
Indo Caribbean Immigrant Beliefs about Play and Its Impact on Early Academic Performance



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In this study, the authors use psycho-cultural models of ethnic parental theories and acculturation to look at Indo Caribbean immigrant beliefs concerning the relationship between the amount of time children play and their early academic performance. During home interviews, fifty-seven Indo Caribbean couples offered their opinions about the importance of play for childhood development and estimated the amount of time their children both played and studied at home. The authors then tested each child for early academic performance using the Kaufman Survey of Early Academic and Language Skills. Mothers and fathers held discrepant beliefs about the value of play, and maternal beliefs about the cognitive benefit of play affected the relationship between the amount of time children play and their cognitive performance. The authors discuss the data in the context of immigrant acculturation and the impact the roles of parent and child have on determining the associations between play and childhood achievement. **Key words:** ethnicity and child rearing; immigrant acculturation; Indo Caribbean peoples; parental attitudes about play; play and early academic performance.

DESPITE SIGNIFICANT STRIDES in our understanding of the nature of young children's play of different cultures from around the world (Chick 2010; Gosso 2010; Gosso, Morais, and Otta 2007; Lancy 2007; Singer et al. 2009; Smith 2010), we know little of how parents in families who recently immigrated to the United States see play and what they believe about its impact on cognitive and social development. This lack of knowledge comes as a surprise given the dramatic increase in the number of immigrant children in the United States (Hernandez, Denton, and Macartney 2008) and the growing research on how much families in different ethnic and cultural groups embrace play as a way for their children to acquire and sharpen basic cognitive and social skills (Roopnarine 2011). Additionally, there is a paucity of data on immigrant fathers' beliefs about play and on the relationship between parental beliefs about play and children's cogni-

tive skills. The study presented in this article sheds more light on parents' beliefs about play and children's cognition in a group of Indo Caribbean immigrant families in the New York City area. More specifically, we examine differences in beliefs about play between mothers and fathers of preschool-aged children and assess the connections between parents' endorsement of the cognitive value of play, the amount of time their children engaged in play and in academic activities, and their children's cognitive skills.

Socio-Historical Background

Indo Caribbean immigrants in the United States descend from East Indians taken by the British as indentured servants to the Caribbean between 1838 and 1917 to meet labor shortages after the abolishment of slavery throughout the empire (Ramdin 2000). A majority of the East Indians, mostly males, were brought to British Guiana (Guyana) and Trinidad and Tobago where most remained after their labor contracts ended. During their indentureship and immediately afterward, the disproportion between the numbers of male and female immigrants, the living conditions in crude barracks, mate stealing, and polyandry contributed to instability in family and social life. Although religious and cultural practices among today's Indo Caribbean families still resemble those in northern India, we may not know the full impact of indentureship and its bleak economic and social conditions on child rearing and the transmission of ancestral cultural practices. Perhaps traditional family arrangements and cultural practices were disrupted by the indentureship of the East Indians, which then gradually stabilized over time with the coming of a less grim, more stable economic life and better education (Sharma 1986). Perhaps, too, though much more ignored as a possibility, the current family beliefs and practices of Indo Caribbeans have been influenced by social and cultural contacts with the groups preceding them in the Caribbean—a process called *creolization* (Silverstein and Auerbach 2003)—and by the socio-economic and educational policies of colonial governments.

More recently, because of political oppression (e.g., in Guyana), persistent economic hardship, and deteriorating social conditions (e.g., increasing crime rates), significant numbers of East Indians migrated from the Caribbean to North America. Using different kinds of migration—say, serial migration, or stair-step—most have settled in the larger eastern cities of North America—Montreal, Toronto, New York—initially in ethnic enclaves adjacent to other immigrants from the

Caribbean. While a majority remains concentrated in urban communities in the northeastern United States—Queens and the Bronx; Hartford, Connecticut; Jersey City and Bloomfield, New Jersey—others have resettled in some of the southeastern states like Florida and Georgia (Ramadar 2007).

Today, in Trinidad and Tobago and in Guyana, Indo Caribbean family structures are largely based on marriage, and households remain traditional in most respects, often mirroring those of northern India (Roopnarine and Krishnakumar 2010). As in other ethnic groups in the Caribbean, Indo Caribbean child-rearing practices involve several caregivers and extended emotional and social networks (Anderson 2007; Roopnarine, Evans, and Pant 2011a). However, parents and parenting figures have a poor understanding of developmental milestones because parental expectations often do not match children's behavioral skills or competencies (Roopnarine et al. 2011b). Caribbean parents require young children to sit still for long periods, be neat, and avoid messy play (Grantham-McGregor, Landman, and Desai 1983; Leo-Rhynie 1997). Recently, when researchers asked parents in Guyana, Jamaica, and St. Vincent and the Grenadines to describe those things preschoolers should be able to do on their own, they responded similarly across the three countries—their children, they said, should be able to write, to dress themselves, to read, express themselves verbally, identify numbers and count, take care of themselves, and be courteous—or display manners (Leo-Rhynie et al. 2009). A large-scale study of 1,504 families with preschool-aged children in Trinidad and Tobago obtained similar results (Roopnarine et al. 2011b). Given the emphasis on early academic training in the Caribbean, parents rarely mention the role of play in childhood development or early education. They see the preschool years as a time during which children learn the basic intellectual skills needed in formal schooling (Leo-Rhynie et al. 2009; Roopnarine, Bynoe, and Singh 2004).

What little we know about Indo Caribbean immigrant families in the United States suggests that these child-rearing patterns and beliefs and these developmental expectations of children stay the same after migration. Thus, researchers have documented the reliance on extended kinship and nonkinship support for child rearing, the obedience of children and their respect for adults, and the strong emphasis on learning basic intellectual skills and doing homework during the preschool years common among Caribbean immigrants in the United States (DeYoung and Zigler 2004; Roopnarine et al. 2006; Roopnarine, Krishnakumar, and Xu 2009). We can only speculate at this point on whether internal working models about child rearing and childhood development among

Indo Caribbean parents change under increasing contact with institutional practices in a new cultural community that emphasizes more child-centered principles and play-based, early-childhood education.

Parental Beliefs about Play

Parental beliefs about play vary tremendously in different ethnic and cultural groups. Parents in European-heritage cultures readily acknowledge play as a central component of learning during the early-childhood years; parents of non-European-heritage cultures (Lancy 2008) do not value play as much. In the technologically developed world, for example, Dutch mothers believe play is important for children's social and cognitive development (Van der Kooj and Slaats-van den Hurk 1991), and European American mothers in the midwestern (Haight, Parke, and Black 1997) and northeastern United States (Parmar, Harkness, and Super 2004) agree. In another U.S. study, 95 percent of mothers say they believe children should play each day (Glick Gryfe 2005). But Latina mothers in Boston (Holloway et al. 1995), Puerto Rican mothers living on the U.S. mainland (Soto and Negron 1994), and African American mothers (Fogle and Mendez 2006) did not fully share this belief in the developmental benefits of play. All these groups mentioned an "academic focus" for children and did not see a strong relationship between play and learning. Mothers from other cultures—East Indian (Goncu, Mistry, and Mosier 2000; Roopnarine et al. 1993), Yucatec Mayan (Gaskins and Miller 2009), Thai (Bloch and Wichaidat 1986), Chinese in Hong Kong (Holmes 2001), Indonesian (Farver and Wimbarti 1995), Jamaican (Grantham-McGregor et al. 1983), the Baining of the Gazelle Peninsula of East New Britain (Papua, New Guinea) (Fajans 1997), and several more (Singer et al. 2009)—revealed more ambiguous views about a direct relationship between play and learning. In a number of these societies, parents have an underlying belief that play is an activity of childhood, that it is something children engage in naturally because it is pleasurable, that it keeps them healthy, and that it should be mixed with work.

Turning to immigrants in the United States, we find two studies on parental beliefs about play instructive. Parmar et al. (2004) interviewed Asian (Korean, Chinese, East Indian, and Pakistani) and European American parents of preschool-aged children about the importance of play, learning, and their own role in early development. Asian American parents placed more emphasis on the

importance of learning and thought that play was far more important for the development of physical and social skills than did European American parents. Among middle-class Korean Americans, 47 percent of mothers thought that play was for amusement and the relief of boredom (Farver, Kim, and Lee 1995). These views are well within the Korean culture's emphasis on learning basic intellectual tasks during the preschool years. When these family groups encouraged play, it involved educational toys and materials (Parmar et al. 2004).

Parental Beliefs and Links to Cognitive and Social Development

In his overview of the association between specific aspects of play (e.g., pretend play) and early development, Peter K. Smith (2010) opined that the correlations were rather small and "patchy." Unfortunately, the significance of parental beliefs about play for early-childhood development is even less clear. Scattered evidence indicates that parental beliefs—as evidenced by their behavior toward their children (their "management style") or the goals they express for them—correlate with children's academic performance and social skills (Okagaki and Sternberg 1993). It is worth noting that researchers such as Sanders and Morawaska (2005) have found both direct and indirect effects of parental beliefs on childhood accomplishment. We suspect that beliefs about the value of play have an indirect effect on children's cognitive and social skills, especially—given our present study—moderating effects. That is, parental beliefs about play (moderating variable) may affect the amount of time parents provide for play (independent variable) and thus alter its impact on early-childhood development (dependent variable), making the association between the two different depending on the independent variable (see Baron and Kenny 1986 for a basic discussion of moderator variables).

A Study of Indo Caribbean Parents

The conceptual framework for our study includes psycho-cultural models (Sigel and McGillicuddy-DeLisi 2002; Super and Harkness 1997) that emphasize ethnic parental beliefs about childhood development and modes of acculturation (Berry 1997; Berry and Sabatier 2011). First, models rooted in cultural ways of

knowing and thinking (Rogoff 2003) regard cultural beliefs systems or ethno-theories as major forces in structuring the care and education that young children receive. These belief systems represent the psycho-cultural schemas about child rearing that are shared among members of a particular ethnic group. Second, models of acculturation propose that immigrants assume different patterns of acculturation and adjustment when they move from one society to another (Berry 1997; Roopnarine et al. 2004): Some blend their own cultural beliefs and practices with those already well established in their new community. Others remain loyal to the beliefs and practices they brought with them to the new society, remaining insular or segregated. Some researchers suggest that parents who adopt an integrative approach to acculturation provide their children more help cognitively and socially than those who remain more insular (Berry 1997; Berry and Sabatier 2011).

Immigrant Indo Caribbean mothers and fathers may draw on their own ethnic ideas about learning basic intellectual skills, ideas that are hallmarks of education in the Caribbean. These beliefs would place them at odds with the more child-centered approach to early education and learning embraced by national childhood organizations and educational institutions in the United States such as the National Association for the Education of Young Children (Copple and Bredekamp 2009). Given the possibility that their view of parenting may change during acculturation—after, say, a decade of exposure to more democratic methods of child rearing and education in the United States—and in general considering the implications of belief systems for the socialization and education of the immigrants' children (Cote and Bornstein 2003; Roopnarine et al. 2009), the study presented in this article sought to do three things: First, we hoped to provide a descriptive account of the Indo Caribbean mothers' and fathers' beliefs about the importance of play for childhood development. Next, we wished to assess the moderating effects of these parents' beliefs about the cognitive benefit of play on the relationship between the time their children engaged in play and their early academic performance. Finally, we sought to assess the moderating effects of the time these children spent in pursuit of academics on the relationship between the time they engaged in play and their early academic performance. We suggest—given the theories about early academic training of ethnic East Indians in the Caribbean (Leo-Rhynie et al. 2009)—that Indo Caribbean immigrant mothers and fathers would not differ in their ideas about the value of play and that, therefore, they would believe more in its social and physical benefits than in its cognitive-learning value. Based on theoretical

propositions and research findings on the benefits of play for early-childhood development (Singer et al. 2009; Smith 2010) and given general claims about how parental beliefs and childhood characteristics may influence childhood development (Murphey 1992), we hypothesized that the link between the amount of time spent in play and early academic performance would be moderated by parental beliefs and by children's involvement in academic activities at home.

Method

Participants

The participants in our study included fifty-seven English-speaking Indo Caribbean immigrant couples and their preschool-aged children (English was the primary language in the home, though families spoke a patois as well). They migrated from Guyana and Trinidad and Tobago to the New York City area (mean number of years for mothers in the U.S.A. = 13.77, $SD = 6.30$; mean number of years for fathers in the U.S.A. = 13.66, $SD = 6.61$). Most families resided in areas of Queens, the Bronx, and Brooklyn in New York and in Jersey City, Newark, Belleville, and Bloomfield in New Jersey. We recruited families through community agencies and organizations, churches, early-childhood centers, and word of mouth. The heads of the recruiting agencies provided a list of names and phone numbers of potential participants. We contacted families by telephone or in person and invited them to participate. Almost all the families we contacted agreed to do so. Fathers were, on average, 36.22 years of age; and mothers, 33.44 years of age. Fourteen percent of mothers and 24.6 percent of fathers were college graduates; 43.9 percent of mothers and 24.6 percent of fathers were high school graduates. Most of the parents worked at skilled or semiskilled jobs. They held jobs as mechanics, laborers, office clerks, salespersons, supervisors, drivers, construction workers, maintenance workers, upholsterers, and office managers. A majority of families earned between \$50,000 and \$ 75,000, and 91.2 percent of fathers and 75.4 percent of mothers worked full-time.

The children (thirty-three boys and twenty-four girls) attended diverse early-childhood programs—Head Start, community preschool, universal pre-kindergarten, and church-based programs. However, perhaps because Caribbean parents in general valued learning basic academic and social skills (Leo-Rhynie et al. 2009), more than half of the children went to private early-childhood programs deemed more educationally rigorous. The mean age of the children

was 5.06 years ($SD = 0.72$). Forty-seven percent of children were first borns and 42.1 percent were second borns. All the children were born in the United States.

Procedures

We interviewed mothers and fathers in their homes, asked them for basic demographic information about their families, and solicited their views on the importance of play for childhood development. We also asked them to estimate the amount of time their children engaged in play and in academic activities at home. We employed two interviewers—a forty-five-year-old male and a thirty-year-old female. Both had extensive knowledge of the cultural practices of Indo Caribbean families. Both were fluent in English and the patois spoken in the Indo Caribbean communities. Because of traditional beliefs about men's and women's roles, the male interviewer conducted all interviews with fathers, and the female interviewer conducted all interviews with mothers. Most of the interviews occurred in the evenings and on weekends, depending on family work schedules and social commitments. We conducted the interviews, which lasted for about one hour per parent, in English.

Parental Assessments

BELIEFS ABOUT PLAY. Drawing on the ethnographic work of Tobin, Hsueh, and Karasawa (2009), we asked each mother and father if they thought play was important for children's development and why. We coded each parent's responses verbatim and later typed them up as notes. Using procedures outlined by Auerbach and Silverstein (2003) for coding qualitative data, two individuals independently read the transcripts and determined the order of parental responses (first, second, and third). Next, they identified repeating ideas common to both mothers and fathers and grouped them into more general thematic concepts. They discussed disagreements in categorizing responses until they achieved a consensus. The two individuals had high levels of agreement (over 95 percent across categories). They placed responses that did not fit into the broad thematic concepts in a category labeled "other." They generated five broad categories that align with play often described by other researchers and commonly observed in young children—social, emotional, cognitive-learning, physical, and recreational (see Johnson, Christie, and Wardle 2005; Smith 2010).

PLAYING TIME. We asked each mother and father to provide estimates (in hours and minutes) of how much time their child spent at play in and around the home during nonschool-related activities for an entire week. In the absence

of our observing children's play directly, we chose parental estimates of time engaged in play, which we defined as qualitative engagement in activities with or without objects that may foster cognitive and social development. The amount of time children played has been characterized by parents in France, Germany, the United Kingdom, Japan, and the United States as time spent learning (LEGO Learning Institute 2002) and takes on greater significance here because of the number of preschoolers in this study who attended academically inclined, early-childhood programs. Play at home may provide richer opportunities to interact with materials and the physical environment.

Fathers estimated that their children spent an average of 16.02 hours per week ($SD = 8.24$), and mothers estimated that their children spent an average of 17.15 hours per week playing ($SD = 13.25$). There were no significant differences between these two estimates ($p > .05$). We used a median split to designate children as high and low playtime groups based on separate estimates from fathers and mothers. Both parents estimated the median playing time for their children at 14.0 hours per week. We classified children who played less than 14.0 hours per week as "low playtime" and those who played more than 14.0 hours per week as "high playtime." From fathers' reports of playing time, we assigned thirty-four children to the high playtime group and twenty-three children to the low playtime group; based on mothers' reports of playing time, we placed thirty-one children in the high playtime group and twenty-six in the low playtime group.

TIME IN ACADEMIC ACTIVITIES AT HOME. Each mother and father also provided estimates of the amount of time children engaged in academic activities at home. Academic activities included the time children spent reading and looking at books and doing homework. According to previous studies, we know that Caribbean parents commonly employ these two activities at home to help boost academic skills in children and that parents expect these activities to facilitate their children's early intellectual performance (Leo-Rhynie et al. 2009; Roopnarine et al. 2006). Fathers estimated that their children spent an average of 14.99 hours per week ($SD = 10.92$), and mothers estimated that their children spent an average of 13.65 hours per week in academic activities at home ($SD = 8.10$). The time mothers and fathers estimated did not differ significantly ($p > .05$). Again, we used a median split to categorize the high and low academic time group. Fathers reported the median time their children engaged in academic activities at 13.0 hours, and mothers reported 12.0 hours. We placed twenty-nine children in the higher category for involvement in academic activities and twenty-eight in the lower category.

Childhood Assessment

INTELLECTUAL FUNCTIONING. We used the Kaufman Survey of Early Academic and Language Skills to assess the children's academic skills (Kaufman and Kaufman 1993). We tested each child in a quiet corner of his or her home away from the parents. The assessment took about fifteen to twenty minutes. The testing instrument, standardized for use with children aged three to six years, assesses receptive skills, expressive skills, articulation, vocabulary, numbers, letters, words, number skills, and letter and word skills. We computed a composite score from the vocabulary, numbers, letters, and word subscales. The composite indexes the children's receptive and expressive language skills in vocabulary and verbal concepts; number, letter, and word identification; and counting, number concepts, and numerical problem solving (Kaufman and Kaufman 1993). These areas of intellectual functioning correlate with the various cognitive and social aspects of play (Smith 2010). The Kaufman battery, also standardized for diverse ethnic groups, proves reliable and valid (Kaufman and Kaufman 1993). Recently, researchers have used it to assess early academic performance among children in Trinidad and Tobago where it also appears culturally valid (Roopnarine et al. 2011b). Nonetheless, children of Caribbean immigrants and Caribbean children invariably identified a picture of a peach as an apple and identified an image of a faucet as a pipe—not surprisingly, however, because adult Indo Caribbeans routinely refer to a faucet as a pipe, and they have greater exposure to apples than to peaches.

	Girls (n=24)		Boys (n=33)	
	M	SD	M	SD
Intellectual functioning				
Receptive skills	106.83	9.46	106.76	11.07
Expressive skills	105.88	9.12	107.21	11.54
Vocabulary	97.83	8.35	99.09	10.22
Numbers, letters, and words	110.83	11.57	112.36	14.2
Number skills	108.43	29.93	115.02	27.58
Letter and word skills	117.83	24.06	111.14	25.31
Composite	105.25	8.06	106.88	11.85

Figure 1. Children's mean scores and standard deviations on different dimensions of the Kaufman scales

Figure 1 presents the mean scores for boys and girls on the components of the Kaufman Survey of Early Academic and Language Skills. With the exception of vocabulary, the children scored, on average, slightly above the standardized means of several groups in the United States but slightly lower than groups of preschool-aged children of African Caribbean, Indo Caribbean, and mixed-ethnic parents in Trinidad and Tobago (Roopnarine et al. 2011b). None of the early academic performance measures indicated any significant differences between boys and girls ($p > .05$). Thus, we collapsed the data for boys and girls in all analyses.

Results

Descriptive Data on Mothers' and Fathers' Beliefs about the Benefits of Play

Of the fifty-seven pairs of participants, 96 percent of mothers and 93 percent of fathers affirmed that they considered play important for childhood development. When asked why they thought so, all but three fathers and three mothers offered specific responses. As figure 2 shows, mothers' and fathers' beliefs about the value of play for early childhood development fell into five domains: social, emotional, cognitive-learning, physical development, and recreational. Over two-thirds of the responses (67 percent of mothers and 48 percent of fathers)

Parental Beliefs	Numbers of parents (%) from the primary answers	
	Father Reports	Mother Reports
Social benefits	13 (24.1%)	15 (27.8%)
Emotional benefits	3 (5.6%)	6 (11.1%)
Cognitive-learning benefits	10 (18.5%)	16 (29.6%)
Physical benefits	17 (31.5%)	6 (11.1%)
Recreational benefits	5 (9.3%)	5 (8.3%)
Other benefits	6 (11.1%)	6 (11.1%)
Total	54 (100%)	54 (100%)

Figure 2. Mothers' and fathers' belief about the benefits of play for child development

clustered in the areas of social, cognitive learning, and physical benefits. However, we found mothers' and fathers' beliefs about the benefits of play for childhood development discrepant in some categories when we considered their primary responses. For example, 32 percent of fathers mentioned the physical benefit of play, but only 11 percent of mothers did so; and more mothers (30 percent) than fathers (19 percent) mentioned the cognitive benefit of play. When we evaluated parents' second responses, the gender differences narrowed quite a bit, and enthusiasm for the social, emotional, or cognitive benefits of play remained evident.

Early Intellectual Performance by Time Spent in Play

In our preliminary analyses, we sought to discover whether children who had invested more time in play performed better on cognitive skills than those who played less. Before we made any comparisons, we first determined whether the groups shared equivalent demographics. We found no significant differences between the high and low playtime groups when we examined the age of parents, the educational level of parents, family income, the number of years of couples' marriages, the number of years they were employed, and the number of years they had resided in the United States ($p > .05$). Also the high and low play groups included nearly equivalent numbers of boys and girls, of children in the same birth order, and of children with parents having different occupational statuses (such as full-time employment, part-time employment, and types of jobs).

Independent t -tests revealed no significant differences between the high and low playtime groups in early academic performance based on either mothers' or fathers' reports ($p > .05$). Likewise, we found no significant differences between the groups investing a low amount of time in academics and the group investing a high amount of time. Nor did we find differences on any of the early academic performance measures between the group whose parents believed in the cognitive benefit of play and the group whose parents did not believe in the cognitive benefit of play ($p > .05$).

Moderating Effects of Parental Beliefs on Early Intellectual Performance

To test the moderating effects of beliefs about the cognitive benefit of play (initial response only) on the relationship between amount of time engaged in play and early academic performance, we grouped mothers and fathers based on whether they believed in the cognitive benefit of play (0) or did not believe in the cognitive benefit of play (1). Following Baron and Kenny's (1986) recommendations

for determining moderating effects when the predictor and moderator variables are dichotomous, we computed 2 (High Playtime; Low Playtime) x 2 (Believe in the Cognitive Benefit; Do not Believe in the Cognitive Benefit) ANOVAs (analysis of variance) on the different early academic performance measures. Due to weak convergent validity between mother and father variables (only the relationship between fathers' and mothers' estimates of time spent in academic activity proved significant, $r(57) = .42, p < .05$), and to better understand the separate contributions of mothers' and fathers' beliefs to childhood development, we deemed it appropriate to conduct separate analyses for each parent.

When we analyzed data based on fathers' reports, we found there were no significant interaction terms between fathers' belief about the cognitive value of play and the amount of time children spent at play for any of the intellectual functioning measures.

By contrast, we found significant interaction between a mothers' belief about play's cognitive function and the impact of children's playing time on their early

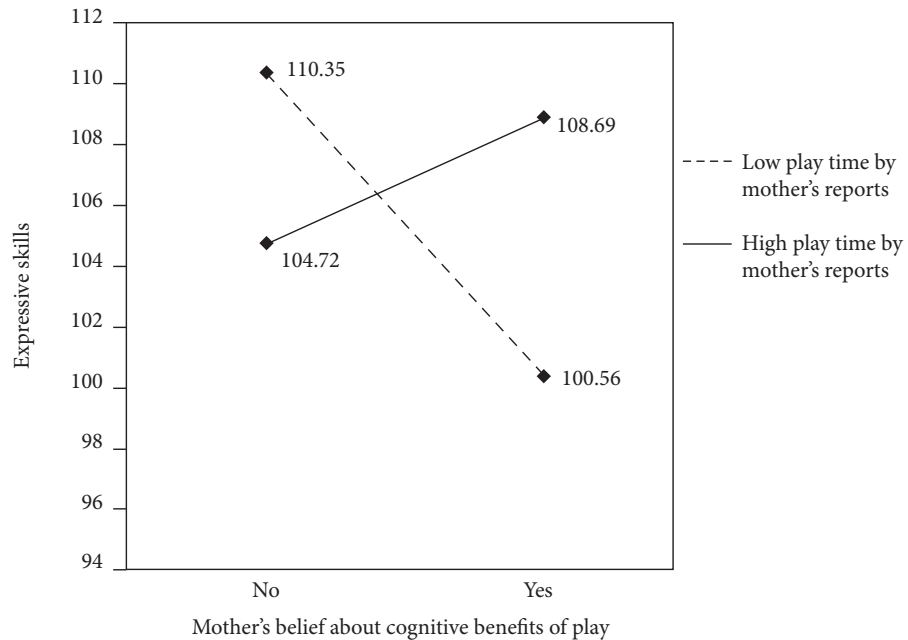


Figure 3. Child's expressive skills in high and low playtime investment groups as a function of mother's belief about cognitive benefits of play

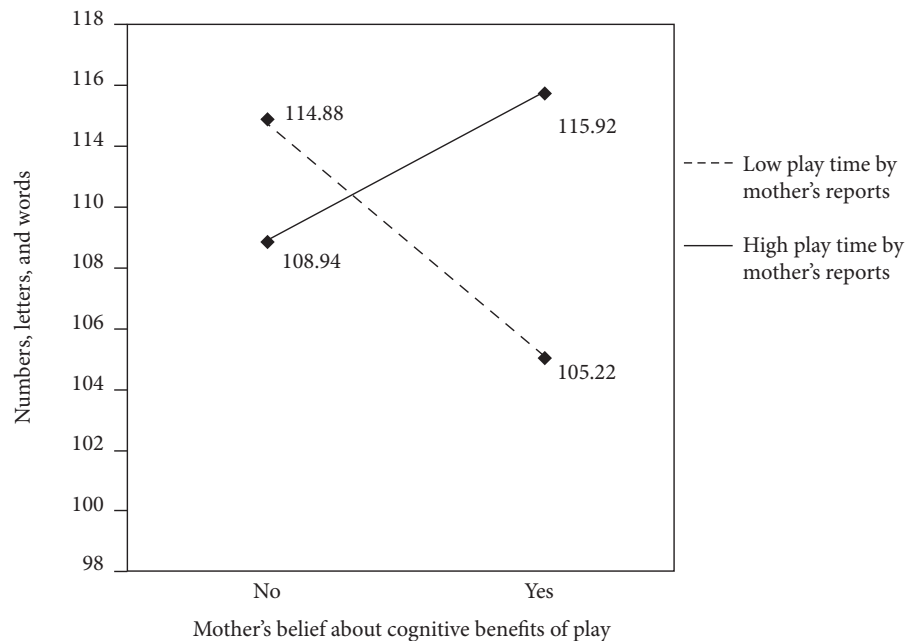


Figure 4. Child's numbers, letters, and words scores in high and low playtime investment groups as a function of mother's belief about cognitive benefits of play

academic performance in the areas of numbers, letters, and words, $F(1, 53) = 5.61, p < .05$, expressive skills, $F(1, 53) = 6.03, p < .05$, and composite score, $F(1, 53) = 4.17, p < .05$. As figures 3 through 5 show, for mothers who believed in the cognitive benefit of play, high playtime children performed better in numbers, letters, words, expressive skills, and in their composite scores than children in the low playtime group. Interestingly, for mothers who did not believe in the cognitive benefit of play, the high playtime children functioned at a lower intellectual level in numbers, letters, words, and expressive skills, and earned a lower composite score than their counterparts in the low playtime group.

Effects of Academic Activities at Home on Intellectual Performance

As we reported, Caribbean families generally assume that children who engage in more academic activities and play less gain a head start cognitively when they begin formal schooling (Roopnarine et al. 2004). It stands to reason, then, that the level of engagement in academic activities at home should moderate

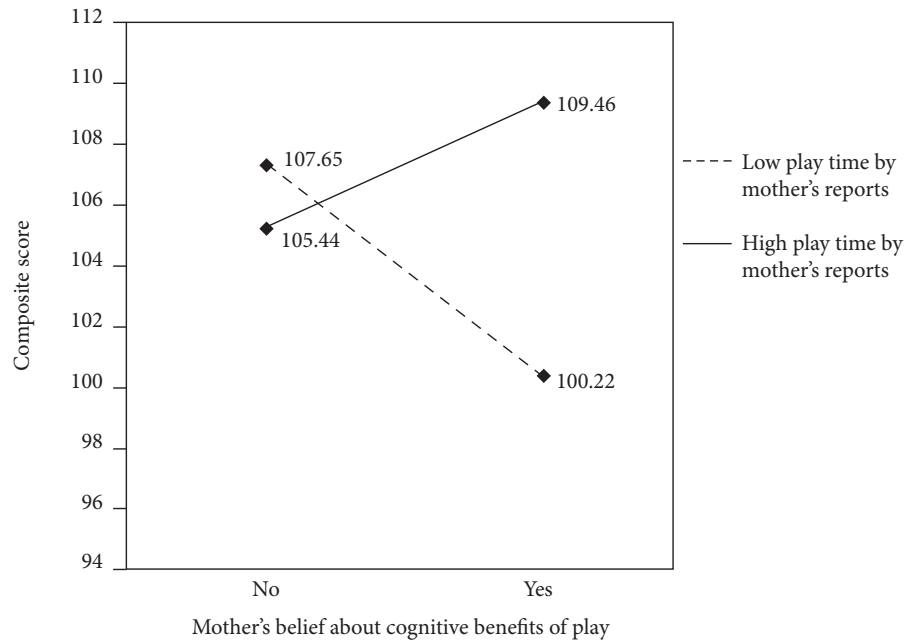


Figure 5. Child's composite scores in high and low playtime investment groups as a function of mother's belief about cognitive benefits of play

the relationship between amount of time devoted to play and early intellectual performance. We used procedures identical to those described previously to assess the moderating effects of time spent in academic activities at home and children's play time to their intellectual functioning. We conducted a series of 2 (High Playtime; Low Playtime) x 2 (High Involvement in Academic Activities at Home; Low Involvement in Academic Activities at Home) ANOVAs on each of the early academic performance measures for mothers' and fathers' data separately. These analyses showed no significant interaction for mothers' or fathers' reports on any of the measures of intellectual functioning in children.

Discussion

Some researchers have argued that parental beliefs about play are related to the types of cognitive and social activities offered to children within specific ethnic

niches (Gaskins and Miller 2009). If beliefs about the value of play influence parental socialization practices and goals, then they likely exert influences on childhood development as well (see Murphey 1992). But the manner in which beliefs about play influence childhood development has not been sufficiently explored. Parental beliefs about the value of play for development may assume moderating and mediating roles in facilitating childhood intellectual development. That is, parental beliefs about play are more likely to have indirect effects on childhood development. Be this as it may, the primary goals of this study were to codify Indo Caribbean immigrant mothers' and fathers' beliefs about play and to determine the relationships between those beliefs and children's early academic performance. We thought that Indo Caribbean immigrant mothers' and fathers' beliefs about play would be similar to those of the culture into which they were born. Given beliefs about the importance of academic activities for training young children in the Caribbean and the lack of emphasis on play as an important activity for the acquisition of cognitive and social skills in children among immigrant families in the United States, we expected that both parental beliefs about the cognitive benefit of play and the amount of time children spent in academic activities would each moderate the relationship between time spent in play and children's early intellectual performance.

Broadly speaking, immigrant parents who migrated from societies with more traditional ideas about early schooling expect their children to progress developmentally and value early academic training over play (Farver, Kim, and Lee 1995; Parmar et al. 2004). Our findings indicate that this was not entirely the case for Indo Caribbean immigrants living in the New York City area. Parental beliefs fell well within the established developmental notions about play identified by researchers (Smith 2010)—67 percent of mothers and 48 percent of fathers believed that play contributed to cognitive, social, and emotional development in children. Might this suggest a change in ethnic-based theories about play in some Indo Caribbean families after they have been exposed to developmentally appropriate ideas about early socialization and learning in the United States?

In the absence of knowledge about these parents' beliefs about play and development prior to migration, our study cannot provide a definitive answer to this question. However, the specific developmental functions of play noted by parents are in marked contrast to the emphasis placed on neatness and nonmessy play by Jamaican families (Grantham-McGregor et al. 1983) and the strong beliefs about self-reliance and academic precocity in preschool-aged children

expressed by parents in Guyana, Jamaica, and St. Vincent and the Grenadines (Leo-Rhynie et al. 2009). Considering these findings from the Caribbean as a barometer, we think it possible that some of the Indo Caribbean immigrant mothers and fathers in our sample are in the process of changing their beliefs about the role of play in early childhood development. Comparative studies have indicated that parenting ideas do begin to change in immigrant families after they have lived in the United States for a while (Cote and Bornstein 2003). In view of the entrenched beliefs of their original culture about early academic training and the importance of their children's early achievement, it may take considerably longer than a decade of residence in the United States for Indo Caribbean immigrant fathers and mothers to fully revise their ideas about child rearing and early education.

Fathers more likely valued play for physical and recreational development than for cognitive or social development; mothers endorsed the cognitive and social benefits of play over any physical advantages. These discrepancies perplex us. Quite possibly, Indo Caribbean immigrant fathers in general are less convinced about the benefits of play for early childhood development than mothers, in which case, they would be reluctant to adjust their ideas about childhood development regardless of exposure to child-centered approaches to child rearing. Data reveal that Indo Caribbean immigrant fathers (Roopnarine et al. 2009) and immigrant men from other cultures (Chuang and Moreno 2011) retained beliefs about household and child-rearing roles similar to those in their country of origin (Updegraff, Delgado, and Wheeler 2009). It could be that the gender differences in belief systems about the value of play simply reflect different adjustment patterns and limited acceptance of divergent views about child rearing between Indo Caribbean immigrant fathers and mothers. Two fairly consistent findings on immigrant families in North America are, first, that they exhibit diverse patterns of social-psychological adjustment to their new cultural communities and, second, that some immigrants experience cultural dissonance about child rearing and education (Hassan et al. 2008).

As we have intimated, parents in different cultures often regard children's engagement in play as time spent in exploring and learning about the objective and social world (Singer et al. 2009). On this basis, we proposed that children who invested high levels of time in both play and academic activities at home would perform better on intellectual skills than those who spent relatively less time in play and academic activities at home. We failed to find significant differences in academic performance as a function of time spent in play and academic

activities at home. Perhaps, time spent in play is too global and crude a measure to determine the intellectual benefits children might accrue. An argument can be made that the quality and types of play that children engage in and the nature of academic socialization at home would more likely relate to early cognitive performance than just the amount of time allotted to play and academic activities *per se* (Smith 2010). Furthermore, mothers and fathers may have underestimated or underreported the time their children spent in play because they view play as secondary to academic pursuits.

Few researchers have tried to assess the relationship between ethno-theories about play and early intellectual achievement. Enough data exist to suggest that parental beliefs may influence childhood development through parental socialization practices and goals (Murphey 1992). Remember, we hypothesized that both mothers' and fathers' beliefs about the cognitive benefit of play will have a moderating effect on the relationship between play and cognitive growth in children in Indo Caribbean immigrant families. A striking finding was that maternal, but not paternal beliefs, about the cognitive benefit of play moderated the relationship between children's time investment in play and children's intellectual functioning.

Fathers' contributions to child rearing vary in different cultures around the world (Gray and Anderson 2010; Lamb 2010; Shwalb, Shwalb, and Lamb, *in press*), and studies have recorded the effects of paternal involvement on language development in children (Tamis-LeMonda et al. 2004) and the moderating influence of fathers' involvement in child rearing on the intrapersonal functioning in parents (Tamis-LeMonda, Kahana-Kalman, and Yoshikawa 2009). Taking note of these findings, what might account for why maternal, but not paternal beliefs, about the cognitive benefit of play had a moderating effect on the relationship between the amount of time children engaged in play and their early academic performance? To begin with, previous studies have indicated that Indo Caribbean immigrant mothers spend far more time in child care and some school-related tasks than fathers do (Ramadar 2007; Roopnarine et al. 2009). This predisposes children to higher levels of interactions with mothers and, at the same time, increases the potential influence mothers may have on childhood development either directly or indirectly through their own beliefs about child rearing, attendant parenting practices, and childhood education. Alternatively, we should not assume that similar processes are at work for mothers and fathers when it comes to how they affect childhood development. Because Indo Caribbean immigrant fathers have little involvement in their children's

lives (Roopnarine et al. 2009), other more direct investment measures, such as father-child play activities, may act as better moderators and mediators in the association between children's involvement in play and early academic performance than paternal beliefs about the value of play. Much more research needs to be conducted to find out whether fathers' beliefs about play and father-child play activities influence childhood development in unique ways.

Our findings should be interpreted with caution given the small sample size, analytical difficulties with categorical variables, the cross-sectional nature of the data, and other limitations related to the time involvement measure used. Nonetheless, the point we would like to make is this: parents' theories about play constitute a core aspect of child rearing and early education and, therefore, have significant implications for facilitating and investing in parent-child activities and the types of early-childhood programs that immigrant parents choose for their children. The ethnicity-based theories about the value of play for childhood development among immigrant families may change in accordance with levels of psychological adjustment and their willingness to embrace more child-centered approaches to early care and education after migration. As has been shown, parental beliefs about the cognitive value of play among Indo Caribbean immigrants moderate the relationship between time in play and the early academic performance of their children. We should recognize that beliefs about play have a dynamic relationship with other parental and childhood variables that may influence patterns of development in children. Further tests of the impact of fathers' and mothers' beliefs about the value of play on childhood development, either as moderators or mediators, on the relationship between children's play investment and children's socio-emotional and cognitive development across immigrant and nonimmigrant cultural groups would greatly increase our understanding of cultural ideas about play and their direct or indirect influences on childhood development.

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