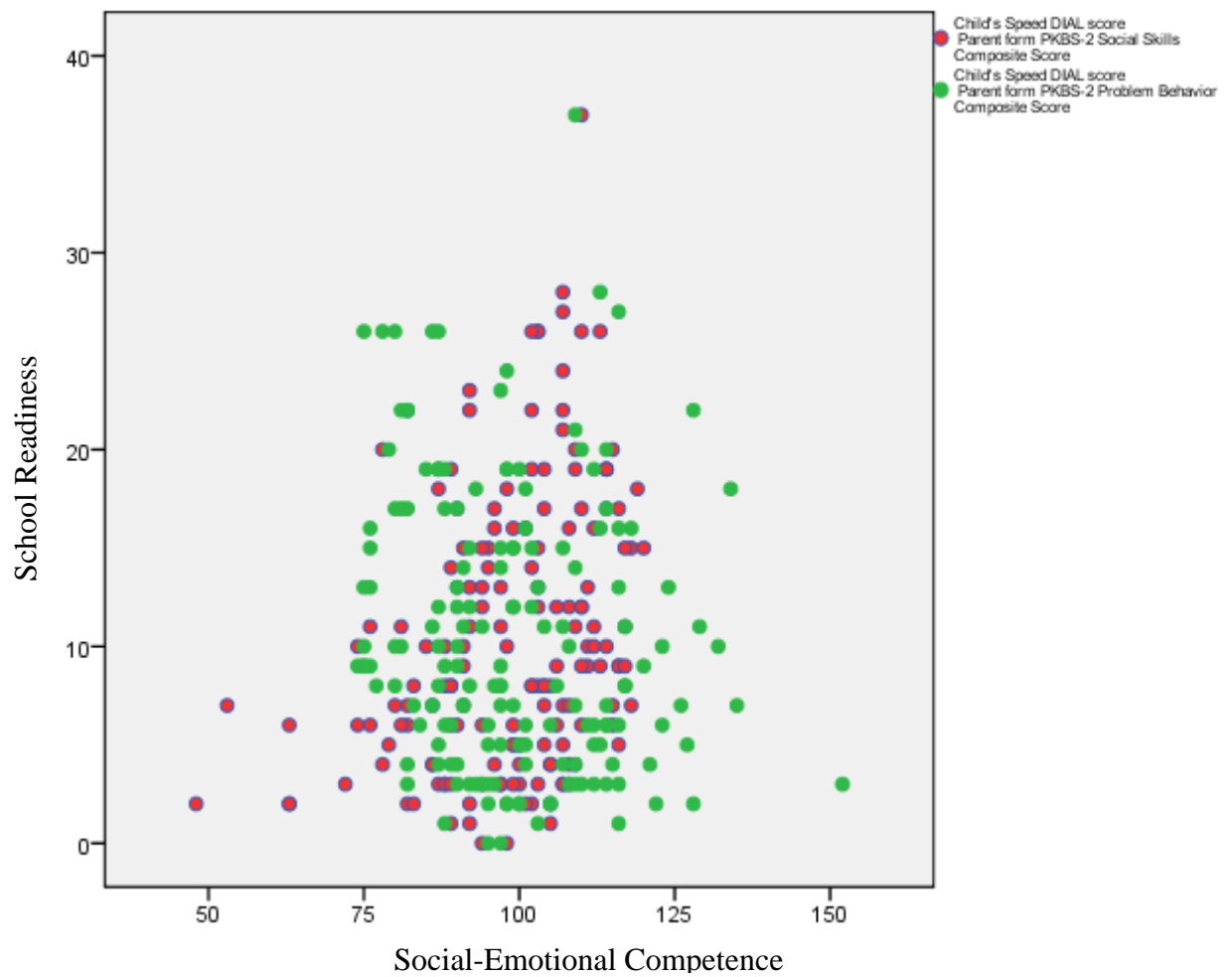


Figure 2. Scatterplot for Bivariate Correlation between Social-Emotional Competence as reported by the Caregiver and School Readiness.

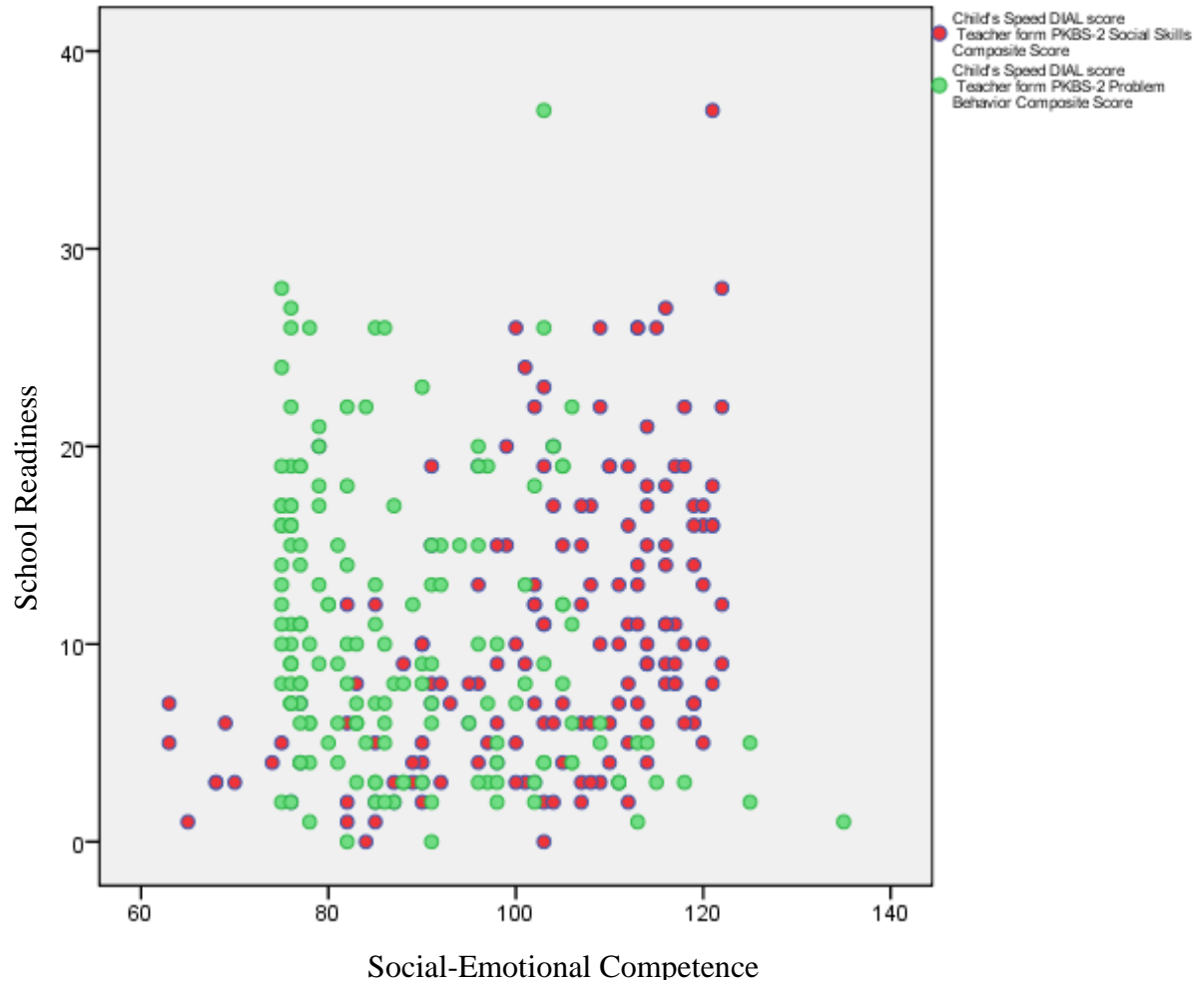


Figure 3. Scatterplot for Bivariate Correlation between Social-Emotional Competence as reported by the Teacher and School Readiness.

APPENDIX C
STUDY MATERIALS

CONSENT FORM

Hispanic Preschoolers' Readiness for School

Introduction

The purpose of this form is to provide you information that may affect your decision as to whether or not to participate in this research study. If you decide to participate in this study, this form will also be used to record your consent.

You have been asked to participate in a research project studying Hispanic preschoolers' readiness for school. The purpose of this study is to learn more about what factors are important for children's success in school. You were selected to be a possible participant because you are a parent or caregiver of a Hispanic child who is enrolled in Head Start served by the Brazos Valley Community Action Agency.

What will I be asked to do?

If you agree to participate in this study, you will be asked to answer some questions about you and your family, such as what language you speak at home. This study will take about 2-3 minutes of your time. Today, you will be asked to write your phone number on this form, if you have one. Sometime soon, a researcher will call you about the study. You can choose to either answer the questions over the phone or in person. If you do not give the study a phone number today or want to answer the questions in person, the researcher will ask you to answer the questions when you drop your child off at Head Start. By signing this form, you are also giving the study permission to access your child's Head Start school records for a period of 1 year.

What are the risks involved in this study?

The risks associated in this study are minimal, and are not greater than risks ordinarily encountered in daily life.

What are the possible benefits of this study?

While there are no direct benefits to you for participating in this study, it is possible that this study will benefit society by increasing our knowledge of what factors might be related to preschoolers' readiness for school. When these factors are better understood, this information might be used to help Hispanic children to be better prepared for school.

Do I have to participate?

No. Your participation is voluntary. You may decide not to participate or to withdraw at any time without your current or future relations with BVCAA Head Start being affected.

Will I be compensated?

For participating in this study, you will be entered in a drawing for a \$30 Wal-Mart gift card. We will draw winners after every 50 people complete the study. You will be notified if you are a winner by a phone call (if you provide the study with your phone

number). In case you do not provide the study with your phone number, we will leave you an envelope with your child's classroom notifying you that you are a winner.

Who will know about my participation in this research study?

This study is confidential. The records of this study will be kept private. No identifiers linking you to this study will be included in any sort of report that might be published. Research records will be stored securely and only Leonor Avila, the primary investigator, will have access to the records.

Whom do I contact with questions about the research?

If you have questions regarding this study, you may contact Leonor Avila at ***-***-****. Her email address is ****@****.com.

Whom do I contact about my rights as a research participant?

This research study has been reviewed by the Human Subjects' Protection Program and/or the Institutional Review Board at Texas A&M University. For research-related problems or questions regarding your rights as a research participant, you can contact these offices at (979)458-4067 or irb@tamu.edu.

Signature

Please be sure you have read the above information, asked questions and received answers to your satisfaction. You will be given a copy of the consent form for your records. By signing this document, you consent to participate in this study.

Signature of Participant: _____ Date: _____

Printed Name: _____

Participant's Phone Number: _____

Child Name: _____

Signature of Person Obtaining Consent: _____ Date: _____

Printed Name: _____

FORMULARIO DE CONSENTIMIENTO

La Preparación Escolar de Niños Hispanos

Introducción

El propósito de este formulario es ofrecerle información que puede afectar su decisión en cuanto a querer participar en este estudio de investigación. Si usted decide participar en este estudio, este formulario será usado como registro de su consentimiento.

A usted se le ha pedido participar en un proyecto de investigación que estudia a niños hispanos preescolares, específicamente si están listos para la escuela. El propósito de este estudio es de aprender más acerca de qué factores son importantes para que los niños sean exitosos en la escuela. Usted fue seleccionado como un posible participante porque usted es un padre o guardián de un niño/a hispano/a que está inscrito en Head Start servido por el Brazos Valley Community Action Agency.

¿Qué se me pedirá hacer?

Si usted decide participar en este estudio, se le pedirá que responda a unas preguntas acerca de usted y su familia, como por ejemplo que lenguaje se habla en su casa. Este estudio le tomará unos 2-3 minutos de su tiempo. El día de hoy se le pedirá que escriba su número de teléfono en este formulario, si usted tiene uno. En un futuro cercano, una investigadora le llamará acerca del estudio. Usted puede elegir contestar las preguntas por teléfono o en persona. Si usted no da al estudio un número de teléfono hoy, o quiere responder a las preguntas en persona, la investigadora le pedirá que responda a las preguntas cuando deje a su niño en Head Start. Al firmar este formulario, usted también le da permiso al estudio de poder acceder los archivos escolares de Head Start de su niño/niña por un período de 1 año.

¿Qué son los riesgos involucrados en este estudio?

Los riesgos asociados con este estudio son mínimos y no son mayores que los riesgos encontrados usualmente en el la vida diaria.

¿Qué son los posibles beneficios de este estudio?

Aunque no hayan beneficios directos a usted por participar en este estudio, es posible que este estudio beneficiara a la sociedad porque incrementaría nuestro conocimiento de los factores que pueden estar relacionados con la preparación escolar de niños preescolares. Cuando estos factores sean entendidos mejor, esta información pudiera ser usada para ayudarle a que los niños Hispanos estén mejor preparados para la escuela.

¿Tengo que participar?

No, su participación es voluntaria. Usted puede decidir no participar o de terminar su participación en cualquier momento sin afectar a su relación presente o futura con BVCAA Head Start

¿Se me va a recompensar?

Por participar en este estudio, usted será inscrito en un sorteo de una Tarjeta de Regalo de Wal-Mart de \$30. Nosotros escogeremos un ganador después de cada vez que 50 personas completen el estudio. Le avisaremos su usted es un ganador a través de una llamada telefónica (si usted da su número de teléfono al estudio). Si usted no da su número de teléfono al estudio, le dejaremos un sobre en el salón de clase de su niño que le notificará que usted es un ganador.

¿Quién sabrá de mi participación en este estudio de investigación?

Este estudio es confidencial. Los archivos de este estudio serán mantenidos privados. Ninguna información que podrá relacionarlo con este estudio será incluida en cualquier tipo de reporte que podrá ser publicado. Los archivos de investigación serán guardados bajo seguridad y solo Leonor Avila, la investigadora principal puede tener acceso a los archivos.

¿A quién contacto si tengo preguntas acerca de la investigación?

Si tiene preguntas acerca de este estudio, puede contactar a Leonor Avila al ***-***-****. Su dirección de correo electrónico es ****@***.com.

¿A quién contacto acerca de mis derechos como un participante en una investigación?

Este estudio de investigación ha sido revisado por el Human Subjects' Protection Program y/o el Institutional Review Board de Texas A&M University. Si tiene problemas que tienen que ver con la investigación o tiene preguntas relacionadas con sus derechos como un participante en un estudio, usted puede contactar a estas oficinas al (979)458-4067 o irb@tamu.edu.

Firma

Por favor asegúrese que ha leído la información anterior y que ha hecho preguntas y recibido respuestas a su satisfacción. Se le dará una copia del formulario de consentimiento para sus archivos. Al firmar este documento usted dice que está de acuerdo en participar.

Firma del Participante: _____ Fecha: _____

Nombre escrito: _____

Número de Teléfono del Participante: _____

Nombre del niño/niña: _____

Firma de la Persona que Obtiene el consentimiento: _____ Fecha: _____

Nombre escrito: _____

Is your child Hispanic? Is your child enrolled in Head Start?

If you said yes to these two questions,

Then you are eligible to participate in a study of Hispanic children!

What you need to do is answer some questions about you and your family.

The study takes only 2-3 minutes!

Answer the questions on the phone or in person. If you answer the questions in person, look for a researcher at the entrance of your Head Start center with this flyer on:

The researcher will hand you what you need to fill out and after you do, you will be entered into a drawing for a chance to win a \$30 Wal-Mart gift card!

Come be a participant of this study!

Participate and you may win a \$30 Wal-Mart gift card!

The flyer features a background image of a woman and two children. A starburst graphic on the left contains the text: "Participate and you may win a \$30 Wal-Mart gift card!". The main text is centered and right-aligned, with the headline in a blue bar at the top. The bottom of the flyer has a call to action in bold.

Figure 4. English Flyer Used for Recruitment.

¿Su niño o niña es hispano? ¿Su niño o niña está inscrito en Head Start?

Si dijo que sí a estas dos preguntas,

Participe y quizá gane una Tarjeta de Regalo de Wal-Mart por \$30

¡Usted puede participar en un estudio de niños hispanos!

Lo que tiene que hacer es responder unas preguntas de usted y su familia.

¡El estudio toma nada más 2-3 minutos!

Responda las preguntas por teléfono o en persona. Si usted responde a las preguntas en persona, busque a una investigadora en la entrada de su centro de Head Start con este anuncio en estos días: _____.

Ella le dará lo que necesita llenar y después que lo haga, ¡usted será inscrito en un sorteo para la oportunidad de ganar una Tarjeta de Regalo de Wal-Mart por \$30!

¡Venga! ¡Sea parte de este estudio!

Figure 5. Spanish Flyer Used for Recruitment.

Caregiver Questionnaire

1. Child's name: _____
2. Is this your child's first year in Head Start?
No Yes
3. Did your child participate in another preschool before Head Start?
No Yes (if so, where? _____)
4. You are the child's:
Mother Father Grandmother Other: _____
5. Do you work outside the home?
No Yes (if so, what do you do? _____)
(How many hours a week do you work? _____)
6. Does someone else take care of your child?
No Yes (if so, does he/she work outside the home? Yes No)
(What does he/she do? _____)
(How many hours a week does he/she
work? _____)
7. How far did you stay in school? (please mark with an X)
____ 6th grade or less
____ 7th through 11th grade
____ Graduated from High School/Obtained Graduate Equivalency Degree
(GED)
____ Associate or Professional degree
____ College degree
____ Other (explain): _____
8. What language do you mostly speak at home?
Spanish English Both equally
9. Where you born in the United States?
No Yes
10. If you were NOT born in the United States, what country were you born in?

11. When were you born? _____ (month/day/year)
12. How long have you lived in the United States?
_____ Whole life
_____ I moved here _____ years ago
13. Was your child born in the United States?
No Yes
14. If your child was NOT born in the United States, what country was your child born
in?

Spanish Caregiver Questionnaire

1. Nombre del niño/niña: _____
2. ¿Es éste el primer año de su niño/niña en Head Start?
No Sí
3. ¿Su niño/niña ha participado en otro jardín infantil o escuela preescolar antes de Head Start?
No Sí (¿adónde? _____)
4. Usted es la/el:
Madre Padre Abuela Otro: _____
5. ¿Usted trabaja fuera del hogar?
No Sí (¿en qué trabaja? _____)
(¿Cuántas horas a la semana trabaja? _____)
6. Hay alguien más que cuida de su niño/niña?
No Sí (¿él/ella trabaja fuera del hogar? Si No)
(¿En qué trabaja él/ella? _____)
(¿Cuántas horas a la semana trabaja él/ella? _____)
7. ¿Hasta qué año completó usted la escuela? (por favor marque con una X)
____ 6° grado o menos
____ 7° grado a 11° grado
____ Se graduó de la Escuela Secundaria (High School)/Obtuvo un GED
(Graduate
 Equivalency Degree)
____ Se graduó con un grado Técnico
____ Graduó de la Universidad
____ Otro (explique): _____
8. ¿Qué lenguaje se habla la mayoría del tiempo en su casa?
Español Inglés Los dos iguales
9. ¿Usted nació en los Estados Unidos?
No Sí
10. Si usted NO nació en los Estados Unidos, ¿en qué país nació usted?

11. ¿Cuándo nació usted? _____ (mes/día/año)
12. ¿Cuánto tiempo ha vivido usted en los Estados Unidos?
____ Toda mi vida
____ Me mudé aquí hace _____ años
13. ¿Su niño/niña nació en los Estados Unidos?
No Sí
14. Si su niño/niña NO nació en los Estados Unidos, ¿en qué país nació su niño/niña?

VITA

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Educational Background

- 2005-2010 **Texas A&M University**, *College Station, Texas*
 Ph.D. in School Psychology
- 2001-2005 **University of Notre Dame**, *South Bend, IN*
 Bachelor of Arts in Psychology
 Magna Cum Laude
 Minor: Education, Schooling, and Society

Professional Experience

- 2006-2009 **Mental Health Intern**, *Brazos Valley Community Action Agency (BVCAA) Head Start Program, Bryan TX.*
- 2007-2008 **School-Based Practicum**, *Forest Ridge Elementary School CSISD, College Station, TX.*
- 2006-2007 **Child Therapy Practicum**, *Community Health Center Counseling and Assessment Clinic, Bryan and College Station, TX.*

Presentations

Avila, L. E., Cook, K., & Billy, T. (2008, February). Is social-emotional competence related to school readiness? Poster session presented at the annual meeting of the National Association of School Psychologists, New Orleans, LO.

Massa, I., **Avila, L. E.**, & Jensen-Doss, A. (2008, February). Examining disparities in mental health service utilization among Hispanic/Latino children. Poster session presented at the annual meeting of the National Association of School Psychologists, New Orleans, LO.

Avila, L. E. & Jensen-Doss, A. (2007, August). Intake characteristics and assessment of Hispanic and non-Hispanics seeking treatment. Poster session presented at the annual meeting of the American Psychological Association, San Francisco, C.A.

Cook, K., Sowell, M., & **Avila, L. E.** (2007, August). Assessing the impact of early intervention programs on preschool development. Poster session presented at the annual meeting of the American Psychological Association, San Francisco, C.A.