

SOCIAL-EMOTIONAL LEARNING: THE VALUE OF PARENT-CHILD INTERACTIONS
BETWEEN AFRICAN-AMERICAN MOTHER'S AND TODDLERS

By

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Abstract

Play is a tool that caregivers can use to facilitate healthy development of social-emotional skills in their children. In the most general sense, social-emotional skills are building blocks towards children's ability to self-regulate, build relationships, and enhance learning and problem solving ability (Milteer et al., 2012). There is evidence that young children from low-income urban communities have less access to play experiences than their middle-class counterparts, potentially limiting the development of social-emotional skills encouraged by play (Ginsburg, 2007). The present study is two-fold: 1) to explore how the mother-child interactions of African American mothers (N=59) facilitates the development of their child's social-emotional behaviors and 2) to explore how poverty in a urban setting serves to predict mothers -child interactions and mother's report of child social-emotional problems. These data help establish an early assessment of behaviors for the children of these communities at an early childhood time point. Once established in early childhood, social-emotional behaviors and problems remain fairly stable over time are difficult to change (Bornstein, Hahn & Haynes, 2010). Thus, finding ways to encourage positive play experiences for young urban children becomes important intervention and policy issues.

The Benefits of Play

The way in which children develop social and emotional skills involves a complex interplay between evolutionary predispositions, genetics, and socio-cultural factors (Grusec, 2011). For young children, playing with their parents may serve as the initial context where learning these skills takes place. Through play, parents teach their children how to regulate emotions and socialize with others. In most cultures, mothers are assigned to the primary caregiver role. The primary caregiver has control over the resources they share with their child and are in a position to structure their children's environments to ensure they are exposed to positive social influences (Grusec, 2011).

Socio-cultural theorist Vygotsky said that play helps children structure the rules for social interaction and encourages the development of higher functioning (Vygotsky, 1978). Play serves as a foundation to the social, emotional, and cognitive skills that are quickly developing during early childhood. It is a natural tool that promotes resilience as children learn to manage their own behaviors and emotions (Singer, Golinkoff, & Hirsh-Pasek, 2006). Play has been shown to contribute to the development of social skills such as turn taking, following rules, cooperating with others, empathy, self-regulation, self-confidence, and impulse control. Elisa & Berk (2002) tested the Vygotsky assumption that social play in early childhood is important in the development of self-regulation using a short-term longitudinal design. 51 three and four year olds were observed in their preschool classroom during clean up periods and group circle times. All participants were Caucasian, native English speaking, and from middle- to upper-middle-income families. Over the school year, the children who engaged in social play demonstrated improved self-regulation during clean up periods, whereas the children who engaged in more solitary play had negative correlated improvements in cleanup performance. Not only does play benefit healthy development by allowing

creative and physical outlets for children to develop social and emotional growth, but it also helps build a quality parent-child relationship (Milteer et al., 2012).

Shonkoff & Philips (2000) suggest that the bond between child and a consistent caregiver serves as a mediator in children's healthy development. Play allows for a parent to see how their child is viewing and experiencing the world around them, which builds their skills to communicate and better understand their child's needs. The playful and relaxed environment that occurs during the interaction of child-parent play shows children that their parents are paying attention to them, strengthening their bond (Milteer et al., 2012).

Social-Emotional Learning

Social and emotional regulation is the ability to manage one's emotional experiences in order to engage and adapt with daily experiences in one's environment. Emotional regulation, the ability to regulate one's own emotional state, has been shown to be an essential component in the formation of positive peer relationships (Hoffman & Russ, 2012). Early development of children's social and emotional skills may be commonly classified as 1) externalizing behaviors (e.g. aggression, hyperactivity), and 2) internalizing behaviors (e.g. anxiety, withdrawal, and sadness). Externalizing behaviors include a child who refuses to follow directions, has poor self-control, is unable to wait in line or for turn and breaking others belongings when upset. Internalizing behaviors include a child who may have anxiety such as excessive worrying, being scared of new things, being too clingy, and sadness (Baillargeon et al., 2007). The extreme existence or nonexistence of typical behaviors tends to be problematic further along in a child's development.

Research studying the relationships between brain functioning and behavior (Rothbart, Ellis, Rueda & Posner, 2003; Krenl & Heatherton, 2009) suggest that substantial changes in the frontal

lobes in the cerebral cortex trigger gains in self-regulation. The formations of synapses in the frontal lobes reach maximum development during the preschool years, developing almost double the adult amount around age 4. This leaves a child in a state of neurological development that signifies a period of high plasticity, or a “readiness” for learning (Nelson, 2003). However, self-regulation does not just develop on its own in a child. Accumulating evidence indicates that it results from changes caused by interactions between brain activity and experiences (Huttenlocker, 2002; Krenl & Heatherton, 2009; Bernier, Carlson, & Whipple, 2010). A young child's development is conditioned by the frequency and complexity of interactions within four interrelated systems, which include their family, their neighborhood, the institutional community such as school and other social services, and the surrounding culture. When it comes to cognitive and social development, it seem to be most affected by factors of the home environment, including the caregivers' self-image, self-esteem, confidence, and emotional responding (Bernier, Carlson, & Whipple, 2010).

Social and emotional regulation is being shaped during early childhood as children create and then follow their own rules. During pretend play children have the opportunity to practice skills that could later be displayed during real life social interactions. For example, a child may be able to tell her stuffed animal that he has to wait 5 minutes before going outside to play and then do so herself, while in a real life setting the same 5 minutes would feel impossible to the little girl if enforced by a parent (Hoffman & Russ, 2012). Through play children have the opportunity to practice and alter a variety of emotional experiences. They are able to build emotional regulation skills by creating and modifying highly arousing emotional events. The findings in Barnett and Storm's (1981) study confirmed that children utilized play to identify resolutions to negative events. The sample consisted of 40 preschool aged children, ranging from 38.3 months to 58.6 months old. Ethnicity of children

was not provided. The children were randomly assigned to two groups of children (n=20) to either watch a stressful movie scene that did not show a resolution or into the group who watched the stressful movie scene with a positive resolution. Their play behavior was then compared. The initial anxiety levels between the two groups, assessed by palm sweating and self-report of how happy/sad they felt, were comparable, but as projected, the anxiety in the group without the resolution continued to rise. Once the children in the stressful-movie group were able to play, they spent more time enacting scenes related to the resolution of the scene they had watched. This caused a quick decline in their anxiety and negative feeling emotions.

Bratton and colleagues (2013) evaluated the effectiveness of a play-based intervention for decreasing disruptive behaviors of low-income children in a preschool setting. Preschool teachers identified the children who displayed more frequent aggression, conduct problems, oppositional behavior, hyperactivity, attention problems, and impulsivity to receive the play-based intervention. The mean age of the children was four years old, with forty-two percent of the sample (n=54) being African American. This play-based intervention allowed for the children to use play for self-directed healing, and encouraged children to express their inner world through play. The results indicated significantly reduced disruptive behaviors of these children (Bratton et al., 2013). Noted in Bratton and colleagues research was the percentage of African American children who were identified as having problem behaviors. As mentioned, forty-two percent of the sample was African American. The sample was collected from a single preschool program where African American children only make up nineteen percent of the programs demographics, indicating that African American children from low-income neighborhood may be at more risk for disruptive behaviors.

Haight, Black, Workman, and Tata (2001) observed the pretend play interactions between nine mothers and their children who had experienced trauma and were in the foster care system. Five of the mothers were African American. Their observations suggested that children used spontaneous playtime during visitations with their mothers to communicate about their traumatic events in order to understand and clarify situations, seek comfort, recover a sense of self independent of the trauma, and develop hope for a more positive future. Other studies by Haight that observed pretend play between high-risk mother-child dyads produced similar results (e.g., Haight & Miller, 1993; Haight, Parke & Blake, 1997; Haight et al, 1999).

These findings support the concept that young children can use play to express their concerns, interpretations of the world around them, and make sense of negative events. This concept becomes increasingly important for children who live in high stress environments, such as living in poverty. Play seems to work as a buffer for children who need to cope with frequent change and process new experiences (Singer, Golinkoff & Hirsh-Pasek, 2006). For children who have difficult life environments positive play interactions between child and caregiver may be even more crucial.

Barriers to Play

As of 2011, the federal poverty level for a family of four was \$22,350. But research suggests that families actually need an income, on average, about twice the federal poverty line just to meet basic needs (Demographics of Young, Poor Children, 2011). In the state of New York there are 1,345,101 young children, young children being under 6 years of age. Forty-three percent of these young children (581,159) live in low-income a family, which is defined by an income below

200% of the federal poverty level. Fifty-eight percent of young African-American children live in these low-income families (Demographics of Young, Poor Children, 2011).

Several neighborhoods in New York City have been plagued with these social problems for decades influenced by the chronic poverty. The majority of low-income African-American children live in these urban neighborhoods with highly concentrated poverty in their communities (Demographics of Young, Poor Children, 2011). These children live in communities that are lacking in safe play environments, health care access, and well-resourced schools. Children cannot play outside without the supervision and protection of a parent in unsafe neighborhoods. Increased time spent inside engaged in activities such as watching television or playing video games leads to a more sedentary life style that is low on social interaction, thus resulting in less time for social skills development (Milteer et al., 2012).

These highly concentrated areas of poverty are more likely to experience harmful levels of stress resulting in more frequent behavioral and emotions problems. Poverty has been shown to be a major risk factor for several mental, emotional and behavioral disorders (Komro, Flay, & Biglan, 2011). Many mothers who are involved with the public child warfare system have their own unmet mental health needs. They experience high levels of stress and many have experienced trauma, which when repeated over time from childhood to adulthood have left mothers who remain troubled with concepts of self, struggle with interpersonal relationships, and lack their own coping skills (Schoppe-Sullivan et al., 2007). A mother who is battling her own mental health needs may lack the energy and other skills needed to provide proper emotional support to her child.

Children who live in poverty have been shown to have less developed cognitive and social skills as well as poorer physical and mental health outcomes (Komro, Flay, & Biglan, 2011). Three

national data sets have been valuable in informing educators of the between-group differences in cognitive and behavioral development of preschoolers: the Children of the National Longitudinal Study Youth 79 Cohort (CNLSY79; U. S. Department of labor, 2000), the Infant Health and Development Project (IHDP; Infant health and Development Program, 1990), and the Early Childhood Longitudinal Study Kindergarten Cohort (ECLS-K; National Center for Education Statistics, 2002). On average, African-American children are coming into Kindergarten with lower levels of school readiness skills, including those needed social-emotional skills needed to support learning in a school's environment, than white children. Research has demonstrated that the gap in school readiness skills can largely be attributed to income status (Farkas, 2003). Under resourced schools in urban settings are more likely to have reduced time for recess in order to make more time for an academic focus in efforts to reduce the academic disparities (Ramstetter, Murry, & Garner, 2010). The effects of poverty in urban settings that have high minority and high poverty rates are not only seen in the lack of neighborhood resources, but also in the resources in the homes of the families in those communities.

Fewer Resources, Fewer Opportunities

While parents of children who are living in poverty have the same aspirations for their children as do parents who are of a middle or upper income brackets (Milteer et al., 2012), the demands on a family living in poverty becomes the primary focus for day-to-day living. When basic needs such as food and shelter are lacking, warranting time for child-parent play may not be a priority (Milteer et al., 2012). The focus of a parent is to maintain the basic needs of their family, leading to fewer resources such as toys, books, and time to invest in playful experiences. Families

living in poverty have less stimulating home environments and more prolonged and extensive parental stress (Linver, Brooks-Gunn, & Kohen, 2002).

Roy, Tubbs, and Burton (2004) examined the time obligations and the coordination of resources of low-income mothers. Their observations gave insight to the need of these mothers to “solve the puzzle every day”. Their motivation to be good working mothers was often tested by the context of poverty. For example, low-income mothers needed to constantly shift their daily lives in order to meet both work and family obligations. If a mother was unable to go to the health department during its open hours for their children’s immunizations, they lost the option of being able to use a private physician. If a child was sick, poor mothers did not have flextime opportunities at work to leave in order to care for their child. In order to meet family obligations these mothers risked losing work hours and jeopardized job security. When both obligations could not be met the result was stress and frustration. A parent whose main focus is the family’s’ daily survival of housing, food, and clothing, warranting time for creative playtime may not be a priority at the end of the day. If playtime and early interactions encourage early development of the social and emotional skill needed to later by successful, children living in extreme poverty may be at risk for not fully developing these skills, leading to increased internal and external behaviors.

Unless supervised by an adult, children in many poor communities cannot play safely outside. Brooklyn reported the highest murder rate in NYC in 2011 (Police Department of New York. 73rd Precinct, 2011). Parental protection is needed from increased violence or other environmental dangers. Dias and Whitaker (2013) used the narratives of African-American mothers in a high-crime neighborhood to understand how the mothers perceived the safety of their neighborhood and how they decided if their daughters could play outside. The mothers in this study

reported apprehensions of unpredictable violence; concerns of drug and gang activity, and a lack of safe play areas as reasons why they did not let their daughters play outside. The neighborhoods that low-income families live in tend to lack community resources, such as parks, playgrounds, or community centers. Children have less opportunity to participate in organized sports and spend less time walking or riding their bikes around (Ginsburg, 2007).

Low-income parents are more likely to have a lower education level and/or be from a single-head household. These factors lead to fewer resources in the home, such as time to invest in playing or toys (Lindsay, 2010). Low-income families may get the message that they cannot afford the best toys or that they cannot enhance their child's lives with the toys they can afford (Lindsay, 2010).). With the additional emotional, economic, and environmental stressors in the daily lives of parents of young children living in low-income communities, they may have less energy, time, and resources to be able to provide playtime with their children even in the home (Milteer et al., 2012).

Play Beliefs of African-American Mothers

Understanding the differences of family functions within ethnic minorities helps support researcher and practitioner's knowledge of how children develop within these families. As an example, African-American families face unique challenges such minority status, poverty, and different cultural values regarding play and parenting. Wilson, Kohn, Curry-El, and Hinton (1995) examined some of the primary influences among African American mothers and their perception of performance of her child-rearing behaviors. The participants in this study consisted of 382 African American families collected from The National Survey of Families and Households. Household income, number of adults in the home, number of children, and the mothers education level served as the independent variables in this study. Their results concluded a direct relationship between

mothers education achievement and their competence and skill at socializing with their children. The greater the academic achievement of the parent, the more likely they were to spend time reading, playing, and praising their child.

Fogle and Mendez (2006) used a population of low-income, African American dyads utilizing Head Start services to understand the associations between parents play beliefs and children's peer play competence. Among their demographic variables and play beliefs, the factor of play support had a significant and positive association with parent education. Play support include questions about how the parents utilized play with their children, such as "playing at home will help my child get ready for kindergarten" and "I can help my child learn to control his or her emotions during play". The questions in the play support factor were intended to capture how much mothers enjoyed play, saw it as a priority, and as a teaching opportunity. The factor of academic focus had a significant and negative association with parental education. The academic focus consisted of questions such as "Play does not influence my child's ability to solve problems" and "It is more important for my child to have good academic skills than to play well with others". The academic focus factor was intended to capture how much emphasis mothers placed on academic skills and beliefs that play does not have a critical role in learning. The more positive the parent's attitude on the play support factor related to higher social competence and adaptable temperament in the play interactions with peers in a preschool setting.

Effects of Poverty on Play and the Home Context

Low-income communities have reported higher incidences of crime, joblessness, welfare dependency, and school dropout (Orfield & Lee, 2005, Santiafo, Wadsworth & Stump, 2011). Research has implicated a relationship between social disorganization and the social mobility of the

children in the community (Jarret, 1997). Neighborhood resource theory maintains the idea that disadvantaged African American neighborhoods have a lack of supply of quality child services, parks, schools, and libraries, such as seen in low-income neighborhoods around NYC. The child services that are available in the community are generally underfunded, incompetently staffed and poorly sustained. This leads to an inequality in the exposure to enriching education environments and social and cultural involvement (Jarret, 1997). Murry, Berkel, Gaylod-Harden, Copeland-Linder, & Nation (2011) reviewed neighborhood effects of poverty in studies over the last decade. The summary of this collection of studies showed both direct and indirect links of low-income neighborhoods with low academic achievement increased internalizing behaviors and externalizing behaviors. This keeps children who grow up in these disadvantaged neighborhoods as a product of that “neighborhood effect” and they remain poor and socially immobile. Research on programs such as Moving to Opportunity, which allows for families in high-poverty neighborhoods to move to low-poverty neighborhoods, has shown that adolescent males who were moved from their disadvantage neighborhoods made significant improvements in achievement (Leventhal & Books-Gunn, 2004).

Collective socialization theory argues that urban low-income neighborhoods lack middle-class residents who serve as established role models and social mechanism for the low-income residence. Community members who engage in the disorganizations as stated above become role models for the children in the neighborhood. Through the exposure to lifestyles of crime, joblessness, and school dropout; children may be encouraged to conform to the neighborhood social norms conveyed by neighborhood role models and other social pressures and imitate these lifestyles as they come into adulthood (Jarret, 1997). This theory can be problematic

with suggesting the need to be “middle class” in order to be a positive role model in a community. Collective socialization theory does not take in consideration the mediation of the neighborhood influence on children by parents who are directly affected by the neighborhood. Parents have the opportunity to compensate against collective neighborhood norms. It is not about needing a middle class resident to serve as a role model, but the quality of a role model. For young children growing up in low-income neighborhoods, the presence of a mother figure that is supportive can help minimize the negative effects of the neighborhood and foster successful child development. For example, two studies conducted among youth in the juvenile justice system (Chauhan & Dickon, 2009; Chung & Steinberg, 2006) found factors such as individual and family context as more of a predicting role than neighborhood effect.

Harkness and Super’s (1994) theory of the developmental niche focuses on the influence of culture on parent’s beliefs and behaviors as they relate to child development. It is distinctive in its focus on the child developing in the home context. While the theory takes in consideration that children and the environment in which they grow up in are an interactive system, the household serves as the strongest predictor. The developmental niche is a three-subsystem paradigm. The three subsystems are influenced by culture and function together as a larger system: 1) the physical and social setting in which the child resides, 2) the practices and customs of the primary caretakers in those systems, and 3) the psychology of the caretakers (Harkness & Super, 1994).

Harkness and Super theorize there are three main processes that represent the developmental niche. The first process is the subsystems will interact with one another. An example is how parents’ beliefs on something such as the use of play, creativity, control, or frustration during interaction will influence what activities, and how they engage with their children. The second

process is the subsystems will relate independently with the greater environment. For example, a practice such as playtime with their child may be altered due to a larger environmental change such as a parent who has to work during the evening to support their family. The final process is that children influence the development of their own developmental niche. An example of this is how a parent might structure a particular routine to better match a child's temperament, a parent may need to be more playful with a particular child or demonstrate more control with a particular child (Harkness & Super, 1994).

Understanding how the three subsystems function as a larger system, parents can use the benefits of play to enrich their children's lives despite the difficult living conditions and living in poverty. If a parent can support their child's social and emotional development they can help set a foundation for a child to enter school with the skills needed to become successful learners. They can develop the social skills needed to develop and maintain positive friendships. A child with positive social and emotional skills that are encouraged in the home environment, according to Harkness & Super, are the strongest predictors for how that child will interact with their surrounding environments.

Current Aims

The primary aims of this investigation were two-fold. First this investigation focused on understanding how the mother-child interactions of African American mothers facilitated the development of their child's social-emotional behaviors. Second, this investigation paid particular interest to how poverty in an urban setting serves to predict mothers-child interactions and mother's report of child social-emotional problems. The proposed study aims to understand how income can be a predictive factor for the type of parent-child interactions and how that facilitates

social-emotional development.

While all participants in the present study were from low-income communities, there was variability in poverty level across the sample. The current study examined how differentiated levels of poverty effected African-American mothers parent-child interactions with their preschool aged children, and how it related to their reported social-emotional and behaviors problems of their children. Children growing up under-resourced in poverty often face socioeconomic challenges that limit their opportunities for playtime, consequently affecting their healthy social-emotional development. For these children, it may be particularly crucial that parents recognize the importance of lifelong benefits that children can gain from the playful interaction provided by a supportive parent.

The current study expands upon our knowledge in this area by exploring the attitudes prioritized towards play among African-American mothers living in poverty, particularly how they are able to utilize play for healthy child development and learning. Parents living in poverty have been shown to be more likely to use punitive and coercive parents strategies and less likely to demonstrate consistency and high levels of responsiveness with their children (Bradley, Corwyn, McAdoo, & Coll, 2001). Exploring the relationships of play within these low-income families may help identify how the values regarding play among African-American mothers living in poverty are being used as protective factors from the various stressors that accompany growing up in poverty in an urban settings, as well as understand what factors can be encouraged to build resilience and support positive parent-child relationships.

Primary Research Questions

Understanding the relationship between playful or creative interactions and

social-emotional development. *Hypothesis 1:* It was hypothesized that mothers who endorse an approach to their parent-child interactions where the priority is representative of play and/or creativity will self-report fewer social-emotional/behavioral problems in their children. This hypothesis has received support from recent research, which finds social-emotional skills are strengthened and developed through both positive interactions with a primary caregiver (Grusec, 2011) and through playful and creative activities (Bratton et al., 2013).

Understanding the relationships between controlling or frustrating interactions and social-emotional development. *Hypothesis 2:* It was hypothesized that mothers who endorse an approach to their parent-child interactions where they priority is representative of controlling and/or frustration will self-report increased social-emotional/behavioral problems in their children. Previous research suggests that children use play with their parents to workout things they do not understand and process negative emotions (Haight, Park & Black, 1997). When a parent has primary reactions of control or frustration towards various child behaviors there are less opportunity for facilitate development.

Understanding the relationship between income and social-emotional development. *Hypothesis 3:* The final hypothesis was that mothers who report household income that was further into poverty within the sample would report an increase in problem behaviors in their children. Previous research has described a family income less than \$10,000 as severe poverty (Finello & Poulsen, 2012). This hypothesis is interested in understanding the differences within poverty, if being in severe poverty causes additional risks. That is, the further a family is into poverty the more likely the parent will be experiencing the stressors of poverty and have less time, energy, and resources to engage in more creative or playful interactions with their child. The less playful and creative

interactions will result in less developed social-emotional skills in the preschool years.

Methods

Participants

A quantitative secondary analysis was used to test hypotheses 1, 2, and 3. The sample was from a larger randomized control trial (RCT) evaluating the effectiveness of a home-based intervention with a focus on increasing school readiness skills with racially diverse, poor children (Astuto & Allen, 2013). In the larger RCT study, the families were randomly assigned to a control or intervention group. Because the current study was interested in the approach mothers endorsed prior to receiving intervention, baseline data was used to explore mother's responses prior to any exposure to the intervention. The sample consisted of 59 US born, African-American mothers. The mother's ages ranged from 16 years old to 46 years old, with the median age being 26. Over half of the mother's had never been married (N=35, 61%), while 33% reported being married or living with significant others. The remaining identified as divorced or separated. 68% (N=39) of the mothers reported being currently unemployed, 16% working part-time, and 11% working full time. One mother reported being "retired" and two reported "other". Half of the mothers reported having a high school (or acquired GED) education or less, 24% reporting having less than a high school education, while 34% reported some college, and 14% (N=7) reported college or more. Income was collapsed into two groups; "Less than \$10,000 per year" and "\$10,000 and greater a year". 48% of the mothers were in the "less than \$10,000 per year" income bracket and 51% of the mothers reported being in the "\$10,000 and greater a year" income bracket. The children consisted of 25 males and 34 females ranging in ages from 17 months to 36 months. The median age of the children was 2.6 (24.5 months) years old.

Recruitment of Original Sample

Participants were recruited in and across various urban communities in New York City with high concentrations of poverty. Typical locations for recruiting families included: parks, WIC offices, medical clinics, farmers markets, cultural events and street fairs, libraries, churches, streets with high pedestrian traffic, and hospitals. Families were screened for predictors of attrition and considered eligible for randomization if the children were age 17 – 30 months, families were eligible for government assistance programs (e.g. WIC, Medicaid etc.), were at least at 100% Federal poverty level, had no intention of moving over the two year program period, and was not a foster parent and did not live in the same residence as another participant. This process yielded an N=336.

Baseline data collection

Baseline data were collected between the Fall 2010 –Spring 2011. Data were collected through home-based interviews with both the parent and child lasting between 60-120 minutes. Data collectors were trained by the PI and project coordinators on all measures. Data collectors participated in training and on-going supervision related to cultural sensitive field-based practices throughout the entire study.

Measures

Two questionnaires from the baseline interview with parents were used in the current study. All parent-report questionnaire measures were administered in an interview format with participants. Parents were given a laminated likert scale card corresponding to the correct measure and asked to choose the best response for each question.

PAAT - The Parent as a Teacher Inventory (Strom, 1995) was used to assess the

qualities and identify the value that parents place on the realms of creativity, play, frustration, control, and teaching & learning when it comes to how they facilitate the development of their child within the context of emerging educational goals. The content of the PAAT was designed from literature that explored parental influence and school learning in early childhood. The inventory encourages caregivers to analyze their roles in the interactive relationship they have with their child (Strom, 1995). It includes statements describing parent's expectations and actions in response to certain child behaviors. It is a standardized assessment which has statistical reliability that has been verified through field test (Strom, 1995)

The PAAT includes fifty statements that clarify what parents expect of their child, how they interact, and what actions they take in response to specific behaviors. The fifty items are representative of five subsets; creativity, frustration, control, play and teaching and learning, with ten items each. The caregivers are asked to circle one answer per statement. All statements have four possible answers: "Strong yes", "Yes", "No", "Strong No". If the caregiver has no doubt in their mind about the statement they are directed to a "Strong Yes" or "Strong No". Scoring the inventory includes assigning a numeric value of 4, 3, 2, or 1 to each of the responses for each item. The most desired response for the items are valued 4, with decreasing values assigned to the other responses based on their distance from the best response. The highest score a parent could receive in each subset would be a 40. This would be answering a 4 (the highly favorable answer) for all ten of the questions in that subset. The lowest score a parent could get in the subset would be a 10. This would be answering a 1 (the highly unfavorable answer) for all ten of the questions in that subset. The inventory takes 10-15 minutes to complete and was completed by interviewer and parent reading the statements together. The reliability and validity of the PAAT has been conducted on

ethnic minority low-income groups of Hispanic, Native American, and African-American parents of preschool children (Strom, 1995).

Creativity is recognized by the parental acceptance of the child's creativity and willingness to encourage its development. This includes statements such as "When my child plays with toys, the pretending seems foolish" and "I get tired of all the questions my child asks".

Play is recognized by the parental understanding of the benefits of play and how it can be used to facilitate the healthy development of their child. This includes statements such as "My child needs to play with me", "Playing with my child improves the child's behavior" and "It is difficult for me to stay interested when playing with my child",

Frustration is recognized as the parental frustration with the child's behaviors and the focus of that frustration. This includes statements such as "It gets on my nerves when my child keeps asking me to watch him or her play" "My child bothers me with questions when I am busy" and "When my child shows off I ignore it".

Control is recognized as the parental feelings about the need to control their child's behavior. This includes statements such as "There are some things I just don't want my child to talk about", "While we play, my child should be the person in control" and "It is all right for my child to disagree with me" (Strom, 1995).

BITSEA - The Brief Infant-Toddler Social Emotional Assessment (Briggs-Gowan & Carter, 2006). The BITSEA screens for social-emotional development and competencies for children from 12 to 36 months and is a brief questionnaire that can be completed in seven to 10 minutes. Caregivers responded to a 42-item, one-page, parent-report screener form. The questions are written at a sixth-grade level that could be answered as one of the following: "Not

true/Rarely”, “Somewhat true/Sometimes,” and “Very true/Often” response, and are scored 0, 1, and 2 correspondingly. The BITSEA scales include externalizing, internalizing, dysregulation, maladaptive habits, fears, and competence as well as a total problem and competence score. In addition, parents are asked “how worried” they are about the child’s reported behavior, emotions, and relationships, as well as language development.

The externalizing score is derived of 6 questions and a compiled score for the externalizing subset ranges from 0 to 12. Externalizing problem behaviors include: gets hurt so often that you can’t take your eyes off him or her; is restless and can’t sit still; hits, shoves, kicks, or bites child; is destructive and breaks or ruins things on purpose; hits, bites or kicks parent; and purposely tries to hurt parent.

The internalizing score is derived of 8 questions and a compiled score for the internalizing subset ranges from 0 to 16. Internalizing problems include: seems nervous, tense, or fearful; is afraid of certain places, animal, or things; has less fun than others children; cries or hangs onto you when you try to leave; worries a lot or is very serious; seems unhappy, sad, depressed or withdrawn; does not make eye contact; and avoid physical contact.

The BITSEA problem items are derived from 31 items selected from the total measure. These items provide a brief and efficient coverage of a range of social-emotional and behavioral problems that span several problem areas in child development.

Income was obtained from the self-report of the caregiver in a demographics questionnaire administered by the parent interviewer. The income question was asked as “What is your current household annual income?” with answer options of 1) Under \$10,000; 2) \$10,000 to \$20,000; 3) \$20,000 to \$30,000; 4) \$30,000 to \$40,000; 5) \$40,000 to \$50,000; 6) More than \$50,000. The

parent could verbally or point to their selection to answer. Income was collapsed into two groups “Less than \$10,000 per year” and “\$10,000 and greater a year” in order to explore the differences between poverty and severe poverty.

Limitations

A limitation of this current study is the use of self-report measures (Morsback & Prinz, 2006). A participant may not have felt comfortable sharing personal parenting values or answer truthfully regarding a statement on the PAAT in order to tell the researcher what they might want to hear. The same limitation also applies to the data collected with the BITSEA and reported income. With the BITSEA the parent may not be aware that some social-emotional or behavioral issues they see from their child are a developmental concern, resulting in not reporting that the behavior is concerning to them. When it comes to asking caregiver about their income that can be a sensitive question that individuals may feel is too personal to answer. Since the income question was based completely on parent report, it may not be a completely accurate picture of the actual income for the family. For example, to better establish were the family falls in regards to the poverty line including demographic questions used for analysis that included how many children and family members live in the home could provide a more accurate representation of the poverty in the home.

Parent’s education level, as well as language barriers, was addressed by the interviewer reading the questionnaires aloud as well as the answer options. The interviewer was not to elaborate on any meanings of a question during the questionnaires, so there could be variation in the understanding and perception of questions depending on cultural differences among the participants. All participants experienced a standardized protocol and the language of assessment was done in dominant language of participant.

A third limitation was the differences in parenting values as well as child social-emotional outcomes were not explored by gender, when research does report differential trajectories for self-regulation by gender (Matthews, Ponitz, Morrison, 2009). Due to the smaller sample size being using for analysis, there would not be enough statistical power to run regression models independently by gender.

Data Analysis

Data analysis was conducted utilizing SPSS version 21.0. A database from the larger RCT data set was requested with the variables identified for the purpose of analysis. Preliminary analysis was completed to test for normality of the data (e.g., distribution, skewness, and kurtosis). A correlation matrix table including the continuous variables was then run. This included the subscales of control, frustration, play, and creativity from the PAAT and subscales of externalizing behaviors and internalizing behaviors, and total problem score from the BITSEA.

Results

Hypothesis/analysis one. It was expected that mothers who endorse an approach to their parent-child interactions where the priority is representative of play and/or creativity will self-report fewer social-emotional/behavioral problems in their children. To begin hypothesis testing a correlation matrix was conducted to identify relationships between playful interactions, creative interactions, internalizing behaviors, externalizing behaviors and total problem behaviors.

Play and internalizing behaviors were significantly correlated, $r = -.332, p < .01$. Play and total problem score were significantly correlated, $r = -.414, p < .01$. Creativity and internalizing behaviors were significantly correlated, $r = -.345, p < .01$. Creativity and total problem score were

significantly correlated, $r = -.336, p < .01$. (appendix A, table 1)

Multiple regression analysis was used to test if a playful and creative approach to the parent-child interaction predicted child's internalizing behaviors (appendix B, table 2, model 1). The results of the regression indicated the two predictors explained 16% of the variance ($r^2 = .157, f(2,48) = 5.639, p < .01$). It was found that endorsement of a playful approach significantly predicted internalizing behaviors ($\beta = -.224, p < .05$), as did an endorsement of a creative approach ($\beta = -.253, p < .05$).

A second multiple regression analysis was used to test if a playful and creative approach to the parent-child interaction predicted child's overall problem behaviors (appendix B, table 2, model 2). The results of the regression indicated the two predictors explained 21% of the variance ($r^2 = .205, f(2,48) = 7.459, p < .01$). It was found that endorsement of a playful approach significantly predicted overall problem behaviors ($\beta = -.773, p < .01$), as did an endorsement of a creative approach ($\beta = -.611, p < .05$).

Hypothesis/analysis two. It was also expected that mothers who endorse an approach to their parent-child interactions where they priority is representative of controlling and/or frustration will self-report increased social-emotional/behavioral problems in their children. To begin hypothesis testing a correlation matrix was conducted to identify relationships between controlling interactions, frustrating interactions, internalizing behaviors, externalizing behaviors and total problem behaviors.

There was a nonsignificant correlation of .120 ($p = n.s$) between control and externalizing behaviors, a nonsignificant correlation of .164 ($p = n.s$) between control and internalizing behaviors, and a nonsignificant correlation of -.044 ($p = n.s$) between control and total problem behaviors. Frustration and externalizing behaviors were significantly correlated, $r = -.281, p < .05$. Frustration

and total problem behaviors were significantly correlated, $r = -.299$, $p < .05$ (appendix A, table 1).

Simple linear regression (appendix B, table 2, model 3) revealed a small, negative relationship between parent frustration tolerance and reported child externalizing behavior ($\beta = -.177$, $t(52) = -2.111$, $p < .05$). Mothers with more responses that endorse a higher tolerance to frustration have children with less externalizing behaviors. The accuracy of predicting scores for the dependent variable of externalizing behaviors will improve by 6% if the prediction is based on scores for the independent variable; frustration endorsement ($r^2 = .061$).

Model 4 (appendix B, table 2) revealed a small, negative relationship between parent frustration tolerance and reported child overall problem behavior ($\beta = -.591$, $t(52) = -.299$, $p < .05$). Mothers with more response that endorse a higher tolerance to frustration have children with fewer overall behaviors problems. The accuracy of predicting scores for the dependent variable of overall problem behaviors will improve by 7% if the prediction is based on scores for the independent variable; frustration endorsement ($r^2 = .072$).

Hypothesis/analysis three. Next, it was expected that mothers who were categorized as the low income group within the sample would be representative of increased frustration and controlling PAAT beliefs, while mothers who were categorized as the high income group within the sample would be representative of increased play and creative PAAT beliefs. A linear regression model was performed to determine strength and relationship between the high and low-income groups and the PAAT beliefs of creativity, play, control, and frustration.

Model 5 (appendix B, table 2) tested if income significantly predicted PAAT frustration score. The results of the regression indicated that income explained 9% of the variance ($r^2 = .085$). It was found that income significantly predicted PAAT frustration scores ($\beta = 1.970$, $t(51) = 2.42$, p

< .05). The mothers collapsed into the high-income group on average had a PAAT frustration score that was 1.970 higher than the low-income group. Since frustration is reverse coded, the higher the PAAT frustration score the less frustration endorsed.

Model 6 (appendix B, table 2) tested if income significantly predicted PAAT control scores. Income was not a significant predictor for control scores.

Model 7 (appendix B, table 2) tested if income significantly predicted PAAT play scores. The results of the regression indicated that income explained 4% of the variance ($r^2 = .042$). It was found that income significantly predicted PAAT play scores ($\beta = 1.372$, $t(50) = 1.794$, $p < .05$). The mothers collapsed into the high-income group on average had a PAAT play scores that was 1.372 higher than the low-income group.

Model 8 (appendix B, table 2) tested if income significantly predicted PAAT creativity scores. The results of the regression indicated that income explained 6% of the variance ($r^2 = .059$). It was found that income significantly predicted PAAT creativity scores ($\beta = 1.311$, $t(49) = 2.030$, $p < .05$). The mothers collapsed into the high-income group on average had a PAAT creativity score that was 1.311 higher than the low-income group.

Discussion and Conclusion

In the present study, evidence was found supporting that mothers utilize more play to interact and spend time with their child as well as use an approach that is accepting of creativity have children with less social and emotional problems or concerns. It was also found that those mothers who reacted to their children's behaviors with more actions that were representing frustration have children with more externalizing and behaviors problems and concerns. In comparison of the severe poverty and poverty group, the poverty group had higher play and

creative scores, and since it is known higher play and creative scores can predict less social and emotional outcomes, those children in the severe poverty group would have more social emotional concerns and problems compared to the poverty group. The severe poverty group was also found to have less tolerance to frustration compared to the poverty group, resulting in more external and overall behavioral and problem concerns.

These findings are consistent with previous research that have found that play can be used with preschool aged children to help develop skills such as empathy, trying new things, and experiencing less fear and anxiety (Elisa & Berk, 2002, Fogle and Mendez, 2006). However, previous research tends to report on middle-income, white children. This study brings to attention how play can be used with children of color in low-income communities, building on the values that these mothers already possess that help these children be successful in their environment. It was hypothesized the mothers engaging in parent-child interactions that endorsed more favorable responses to play and creativity would result in less social-emotional problems and concerns, with the results there is evidence this is particularly true when it comes to predicting problem and concerns within the internalizing behaviors domain. When a child is struggling with difficulties involving internalizing problems, they may experience difficulty with their ability to engage in age appropriate activities, such as participating in group activities at a preschool or play group. Since play can be used to express and communicate their concerns and interpret events in their lives, it can be used to practice the regulation of some of these internalizing problems (Singer, Golinkoff & Hirsh-Pasek, 2006). Much of the existing empirical research focusing on play has focused on the cognitive and linguistic function, which may restrict the understanding on how play can facilitate a range of emotions. While a relationships is present, as shown in this current study, continuing to

understand the relationships between play, mother and child interactions, and emotion learning requires continued study of diverse families in various context.

Mother's tolerance of frustration was shown to predict a small effect in the child's externalizing behaviors. When a parent has expectations of a child that are beyond the child's scope of development and maturity, parents may express continued frustration and disappointment. Since the BITSEA report was a mother report of the child's behaviors, a frustrated mother may report higher scores and concerns that their child is hyperactive, aggressive, or defiant, because the parent is expecting behaviors outside the child's developmental ability. It is unable to be determined from this current study which came first, the parent increased frustration or the child's increased social-emotional problems. What can be determined from this current study is there is a relationship between these two constructs. The fewer externalizing behaviors, the most tolerance there is for frustration. Knowing there is a relationship is start to containing to learn about this relationship and how parent's unrealistic expectations for their young children may lead to increased social-emotional problem and concerns.

There was no significant result regarding the construct of control. The PAAT measure views having too much control over your child as a negative parenting trait. The PAAT expressed that a child who is dominated all the time will cease to develop at some point because their need for control has never been met and remains unsatisfied. The PAAT explores control by examining a mother's ability to share dominance, decision making, and explain uncertainty, as well as allow disagreements, spontaneity, and privacy. Within the sample of this study, African-American mothers who are living in poverty, there was no relationship between control and social-emotional problems or concerns. The value that the PAAT places on control may not be the same value that this

community, in this particular context views control. Or, in this particular context, control may be seen as a protective factor for these children. When living in a community that is less stable with higher incidents of crime and violence, a mother may need to exercise more control in order to protect their child.

The results are also consistent with literature suggesting that differences between social-emotional skills in African-American children who are entering Kindergarten with fewer skills than their classmates can be attributed to income status (Farkas, 2003). While other studies have compared low-income children to children of higher income status, less research has been done to explore the differences between those children within poverty, as this study has done with the poverty group and extreme poverty group. Poverty is often lumped together, but this may cause some important differences within families of poverty to go unnoticed. The results demonstrated that for each construct, excluding control, that there was a significant difference between the severe poverty group and the poverty group. The difference was that the severe poverty group consistently had less desirable parenting beliefs and increased social-emotional problems and concerns. There are widespread implications for this finding. Families who are experiencing severe poverty may be at risk for increased negative life incomes and may be in the position to need even more support and services. The resources, time spent engaging in play, and the mother-child interactions may look extremely different between a household with a yearly income of \$30,000 and a household with an income of \$10,000, and the experience of a child between these two groups may also look very different. More research should be pursued in the direction of understanding the differences between families in poverty, not just the differences between being in poverty or not being in poverty. Is there a threshold? That once a families reaches a particular income level they are now

subject able to all the risks associated with poverty? The current study shows evidence that this is not that case and that the outcomes for children who are living in severe poverty may need more focus to understand the process that may hinder their development.

This study serves to contribute to the challenge of understanding play as a tool for emotional learning in order to fully utilize its effects for development, especially in vulnerable populations. Understanding how play is used in the context of low-income families in urban communities can help understand where gaps in development may be, as well as where the parent-child interaction serves as a risk or protective factor for at-risk children.

Play can be a treasured part of childhood that offers children important social-emotional skills as well as additional developmental benefits, as well as provide parents the opportunity to fully engage with their children. Nonetheless, numerous forces are interacting to effectively prevent many children's opportunities to fully obtain the benefits of play. As policy makers and researchers strive to create the most advantageous developmental environment for children, it remains necessary that play is included along with educational and social-enrichment opportunities. While some of the strategies to promote healthy development and resilience are community based, and others school based, many strategies can be targeted at the home, within the family. Play remains an ideal tool for parents to engage fully, and child professionals, in the roles of home visitors, must highlight the value of play. From policy perspectives, there needs to be increased access to programs, such as home visitation programs, for low-income families who could benefit from the direct implementation of parenting strategies in the home. Researchers should also continue exploring the type of play-based interventions and amount of activities that are probable to be enriching for children with diverse needs, such as children living in urban poverty. Additional research is needed to explore the benefits

of play and the values parents place on play for children with different temperaments, emotional, intellectual, environmental, and cultural needs in order to design effective interventions to suit these families in need.

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Appendices A: Table 1

Correlations between PAAT variables and BITSEA outcomes.

Measure	1	2	3	4	5	6	7
1. Play	-						
2. Creativity	.211	-					
3. Frustration	.551**	.145	-				
4. Control	.145	.126	.252	-			
5. Internalizing Behaviors	-.332**	-.345**	-.105	.164	-		
6. Externalizing Behaviors	-.203	-.142	-.281*	.120	.153	-	
7. Total Problem Score	-.414**	-.336**	-.299*	-.044	.762**	.530**	-

** Correlation is significant at the 0.01 level.

* Correlation is significant at the 0.05 level.

Appendices B: Table 2

Regression models between PAAT variables, BITSEA outcomes, and Income differences.

Model	Variable	r ²	β	t	P
1: Play and Creative approach	Internalizing Behaviors	.157	Play: -.224 Creative: -.253	Play: -2.097 Creative: -2.127	Play: .041* Creative: .039*
2: Play and Creative approach	Total Problem Behaviors	.205	Play: -.733 Creative: -.611	Play: -2.816 Creative: -1.997	Play: .007** Creative: .052*
3: Frustration approach	Externalizing Behaviors	.061	-.177	-2.111	.040*
4: Frustration approach	Total Problem Behaviors	.072	-.591	-2.264	.028*
5: High and Low Income	PAAT Frustration Score	.085	1.970	2.420	.019*
6: High and Low Income	PAAT Control Score	.01	.669	.780	.439
7: High and Low Income	PAAT Play Score	.042	1.372	1.794	.079*
8: High and Low Income	PAAT Creative Score	.059	1.311	2.030	.048*

** Significant at the 0.01 level.

* Significant at the 0.05 level.