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Parent Reading Belief Inventory: Reliability and Validity With a Sample of Mexican American Mothers

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Abstract

Research Findings—The purpose of the current study was to (a) evaluate the internal consistency of the 7 scales of the Parent Reading Belief Inventory (PRBI), (b) assess the factor structure, and (c) examine concurrent validity in a sample of Mexican American mothers from low-income homes.

Two hundred and seventy-four mothers of preschool children completed the PRBI and the Home Literacy Activities Questionnaire.

Five of the seven scales demonstrated adequate internal consistency. Principal component and parallel analyses revealed that one component provided the best summary of the observed variables. Preliminary evidence of concurrent validity was revealed.

Practice or Policy—Future qualitative research is needed to explore mothers' interpretations of the items and to examine modifications to the PRBI.

Latino children make up the largest and most rapidly growing racial/ethnic minority population in the United States. Currently, of the children in the United States under age 5, 4.2 million or 21% are Hispanic, and 64% of Hispanic-origin people are of Mexican background (U.S. Census Bureau, 2008). The dramatic growth of the young U.S. Latino population highlights the importance of examining the effect of culture on children's developmental processes (Rogoff, 2003) and developmental experiences (Raffaelli, Carlo, Carranza, & Gonzales-Kruger, 2005). Children's learning experiences are embedded in cultural models (cf. Heath, 1983; Lewis, 2001; Schecter & Bayley, 2002), meaning that members of cultures hold shared beliefs and strategies that guide their actions (Cole, 1996; Valsiner & Litvinovic, 1996). Relatively little is known about Mexican American mothers' cultural models of children's literacy development, making it difficult for practitioners to engage in culturally competent collaborations with families. Culturally competent collaborations involve the integration of families' knowledge and resources into classroom practices to enhance the quality of services, thereby improving children's literacy outcomes (Osterling, 2001).

Children and families possess unique strengths and resources, or "funds of knowledge" (González, Moll, & Amanti, 2005), that often remain hidden to practitioners and overlooked

in service delivery. As children from culturally diverse backgrounds enter formal educational programs, they encounter differences between the home and school cultural models. Their cultural model and funds of knowledge do not match the schools' cultural model, which is based on the beliefs and practices of the mainstream culture (Ogbu & Matute-Bianchi, 1986; Serpell, 1997). Children's success in early literacy learning relates to the congruency between home and school practices and expectations (Purcell-Gates & Dahl, 1991). One solution in bridging the gap is for professionals to learn about families' beliefs and to tailor early literacy programs by collaborating with families and building upon their notions about early language and literacy learning.

Relatively few investigations have studied Mexican American families and their literacy traditions, experiences, and expectations, and as a result the home literacy environments of Mexican Americans remain poorly understood (Jiménez, 2003). An extensive literature suggests a relationship between characteristics of the home literacy environment and children's emerging literacy skills (e.g., Britto, 2001; Farver, Xu, Eppe, & Lonigan, 2006; Leseman & de Jong, 1998; Teale, 1986). Investigations of Mexican Americans' home literacy environments are needed to clarify the mismatch between home and school literacy practices and to understand families' cultural models that will serve as the foundation for culturally competent collaborations between early childhood educators and families.

To understand Mexican Americans' beliefs about early literacy and language development, reliable and valid instruments are needed. DeBaryshe and Binder (1994) developed the Parent Reading Belief Inventory (PRBI) to examine parents' literacy and language development beliefs. The PRBI's reliability and validity estimates were based on data collected from a sample of African American and Euro-American mothers of low-SES families. Therefore, we do not know if the PRBI is a reliable and valid instrument to use with Mexican American families. The purpose of the current investigation was to extend DeBaryshe and Binder's work by examining the reliability and validity of the PRBI in a sample of Mexican American mothers from low-SES families.

PARENTS' BELIEFS

Parents' beliefs are of increasing interest to researchers studying children's home literacy environments (e.g., Baker & Scher, 2002; Drummond & Stipek, 2004; Hammer, Rodríguez, Lawrence, & Miccio, 2007; Lynch, Anderson, Anderson, & Shapiro, 2006). According to Harkness and Super (2006), parents' beliefs are components of a child's culturally structured "developmental niche" that inform parents' caregiving activities and practices. Parents' beliefs are fundamental to the interface between child and culture (Super & Harkness, 1997) and are the starting point for the experiences parents have with the child (Sigel & McGillicuddy-De Lisi, 2002). Parents' beliefs guide caregiving activities and, in turn, are reciprocally shaped by those activities. Beliefs emerge from parents' individual histories, cultural norms and standards, and unique parent-child interactions (Harkness & Super, 2006; Sigel & McGillicuddy-De Lisi, 2002). Investigations of parental beliefs have derived from the notion that beliefs guide parents' activities and actions with children (Goodnow, 2002).

The research on the beliefs of Mexican American parents has largely focused on notions about education and childrearing practices (e.g., Rodríguez & Olswang, 2003). Early studies examining beliefs about childrearing practices indicated that Mexican American mothers (a) believe in the importance of the development of a proper demeanor and a sense of dignity and (b) place emphasis on the parent-child relationship rather than on the early achievement of developmental milestones (Gutierrez, Sameroff, & Karrer, 1988; Zuniga, 1992). Consistent with these results is the recent finding that Latina mothers are less likely than

Euro-American mothers to engage in book-sharing activities linked to language and school readiness outcomes (Raikes et al., 2006; Yarosz & Barnett, 2001). These findings may reflect patterns of parenting characteristic of Mexican American families, or they may be due to the lack of proper instrumentation to accurately measure parents' beliefs and practices.

PARENTS' LITERACY BELIEFS

Parents' literacy beliefs are an important feature of the sociocultural contexts in which children acquire literacy (Serpell, Sonnenschein, Baker, & Ganapathy, 2002). Research on parents' literacy beliefs suggests that parents have differing views about children's early literacy development (e.g., DeBaryshe, Binder, & Buell, 2000) and that these beliefs are related to home literacy practices (e.g., Bingham, 2007; DeBarshye & Binder, 1994; Weigel, Martin, & Bennett, 2006). For example, Sonnenschein and colleagues (1997) found that mothers' literacy beliefs could be categorized by either a skills or an entertainment perspective. Mothers from low-income backgrounds were more likely to endorse the importance of early literacy development from a basic skills perspective (i.e., mothers emphasized reviewing flashcards or completing workbooks), whereas middle-class mothers were more likely to endorse an entertainment perspective (i.e., parent-child joint book reading or playing with print). Mothers' beliefs were associated with their reported literacy practices. Mothers who held an entertainment perspective reported a higher frequency of print-related play activities for their child than did mothers who endorsed a skills-based approach.

Using the PRBI (DeBaryshe & Binder, 1994) to examine mothers' literacy beliefs, Weigel and colleagues (2006) reported two profiles of beliefs. *Facilitative* mothers believed in taking an active role in teaching children at home. *Conventional* mothers expressed the belief that schools, more than parents, are responsible for teaching children. Compared to conventional mothers, facilitative mothers reported spending more time sharing books with their children and regularly engaging in language activities such as drawing pictures, singing songs, telling stories, and playing games with their children. Although these findings provide support for the connection between parents' literacy beliefs and home literacy behaviors, there is a dearth of information examining the literacy beliefs of Mexican American parents.

LITERACY BELIEFS OF MEXICAN AMERICAN PARENTS

Knowing parents' literacy beliefs may be an important key to understanding the differences in Mexican American children's literacy experiences at home and school. The literacy beliefs of Mexican American parents (see, e.g., Gallimore & Goldenberg, 2001; Goldenberg, Reese, & Gallimore, 1992; Kummerer, Lopez-Reyna, & Hughes, 2007; Reese & Gallimore, 2000) have been examined through qualitative research methodologies. However, beyond qualitative research there is a need for quantitative research (e.g., Lynch et al., 2006; Weigel et al., 2006) to provide practitioners with a more comprehensive view of Mexican American mothers' literacy beliefs.

To date, only a few quantitative studies have included Latino parents; however, these investigations involved a minimal number of Latino parents, and the samples were not adequately described in terms of country of origin (e.g., Puerto Rican, Mexican; Weigel et al., 2006) or the proportion of the sample represented by participants of Mexican descent (Lynch et al., 2006). In order to describe the literacy beliefs of Mexican American mothers and to investigate the nature of the relationship between these beliefs and other variables (e.g., children's emergent literacy skills, mothers' educational attainment, aspects of the

home literacy environment), it is imperative that instruments such as the PRBI be reliable and valid.

PRBI

DeBaryshe and Binder (1994) created the PRBI to measure parents' beliefs about the goals and process of reading aloud to young children. The PRBI considers the extent to which parents agree or disagree with beliefs consistent with theories of emergent literacy and environmental influence on language development (e.g., "Some children are natural talkers, others are silent. Parents do not have much influence over this" and "I read to my child whenever he or she wants"). The PRBI comprises 7 scales and 42 items (see the Appendix for examples of items in each scale). The names and content of the scales are as follows: (a) Positive Affect: positive affect associated with reading, (b) Verbal Participation: the value placed on children's active verbal participation when reading, (c) Resources: whether limited resources are an obstacle to reading, (d) Teaching Efficacy: views on parents' role as teachers of school-related skills, (e) Knowledge Base: whether children acquire moral orientations or practical knowledge from books, (f) Environmental Input: the malleability of language development, and (g) Reading Instruction: the appropriateness of direct reading instruction. Parents indicate the extent to which they endorse each item on a 4-point Likert scale (1 = *strongly disagree* to 4 = *strongly agree*).

The psychometric properties of the PRBI were assessed in a sample of African American and Euro-American mothers from low-income families (DeBaryshe & Binder, 1994). Acceptable reliability and validity estimates were reported. Specifically, the internal consistency of the scales was analyzed, and coefficient alphas ranging from .50 to .85 were obtained. Five of the seven scales exhibited adequate internal consistency, but two scales (i.e., Reading Instruction and Environmental Input) demonstrated borderline internal reliability, with coefficient alphas below .60. The inventory's factor structure was examined by subjecting the seven scales to a principal component analysis (PCA) that resulted in a single component that accounted for 52.5% of the variance in participants' responses.

DeBaryshe and Binder (1994) examined concurrent validity by correlating the total PRBI scores with measures of home reading practices. The results showed that PRBI scores were associated with home reading practices. Specifically, PRBI scores were related to the frequency with which parents read for pleasure, the number of books children owned, and the frequency with which parents read to their child or looked at books or magazines together. Although DeBaryshe and Binder (1994) reported acceptable psychometric properties in a sample of African American and Euro-American mothers, it is unknown whether the PRBI functions similarly with Mexican American mothers.

To our knowledge, no research has quantitatively examined the literacy beliefs of Mexican American mothers with preschool children. Although some studies have included Latina participants, their results are inconsequential because of the small number of Latina participants (e.g., only 2.5% of 79 mothers in Weigel and colleagues', 2006, investigation were Latinas) and the poorly described Latina samples (e.g., lacking country of origin). With the remarkable growth in the U.S. Latino population and the need to address Mexican American children's literacy performance, it is critical that researchers and practitioners learn about the literacy beliefs of Mexican American mothers. Thus, it is imperative that we have psychometrically sound instruments for gathering information about the literacy beliefs of Mexican American parents so that we can ascertain the relationship between these beliefs and home literacy practices.

Consequently, the purpose of this investigation was to extend DeBaryshe and Binder's (1994) examination of the reliability and validity of the PRBI in a sample of Mexican

American mothers from low-income families. Specifically, the aims of this investigation were to (a) examine the internal consistency of the seven scales of the PRBI, (b) evaluate the factor structure, and (c) assess concurrent validity by examining the association between mothers' total PRBI scores and frequency of home literacy activities as measured by the Home Literacy Activities Questionnaire (Hammer, Miccio, & Wagstaff, 2003). Previous research has lent support to the notion that mothers' literacy beliefs are associated with their literacy practices (e.g., Bingham, 2007; Sonnenschein et al., 1997; Weigel et al., 2006). Hence, the questionnaire examines the frequency with which mothers teach their children early academic skills (e.g., teaching the alphabet, letter sounds, and in coloring or writing activities), the frequency with which mothers engage in various literacy activities (e.g., reading a book, reading a magazine), the availability of reading materials in the home (e.g., number of children's books), and the frequency of parent-child book reading.

METHOD

Participants

Two hundred and seventy-four mothers whose children attended early childhood education programs in an urban area of the southwestern United States participated in this study, which was part of a larger investigation examining the effectiveness of an enriched language and literacy curriculum on children's emergent literacy skills. The data reported here were collected prior to the implementation of the enriched curriculum. The mothers were of Mexican American descent and were either bilingual (English/Spanish; $n = 94$) or monolingual English speakers ($n = 180$). As a group, the mothers had completed an average of 11.12 years ($SD = 1.62$) of schooling.

Their children averaged 52.9 months ($SD = 7.82$) in age; 155 were boys and 119 were girls. The children were enrolled in three different types of preschool programs: (a) federally funded programs designed to support family literacy ($n = 129$ children), (b) public child care and preschool programs offered through the local city government to provide comprehensive child and family development services ($n = 129$), and (c) public school programs serving children with identified disabilities ($n = 16$).

Procedures

The aims and methods of the present study were explained to the preschool teachers and parents. School approval and parental written informed consent were obtained before participation in the study. Preschool teachers trained in the experimental procedures by Barbara L. Rodríguez distributed two questionnaires (i.e., the PRBI and the Home Literacy Activities Questionnaire) to the participants, who chose to complete either the English or Spanish editions of the questionnaires. The participants were given the option of completing the questionnaires at home or having the questionnaires read to them. The teachers also collected the participants' demographic information (e.g., child's age, home language, mother's education). Approximately 83% of the mothers who were invited to participate in the study did so; most nonrespondents reported to the preschool teachers that they did not participate because they forgot to return the completed questionnaires. The participants were given children's literacy materials (e.g., storybooks, crayons) as compensation for their participation in this investigation.

Measures

The mothers completed the PRBI (DeBaryshe & Binder, 1994) and the Home Literacy Activities Questionnaire (Hammer et al., 2003). The questionnaires were translated into Spanish. A double translation or back-translation procedure (Marín & Marín, 1991), which involved two bilingual individuals who participated independently, was implemented. The

English versions were translated into Spanish, and then the Spanish versions were translated back into English. This process was repeated until the measures were deemed to be easily understandable in Spanish.

PRBI—The PRBI (DeBaryshe & Binder, 1994) includes 42 items that measure the extent to which parents agree or disagree with a number of literacy beliefs that are consistent with models of emergent literacy and environmental influence on language. There are seven scales: Positive Affect, Verbal Participation, Resources, Teaching Efficacy, Knowledge Base, Environmental Input, and Reading Instruction (see “PRBI” for brief descriptions of each scale and the Appendix for examples of items for each scale).

Mothers rated the extent to which they endorsed each item on a 4-point Likert scale (1 = *strongly disagree* to 4 = *strongly agree*). DeBaryshe and Binder (1994) developed the items so that a high score reflects beliefs that parents are important teachers; children should be active participants during shared book reading; the goals of reading are enjoyment, knowledge, and oral language development rather than direct reading instruction; limited resources should not prevent parents from reading with their children; and language development is influenced by environmental stimulation.

Reliability and validity estimates for the PRBI were reported for a sample of African American and Euro-American mothers (DeBaryshe & Binder, 1994). The inventory had acceptable internal consistency (coefficient alphas for the scales ranged from .50 to .85) and short-term test–retest reliability (coefficient alpha of .79). Inventory scores were significantly correlated with self-report measures of parents’ own book-reading habits, children’s interest in books, and children’s exposure to joint book-reading activities.

Home Literacy Activities Questionnaire—The Home Literacy Activities Questionnaire (Hammer et al., 2003) contains 71 items that address the frequency of children’s literacy activities, mother–child literacy activities, and mothers’ literacy activities. Mothers were asked to indicate how frequently they and their children engaged in the targeted behaviors. Mothers’ responses were scored on a 7-point scale, with 1 = *rarely or never*, 2 = *several times a year*, 3 = *1 time per month*, 4 = *2–3 times per month*, 5 = *1 day per week*, 6 = *2–4 days per week*, and 7 = *5–7 days per week*.

The targeted behaviors included the frequency with which mothers taught their children early academic skills (e.g., teaching the alphabet, letter sounds, and coloring or writing activities), the frequency with which mothers engaged in various literacy activities (e.g., reading a book, reading a magazine), the availability of reading materials in the home (e.g., number of children’s books), and the frequency of parent–child book reading.

Data Analyses

The data analysis procedures that were used followed those used by DeBaryshe and Binder (1994) when evaluating the validity and reliability of the PRBI on a sample of White and African American mothers from low-income families. First, to provide an estimate of the internal consistency of the PRBI and to examine the extent to which responses obtained at the same time correlate with one another, we computed Cronbach’s alpha for each of the seven subscales (Cronbach, 1951). Second, the factor structure was evaluated by subjecting the seven subscale scores to a PCA (Gorsuch, 1983). PCA was used because it analyzes all variance in shared variables, whereas factor analysis only accounts for shared variance (Stevens, 1996). A parallel analysis was completed to determine the number of components to extract from the PCA (Horn, 1965). Finally, concurrent validity was determined by correlating the participants’ PRBI total scores with their responses to the Home Literacy Activities Questionnaire. Kendall’s tau (τ), a distribution free association statistic, was used

to examine the relationship between literacy beliefs and home literacy practices because the distributions were not Gaussian.

RESULTS

Internal Consistency

Table 1 shows the results of the internal consistency reliability analysis. The estimates for internal consistency were .77 or higher for five of the seven scales: Teaching Efficacy, Positive Affect, Verbal Participation, Knowledge Base, and Resources. This indicates that these scales have good internal consistency reliability (; Nunnally, 1978)¹ when given to a sample of Mexican American mothers from low-income homes. Two scales, Environmental Input and Reading Instruction, had low reliability for this population. We explored the possibility of deleting an item to improve the reliability of the Reading Instruction scale. However, the reliability was not improved by leaving out just one item, regardless of the item. The same procedure could not be performed to improve the reliability of the Environmental Input scale, because the scale contains only two items.

Factor Structure

A PCA of the seven scale scores was conducted to determine if the scales were measuring a single overarching construct in this population, as in DeBaryshe and Binder (1994). The parallel analysis (Horn, 1965), in which observed components with eigenvalues greater than those of the comparison random matrix were retained, revealed that only one observed component (eigenvalue = 3.9) had a value greater than the random matrix. The first observed component accounted for slightly more than half (55%) of the variance. The values of the remaining observed components were compared to the random matrix. Additional components were not retained because their values were less than those of the components of the random matrix. Table 2 details the values of the observed components and those of the random matrix.

Concurrent Validity

Results revealed a significant correlation between mothers' inventory scores and the frequency with which mothers taught their children early academic skills, the frequency with which mothers engaged in various literacy activities, the availability of reading materials in the home, and the frequency of parent-child book reading. Specifically, the frequency of maternal book reading significantly correlated with the total inventory score ($r = .22, p < 0.001$), and all aspects of children's home literacy experiences (with the exception of teaching a child to write) correlated significantly with the total inventory score. Table 3 displays the results for children's home literacy experiences. The correlations, however, were small (Cohen, 1969). The square correlations for each measure were 0.05 or greater, indicating that the various items did not share much variance (i.e., 5%) of the total inventory score.

DISCUSSION

The purpose of the current study was to (a) evaluate the internal consistency of the seven scales of the PRBI, (b) assess the factor structure of the PRBI, and (c) examine the concurrent validity of the PRBI in a sample of Mexican American mothers from low-income homes. The development of the PRBI (DeBaryshe & Binder, 1994) was one of the first attempts to design a reliable and valid tool for assessing domain-specific beliefs and to

¹We use a criterion for acceptable scale reliability of 0.7 or greater, which we feel is representative of the value used by most social scientists (Nunnally, 1978).

consider the possible link between domain-specific beliefs and directly relevant behaviors. The reliability and validity of the PRBI were initially evaluated by DeBaryshe and Binder with a sample of African American and Euro-American mothers of low-income backgrounds. The current investigation's results extend DeBaryshe and Binder's initial work and indicate that the PRBI functions similarly with Mexican American mothers of low-income backgrounds.

Internal Consistency and Factor Structure

Our findings reveal good internal consistency reliability for five of the seven scales: Teaching Efficacy, Positive Affect, Verbal Participation, Knowledge Base, and Resources. Two scales with a small number of items (i.e., Environmental Input and Reading Instruction) demonstrated borderline to low reliability. Although both of the latter scales had consistency estimates below .70, there was a large discrepancy between the scales, with the estimate for Environmental Input at .39 and that for Reading Instruction at .65. These were the same two scales with low reliability estimates in the sample studied by DeBaryshe and Binder (1994).

Recall that the purpose of the Environmental Input scale is to assess parents' beliefs about the malleability of language development. High Environmental Input scale scores correspond to the notion that children's language is influenced by environmental stimulation (DeBaryshe & Binder, 1994). This scale includes only two items: "Some children are natural talkers, others are silent. Parents do not have much influence over this" and "Children inherit their language ability from their parents; it's in their genes." The reliability coefficient was only .39, which suggests that the scale's items are not probing a single construct but are exploring two separate constructs that result in opposing interpretations.

The Mexican American mothers we studied provided conflicting responses to the Environmental Input scale items. The majority of mothers disagreed with the scale's first item that probes beliefs about parents' influence over their child's talkativeness. Conversely, most mothers expressed agreement with the item that examines beliefs about the inheritability of children's language abilities. These results suggest that the mothers we studied interpreted these items as probing two separate constructs. The first construct, "talkativeness," may be viewed by mothers as a personality trait that can be changed, whereas the second construct, "language ability," may be understood as a specific developmental process influenced by genetic factors.

The Reading Instruction scale includes four items with the goal of assessing parents' beliefs about the appropriateness of direct reading instruction with young children. Items that compose this scale are reverse-scored, so that high scores reflect the belief that the goals of reading with young children are enjoyment, knowledge, and oral language growth rather than reading instruction per se (DeBaryshe & Binder, 1994). The Mexican American mothers who participated in our investigation indicated that they read with their child so that the child will learn the letters and how to read simple words, and the mothers have their child point out different letters or numbers printed in the book. The mothers also believed that parents should teach children how to read before the children start school and did not believe that their children were too young to learn to read. When the internal consistency of the Reading Instruction scale was evaluated, a reliability coefficient of .65 was obtained.

One possible explanation for the low reliability of this scale with the Mexican American mothers we studied may be that these mothers are in the process of incorporating different views about early reading into their cultural models. Recall that the children of the Mexican American mothers who participated in this investigation were enrolled in compensatory preschool programs. This participation may likely have influenced the mothers' views about

early reading. This is similar to the work of Reese and Gallimore (2000), who found variability and nuance in the beliefs of parents from Mexico and Central America. As stated by Reese and Gallimore, families did not view their cultural model as a “straight jacket that constrains parents to a limited set of beliefs and practices” (p. 128). Instead, parents held some beliefs that were consistent with their cultural background and integrated beliefs into their cultural model that were common to the schools in the United States. Through their children’s participation in compensatory preschool programs, the mothers we studied likely observed the schools’ views about early reading and began integrating these views into their own cultural models of early reading instruction.

DeBaryshe and Binder (1994) also found the Reading Instruction scale to have relatively low reliability. It is plausible that the African American and Euro-American mothers of low-income backgrounds who participated in their study may also have been in the process of incorporating different views about early reading into their cultural models. Research has documented the association between socioeconomic status and parents’ beliefs about how best to teach basic literacy skills to preschool children (e.g., Stipek, Milburn, Clements, & Daniels, 1992). For instance, Sonnenschein and colleagues (1997) found that mothers’ socioeconomic status was related to their literacy beliefs. Mothers from low-income backgrounds endorsed the importance of literacy development from a basic skills perspective (i.e., using flashcards and workbooks). Through their children’s participation in preschool programs, mothers from backgrounds that are culturally, linguistically, and socioeconomically different encounter literacy beliefs that are different from their own and attempt to reconcile the differences in various notions of early literacy development.

Another explanation for the poor internal consistency of the Reading Instruction scale is the singular focus of the scale’s content. The scale focuses primarily on the goals of direct reading instruction (e.g., learning letters, pointing to numbers) and not on the goals of enjoyment, knowledge, and oral language growth during shared book reading with young children. The reliability of this scale could be improved by adding items that focus on enjoyment, knowledge, and oral language growth as goals during shared book reading. Similarly, the internal consistency reliability analysis also revealed low consistency estimates for the Environmental Input scales corresponding to DeBaryshe and Binder’s (1994) findings. One potential approach to improving the reliability of the Environmental Input scale is to revise its content to focus exclusively on the construct of environmental influences on language development and to increase the number of items that compose the scale.

Our findings also reveal that one component provided the best summary of the observed variables in the PRBI. The seven summed scale scores were summarized by one component that explained slightly more than half (55%) of the variance in our sample of Mexican American mothers. That is, the PRBI demonstrated a unitary rather than multifactor structure, corresponding to DeBaryshe and Binder’s (1994) results. However, the difference in component loadings between the two studies is substantial. For our sample, the loadings were approximately half as large as they were in DeBaryshe and Binder’s study for the Teaching Efficacy, Positive Affect, Verbal Participation, and Environmental Input scales. Given the complexity of measuring parents’ beliefs, the results are promising, because our Mexican American mothers, similar to the African American and Euro-American mothers in DeBaryshe and Binder’s study, viewed all aspects of the reading process as measured by the PRBI as related.

Concurrent Validity

Concurrent validity was examined to determine the relationship between Mexican American mothers’ total PRBI score and the frequency with which mothers taught their children early

academic skills (e.g., teaching the alphabet, letter sounds, and coloring or writing activities), the frequency with which mothers engaged in various literacy activities (e.g., reading a book, reading a magazine), the availability of reading materials in the home (e.g., number of children's books), and the frequency of parent-child book reading. Preliminary support for the concurrent validity of the PRBI was evidenced by its association with the frequency of mothers' and children's literacy activities. The findings on validity are limited because of the small magnitude of some of the correlations. Although the correlations are statistically significant and are smaller in magnitude than those reported by DeBaryshe and Binder (1994), they represent an initial attempt at examining the relationship between the literacy beliefs and activities of Mexican American mothers.

Our results indicate that mothers' PRBI total scores were related to both mothers' and children's literacy practices, including the number of children's books in the home and the frequency of mother-child emergent literacy activities. Similar to DeBaryshe and Binder's findings, our results indicate that the Mexican American mothers we studied who held beliefs consistent with the schools' literacy beliefs engaged more frequently in literacy practices. That is, Mexican American mothers who scored higher on the PRBI reported that they read books more frequently. All aspects of children's home literacy experiences were significantly related with mothers' PRBI scores, with the exception teaching the child to write.

The associations reported by DeBaryshe and Binder (1994) between literacy beliefs and reported home reading practices among African American and White mothers of low-income backgrounds were stronger than the associations found in the current investigation. These differences may be due in part to the methods of data collection. DeBaryshe and Binder used two methods (self-report and observation), whereas the current study used only one method (self-report). The strength of the relationship between the literacy beliefs and practices of Mexican American mothers may have been obscured by the use of a self-report measure of home literacy practices. There are a number of problems associated with self-report data, including acquiescence response style and social desirability bias. Acquiescence response style refers to the tendency to respond positively regardless of the content of the question (Paulhaus, 1991). Social desirability bias refers to the tendency to answer self-report items in such a way as to deliberately or unconsciously represent oneself in a favorable light (Edwards, 1953). Although observational methods may be regarded as more accurate, self-report measures were a more feasible alternative for achieving the current investigation's goals.

Several researchers have argued that parents' practices are influenced by their beliefs (e.g., DeBaryshe, 1995; Garcia Coll et al., 1996; Hoffman, 1988; LeVine, 1998; Neuman, Hagedorn, Celano, & Daly, 1995). Others have contended that the relationship between parental beliefs and practices is difficult to ascertain (e.g., Holden & Edwards, 1989; Powell, Okagaki, & Bojczyk, 2004). However, our preliminary results, coupled with DeBaryshe and Binder's (1994) study, suggest that the relationship between parents' beliefs and practices begins to emerge when one examines domain-specific beliefs and directly relevant practices.

Limitations

There are a few methodological limitations to the current study that warrant comment. First, our results are limited to mothers' self-reports of home literacy practices and should not be generalized to direct observation of mother-child literacy activities. Limitations of self-report data, including acquiescence response style and social desirability bias, may have contributed to the small correlations found between mothers' literacy beliefs and home literacy practices. Observations of mothers' literacy practices might have resulted in stronger associations with mothers' literacy beliefs. DeBaryshe and Binder (1994) compared

mothers' reports of home literacy practices and observed home reading practices and reported stronger associations between mothers' literacy beliefs and practices. It would be beneficial for future research to compare mothers' beliefs regarding reading with observations of their home literacy practices. Second, we did not administer the PRBI on more than one occasion. Therefore, test–retest reliability was not evaluated.

Implications

The current investigation represents the initial phase in our line of research examining mothers' literacy beliefs and practices and the use of the PRBI with the Mexican American population. Although our results are preliminary, we have corroborated DeBaryshe and Binder's (1994) findings by establishing adequate internal consistency for five of the seven PRBI scales and retaining a single component that explains slightly more than half (55%) of the variance in observed PRBI scores. However, because of the poor reliability of the Environmental Input and Reading Instruction scales and the small correlation coefficients obtained in the validity analyses, further research is needed. The second phase of this research will use qualitative research methods (i.e., focus groups, interviews, etc.) to understand mothers' interpretations of the items and to explore possible modifications to the PRBI. The information gleaned using qualitative methods could be used to guide the revision, elimination, and/or addition of items. Following the qualitative research, replication of the current study to assess the validity and reliability of the revised PRBI for Mexican American mothers should be completed. The second phase of this research will also include the use of observational approaches to obtain a more in-depth analysis of the home literacy environment. Observational methods could be used to collect objective behavioral data concerning home literacy practices and to clarify the convergence between literacy beliefs and practices.

The findings of this study add to existing support for the PRBI as a measure of domain-specific parental beliefs (e.g., DeBaryshe & Binder, 1994; Weigel et al., 2006). Internal consistency for five of the seven scales was established, and a description of the factor structure was reported for a sample of Mexican American mothers. Preliminary evidence for concurrent validity was presented; however, these findings are limited and suggest a need for future research using qualitative research methodology to explore modifications to the PRBI.

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TABLE 1

Coefficient Alphas and Component Loadings for Parent Reading Belief Inventory Scales

Scale	Number of Items	Coefficient Alpha	Loading
Teaching Efficacy	9	.79	0.37
Positive Affect	11	.79	0.45
Verbal Participation	8	.88	0.43
Reading Instruction	4	.65	−0.37
Knowledge Base	5	.77	0.39
Resources	4	.86	0.35
Environmental Input	2	.39	0.23

TABLE 2

Components Obtained From the Principal Component and Parallel Analyses

Component	Principal Component Analysis		Parallel Analysis
	Observed Eigenvalue	Percent of Variance	Random Eigenvalue
1	3.871	55.306	1.229
2	1.086	15.514	1.137
3	0.638	9.11	1.061
4	0.566	8.09	0.992
5	0.388	5.54	
6	0.254	3.62	
7	0.196	2.80	

TABLE 3

Bivariate Correlations Between Parent Reading Belief Inventory Total Score and Children's Home Literacy Experiences

Experience	Bivariate r	p
Number of children's books in the home	.22	.001 *
Frequency of mother-child emergent literacy activities		
Reading to child	.36	.001 *
Telling child a story about mother's childhood or family	.16	.003 *
Telling child a make-believe story	.15	.005 *
Teaching names of letters	.22	.001 *
Teaching child to count	.24	.001 *
Teaching child numbers (e.g., how many 3 is)	.17	.003 *
Teaching child how to write	.05	.370
Coloring with child	.11	.047 *
Teaching child names of shapes	.16	.005 *
Teaching child names of colors	.15	.012 *

* $p = .05$.

APPENDIX

Parent Reading Belief Inventory

Scale	Examples of Items
Positive Affect	"I find it boring or difficult to read to my child." "I enjoy reading with my child."
Verbal Participation	"When we read, I want my child to help me tell the story." "I ask my child a lot of questions when we read."
Resources	"Even if I would like to, I'm just too busy and too tired to read to my child." "I don't read to my child because we have nothing to read."
Teaching Efficacy	"As a parent, I play an important role in my child's development." "My child learns many important things from me." "I am my child's most important teacher."
Knowledge Base	"Stories help build my child's imagination." "Reading helps children learn about things they never see in real life (like dinosaurs)."
Environmental Input	"Some children are natural talkers, others are silent. Parents do not have much influence over this." "Children inherit their language ability from their parents; it's in their genes."
Reading Instruction	"I read with my child so he/she will learn the letters and how to read simple words." "Parents should teach children how to read before they start school."

Source: Parent Reading Belief Inventory (DeBaryshe & Binder, 1994).