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An Evaluation of the Parent-Child Home Program

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BY

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Abstract

Children who come from low-income households are at greater risk for entering school underprepared due to lack of resources and low parental involvement. This increases the risk of children having poor social skills and deficits in early language development, which are significant factors needed for school readiness. The Parent-Child Home Program (PCHP) is a nationwide evidence-based home program that caters to underprivileged low-income families, promoting early literacy, language skills and parenting techniques to promote healthy social-emotional functioning and school readiness skills. Helping to improve the development of the aforementioned skills contributes to closing the achievement gap between lower socio-economic status (SES) families and their higher SES counterparts. The current study evaluated whether the PCHP was effective at increasing parental involvement and improving children's social-emotional functioning among Latino families within the context of school readiness. In this study the PCHP targeted residents living in South Florida. Participants included 79 caregiver-child dyads of Hispanic ethnicity and low SES status. A series of paired-samples t-tests were used to examine changes in the levels of parental involvement and the child's social-emotional functioning after participating in the program. Results indicated that the PCHP was effective at increasing parental involvement as well as improving children's social-emotional functioning. These finding suggest that providing underprivileged parents with the necessary tools and support to improve the quality of interaction with their child can help improve their child's overall social-emotional growth.

Dedication

This work is dedicated to my Grandmother Martha C. Perez, who passed prior to its completion. Mami, if it were not for all of your love, devotion, and sacrifices I would not have made it this far. I miss you every day.

This work is also dedicated to my mom and dad who have always loved and supported me unconditionally. To my mom, thank you for always being there and making sure I had a warm meal on the table. To my dad, despite the distance you always made me feel as though you were right beside me. Also, thank you for the Starbucks cards! I would also like to extend dedication to my Uncle Victor and my paternal grandparents, Mama Lillian and Papa Toño, for all of their help throughout my schooling. I would also like to include my little furry companion, Link, who never left my side. Lastly, this is dedicated to all of my family and friends who cheered me on every step of the way as I struggled through life's ups and downs during the completion of this research.

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An Evaluation of the Parent-Child Home Program

Research has reported that parental involvement in education and social-emotional skills are two factors that consistently and positively impact success in school (Baker, 2006; Epstein, 2007, Lee & Green, 2008). Therefore, these constructs can be considered to be viable targets for intervention in order to promote academic achievement in at-risk youth. By providing early interventions in these areas, we can ensure that children enter school with the skills necessary to be successful. School readiness and early education are terms that have become tantamount with future success in the school setting (Kagan & Kauerz 2007). Some researchers suggest that development of school readiness begins around the age of three to four (Barnett, Hustedt, Robin, & Schulman, 2004), while others argue that preparing a child for school begins at birth and the initial interactions begin at home with caregivers (McGilly, 2011). Therefore, preparing parents of young children to be involved in their child's transition into school is paramount for promoting school readiness and future success. Thus, the most effective school readiness strategies may target improving upon parental skills, increasing parental engagement and investment, and aiding children to attain competencies necessary for school (McGilly, 2011).

Parental involvement is a multi-faceted term that can refer to a wide range of activities. Various aspects of parental involvement have been studied relevant to achievement, such as helping with school work, parental monitoring of school related matters, or participating in enriching activities (e.g. visiting libraries or participating in cultural events; Altschul, 2011). Parental involvement has also been known to pertain to concerns about the child's feelings (Ma, Shen, Krenn, Hu, & Yuan, 2016) as well as the

ability to provide encouragement, praise, emotional support, and affection (Benjamin, 2010; Levenstein, 1988). Other examples of parental involvement include reinforcement of the child's curiosity, enforcing compliance and instructions verbally, persistence, and strong conviction of rules (Gfellner, McLaren, & Metcalf, 2008; Levenstein, 1988). For the purposes of this study, parental involvement will refer to concepts such as responsiveness (e.g. providing appropriate verbal responses to the child's behavior or request for attention), communication (e.g. time spent talking with the child), affection (e.g. verbal and non-verbal gestures of approval and warmth), and consistency (e.g. parent's persistency and firmness towards the child).

In a study of 1,609 Mexican American families examining different types of parental involvement in education, it was found that the most influential type of parental involvement to positively impact academic success occurs through home-based involvement. For example, parent and child discussions of school related matters, homework help, and parent and child engagement of enriching activities (e.g. reading books, going to the library, and exposure to art and cultural activities). Monetary investment in extracurricular instruction and other home-based educational resources yielded a significant impact in academic success as well (Altschul, 2011).

Moreover, a meta-analysis that examined parental involvement during the developmental periods of preschool and elementary school years yielded a strong positive correlation between academic achievement and parental involvement. The most important factors associated with this positive correlation were parental involvement pertaining to personal involvement (e.g. parental concerns about their child's moods, feelings, and attitudes in and out of school), intellectual involvement (e.g. reading books,

practicing early math skills, and talking to their children about socio-cultural events), and behavioral involvement (e.g. participating in educational activities outside of the school setting). Overall, the study suggested that parental involvement plays an important role in the academic success of students, and may be an area that can be targeted for intervention in order to improve academic outcomes among at-risk children (Ma, Shen, Krenn, Hu, & Yuan, 2016).

A child who is ready to enter school is not only academically ready, but socially and emotionally ready as well, and the responsiveness of the environment and the social relationships formed are highly predictive factors of school readiness and later success in school (McGilly, 2011). Higher levels of parental involvement enhance and improve a child's social skills and behaviors, and promote more positive social-emotional adjustment to school (El Nokali, Bachman, & Votruba-Drzal, 2010). For example, children whose parents have helped foster their social-emotional skills through providing encouragement, praise, emotional support, and affection (Benjamin, 2010; Levenstein, 1988) fare better in forming positive peer relationships, have fewer behavioral problems, and exhibit more advanced social skills and higher achievement rates (Baker, 2006). Therefore, having appropriately developed social-emotional skills plays an important role in academic success (El Nokali, Bachman, & Votruba-Drzal, 2010).

The term social-emotional functioning can take on different characteristics; for instance, it may refer to language development or pre-academic skills (Gfellner, McLaren, & Metcalfe, 2008), as well as positive behavior traits such as self-regulation skills (Bierman et al., 2008) and having positive peer relations (Fantuzzo, Bulotsky-Shearer, McDermott, McWayne, Frye, & Perlman, 2007). For the purposes of this study,

social-emotional functioning refers to characteristics such as independence (e.g. ability to seek help when needed, avoiding dangers, and initiating and responding to interactions), cognitive abilities (e.g. participating in organized play activities), social skills (e.g. ability to get along with others), emotional competence (e.g. ability to express feelings appropriately), and task orientation (e.g. attentiveness and ability to understand and complete tasks; Astuto, Gjicali, & Medellin, 2016).

Increasing parental involvement is not only important in aiding with the development of appropriate social-emotional functioning, but may also serve as the building blocks for other cognitive/academic skills needed for school readiness (El Nokali, Bachman, & Votruba-Drzal, 2010; McGilly, 2011). Establishing programs that effectively bring about improvement in parental involvement and interactions with their children can therefore, have a far reaching impact on the future development of children. The current study examined one such program, called the Parent-Child Home Program, regarding its effectiveness at increasing parental involvement and improving children's social-emotional functioning in order to prepare them for school.

Risk Factors for School Readiness

Research has suggested that socio-economic status (SES) plays one of the most powerful roles in determining a child's level of school readiness (Foster, Lambert, Abbott-Shim, McCarty, & Franze, 2005; Isaacs, 2012; Mistry, Benner, Biesanz, Clark, & Howes 2010). It has been estimated that 52% of children who come from lower SES are less prepared to begin school at age five when compared to their higher SES counterparts. For example, children who come from families with incomes around 100% below the poverty level (e.g. family incomes between $18,000 and $23,000 for a family of three and

four respectively) are more likely to experience difficulties in school, such as struggles with recognizing letters and numbers as well as behavioral issues in the classroom setting (Isaacs, 2012). In contrast, 86% of children who come from households with incomes above $100,000 are better prepared to enter school. For example, they are better able to recognize letters and numbers and are more accustomed to classroom expectations, such as sitting still, maintaining joint attention, and following directions (Isaacs, 2012).

It is believed however, that the role that SES plays on a child's preparedness to begin school is due to a close association between low income and a variety of more specific risk factors that directly impact academic outcomes (Foster, Lambert, Abbott-Shim, McCarty, & Franze, 2005; Isaacs, 2012; Mistry, Benner, Biesanz, Clark, & Howes 2010). Several mediators consistent with low SES that can influence a child to be at risk for school readiness include limited time spent reading to the child, limited amount of verbal exchange between parent and child, and the overall quality of parent and child interactions, which tend to be poor in low SES families (Foster, Lambert, Abbott-Shim, McCarty, & Franze, 2005; Isaacs, 2012; Mistry, Benner, Biesanz, Clark, & Howes 2010). For example, research has suggested that families who come from low SES often lack warm caregiving, are less exposed to language stimulation, and have fewer social interactions, which can hinder the development of good social skills (Foster, Lambert, Abbott-Shim, McCarty, & Franze, 2005; Isaacs, 2012; Mistry, Benner, Biesanz, Clark, & Howes 2010).

Warm and sensitive caregiving encompass traits such as kindness, empathy, reassurance, praise, and attentiveness. Exhibiting these behaviors during parent-child interactions not only serve as models for children to refer to, but may also influence

further interaction through continuous engagement, which may contribute to more enriching activities between parent and child (Brophy-Herb et al. 2011). Parent-child interactions that utilize positive parenting practices function as protective factors for toddlers at-risk for poor social-emotional outcomes (Brophy-Herb et al. 2011). For example, a mother who responds quickly to her toddler by producing vocalizations via verbal exchange, eye contact, and/or smiling, is exhibiting behaviors that are socially desirable (Davidov & Grusec, 2006). As toddlers mimic these behaviors their social-emotional functioning improves (Brophy-Herb et al. 2011). Other positive parent-child interactions include parental responsiveness such as verbal praise, physical bonding (e.g. hugs and kisses), and overall positive feelings exhibited towards the child (Isaacs, 2012; Mistry, Benner, Biesanz, Clark, & Howes 2010).

Parenting techniques that tend to ignore a child's emotions have been linked with poor emotional regulation and behavior problems (Lunkenheimer, Shields, & Cortina, 2007). Mothers from high risk populations (e.g. poverty and low education) often see their young children as less competent (Brophy-Herb et al. 2011) and are more prone to depression which may influence their capacity and consistency in social and emotional support towards the child (Foster, Lambert, Abbott-Shim, McCarty, & Franze, 2005; Isaacs, 2012). Some risk factors associated with maternal depression are due to poverty and a lack of social support. Maternal depression has been documented through research to influence negative behavioral outcomes in children due to diminished maternal responsiveness (Goodman, Rouse, Connell, Broth, Hall, & Heyward, 2011). In addition, low SES negatively impacts maternal responsiveness due to the psychological stressors associated with living in poverty (Evans, Boxhill & Pinkava, 2008), such as living under

low income housing conditions, dealing with divorce or separation, coping with financial difficulties (Evans, 2004), and a lack of social networks and social support that mothers within this population often face (Evans, Boxhill & Pinkava, 2008). Furthermore, stressors such as unemployment or low educational attainment may cause negative emotions such as low self-esteem and depression (Meadows-Oliver, Sadler, Swartz, & Ryan-Krause, 2007).

Children who come from low SES tend to have more difficulties with social-emotional competencies than their higher SES counterparts and these difficulties have negative implications for future academic success (Bierman et al., 2008). In contrast, children who develop successfully in regards to social-emotional competencies tend to have better peer relations and overall academic success (Fantuzzo, Bulotsky-Shearer, McDermott, McWayne, Frye, & Perlman, 2007). Early social-emotional development occurs in the home through parent-child interactions (Brophy-Herb et al. 2011) and provides children with models for socialization and emotional processing (Morris, Silk, Steinberg, Myers, & Robinson, 2007). Therefore, quality of childcare is extremely important, especially for children who come from low SES, as they commonly face many challenges that place them at risk for poor social-emotional outcomes (Vesely, Brown, & Mahatmya, 2013).

It has been argued that although providing sensitive caregiving serves as a protective factor for children who come from low-income households, it may not be enough to moderate against other risk factors associated with poverty (Vesely, Brown, & Mahatmya, 2013). For instance, a child who comes from a family with limited means has a higher probability to have caregivers with lower educational skills, come from a single

parent home, and be born to a teen mother (Isaacs, 2012; Foster, Lambert, Abbott-Shim, McCarty, & Franze, 2005). Minority children (i.e. Hispanics and African Americans) are especially at risk because they are more likely to come from family units of younger mothers with low SES, which are factors tied largely to disadvantages for school readiness (Isaac, 2012).

Common risk factors among Latino families are that of poverty, low maternal education, and teen parenting (Hungerford & Cox, 2006). It has also been reported that Hispanic children often struggle with school (Garcia, Jensen, & Scribner, 2009). Teen motherhood may impede parental involvement as younger mothers may have more difficulty in responding with warm and sensitive caregiving, thus hindering the development of a secure attachment (Meadows-Oliver, Sadler, Swartz, & Ryan-Krause, 2007). Long-term effects of these aforementioned risk factors include future academic failure and high school dropout (Stearns & Glennie, 2006; Suh & Suh, 2007). It is estimated that 6.54% of students drop out due to academic struggles in the 9^{th} grade and this increases to 10.44% in 12^{th} grade. Results from archival research point to low SES, behavioral problems, and poor academic performance as the most prominent risk factors for future dropout (Stearns & Glennie, 2006; Suh & Suh, 2007).

Because mothers continue to be the primary caregivers for children, the importance of maternal education significantly impacts child cognitive development due to the important role education plays in parenting techniques and overall parental involvement (Harding, Morris, & Hughes, 2015). These interactions in turn have significant causal influences on a child's academic outcome. For example, mothers with higher levels of education have more extensive vocabulary skills, use more advanced

language when speaking to their children (Harding, Morris, & Hughes, 2015), spend more time reading, telling stories, reciting rhymes, doing art with their children (Harding, Morris, & Hughes, 2015; Raikes, et al. 2006; Suizzo & Stapleton, 2007), and more frequently expose their children to cultural activities, such as theater, art, and museum visits than do mothers with lower educational attainment (Harding, Morris, & Hughes, 2015; Lareau, 2011). Because having mothers with higher educational skills improves the frequency and quality of parental involvement, these children often demonstrate better developed language and overall cognitive and academic abilities throughout all stages of development (Harding, Morris, & Hughes, 2015).

Protective Factors for School Readiness

It is important not only to identify the risk factors associated with poor social-emotional functioning and quality of parental involvement, but also to identify the protective factors that may help enable at-risk children to improve in these areas, thus increasing their school readiness skills (Rimm-Kaufman, Pianta, & Cox, 2000). Programs developed to support and provide interventions for low-income families may reduce the negative impacts associated with low SES on parental involvement and children's social-emotional functioning (Nowak & Heinrichs, 2008; Sukhram & Hsu, 2012). This holds especially true for Latino immigrants who often are the least prepared to enter school (Sullivan, Houri, & Sadeh, 2016). Children from immigrant families often begin school having poorly developed skills in early literacy and math, as well as poor receptive and expressive language abilities (Koury & Votruba-Drzal, 2014). A study examining early education and care interventions on immigrant families found that programs which promote school readiness skills significantly improved pre-academic skills and decreased

externalizing behaviors within disadvantaged immigrant populations (Votruba-Drzal, Coley, Collins, and Miller, 2015).

The theory and research underlying protective factors for school readiness suggest that for those children who experience numerous risk factors, it is beneficial for the caregiver to express warmth, emotional support, and be more responsive to their child's needs in order to counteract the negative effects within the child's environment that are detrimental to school readiness (Mistry, Benner, Biesanz, Clark, & Howes, 2010; Whittaker, Harden, See, Meisch, & Westbrook, 2011). Exhibiting warmth and emotional support are particularly important during the first few years of life where a child's parental attachment style greatly influences current and future cognitive functioning and self-regulatory behaviors (Mistry, Benner, Biesanz, Clark, & Howes, 2010). Expressing warmth and support also helps to counteract the associated risk factors in the child's life, such as low SES and parental stress (Mistry, Benner, Biesanz, Clark, & Howes, 2010; Whittaker, Harden, See, Meisch, & Westbrook, 2011). Children with parents who model positive parenting styles fare better in their social and emotional development, which serves as a precursor to better behavior in the classroom and greater cooperation at home (Foster, Lambert, Abbott-Shim, McCarty, & Franze, 2005; Mistry, Benner, Biesanz, Clark, & Howes, 2010; Whittaker, Harden, See, Meisch, & Westbrook, 2011). A secure attachment to parents and/or caregivers is important in intellectual development and serves as a protective factor for those individuals who come from disadvantaged families. When children are exposed to negative risk factors with no accompanying protective factors they often demonstrate poor self-regulatory behavior, poor academic achievement, and behavioral problems (Mistry, Benner, Biesanz, Clark, & Howes, 2010).

Many intervention programs have been developed throughout the years to serve as protective influences for at-risk toddlers and youth in order to better prepare them to enter school (Benjamin, 2010; Nowak & Heinrichs, 2008). Teaching caregivers better parenting skills such as encouragement, praise, emotional support, and affection is but one catalyst on the road to preparing children for school (Benjamin, 2010; Levenstein, 1988). The bonding between parent and child remedies behavioral problems and antisocial behavior within the child as well as increases cooperation and fosters better relationships between parent and child. A secure bond makes the process of interaction more fun and enjoyable for the parent and the child, and also allows more room for verbal interactions. It also supports reading and play activities that are essential in building school readiness skills (Benjamin, 2010; Levenstein, 1988; Whittaker, Harden, See, Meisch, & Westbrook, 2011).

One such intervention program is the Parent-Child Home Program (PCHP). This program, based on almost 50 years of empirical research, encourages verbal communication through home literacy activities and play between the parent and the child. The PCHP, originally called the Mother-Child Home Program, began in the late 1960's in poverty stricken neighborhoods in Long Island, New York. The goal of the program was to reduce the barriers associated with low SES and academic achievement in at-risk toddlers by offering an in-home and hands-on intervention service where trained home visitors offered guidance and positive parenting skills to parents in order to promote cognitive and emotional development for their children and increase their literacy skills (Benjamin, 2010; Levenstein, 1988).

The participating families in the PCHP move along a continuum of two programs (Program I and Program II). Each program lasts a total of one year. Children participating in the PCHP are under the age of four. The parent and the child receive two home visits a week from a trained home visitor, also called a "Toy Demonstrator", who brings a toy or book to the first visit every week to demonstrate, model and observe positive parenting skills, verbal interactions, and literacy exposure. Examples of positive parental involvement or parenting skills that are modeled include verbal praise, verbalized feelings of love, reinforcement of the child's curiosity, enforcing compliance and instructions verbally, encouragement, persistence, and strong conviction of rules, among others. The second visit within each week is reserved for reviewing what was done in the first visit of that week (Gfellner, McLaren, & Metcalf, 2008; Levenstein, 1988). Over the years the PCHP has evolved and expanded nationwide and can now be found in other countries such as Canada, Ireland, and Bermuda (Benjamin, 2010).

The overall premise of the PCHP lies in the widely researched theory that language is one of the most crucial and most important fundamental variables in a child's academic success (Levenstein, 1988; Snow, 2006). Therefore, receiving an intervention for greater verbal promotion targeting lower SES individuals at a very early age (before the age of four) is extremely important. The theory that language is a critical key in development has been supported by many, including Bronfenbrenner and his theory that development is greatly influenced by an individual's immediate environment (Bronfenbrenner, 1986). Unfortunately, due to the multiple risk factors associated with many low SES households, some parents do not possess the knowledge base to offer enriching language environments to their young, and therefore can benefit from services

such as those provided through the PCHP to help guide them in the process (Levenstein, 1988).

The PCHP program was designed in order to counteract most of the negative effects associated with low SES (Benjamin, 2010; Levenstein, 1988). In Manitoba, Canada a study which evaluated the PCHP spanning a 20 year period was conducted. This study consisted of 185 low income families residing in this region. Results indicated significant improvements in parental involvement related to educational play and learning how to manage one-on-one interactions with their child. In addition, improvements were seen in children in regards to their language development, positive behavior traits, and pre-academic skills (Gfellner, McLaren, & Metcalfe, 2008). As stated previously, higher quality parent and child interactions function as protective factors towards fostering early academic skills and positive social and emotional development in children (Whittaker, Harden, See, Meisch, & Westbrook, 2011).

Another program aimed to help low SES families improve parental involvement and social-emotional functioning in children is the Head Start program. The goals of the Head Start program aim to increase parental involvement not only at the home level but also within the community and at school. In addition, the Head Start program focuses on strengthening the bond within the family and reinforcing and increasing literacy activities between parent and child through reading activities. Parents are not only provided with workshops for teaching appropriate skills to increase reading interactions, but also materials to carry out these tasks; and in addition they are encouraged and offered opportunities to improve and further their own education (Hindman, Miller, Froyen, & Skibbe, 2011; Hindman & Morrison, 2011).

In a study researching the effectiveness of the Head Start program, 44 classrooms were randomly assigned the enrichment intervention program (Head Start REDI) which offered specific reading strategies and more hands on activities in the classroom setting in order to increase social-emotional functioning, self-regulation skills, and language and literacy skill development in four year olds. Results were in favor of the classrooms receiving the enriched Head Start REDI intervention program and indicated that children in these classrooms made more significant gains not only in academic skills, but also in regards to social-emotional skills than those who did not receive the intervention (Bierman et al., 2008).

Yet another program that aids in children's social-emotional functioning as well as enriched parental involvement is the Home Instruction for Parents of Preschool Youngsters (HIPPY) program. This program is very similar to the PCHP and the Head Start program in that it offers in home training to parents of low SES to teach their children academics skills while modeling pro-social behavior through quality parental involvement. The main goal of the HIPPY program reflects that of the previous programs mentioned; which is not only to increase early academic skills, but to improve upon parental involvement and positive social and emotional skills among children ages 3 to 5 years old. A study that was conducted specifically with HIPPY participants of Latino ethnicity yielded results confirming the efficacy of the program's goals and objectives. Results generated findings that indicated a positive effect on increasing quality parental involvement through better parenting skills and techniques, and encouragement of their children's gains and participation through positive social interactions (Nievar, Jacobson, Chen, Johnson, & Dier, 2011).

The current study evaluated whether the PCHP was effective at increasing parental involvement and improving children's social and emotional functioning among its participants within the context of school readiness. Specifically, this study is distinct from other studies conducted in the past due to the unique and vast population of Latinos in South Florida who participated in the PCHP. It was hypothesized that following participation in the PCHP, the quality of parental involvement with the child would improve. It was also hypothesized that following participation in the PHCP, the child's social-emotional functioning would improve.

Method

Participants

The participants in this study consisted of caregiver-child dyads. All participants that completed Program I of the PCHP were included in this study and data was obtained from archival records of the PCHP in South Florida. Each caregiver-child dyad participated in the PCHP for Program I (year one) between the years 2011 and 2016. Each year, the program commenced on August 1st and ended July 31st of the following year. A total of 110 participants enrolled in Program I of the PCHP for the years 2011-2016; however, 31 participants dropped out of the program during Program I and did not have sufficient data. These participants were subsequently eliminated from the study, resulting in a final sample of 79 caregiver-child dyads.

All children and caregivers were of Hispanic origin and over 90% of the children and caregivers' native and primary language was Spanish. The child participants ranged in age from two to four years. Half of the child participants were female (50%) and the

other half male. All of the caregiver participants were female. The majority of the children (91.3%) were born in the United States, while the remaining 8.7% were born in South America. Conversely, 90% of caregivers were born in South America while 10% were born in the United States. Among the primary caregivers, 86.3% graduated from high school, and 20% of those earned a Bachelor's degree. The unemployment rate for primary caregivers was 63.8%, and 95% of household incomes ranged between $10,000 and $35,000 a year. In 26.3% of the cases, the caregiver was a single parent.

Measures

In order to measure parental involvement, the Parent and Child Together (PACT) inventory was used. This inventory is based on a five point likert scale that the home visitors were required to fill out via behavior observations during the home visits. This scale was completed once in the beginning of the program implementation of year I and II and once at the end of year I and II. The ratings range from (0) never to (4) always and are made up of 20 items that measure qualities such as the amount of times the parent verbalizes instructions, rules, affection, expectations, and directions, as well as exhibits warmth, encouragement and persistence. Non-verbal communication such as gestures of approval (i.e. smiles and nods) were also measured, as well as how often the parent refrained from yelling or punishing the child in a negative way (Levenstein, 1988).

Specifically, the PACT is composed of a total of four domains which consist of parental responsiveness, communication, consistency, and affection towards the child. Parental responsiveness is composed of five items on the inventory that measure how the parent responds and behaves towards the child. For example, if the parent provides

appropriate verbal responses to their child's behavior or request for attention, and their ability to refrain from yelling or helping their child with tasks they are capable of doing. A second domain, communication, consists of five items that measure qualities such as, providing clear explanations and encouragement to follow rules and expectations, as well as time spent talking with the child. A third domain, parental consistency, is measured by four items which consist of qualities such as a parent's persistence and firmness towards the child to follow directions and complete tasks independently. Lastly, parental affection is composed of six items that measure verbal and non-verbal gestures of approval and warmth towards the child. For example, smiles, nods, and providing comfort to the child (Astuto, Gjicali, & Medellin, 2016).

To measure the changes in a child's social-emotional functioning, the Child Behavior Traits (CBT) inventory was used. This inventory is very similar to the PACT in that it is also based on a five point likert scale ranging from (0) never to (4) always, and is completed by the home visitor's observations in unison with the administration of the PACT. This rating scale, which consist of 20 items, measures qualities in the child such as expressing anger and happiness in appropriate ways, following rules, level of attentiveness, initiative and creativity with interactive play, contentment, and the ability to share, understand and complete activities. Other characteristics that are measured are the child's ability to control their frustration and avoid exhibiting temper tantrums (Levenstein, 1988).

Specifically, the CBT is comprised of a total of five domains which consist of a child's independence, cognitive abilities, social skills, emotional competence, and task orientation. The independence domain is composed of four items on the inventory that

measure abilities such as seeking help when experiencing difficulty with a task, avoiding everyday dangers, and initiating and responding to interactions. The cognitive abilities domain is composed of four items that measure skills such as participating in organized and pretend play activities. The social skills domain is measured by four items and is evaluated by a child's ability to comply with rules and expectations (e.g. picking up toys after playing) as well as how well the child gets along with adults and peers (e.g. sharing and refraining from hitting/biting). Emotional competence is composed of four items that measure skills such as the ability to express feelings appropriately and refrain from exhibiting tantrums. Lastly, task orientation is composed of four items measuring the child's attentiveness and ability to understand and complete tasks (Astuto, Gjicali, & Medellin, 2016).

Total scores were obtained for each scale (PACT and the CBT) by assigned point values to each level of the likert scale, ranging from 1 (never) to 5 (always). Items were added together to obtain a total score for each scale, ranging from 20 to 100. Higher scores in each scale are indicative of more positive behavior traits in the parent and child (Levenstein, 1974; Levenstein, 1988). The internal consistency of the PACT and CBT was analyzed using a sample size of 200. Results indicated that the PACT yielded a score of .96 and the CBT yielded a score of .94 (Manz, 2009).

Procedures

Participants were initially selected for participation in the PCHP based on area of residency, Hispanic ethnicity, age of child, and low income level. Children selected for the program were required to be under the age of four. All home visitors were trained to

provide program techniques, which included learning how to model and demonstrate positive parenting behavior using different toys and books provided by the program (Benjamin, 2010; Gfellner, McLaren & Metcalfe, 2008; Levenstein, 1988). In addition, the home visitors were required to complete two inventory rating scales (PACT and CBT) through behavior observations during the home visits in order to measure the quality of interaction and amount of parental verbal exchange between parent and child, as well as the child's social-emotional functioning. These scales were completed once in the beginning of the program implementation of year I and II and once at the end of year I and II.

Analysis

A series of paired-samples t-tests were used to measure the effect of the PCHP on parental involvement and on the child's social-emotional functioning. The paired-samples t-test was used for this analysis because the study involved continuous dependent variables and the same sample of participants experienced both conditions of the independent variable. The two dependent variables being measured were the child's social-emotional functioning (as measured by the CBT) and parental involvement (as measured by the PACT). The independent variable, participation in the PCHP intervention program, was categorical. All of the participants were measured on two occasions on the same dependent variables using the CBT and PACT before the interventions were administered (pre-test) and again after the interventions were administered for one year (post-test).

Results

The first hypothesis stated that parental involvement with the child would improve after completing the PCHP. This hypothesis was tested using a paired-samples t-test. Examination of boxplots indicated that there were three outliers on the dependent variable. After concluding that these outliers were not due to data entry errors or measurement errors, the paired-samples t-test was run twice (once including the outliers, and once excluding the outliers) to determine if keeping the outliers would have a significant effect on the results. After comparison, it was concluded that the results did not differ drastically based on inclusion of the outliers, so the outliers were kept in the data for analysis. Shapiro-Wilk's test (p=.196) suggested that the assumption of normality was met. Results of the paired-samples t-test indicated that parental involvement (interaction and verbal exchange) increased significantly, $t(78) = 19.082$, $p = .000$, $d = 2.15$ from pre-intervention ($M = 44.456$, $SD = 12.635$) to post-intervention ($M = 62.975$, $SD = 10.124$).

The second hypothesis stated that the child's social-emotional functioning would improve after completing the PCHP. This hypothesis was also tested using the paired-samples t-test. Examination of boxplots indicated that there were no outliers on the dependent variable. Shapiro-Wilk's test (p=.073) suggested that the assumption of normality was met. Results of the paired-samples t-test indicated that the child's social-emotional functioning increased significantly, $t(78) = 18.747$, $p = .000$, $d = 2.11$ from pre-intervention ($M = 40.696$, $SD = 12.288$) to post-intervention ($M = 59.899$, $SD = 10.077$).

Discussion

Results indicated, as hypothesized, that the PCHP was effective at increasing parental involvement. In other words, caregivers demonstrated a greater amount of positive interactions with their children after the PCHP intervention compared to pre-intervention. These positive interactions consisted of being more responsive to the child's needs by providing appropriate verbal responses to their child's behavior or requests for attention, increased verbal communication between parent and child using educational toys and books, providing more consistency through encouragement and firmness to follow rules and expectations, and demonstrating more affection towards the child by hugging, smiling, and providing comfort to the child. Furthermore, the large effect size indicated in the results suggests a large impact of the PCHP on parental involvement.

These findings were consistent with prior research supporting the PCHP's impact on improving parental involvement. Previous research conducted on PCHP programs in other communities have evidenced positive changes in the quality of parental involvement with their children (Gfellner, McLaren, & Metcalfe, 2008; Levenstein, Levenstein, & Oliver, 2002). As previously mentioned a PCHP study conducted in Manitoba, Canada reported significant gains in parental involvement and overall parenting skills related to the amount of verbal exchange between parent and child. This also included providing affection towards the child and engagement in educational play and literacy activities (Gfellner, McLaren, & Metcalfe, 2008). In addition, a study conducted on PCHP participants in South Carolina reported gains in parental involvement, specifically pertaining to increased verbal interaction between parent and child through the use of toys and books (Levenstein, Levenstein, & Oliver, 2002).

The second hypothesis, which stated that children would experience improvement in social-emotional functioning, was also supported. These social-emotional traits consisted of improvements with social skills as evidenced by how well the child got along with others and with emotional competency skills as seen through the ability to express feelings appropriately. Other social-emotional traits consisted of improvements with cognitive abilities through enhanced verbal communication skills using toys and books, and task orientation as measured by the attentiveness and ability to complete tasks. In addition, improvements were also seen in regards to the child's ability to demonstrate independence via seeking help when needed, avoiding dangers, and initiating and responding to interactions. The effect size for this analysis (d=2.11) was also large, suggesting that PCHP has a large impact on social-emotional traits.

The present findings were consistent with a PCHP study conducted in North Carolina, where results indicated that children who were exposed to the 2-year PCHP performed satisfactory on a cognitive skills assessment test administered while they were in first grade (Levenstein, Levenstein, & Oliver, 2002). Other programs such as Head Start and HIPPY, as mentioned previously, have targeted similar social emotional functioning traits via increased parental involvement and have reported increases in social emotional awareness, self-regulation skills, and language and literacy skill development of children who have received their interventions (Bierman et al., 2008; Nievar, Jacobson, Chen, Johnson, & Dier, 2011).

Implications

The present study demonstrated that the PCHP served as an effective program to increase the amount of parental involvement and positive social-emotional functioning among low SES Latino families. Offering services to families who come from low SES, such as training in positive parenting practices and providing them with educational resources for their young children, can be significantly beneficial in preparing children to enter school better prepared. Previous research has found that parental involvement predicts a child's ability to form positive peer relationships, exhibit more advanced social skills (Baker, 2006), have better developed language and overall academic abilities (Harding, Morris, & Hughes, 2015), and have a more positive social-emotional adjustment to school (El Nokali, Bachman, & Votruba-Drzal, 2010), suggesting that involvement in the PCHP may reduce behavioral problems and increase social emotional functioning pertaining to school readiness in program participants.

Limitations

The purpose of the current study was to evaluate whether the PCHP was effective at increasing parental involvement and improving children's social-emotional functioning through Program I and Program II of the PCHP. However, this study is limited in that it only measured the outcomes after Program I due to high levels of attrition. The sample size was too small to include Program II in the study, as the power of the study would have been low. Therefore, the impact of the whole program could not be determined. Another limitation of the study is that there may have been impact of social desirability bias on the results, since the home visitors who administer the program also complete the

CBT and PACT rating scales. It is possible that their ratings may have been influenced by the desire to see improvements resulting from their involvement in the interventions. In addition, the present study only examined low SES Latino families, excluding other minorities and families of low SES backgrounds. Also, the current study did not provide a comparison between parental involvement and positive child behavior traits between low SES families and their higher SES counterparts. Therefore, additional information about the differences in the dependent variables between the two socio-economic groups could not be derived.

Suggestions for future research

Future research may consist of examining other Parent-Child Home Programs located in various communities across the country, providing larger sample sizes as well as more diversity in minority populations and other low SES families. In addition, with larger samples sizes, future researchers can further investigate the effect size of the entire PCHP duration, that is, between Program I and Program II. To reduce the social desirability bias on the results, future researchers may consider using objective 3rd party raters. In addition, comparisons can be derived by including assessments of parental involvement and social emotional functioning of higher SES households and the PCHP participant population. This will provide further information on the differences between the two SES groups before and after the PCHP intervention and may provide more insight in indicating if the PCHP was effective at closing the achievement gaps in regards to parental involvement and the child's social emotional functioning. Lastly, future research may focus at looking for longer term outcomes, such as the influence of the

PCHP on literacy and other academic skills, as well as behavioral outcomes in the elementary school years.

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