Assessing the play beliefs of African American mothers with preschool children

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Abstract:
A rating scale measuring parent beliefs about play was developed and validated with a sample of 224 African American mothers of children attending Head Start. Principal components analyses of the Parent Play Beliefs Scale (PPBS) revealed two factors, Play Support and Academic Focus, which capture parent attitudes regarding the developmental significance of play. Maternal ratings of Play Support correlated positively with ratings of children's interactive peer play and were positively associated with parent education. Maternal ratings of Academic Focus were negatively correlated with prosocial peer play ratings and positively correlated with ratings of disruptive and disconnected play in children. Findings support the psychometric utility of the new measure. Future directions involving parent play beliefs in conceptual models of children's social competence during early childhood are discussed.
Keywords: Preschool children; Play; Social competence; Parent beliefs

Article:
The parenting beliefs approach emphasizes the cognitive mediation of behavior, or how immediate and ongoing thinking processes impact parent–child interactions (Holden, 1997). A growing area in the literature centers on the role of parent beliefs in the development of children's social competence (Ladd, 1992). Instead of merely focusing on parental disciplinary practices or child management techniques, these studies emphasize the ways in which parents' attitudes and behaviors can foster competence and social adjustment. Rubin, Mills, and Rose-Krasnor (1989) proposed an information-processing model of parenting behavior that explored mothers' ideas about when children develop specific social skills, how such skills develop, and what should be done to promote skill development. Their work established links between mothers' beliefs about social development and their preschool child's social problem solving in the classroom. Mothers who valued social skills, such as making friends and sharing, had children who were more prosocial, assertive, and successful in their social interactions.

Previous work by Haight, Parke, and Black (1997) investigated parent beliefs about play in a sample of middle class, Caucasian parents. The researchers interviewed parents about their preferred activities with their child (e.g., book reading, pretend play), the importance of pretend play and other parent–child activities in child development, and the significance of their own participation in their child's play. In general, parents preferred book reading to pretend play, but the overwhelming majority of parents enjoyed pretending with their children. Parents also

reported that book reading was more significant to their child's development than pretend play, but they did view play as a significant contributor to their child's cognitive development and creativity. Haight and her co-workers also demonstrated meaningful associations between parents' beliefs about play and their participation in play. Mothers who rated pretend play as developmentally significant and who believed their participation in play was important tended to spend more time pretending during parent–child play. Furthermore, mothers who reported enjoyment of pretend play were better able to facilitate pretending with their child.

Haight and her co-workers provided valuable insight into parental attitudes about play and the ways in which these attitudes are reflected in parent–child play interactions, but it is unclear if their findings generalize beyond their mainstream sample. Farver and Howes (1993) note that cultural and social class differences in children's play have often been interpreted as signs of deficiency, because little research has examined the unique play styles of children and parents from diverse backgrounds. They addressed this gap in the literature by conducting a study on the differences between mother–child pretend play in Caucasian families in the United States and Mexican families. Striking contrasts emerged, especially in parental beliefs about the value of play. Caucasian mothers reported that play was very important and provided educational benefits to children, whereas the majority of Mexican parents saw play as unimportant and simply a source of amusement. During observations, Mexican parent–child play interaction took place in the context of shared work activity rather than in more structured, child-centered play situations that are common in American culture.

Ogbu (1988) considers culture to be of primary importance in determining child rearing behaviors in parents, because desired competencies may vary across culture due to the unique developmental demands within different cultural contexts. For instance, minority parents living in poor, urban environments must socialize their children to be successful under very different circumstances than those experienced by middle class, Caucasian families. Implicit in a cultural–ecological model of parenting is the idea that culture shapes the development of parents' beliefs about raising children. Parenting beliefs can be linked to economic constraints, ethnic factors, religious practices, and the unique experiences of parents (Garcia Coll et al., 1996). Goodnow (1988) reviewed literature demonstrating that comparisons across cultural groups have yielded large differences in a variety of areas, including developmental timetables and the degree of importance attached to obedience. Because culture is a key determinant of parenting beliefs, the study of culturally diverse families would be greatly enhanced by the assessment of parental beliefs and attitudes.

In addition to cultural and economic influences, child characteristics play an important role in shaping parental beliefs and practices. Numerous studies have documented the ways in which child temperament can interact with parental expectations and behavior to influence developmental trajectories (see Seifer, 2000 for review). For example, infants with more positive mood and well-regulated behavior will often elicit more positive and sensitive responses from parents. Over time, these "easy" infants will develop into children whose parents feel comfortable in their parenting role and possess a sense of efficacy when approaching parenting tasks. In contrast, infants who are more unpredictable and hard to soothe are more likely to have parents who employ ineffective strategies out of frustration and distress (Seifer, 2000).

A notable methodological weakness in research on parent beliefs about play is the absence of a psychometrically sound measurement tool. Beliefs about play are typically assessed through an interview or a self-developed questionnaire without demonstrated validity. In general, rating scales have the advantage of being an efficient and economical way to collect data. However, an examination of relevant studies revealed no rating scales that have been validated to assess parent beliefs about play. In an attempt to address this limitation, the current study developed and tested a rating scale that would reliably assess parent play beliefs and provide information meaningful to the study of children's play. Items for the scale were derived from previously used interviews and questionnaires examining play beliefs, as well as from literature on the developmental significance of play and parental involvement in play (Haight et al., 1997; van der Kooij & Slaats-van den Hurk, 1991). Play beliefs were conceptualized as multidimensional and items were written to reflect parents' involvement in their child's play, their enjoyment of play, their understanding of the developmental significance of play, and their valuing of play relative to more structured, academic activities. Recommended procedures for scale development and validation were followed (Clark & Watson, 1998).

The current study extends previous research by examining parent play beliefs and children's social competence with a sample of African American families participating in a Head Start program. Presently, Head Start is the largest federally funded program for promoting school readiness among low-income children and provides a unique setting for exploring parental beliefs about social competence. The primary objective of this research is to develop and validate a measure of parent play beliefs that would be useful in working with low-income, African American families. The within-group research design seeks to provide data regarding the parental beliefs of a population that is understudied, but often targeted via prevention and intervention efforts due to economic disadvantage (Mendez, Fantuzzo, & Cicchetti, 2002). Associations between parent play beliefs and the domains of children's peer play competence and temperament are investigated as indicators of concurrent validity for the new measure.

1. Method

1.1. Participants

Participants were mothers whose children were enrolled in Head Start centers located in a metropolitan area of the Southeastern United States. In the first wave of data collection, participants were recruited from two centers. A total of 136 participants were recruited from a pool of 226 families, yielding a 60% participation rate. A second wave of data collection, completed 6 months later, was deemed necessary to achieve the target sample size. Parents from the original centers who did not participate in the first wave were again invited to participate. Next, an additional center with an enrollment of 90 families was recruited for participation. The recruitment efforts in wave two yielded an additional 123 participants, resulting in a total sample of 259 participants. Demographic information was collected on 253 participants and the remaining 6 participants had incomplete data.

Over 96% of participants were mothers, with the remaining 4% of the sample consisting of aunts or grandmothers. Mother age ranged from 19 to 53 years old, with a mean age of 28.4 years. The majority of mothers were single (61%), although nearly 26% of mothers were married. Most mothers were employed either full time (47%) or part time (18%), and approximately 26% were unemployed. A sampling of occupations revealed a higher representation of low status jobs,

which generally permit little autonomy and independence. The remaining mothers were participating in job training, receiving disability benefits, or were students. Twenty-six percent of mothers completed some high school, while 39% received a high school diploma or GED. Eighteen percent complete some college, while close to 10% had earned a college degree. Finally, just under 7% reported attending vocational school. Nearly all children were classified as African American by their mothers (96%), while approximately 4% of children were biracial (African American/Caucasian parentage). Children ranged in age from 38 to 67 months, with a mean age of 53 months. Fifty-two percent of the children in the sample were female. The mean number of adults living in the home was 1.6, and the reported figure ranged from 1 to 5. The mean number of children in the home was 2.5, and mothers reported housing as few as one and as many as 11 children.

1.2. Measures

1.2.1. Demographics

In questionnaire format, mothers reported their ethnicity, marital status, ratio of adults to children in the household, employment status, and educational level. Mothers were also asked to provide their child's age, gender, and ethnicity.

1.2.2. Parent beliefs

The Parent Play Beliefs Scale (PPBS) was used to measure parents' beliefs about their preschool children's play (see Table 1). In order to develop a measurement tool for African American parents, the scale was created in collaboration with Head Start parents and staff and also piloted. Given the multidimensional conceptualization of play beliefs, items were carefully chosen to represent different aspects of parent beliefs, including developmental significance of play, participation in play, and enjoyment of play. Three experts with doctoral degrees in the field of child development or school psychology were consulted to examine the multidimensional domains of play beliefs and to verify the comprehensiveness of the item pool in capturing parental perspectives on play and pre-academic activities. These experts also reviewed the measure to evaluate its ability to inform their work with understanding families and their play beliefs. Next, two focus groups with African American parents were held to discuss how chosen items reflected behaviors observed or performed in their homes and communities. In addition to being the parent of a current or former Head Start child, these caregivers held leadership positions within the Head Start community, either serving on parent policy council, working for a research team conducting studies with Head Start populations, or holding prior staff positions within Head Start programs. Discussions with parents were also used to review item wording, which ensured readability and clarity of all items and directions. This process for scale development is recommended in order to facilitate writing scale items that will elicit relevant information from the target population (Gaskins, 1994), and to prevent psychologists from over-reliance on expert-driven procedures to misapply concepts that result in culturally insensitive research with the target population (Rogler, 1999).

Table 1.
Varimax factor structure of the parent play beliefs scale (N = 224)

	Factor 1	**Factor 2**

	Factor 1	Factor 2
Play Support (alpha = .90)		
Play can help my child develop better thinking abilities.	**.75**	−.15
Playing at home will help my child get ready for kindergarten.	**.72**	−.12
I teach my child social skills during play.	**.72**	.04
If I take time to play with my child, s/he will be better at playing with others.	**.66**	.04
Through play, my child develops new skills and abilities.	**.66**	−.12
Playing at school will help my child get ready for kindergarten.	**.65**	−.11
Play helps my child learn to express his or her feelings.	**.61**	−.11
Play can improve my child's language and communication abilities.	**.58**	−.03
I can help my child learn to control his or her emotions during play.	**.57**	.00
Play can help my child develop social skills.	**.55**	−.11
Playing together helps me build a good relationship with my child.	**.53**	.00
Playing with my child is one of my favorite things to do.	**.50**	−.14
I have a lot of fun with my child when we play together.	**.49**	−.02
Play is a fun activity for my child.	**.47**	−.15
My child has a lot of fun when we play together.	**.46**	−.09
My child will get more out of play if I play with him or her.	**.46**	.14
It is important for me to participate in play with my child.	.39	−.14
Academic Focus (alpha = .73)		
I do not think my child learns important skills by playing.	−.04	**.64**
Reading to my child is more worthwhile than playing with him or her.	−.13	**.57**
I would rather read to my child than play together.	−.01	**.53**
Playtime is not a high priority in my home.	−.20	**.51**

	Factor 1	Factor 2
Play does not influence my child's ability to solve problems.	−.25	**.47**
It is more important for my child to have good academic skills than to play well with others.	.01	**.46**
I do not think it is important for other family members to play with my child.	.05	**.40**
Play does not help my child learn academic skills.	−.29	.39

Note. Salient factor loading was defined as .395 or greater and appear in bold.

Following the focus group discussion, a 30-item pilot version of the measure was developed and tested with an uncontaminated sample of 24 African American parents of Head Start children. These parents were a convenience sample attending a parent meeting at Head Start. PPBS ratings were made on a 5-point scale ranging from "Disagree" to "Strongly Agree." Parents in the pilot sample gave a wide range of responses for each item. The piloted measure had a coefficient alpha of .86, indicating good internal consistency. All items were retained for use in the current study. Parents showed general agreement with the scale's intended purpose and suggested only modifications to the appearance and administration of the new scale.

1.2.3. Peer play competence

Both the teacher and parent versions of the Penn Interactive Peer Play Scale (PIPPS; Coolahan, Fantuzzo, Mendez, & McDermott, 2000; Fantuzzo, Mendez, & Tighe, 1998) were utilized. This rating system was developed in collaboration with Head Start teachers and parents to describe the peer play interactions of African American children. The teacher version consists of 32 items assessing common play behaviors that facilitate or interfere with prosocial peer interactions in the classroom. The parent version consists of the same 32 items that assess play behavior occurring in the home and neighborhood context. Ratings are made on a 4-point scale based on the frequency with which a behavior occurs. Multiple factor analytic studies of the parent and teacher versions (Coolahan et al., 2000; Fantuzzo, Coolahan, Mendez, McDermott, & Sutton-Smith, 1998; Fantuzzo et al., 1995) have yielded three underlying dimensions of children's play behaviors: Play Interaction, Play Disruption, and Play Disconnection. The Play Interaction factor consists of nine items reflecting creative, cooperative, and helpful behaviors that facilitate successful peer interactions. Play Disruption is a 13-item subscale capturing children's aggressive and antisocial play behaviors, while Play Disconnection includes 10 items that account for avoidance behaviors that hinder active participation in play. Good internal consistency of the parent PIPPS subscales was found in the current study when Cronbach's alphas were computed (Play Interaction = .79; Play Disruption = .91; Play Disconnection = .86). Similar results were found for the teacher PIPPS subscales (Play Interaction = .72; Play Disruption = .82; Play Disconnection = .79).

Concurrent validity for the teacher PIPPS was established by correlations with other teacher rating scales, peer nominations, and observations of classroom free play (Coolahan et al., 2000).

In the initial scale development study (Fantuzzo, Coolahan et al., 1998; Fantuzzo, Mendez et al., 1998), children who showed interactive peer play received high ratings from teachers on the Social Skills Rating Scale (SSRS; Gresham & Elliot, 1990). These children also received positive endorsements from their classmates, as assessed with peer sociometrics, and were observed as highly engaged in peer play. For this study, a time sampling procedure was used to collect observations of children in Head Start classroom settings. Children rated high on the Play Disconnection and Play Disruption scales were not accepted by their peers, and were observed in solitary play or disrupting the play of other children in the classroom.

Mendez et al. (2002) replicated the three dimensions of construct validity for the PIPPS by conducting higher order factor analysis. Variable-oriented analyses with a sample of 140 African American children confirmed that ratings of child temperament, observed self-regulation and direct assessments of language were related to teacher ratings of children's peer play competence. Person-oriented analyses revealed a profile for children characterized by highly adaptable temperament, ability to approach new situations and above average vocabulary development that evidenced high scores for Play Interaction. Children rated high in Play Disruption were equally divided among two profiles, characterized by inattention and activity but with differential performance on vocabulary tasks. A profile containing calm, reticent children was least likely to engage in disruptive peer play, and more likely to be rated higher in Play Disconnection. Lastly, the parent PIPPS has also demonstrated construct validity and concurrent validity through correlations of similar constructs using the teacher PIPPS (Fantuzzo, Mendez et al., 1998) and other parent ratings of child behavior, such as the Connor's Parent Rating Scale (Mendez & Fogle, 2002). Predictive validity was also demonstrated, as parent PIPPS ratings were correlated with assessments of child vocabulary using the PPVT-III at 8-month follow-up (Mendez & Fogle, 2002).

Bivariate correlations examined the inter-rater agreement for parent and teacher ratings of peer play collected in this study. Teacher and parent ratings of Play Interaction, Play Disruption, and Disconnection were not significantly correlated (r = .15, p = .08; r = .08, p = .32; r = .09, p = .37, respectively), and may reflect differences in the context of play at home and school. Agreement between parent and teacher ratings on the PIPPS has been established in other studies, including the original validation study (Fantuzzo, Mendez et al., 1998).

1.2.4. Child temperament

The Temperament Assessment Battery for Children (TABC; Martin, 1988) includes rating scales designed to measure temperament in children 3–7 years of age. Teachers and parents respond to each item on a 4-point scale (modified from the original 7-point scale) based on the frequency with which the behavior in the item occurs. For the purposes of this study, only the Activity, Adaptability, Approach/Withdrawal, and Emotional Intensity subscales were used, reducing the scale to 32 items total. In this study, teacher subscales were found to demonstrate adequate internal consistency, based on Cronbach's alpha [Activity (7 items) = .60; Adaptability (6 items) = .61; Approach/Withdrawal (5 items) = .60; Emotional Intensity (7 items) = .62]. On the parent form, Activity (8 items), Approach/Withdrawal (8 items), and Emotional Intensity (8 items) demonstrated adequate internal consistency (α = .61, .74, and .62, respectively); however, the consistency of the Adaptability scale (6 items) was somewhat lower (α = .42). Prior studies have shown this measure to be stable over 6- and 12-month intervals (Martin, 1988).

Concurrent validity of the TABC has been established through correlations with observed classroom behavior, teacher ratings of conduct problems, and teacher attitudes towards individual students (Martin, 1988). Specifically, the Activity scale was positively associated (r = .55) with observations of gross motor inappropriate behavior while a negative correlation (r = −.50) was reported with observed constructive self-directed activity. For Adaptability, negative correlations were founds with observed non-constructive activity and inappropriate gross motor behavior while a positive correlation (r = .49) was reported with constructive self-directed activity. For Approach/Withdrawal, negative correlations were reported with observed gross motor inappropriate behavior, non-constructive activity, and peer interaction. Mendez et al. (2002) confirmed the utility of the teacher-rated subscales with low-income African American children, finding relations between children's adaptable temperament and their peer play competence. In this same study, observations of children's emotion regulation using the Emotion Regulation Q-Sort (Waters, Noyes, Vaughn, & Ricks, 1985) were positively correlated with higher scores for the Adaptability and Approach scales of the TABC.

In this study, parent and teacher ratings of children's temperament demonstrated good inter-rater agreement. Each parent-rated construct correlated significantly with its respective teacher-rated construct, with the exception of Emotional Intensity (r = .04, p = .80). Positive and significant correlations were observed for Activity (r = .30, p < .05), Adaptability (r = .41, p < .01), and Approach (r = .37, p < .01).

1.2.5. Procedures

During the first wave of data collection, parents were informed about the purpose and procedures of the project during a regularly scheduled parent meeting at the center. Shortly thereafter, a packet containing instructions, a consent form, and surveys was sent home with each child in the Head Start center. Every parent received the demographics questionnaire, PPBS, and PIPPS, while a subsample of participants received the TABC in an effort to reduce respondent burden. A cover letter provided general information about the purpose of the study and the contents of the packet. Parents were asked to return completed packets to the center, either in person or in their child's school bag. Parents were notified that the principal investigator and a research assistant would be available to meet with them at the center to address any questions or concerns. Parent breakfasts were provided by the PI at each center at least twice a week during data collection to recruit participants and to assist parents in the completion of surveys. Case managers at each center also played a role in answering parents' questions or referring concerns to the PI. Teachers completed two rating scales (teacher PIPPS and TABC) for each child in their classroom whose parent had given consent. Parents received a children's book for completion of the surveys and a small donation was made to each classroom teacher who provided ratings.

2. Results

2.1. Construct validity of the Parent Play Beliefs Scale

To determine the construct validity of the newly developed PPBS with a sample of African American mothers of children attending Head Start, 30 items retained from the pilot study were subjected to a series of principal component analyses using both orthogonal (varimax) and oblique (promax) solutions. Item loadings of .395 or greater were used as a guide to determine significant factor loadings. However, two items were retained with .39 loadings due to their

theoretical similarity to other items on their respective factors. A two-factor varimax solution was selected because it best satisfied multiple criteria for retention. Table 1 presents the item content and factor loadings for each of these factors. First, the two factors were within the limit suggested by Cattell (1966) scree plot. Second, each of these factors accounted for more than 10% of the total variance. Together, the two factors accounted for 73% of the variance in the PPBS (53 and 20%, respectively). Third, each of the factors had an eigenvalue greater than one. Each construct demonstrated adequate reliability, with Cronbach's alpha coefficients of .90 and .73, respectively. Finally, the correlation between the two factors was −.25, suggesting that these factors have a negative relation, but appear to measure distinct constructs.

Although a three-factor solution met several criteria for retention, it was rejected in favor of the two-factor solution. This was primarily due to the lack of significant loadings on the third factor (just one item greater than .395). Five items with loadings of .30 or greater were analyzed together to determine internal consistency and a Cronbach's alpha coefficient of .58 was obtained. These items appeared to have some theoretical similarity, but did not form a coherent factor that added significant information above and beyond the two-factor solution. Although only 25 items were included in the 2-factor solution, the remaining 5 items will be retained for further study in future research involving the PPBS.

As shown in Table 1, the first factor includes 17 items with factor loadings ranging from .39 to .75. The items with the strongest loadings on this factor include "play can help my child develop better thinking abilities," "playing at home will help my child get ready for kindergarten," and "I can teach my child social skills during play." High scores on this factor reflect parent beliefs that play is an enjoyable activity with many developmental benefits to children. Therefore, this first factor was named *Play Support*. The second factor includes 8 items with factor loadings ranging from .39 to .64. The items with the strongest loadings include "I do not think my child learns important skills by playing" and "reading to my child is more worthwhile than playing with him or her." Taken together, items on this factor represent more negative parent beliefs about the value of play. Parents receiving high scores on this factor may view play as somewhat irrelevant to development of social and cognitive skills and therefore may value more academically oriented activities, such as reading. Given the nature of these items, the second factor was named *Academic Focus*.

Raw scores on the Play Support factor of the PPBS ranged from 41 to 85, with a mean of 70.26 (S.D. = 8.73). Mean response ratings were calculated by dividing the mean of the total scores by the number of items in the factor. The mean item response for Play Support was 4.13, which is fairly high given that item ratings range from 1 to 5. Academic Focus total scores ranged from 8 to 32, with a mean of 17.5 (S.D. = 5.33). The mean response rating for Academic Focus was 2.18, suggesting a somewhat low level of Academic Focus in the overall sample.

2.2. Relations among demographic variables and parent play beliefs

Bivariate correlations were computed among demographic variables and parent play belief variables. Play Support demonstrated a significant, positive association with parent education ($r = .26$, $p = .0002$), and Academic Focus demonstrated a significant, negative association with parent education ($r = -.29$, $p < .0001$). No other demographic variables correlated significantly with play beliefs. *T*-tests were conducted to compare play beliefs across different groups (single

versus married mothers, mothers employed full-time versus unemployed mothers, and mothers of girls versus mothers of boys). No significant difference emerged between these groups for either Play Support or Academic Focus.

2.3. Correlational analyses

Pearson product moment correlations were computed to explore relations among variables included in the study. Table 2 presents bivariate correlations among the two factors of the PPBS and variables from the parent versions of the PIPPS and the TABC. Results provide evidence of the concurrent validity of the PPBS. The Play Support factor of the PPBS demonstrated significant positive relations with children's interactive peer play and adaptability ($r = .25$, $p < .001$ and $r = .37$, $p < .01$, respectively). This factor demonstrated a significant negative relation with disruptive peer play and a marginally significant negative relation with children's activity level ($r = -.20$, $p < .01$ and $r = -.25$, $p < .06$, respectively). Therefore, parents' positive attitudes towards play are related to children's social competence and adaptable temperament. The Academic Focus factor of the PPBS demonstrated a significant negative relation with Play Interaction and a marginally significant relation with adaptability ($r = -.21$, $p < .01$ and $r = -.26$, $p = .05$). In addition, Academic Focus correlated positively with Play Disruption and Play Disconnection ($r = .15$, $p < .05$ and $r = .16$, $p < .05$).

Table 2.
Bivariate correlations among parent play beliefs and other child and parent variables

	Play Support	**Academic Focus**
Parent ratings of child peer play ($n = 218$)		
Interactive Play	$.25^{**}$	$-.21^{**}$
Disruptive Play	$-.20^{**}$	$.15^{*}$
Disconnected Play	−.11	$.17^{*}$
Parent ratings of child temperament ($n = 57$)		
Activity	$-.25^{+}$	.08
Adaptability	$.37^{**}$	$-.26^{*}$
Approach/Withdrawal	.12	−.11
Emotional Intensity	−.16	.05
Teacher ratings of child peer play ($n = 179$)		
Interactive Play	$.17^{+}$	$-.17^{+}$
Disruptive Play	$-.20^{*}$	−.06

	Play Support	Academic Focus
Disconnected Play	−.15	−.11
Teacher ratings of child temperament (n = 125)		
Activity	−.15	.07
Adaptability	.15	−.06
Approach/Withdrawal	.10	−.04
Emotional Intensity	−.10	−.14

$^{+}p < .06$, $^{*}p < .05$, $^{**}p < .01$.

Bivariate correlations among PPBS factors and teacher variables are included in Table 2. Play Support demonstrated a significant negative relation with teacher reports of Play Disruption ($r = -.20$, $p < .05$). Teacher reports of Play Interaction demonstrated a marginally significant positive correlation with Play Support and a marginally significant negative correlation with Academic Focus ($r = .17$, $p = .05$ and $r = -.17$, $p = .05$, respectively). Neither PPBS factor correlated strongly with teacher reports of children's temperament.

2.4. Regression analyses

Simultaneous regression equations were created to determine the variance in children's peer play competence accounted for by parent play beliefs. Results of the first regression analysis indicated that parent play beliefs accounted for a significant portion (9%) of the variance in Play Interaction [F (6, 53) = 10.46, $p < .0001$]. Play Support emerged as a significant, positive predictor of Play Interaction ($\beta = .22$, $p < .002$), and Academic Focus was a significant, negative predictor ($\beta = -.16$, $p < .02$). Parent play beliefs predicted 5% of the variance in Play Disruption, which was a significant portion [F (6, 53) = 5.59, $p < .004$]. Only Play Support was a significant predictor ($\beta = -.17$, $p < .02$). A significant, but smaller portion (3%) of the variance in Play Disconnection was explained by parent play beliefs [F (6, 53) = 3.75, $p < .03$)]. Academic Focus was a significant predictor of Play Disconnection ($\beta = .15$, $p = .03$), but Play Support was not.

Next, simultaneous multiple regression equations were created to measure the variance in each factor of the PPBS explained by parent temperament ratings. Parent ratings of temperament were chosen, as opposed to teacher ratings, because it is more likely that parents' perceptions of their child's temperament impact their attitudes towards play. All temperament variables (Activity, Adaptability, Approach/Withdrawal, and Emotional Intensity) were included as predictors. The first regression equation indicated that 17% of the variance in Play Support is explained by parent ratings of children's temperament. The amount of variance explained was significant [F (4, 56) = 2.60, $p < .05$)], but only Adaptability emerged as a significant predictor ($\beta = .34$, $p < .05$). Uniqueness indices were computed to determine the incremental variance explained by each predictor. Adaptability accounted for approximately 7% and Activity for 2% of the incremental variance in Play Support. Approach/Withdrawal and Emotional Intensity accounted

for less than 1% of the variance in Play Support beyond the variance accounted for by the other predictor variables. A second multiple regression equation indicated that only 7% of the variance in Academic Focus is explained by parents ratings of children's temperament. No specific temperament constructs were found to significantly predict Academic Focus.

Finally, a set of hierarchical regression equations was created to determine the incremental contribution of parent play beliefs in predicting parent ratings of children's peer play competence. In each equation, the four temperament variables were entered into the equation as a block and then the two parent play beliefs factors were entered as a block. The first equation examined the contributions of temperament and play beliefs to the prediction of children's Play Interaction (as rated by parents). Together, temperament variables and play beliefs variables explained nearly 23% of the variance in Play Interaction. The amount of explained variance was marginally significant [F (6, 53) = 2.28, p = .05)], but only the block of temperament variables emerged as a significant predictor of Play Interaction. A second hierarchical regression was conducted to determine the contribution of parent play beliefs to the prediction of Play Disruption over and above the contribution of parent ratings of children's temperament. Again, temperament variables were entered into the equation as a block and then play belief variables were entered as a block. A significant amount of variance (47%) in parent reports of Play Disruption was explained by the combination of temperament and play beliefs [F (6, 53) = 6.99, p < .0001)]. The block of temperament variables emerged as a significant predictor [F (6, 53) = 9.98, p < .0001)]. Parent beliefs did not predict a significant amount of variance above and beyond children's temperament. A third analysis predicting Play Disconnection indicated the amount of variance explained by temperament and play beliefs was not significant [F (6, 53) = 2.22, p = .06].

3. Discussion

This study explored the utility of a self-report rating scale measuring parent beliefs about play within a sample of African American mothers from a low-income background. Most research investigating parent beliefs about play has relied upon qualitative sources of data or rating scales with little or no psychometric support (Haight et al., 1997; van der Kooij & Slaats-van den Hurk, 1991). The Parent Play Beliefs Scale was developed to improve upon methods typically used to assess parent beliefs by providing a rating scale with adequate psychometric properties. Items included in the PPBS are representative of the multiple domains of parent play beliefs that have been addressed in previous studies, including parents' views on the developmental significance of play, their participation in play, their enjoyment of play, and the relative importance of academic skills. The measure was developed in collaboration with Head Start parents and experts in the field of child development to ensure the content validity and cultural relevance of the items. The construct validity of the PPBS and the relations of this instrument to peer play competence and child temperament were examined to determine the utility of this new measure.

3.1. Structure of parent play beliefs

The PPBS was subjected to a principal components analysis, which yielded two reliable constructs measuring unique aspects of play beliefs: *Play Support* and *Academic Focus*. Play Support includes items which capture parents' positive beliefs about the developmental significance of play and their own involvement in children's play. Parents who report high levels of Play Support indicate they enjoy play, view play as a priority, and see play as a teaching

opportunity. Academic Focus includes items which reflect an emphasis on academic skills, such as learning numbers or letters, and a belief that play does not have a central role in facilitating the development of these skills.

The emergence of these two factors supports the notion that parents differ in the significance they assign to play and the emphasis they place on play versus other activities, such as reading or learning letters. The correlation between Play Support and Academic Focus was small, but significant, and negative in direction. As might be expected, parents who view play as instrumental in the development of cognitive, social, and language abilities are less likely to perceive structured activities as the preferred method to promote developmental competencies. However, some parents had high scores on both factors, suggesting that they had generally positive attitudes towards play, but believe that it may not be the best way to encourage the development of academic skills. The current study is only a small step towards understanding parental beliefs about developmentally appropriate practices in early childhood. More research regarding how this scale relates to other parental beliefs, as well as different parenting styles, would inform these questions.

3.2. Parent beliefs and ratings of children's peer play competence

In this study, parent play beliefs were compared with parent and teacher ratings of peer play, an important indicator of social competence in preschool children (Creasey et al., 1998 and Mendez and Fogle, 2002; Mendez et al., 2002). In absence of other self-report measures of play beliefs, we chose to compare the new PPBS scale with prior measures used to report on a key criterion variable, namely, preschool children's play behavior. Parent ratings of Play Support correlated positively with parent reports of children's interactive peer play behavior. Parent ratings of Play Support also correlated negatively with both parent and teacher reports of children's disruptive peer play. In contrast, Academic Focus demonstrated significant, positive relations with parent ratings of both disruptive and disconnected peer play and a significant, negative relation with parent ratings of interactive peer play.

These correlations were somewhat small in magnitude, but are consistent with expectations and supportive of convergent and divergent validity for the scale. In general, mothers who report valuing and enjoying play on the PPBS tend to report more prosocial behavior for their children during play. Moreover, teachers also report that these children are less aggressive with peers in a classroom setting. This complements earlier research involving parent beliefs about social development and children's peer relations. For instance, Rubin et al. (1989) found that mothers who emphasized social skills and valued their role in promoting children's skill development had children who demonstrated better social problem solving abilities. Findings of the current study also suggest that mothers who deem academic activities more worthwhile than play tend to have children who are less adept during peer play interactions. In sum, the two subscales of the PPBS show differential relations with different dimensions of children's play behavior, as reported on by parents and teachers.

3.3. Considering child temperament and maternal play beliefs

Child temperament was conceptualized as relevant for inclusion in the current study as a variable that is distinct from, but related to, children's peer play competence. Links between temperament and peer play have emerged in previous research with African American children (Mendez et al.,

2002). Therefore, including parent and teacher ratings of temperament in this validation study of the PPBS offers a foundation for future work that will explore in depth the relations among these dimensions. As Seifer (2000) summarized, characteristics of both the child and the parent impact the nature of their dyadic relationship. Parent–child interactions are a bidirectional process in which each individual's behavior elicits and shapes the responses of the other. The current research is designed to lead to more extensive study involving transactional relationships by first validating a new measure of maternal play beliefs.

The domains of play beliefs and temperament should overlap only to a small degree, if each construct is able to account for some of the variance in children's play behavior. Findings show that the measurement of play beliefs is related, but distinctive, from measures of child temperament. In this study, parent ratings of children's temperament explained a moderate, but significant portion of the variance in levels of Play Support. Specifically, the construct of adaptability was significantly related to positive beliefs about play. In contrast to these findings involving Play Support, no temperament variables were significantly related to Academic Focus. Interestingly, parent ratings of children's activity level did not exhibit strong relations with attitudes towards play.

Analyses also examined the concurrent validity of the PPBS by using parent play beliefs and parent ratings of temperament to explain peer play outcomes. Initially, parent play beliefs emerged as a predictor of children's peer play, explaining a small, but meaningful amount of variance. Parent reports of Play Support predicted higher levels of interactive play and lower levels of disruptive play. In contrast, parent reports of Academic Focus positively predicted parent ratings of disconnected peer play and negatively predicted interactive peer play. Once parent ratings of temperament were included in the analyses, parent beliefs no longer explained a significant amount of the variance in peer play outcomes. This analysis shows that temperament is a more salient predictor of children's outcomes, namely because the constructs are both child characteristics. Parent beliefs about play likely have a more distal role in shaping social interactions, whereas child temperament exerts a more proximal influence.

In sum, the utility of the new measure of play beliefs is to facilitate future research regarding the emergence of child behaviors in relation to parental beliefs and practices. Future studies might examine whether temperament is a mediator of the relation between play beliefs and children's social competence. Also, longitudinal studies could reveal relations between temperament and maternal beliefs that emerge over time. For example, parents who view their children as adaptable and prosocial during the toddler years may develop more positive beliefs about play by the preschool period. The interaction between maternal beliefs and the different types of parent–child play interaction (e.g., adult structured versus child-directed) would yield insight into specific mechanisms that contribute to children's social competence.

3.4. The role of social and cultural variables

Interpretation of research on parent beliefs should be considered in relation to demographic factors and cultural context. APA guidelines for test development also assert that constructs should be examined in relation to demographic factors. Within this low-income, African American sample, some variables did relate to the constructs of Play Support and Academic Focus. For example, parents with higher education levels tended to have more positive,

supportive beliefs about play and those with lower education levels tended to maintain more academically focused beliefs. These findings are consistent with other research documenting that parental goals for early childhood instruction differ by education and income. One study found that less educated parents preferred more didactic teaching methods and stressed basic skills and knowledge as early educational goals more than well-educated parents (Stipek, Milburn, Clements, & Daniels, 1992). Similarly, Miller (1989) results suggested that parents with low status occupations choose child care settings that emphasize teacher-directed, academically oriented activities, which socialize children for later success in occupations requiring conformity to rules and routines. Parents from middle class or professional backgrounds tended to enroll their children in centers that valued a child-directed approach, emphasizing independence and creativity. In our study, neither marital status nor employment status had significant associations with parent play beliefs. Play beliefs were also unrelated to child age or gender, suggesting that, in general, parents hold similar play beliefs for both boys and girls, as well as for younger and older preschool children.

This sample of low-income, African American mothers endorsed a generally positive view of play and an appreciation of its significance for child development. It is likely that these Head Start mothers received exposure to a child-centered educational approach due to their child's participation in an early intervention program. Also, the number of non-participants could have skewed these results to produce a sample of low-income mothers who were more inclined to endorse the value of play-based activities with their Head Start child. Future studies can examine these relations by including parent demographics in a regression model to predict parent beliefs.

3.5. Study limitations and directions for future investigation

Several limitations in the design of this study should be noted and addressed in future studies. This study produced a new measure of parent beliefs about play with a sample of African American mothers who have children enrolled in Head Start programs. This represents a unique contribution to the literature on culturally diverse parenting beliefs and practices; the use of this measurement tool with other populations remains a question for future study. The sample, while appropriate for the statistical analyses conducted, was recruited from specific preschools and may not reflect characteristics of the general population of preschool parents. Also, contrary to previous research using the PIPPS, agreement was not obtained between teacher and parent ratings of children's peer play. Cross-setting agreement is a complex issue, as the lack of agreement may reflect differences in children's play across the home and school contexts. Additional research, especially observational studies, should continue to obtain information regarding children's play across key socialization settings.

Finally, this research provides only preliminary evidence for the reliability and validity of the PPBS. While initial results are promising, scale development research is needed to replicate the factor structure of the PPBS and the relations among parent play beliefs, parent demographics, child peer play, and child temperament. Studies examining the PPBS in relation to observations of parent behaviors during child play are needed to provide stronger evidence for the construct validity of the scale. Furthermore, the measure can be enhanced by the inclusion of additional academic items with a positive valence (e.g., “I enjoy reading with my child and make this a priority in my home”). Lastly, the measure may not adequately assess parental beliefs that both pre-academics and play are of equal importance. Due to the negative correlation between the two

scales, these constructs do appear to be distinct beliefs; however, more research involving parents with high endorsement of all belief items would yield insight into this possibility. Reducing the length of this instrument is also a reasonable goal for future study in order to produce a brief, screening tool for assessing beliefs of parents regarding pre-academics and play experiences.

Emerging research with Head Start children has shown relations among peer play and other indicators of school readiness, including motivation, task persistence (Coolahan et al., 2000), and language ability (Mendez & Fogle, 2002). Given that parent play beliefs demonstrate links with children's peer play, a logical next step would be to explore the connection between parent play beliefs and school readiness outcomes. Parent ratings of Play Support show positive relations with children's interactive peer play and may also be positively associated with children's cognitive and academic development. Parents endorsing the Academic Focus construct seem to place emphasis on academic learning, but future studies may not find a strong link between academically oriented play beliefs and academic success, given that this type of belief has already been linked to more negative peer play behaviors. Parents who report high levels of Play Support may structure their child's environment at home to be more conducive to play, set aside time each day for their child to play, or organize play dates with other children.

3.6. Implications for early assessment and intervention

Findings of this study represent a step forward for the inclusion of parents in the assessment and intervention process. The PPBS, a newly created measure to assess parent beliefs about play, demonstrated adequate reliability and promising associations with children's social competence. The field of early childhood would benefit from continued research regarding the use of the PPBS in studies investigating parental beliefs impacting social and developmental outcomes in young children. Early intervention programs, such as Head Start, may wish to incorporate more extensive discussions of children's play into their parent education efforts. These discussions could include a review of the positive developmental outcomes associated with play, guidance on promoting parent–child play at home, and an explanation of the role of play in the preschool curriculum. This recommendation is underscored by results found by Parker, Boak, Griffin, Ripple, and Peay (1999) indicating that parents who had a greater understanding of play at the end of the Head Start year had children who acquired a greater number of school readiness skills than peers whose parents had not gained greater knowledge of play. In conclusion, parent beliefs about play appear to be worthy of increased consideration in our conceptualization of the pathways involved in young children's development.

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