Social/Emotional Development

Why Preschool Children Are Motivated to Establish Friendships

Elizabeth Ann Ferry, Kimberly A. Gordon-Rouse

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This thesis used children interviews, teacher interviews, and narrative observations to examine the specific question of why preschool children commence friendships with peers. This study used the Self-determination Theory and Membership Categorization Analysis. It was an exploratory study with a guiding premise that extrinsic factors rather than intrinsic factors would motivate a child to establish friendships. There were twelve participants for this study, four 3-year-olds, four 4-year-olds, and four 5-year-olds. In each age group there were 2 boys and 2 girls for each age group. The twelve participants were given a chance to do free choice play. There were two 30 minute narrative observations conducted for two days a week over a 6-week period. After all the narrative observations were completed, an interview was conducted between the researcher and each of the children. The researcher showed each participant five pictures separately of children playing together and asked questions related to the pictures based on the Self-determination Theory (Ryan & Deci, 2000). The interview questions focused on why the children in the pictures were playing with each other. After interviewing the participants, the researcher also interviewed the participant's teachers. The researcher presented each teacher with five scenarios involving the children in the study in order to elicit the teacher's views about the motivations preschool children have when establishing friendships. Using the Membership Categorization Analysis, analyses of the narrative observations, child interviews and teacher interviews yielded five categories of preschooler's motivation to establish friendships. The first category was identified as extrinisic: friendships based on wanting a companion. The second category was defined as extrinsic: children wanting to play with other children based on people looking nice (smiling, physical appearance, having fun). The third category found was defined as extrinsic: friendships are based on tangible objects. The fourth category defined was extrinsic: friendships are based on turn taking and sharing if a tangible object is present. The last category defined was extrinsic/intrinsic (both): physical harm. In this category, there is a combination of intrinsic and extrinsic factors. Intrinsically, feelings are hurt because behaviors towards that tangible object can be understood by the child as negative. The results from this qualitative study yielded valuable information about preschoolers' needs and choices for companionship. Motivations were not differentiated by gender or age: friendships were still made and maintained.

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Relational Aggression and Impulsivity-Hyperactivity During Early Childhood: An Observational Study

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The study of peer directed aggression now encompasses a wider array of behaviors (Crick & Zahn-Waxler, 2003), including physical aggression (e.g., hitting, kicking, punching; Coie & Dodge, 1998) and relational aggression defined as using the relationship as the means of harm (e.g., spreading malicious secrets & social exclusion).

The study was designed to test the association between relational aggression and impulsivity-hyperactivity. When impulsivity leads to disruptions in following directions, negotiating peer relationships, and acquiring social competence, it is predictive of maladaptive outcomes including peer rejection among boys and problematic friendships among girls (Bagwell, Molina, Pelham, & Hoza, 2001; Zalecki & Hinshaw, 2004). Most research on the study of impulsivity-hyperactivity has been focused on physical aggression and with boys only (Waschbusch, 2002).

At total of 64 (37 girls) preschool children (M = 44.65 months old; SD = 13.39) were recruited from 3 early childhood schools. Children were 10.8% African American, 20% Asian, 47.7% Caucasian, 4.6% Indian 3.1% Latino, 1.5% Native American, 11.3% other/unknown ethnicities. Families ranged from lower to upper middle class.

Assessment of aggression. Observations of children's relational and physical aggression were conducted during free-play (Ostrov & Keating, 2004). Each child was observed for 10 minutes per each of the 8 assessments (80 minutes per child). The observations were reliable (ICC's > .81) and valid. For physical and relational aggression, teacher-reports and observations significantly corresponded, *r's* = .45, and .40, *p's* < .01, respectively. After each 10 minute session, the observers completed ratings on a scale from 1 (Definitely does not apply) to 5 (Definitely applies). If a child was impulsive and hyperactive for at least 7 minutes, the child received a rating of "5". Only the hyperactive-impulsive observations were used and they were reliable (ICC > .73).

The Child Behavior Scale (CBS; Ladd & Profilet, 1996) was also completed by teachers. The hyperactive-distractible scale (four items, e.g., "squirmy, fidgety, or inattentive", etc.) was reliable (alpha = .82). The concurrent association between observational ratings of impulsivity-hyperactivity and teacher-reports from the CBS were significantly correlated, $r = .53$, $p < .001$.

A series of hierarchical regression models were conducted to test for the unique role of each subtype of aggression in predicting impulsive-hyperactive behaviors. Teacher-reported relational aggression (Beta = .26, $p < .01$, $R^2 = .38$) predicted observed impulsivity-hyperactivity above and beyond the role of teacher-reported physical aggression, $\Delta F(1, 59) = 6.06$, $p < .05$, $\Delta R^2 = .06$. Observed relational aggression (Beta = .31, $p < .01$) also significantly predicted teacher-reported impulsivity-hyperactivity above and beyond the role of observed physical aggression, $\Delta F(1, 52) = 6.51$, $p < .01$, $\Delta R^2 = .09$. The findings were not significant for teacher-reported physical aggression (Beta = .25, *ns,* $R^2 = .24$) predicting impulsivity-hyperactivity above and

beyond the role of teacher-reported relational aggression, $\Delta F(1, 45) = 2.66$, *ns*, $\Delta R^2 = .05$. Observed physical aggression (Beta = .10, *ns*) did not predict teacher-reported impulsivity-hyperactivity above and beyond the role of relational aggression, $\Delta F(1, 52) = .63$, *ns*, $\Delta R^2 = .01$. Relational aggression appears to be associated with concurrent impulsive-hyperactive behavior, even when controlling for the role of physical aggression.

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The Relationship Among Head Start Children's Attachment Representations and Their School Readiness Skills

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Background

Since the late 1980's the federal government has been concerned with improving educational achievement and ensuring that all children are ready-to-learn when they begin school (National Education Goals Panel, 1991). Previous research suggests that the exchange of emotions and turn-taking in social interactions between parent and infant not only facilitate a secure attachment, but also influence the development of emotion regulation (Dozier, Higley, Albus, & Nutter, 2002) and empathy (Zahn-Waxler, Radke-Yarrow, Wagner, & Chapman, 1992), which are important components of learning related social skills. In this study we examined the relationships among social skills, defensive dysregulation in attachment doll play story narratives, and school readiness in Head Start children. This study is among the first to measure preschool attachment and school-readiness skills at the same time-point and provides important information regarding the role that attachment plays in children's school success prior to their entry into formal schooling.

Method

Data collection took place in 29 Head Start Classrooms in 4 Midwestern counties. 74 children (25 males) and their teachers (N=29) participated in the study. More than half (55.4%) of the children were Caucasian; 17.6% were African American; 20.3% were Multi-racial; and 6.8% were classified as other. Children were between 42 and 68 months-old at the time of the study (M = 53 months ; SD = 5.5 months).

The Behavioral Assessment System for Children- Teacher Report Form (BASC-TRS, Reynolds & Kamphaus, 1992) was used to measure children's social skills and school readiness and children's attachment representations were assessed using The Six-Year Attachment Doll Play Classification System (George & Solomon, 1990, 1996, 2000) and the Attachment Disorganization Coding Supplement (George & Solomon, 1998).

Results and Implications

In this study specific importance was placed on understanding if social skills and defensive strategies that underlie disorganized attachment representations are associated with school readiness skills prior to entry into formal schooling. Further emphasis was placed on understanding if defensive dysregulation is differentially associated with school readiness depending on children's attachment representations. Our findings revealed that dysregulation and social skills are significant correlates of school readiness, $F(7, 69) = 11.66$ $p < .001$, $R^2 = .57$, and that there is a marginally significant association among defensive dysregulation and school readiness skills for children classified as disorganized, $F(6, 16) = 2.95$, $p = .06$ $R^2 = .64$. Specifically, one marker of disorganization, controlling behavior toward the administrator, was significantly associated with school readiness for children classified as disorganized, $p = .02$. When interpreted in the context of other findings that suggest that children's internalized representations of care are associated with the relationships they form with their teachers, which

are further associated with child behavior and academic performance (Hamre & Pianta, 2001; Pianta, Hamre, & Stuhlman, 2003), results from this study have important implications for early childhood policy and practice. One implication includes supporting the development of organized attachment representations by increasing the availability of high quality care and family support programs that promote consistent sensitive interactions with parental and non-parental caregivers.

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Social Competence with Preschool Peers of Children of Native-Born Versus Immigrant Parents

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(Summary not available)

Competence in Head Start Preschoolers: Teachers' and Children's Perceptions

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In the present study child temperament, maternal characteristics and family risk factors were used to predict teacher ratings of both children's behavior problems and cognitive competence. These ratings were then used to predict children's ratings of their own cognitive competence. Participants were 40 four-year-old children who were attending Head Start centers on the North Shore of Boston and their mothers. Regression and path analysis were used to examine relations among the variables. Results included the finding that (1) teacher reports of behavior problems were predicted by child temperament (high focus and control) and maternal education/traditionality such that, children who had low focus and control, with mothers who were less educated and more traditional, had more behavior problems than children who were more focused and controlled and who had mothers with more education and fewer traditional values, (2) teacher reports of high cognitive competence were predicted by risk factors and mothers education/traditionality such that, children who had fewer risk factors and who had mothers with more education and fewer traditional values were perceived by their teachers as more cognitively competent than children with more risk factors and mothers who had less education and more traditional values, and (3) child-rated cognitive competence was predicted by teacher ratings of behavior problems and cognitive competence such that, children with fewer behavior problems and high teacher-rated competence rated themselves higher on cognitive competence than children with more problems and low teacher-rated competence. This work indicates that children's thinking about themselves is predicted by several inter-related variables. What is noteworthy about our study is that it provides information about how the individual contributions to this complex psychological operation are related to one another. Specifically, it demonstrates that individual variables can be directly associated with cognitive self-concept but also indirectly through teacher's perceptions of the child.

Unpacking Social Development: What Is Social Knowledge and How Does It Relate to the School Readiness of Head Start Children?

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Head Start, since its inception, has promoted social development, identified as social competence, as a premiere child outcome. Indeed, social development was recognized initially as the overarching goal of the program (Schrag, Styfco & Zigler, 2004). Social competence is one well-studied element of social development. One common definition of social competence centers on self-regulation, that is, a child's ability to regulate affect, cognition and behavior in relation to obtaining social goals, and working alongside others who are attempting to obtain social goals (Vaughn, Azria, Krzysk, Caya et al., 2000; Waters & Sroufe, 1983). Social knowledge is a less studied element of social development and is defined as the organized and accurate awareness of the social environment, including the identities, preferences, movements, and expected behaviors of adult and peer companions.

Social competence, though related to environmental characteristics, is more linked to internal, innate child characteristics (e.g. self-regulation). Social competence is likely to persist across various contexts the child encounters. Alternatively, social knowledge is environment-specific; children may have high levels of social knowledge in one setting, and limited social knowledge in another. This distinction suggests that social competence and social knowledge may relate differentially to child learning. The purpose of this study is to investigate the construct of social knowledge and its measurement (Krechevsky, 1998), as well as the relation of social knowledge to pre-academic skills and to social competence in Head Start children.

The study includes 57 children from 14 Head Start (HS) classrooms from a Midwestern community (M = 55 months; 61% male; 68% White, 12% Black/African American, 7% Hispanic, 2% Native American and 11% of other races) and 16 HS teachers (99% female; M = 35 years; 94% White, 6% other races).

Hierarchical regression analyses were conducted to consider the unique relationship between social knowledge and social competence, and their distinctive contributions to predicting child learning. Analyses indicate that social competence and social knowledge have discrete relationships with child learning. Social knowledge and social competence (prosocial behaviors) contribute to child learning, along with receptive language ability. Prosocial behaviors after controlling for receptive language and social knowledge is a significant predictor (R^2 = .35, $F(4, 46) = 6.18$, $p < .001$) of Phonological Awareness; however, social knowledge is the stronger predictor (R^2 = .38, $F(4, 47) = 7.31$, $p < .001$) for Story and Print Concepts. An additional analyses considering the relation of social knowledge and competence to child persistence indicates that social knowledge, above and beyond social competence variables, contributes to children's persistence as reported by teachers (R^2 = .65, $F(4, 49) = 22.56$, $p < .001$). The study suggests that social knowledge makes a unique contribution to child learning, after controlling for social competence.

Unpacking the construct of social development is helpful in understanding young children's school readiness, a complex construct, and could allow tailored programming to be developed by early childhood professionals. This study indicates that social knowledge is one construct to consider as early childhood programs, specifically Head Start, aim to promote healthy environments for young children.

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Cluster Analysis of Social-Emotional Data From the Relationships for Growth Project

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The Relationships for Growth (*RfG*) Project was developed to strengthen social and emotional development, language, and literacy, and reduce problematic behavior patterns in preschool children. Based on the relational, systemic model of Early Childhood Group Therapy (ECGT; Shanok, Welton, & Lapidus, 1989), the focus is on peer playgroups as the primary vehicle for intervention with identified children (two to four children of the same age in each group). Groups are led by Head Start staff at three urban Head Start agencies trained in a 2-year program in child development and therapeutic process, including clinical supervision.

Cluster analyses of teacher ratings of children's social-emotional abilities, using the Devereux Early Childhood Assessment (DECA; LeBuffe & Naglieri, 1999) and the Penn Interactive Peer Play Scale (PIPPS; Fantuzzo, Coolahan, Mendez, McDermott, & Sutton-Smith, 1998), suggest that children typically fall within four social-emotional clusters that highlight distinctive patterns of strengths and challenges. The sample used for these analyses consisted of 626 children. Of these children 87 diagnosable and/or at-risk children were served in playgroups. Ratings on the DECA and the PIPPS from teachers were collected in the Fall of 2000.

By design, RfG playgroups serve a heterogeneous population of at risk and diagnosable preschool children. Therefore, investigation of various profiles of strengths and challenges was undertaken in an attempt to identify distinctive patterns. With this in mind, cluster analyses were performed using the seven fall teacher rating scores: three DECA child protective factors (initiative, self-control, and attachment) and the behavioral concerns score, and the PIPPS three play dimensions: play interaction, play disruption, and play disconnection. This analysis produced clusters with some patterns being more highly associated with children being in playgroup ($p < .001$).

Disproportionate ratios of nongroup to group children theoretically predicted by the research underlying the DECA appeared in three of the four clusters. Cluster 1 included children with high protective factors and low levels of problem behaviors. There were almost no group children in this cluster – far fewer than would be expected if being selected for group were independent of cluster membership. In contrast, cluster 2 children displayed high levels of problem behaviors and low levels of protective factors. This cluster had far fewer nongroup children (and far more group children) than expected by chance. Cluster 3 children had few problem behaviors with relatively low levels of protective factors – these children could be at risk for developing problems should their functioning be challenged by environmental or other stressors. Children in cluster 4 have high levels of both protective factors and behavioral challenges, which probably accounts for the overrepresentation of group children in this cluster.

A visual comparison of the Fall scores by cluster with the Spring scores provides dramatic evidence of the effectiveness of both Head Start and the playgroup intervention. Children with

fewer strengths and more problem behaviors still lag behind those who began the year with more strengths and fewer challenges. Overall, building social-emotional functioning appears to be linked to a decline in problem behaviors.

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Social-Emotional Functioning and Academic Risk: Cluster Analysis of Social-Emotional Measures Differentiates Academic Functioning in Head Start Children

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The Relationships for Growth (*RfG*) Project was developed to strengthen social and emotional development, language, and literacy, and reduce problematic behavior patterns in preschool children. Based on the relational, systemic model of Early Childhood Group Therapy (ECGT; Shanok, Welton, & Lapidus, 1989), the focus is on peer playgroups as the primary vehicle for intervention with identified children (two to four children of the same age in each group). Groups are led by Head Start staff at three urban Head Start agencies trained in a 2-year program in child development and therapeutic process, including clinical supervision.

Cluster analyses of teacher ratings of children's social-emotional abilities, using the Devereux Early Childhood Assessment (DECA; LeBuffe & Naglieri, 1999) and the Penn Interactive Peer Play Scale(PIPPS; Fantuzzo, Coolahan, Mendez, McDermott, & Sutton-Smith, 1998), suggest that children typically fall within four social-emotional clusters that highlight distinctive patterns of strengths and challenges (see Halpern, Lamb-Parker, Acra, & Jaspen, 2005 in this proceedings). In analyses of measures considered to be indicators of future academic performance – the Early Screening Inventory-Revised (ESI-R; Meisels, Marsden, Wiske, & Henderson, 1997), the Work Sampling System (WSS; Meisels, Jablon, Marsden, Dichtelmiller, & Dorfman, 1994), and the Cooperative Preschool Inventory (CPI; Educational Testing Service, 1976) – children with strong social-emotional skills and an ability to sustain cooperative play at the start of the Head Start school year performed better than their less skilled peers. Samples sizes varied by outcome measure, because data on the cognitive measures were collected at the convenience of each site, and were based on each agency's selection of cognitive screening measures. Both social-emotional and academic measures were administered in the fall of 2000.

On all three measures of academic readiness, cluster 1 children (who had the highest level of protective factors – Initiative, Self-Control, and Attachment) demonstrated significantly higher scores than children in the other three clusters. Cluster 4 children, characterized by high levels of protective factors and relatively high levels of disruptive behavior, performed nearly as well as cluster 1 children on two measures, the ESI and the CPI. Their moderately high levels of Initiative and Play Interaction skills were more predictive than their relatively high problem behaviors. Children appear ready for school despite challenges, when they have adequate resources to engage in class activities. On the ESI-R, children selected for playgroup intervention had significantly lower scores than their nongroup peers.

What is apparent from the data presented above is that children with strong social-emotional skills and an ability to sustain cooperative play are also, on average, performing better on three indicators of future academic performance: the ESI, CPI, and WSS. Efforts to raise performance on measures of literacy, language, and math may be limited by lags in the social-emotional foundation required for learning to take place. Interventions that strengthen children's capacities for successful interpersonal relationships with peers and trusted adults while

simultaneously building their language, literacy, and quantitative skills are likely to provide the best outcomes in both realms.

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Young Children's Level of Pretend Play and Ability to Comprehend the Pretense

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Pretense is an action of behaving 'as if ... ' in one's imagination (Fein, 1981), and the ability to pretend can be divided into two- the ability to produce pretense by oneself and the ability to comprehend pretense in other people.

The purposes of this study are to investigate whether there are developmental differences in the level of children's pretend play, to verify children's ability to comprehend pretense as dependent upon their age, and to examine the relationship between the level of pretend play and the ability to comprehend the pretense.

The participants are 20 two-year-olds (M = 30.3 months) and 20 four-year-olds (M = 51.1 months). Each child participated in pretend play with his (or her) mother for ten minutes. Play situation with toys for playing house was offered just as it did in precedent studies (Braswell, 2000; McCune, 1995; Tamis-Lemonda & Bornstein, 1994). The level of the child's pretend play was measured according to Gowen (1995)'s developmental stages of symbolic play.

In this study, the child's ability to comprehend pretense was measured by Walker-Andrews and Kahana-Kalman (1999)'s revision of ' pretense comprehending task' by Walker-Andrews and Harris (1993). According to the physical properties of transformation the pretense comprehending task was divided into three types such as 'empty/full', 'wet/dry', and 'dirty/clean' and two tasks were given to each type. Those three types were also divided into 'simple transformation' and 'complex transformation' with regard to conditions of transformation, thus total of twelve tasks was employed for this study.

The statistical methods used for the data analysis were frequency, t-test, and Pearson's correlations.

The results of this study are as follows. First, both two- and four-year-olds had reached the highest levels of pretend play, such as 'planning'. In other words, young children in their third year of life do structured pretend play. However, four-year-olds showed higher levels of pretend play than two-year-olds. Second, four-year-olds had higher scores in 'wet/dry' types of transformation than two-year-olds. In contrast, there was no significant difference between the two age groups in the ability to comprehend pretenses for 'empty/full' types and 'dirty/clean' types of transformation. Third, four-year-olds had higher scores in 'complex' conditions of transformation than two-year-olds. On the other hand, there was no significant difference between the two age groups in their abilities to comprehend pretenses of 'simple' conditions of transformation. Fourth, the level of pretend play was positively related to their abilities to comprehend the pretenses of 'complex' conditions of transformation.

This study looked more closely at the development of the children's ability to comprehend pretense based on the types and conditions of transformation of pretense comprehending task.

The results of this study showed that the development of pretend play and the ability to comprehend the pretense are not separate, but that they are deeply connected cognitive domains and that young children revealed their behaviors and their verbal expressions by reflecting their mental representations in pretend play.

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Display Rules: Parental Contingent Responses and Gender Differences in Preschoolers' Ability to Distinguish Between Real and Apparent Emotion

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(Summary not available)

Measuring Emotion Processing in Head Start Preschoolers: Associations with Social Competence and Behavior Problems

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Emotion processing involves responding to emotional stimuli, showing emotion expressions, and understanding emotions in self and others. We investigated connections among different emotion processing skills and how emotion processing relates to skills important for school success (e.g., social competence, behavior regulation), using a multi-method, multi-informant approach. We report on the first 62 4-year-old participants (55% female; 67% Caucasian, 12% African-American, 15% Biracial, 4% non-response) from an ongoing study of emotion processing in Head Start children.

Emotion processing facets measured included emotion physiology (heart rate, cortisol), emotion knowledge and understanding, and emotion expression. Children were presented with slides and brief video clips of baseline/neutral, positive, and negative emotion stimuli; heart rate was recorded and salivary cortisol samples were gathered at baseline, after a soothing video, after an arousing video, and recovery. Children also provided diurnal cortisol samples on non-lab days (3 days; early morning, mid-morning, and afternoon). Children were interviewed to assess emotion understanding (based on Denham's (1990) and Garner's (1994) work). Emotion expression was assessed by observing children in their preschool classrooms on 8 separate occasions (10 minutes each). Data were coded live on handheld computers using The Observer software system. Eight mutually exclusive emotion states were coded: Neutral, Positive, Mild Negative, Sadness, Anger, Gleeful Taunting, Hyperactive Dysregulation, and Negative Dysregulation (e.g., tantrum).

Child social competence was measured by observing classroom social behavior (Conflict, Solitary Nonplay [e.g., aimless wandering], Solitary Constructive, Social Attention/Parallel Play, Social Interaction, Collaborative Play) as above during additional classroom observations. Positive and negative peer sociometric nominations were also gathered. Parents reported on child behavior problems using the Child Behavior Checklist.

Emotion physiology was modestly related to emotion understanding and observed expressions. Children who showed increased heart rate in response to negative stimuli showed more negative dysregulated affect in the classroom; children with decreased heart rates in response to such stimuli showed somewhat more sad expressions. Cortisol reactivity during the laboratory procedure was positively related to emotion recognition, and negatively related to displays of mild negative and angry classroom emotions. Children who showed more sadness and anger in class had high diurnal morning cortisol values, with limited decline over the course of the day.

Emotion understanding, classroom emotion expression, and reactivity during the laboratory protocol were also related to observed social behavior. Peer social interaction was positively associated with emotion understanding skills, and negatively associated with anger displays; conflict was associated with sadness. With regard to behavior problems, emotion recognition

was negatively associated, and increased heart rate in response to negative clips was positively associated, with parent-rated internalizing, whereas observed negative emotion displays in the classroom were related to externalizing behavior. Different emotion processing deficits may be implicated in the development of internalizing versus externalizing behavior tendencies.

Results add to the growing literature on child emotion processing and suggest the importance of examining emotional development at different levels in order to use understanding of such processes to benefit children vulnerable to both emotional and academic difficulties during the preschool years.

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Early Competence at 36 Months and Later Learning Readiness at Transition to Kindergarten Among Low-Income Children

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This study examined profiles of early competencies (emotion regulation, engagement of parent and materials and sustained attention) in late toddlerhood as predictors of cognitive development (Woodcock Johnson-R, Woodcock & Mather, 1990; and the Leiter-R, Roid & Miller, 1997), language comprehension (PPVT, Dunn & Dunn, 1997) and learning readiness (FACES-approaches to learning, hyperactivity, aggression/ASEBA; see ACYF, 2002, technical report) at kindergarten entry, utilizing data collected through the national Early Head Start Research and Evaluation (EHSRE) Project (ACYF, 2002). Competency measures included the Bayley BBRS (Bayley, 1993) and the Three-Bag Assessment (Owen, Norris, Houssan, Wetzel, Mason, & Ohba, 1993). Data are reported from 1610 children for whom data were available at the 36 month birth-related and transition to kindergarten assessments. Drawing from Mendez (2002), K-Means cluster analyses were used to define 4 clusters based on children's 36 month scores on competency measures. Four hypothesized typologies were confirmed (and validated through replication in random halves of the sample): Competent, Challenged, Unregulated, and Not Engaging. ANOVA procedures confirmed that cluster profiles differed significantly ($p < .0001$) on: sustained attention, F (1612) = 787.75; emotion regulation, F (1612) = 420.91; engagement of materials, F (1612) = 239.97, and engagement of parent, F (1612) = 1137.27. Multivariate analyses indicated main effects for cluster profiles on Kindergarten readiness outcomes, *Wilks Λ* = .79, $F = 15.98$, $p < .0001$. Analyses indicated that Competent profile children performed higher than all other groups on PPVT. On measures of cognition, approaches to learning and hyperactivity, children in Competent and Not Engaging profiles did not differ significantly. On measures of cognition, language, and hyperactivity, children in Challenging profile and those in Unregulated profile differed significantly, both the lowest performing groups. These two profiles did not differ significantly on approaches to learning and aggression. MANCOVA results indicated significant main effects for cluster profile, *Wilks Λ* = .95, $F = 2.74$, $p <$ **.**0001, maternal education, *Wilks Λ* = .96, $F = .61$, $p < .0001$, child gender, *Wilks Λ* = .94, $F = 9.781$, $p <$ **.**0001 (favoring girls), and race**,** *Wilks Λ* = .96, $F = 6.27$, $p <$ **.**001 (favoring Caucasians). There were significant interactions between profiles and treatment group, *Wilks Λ* = .97, $F = 1.70$, $p <$ **.**05, with more children who had received EHS services in the "competent" profile compared to children in the comparison group. Children lacking in competencies, particularly regulatory abilities, in late toddlerhood, may experience difficulties in readiness at kindergarten entry. While children in the "Challenging" group fared worse than children in the other groups on most outcomes, "Unregulated" children had as much difficulty with aggressive behaviors and learning problems as did the "Challenging" cluster. "Not Engaging" children were faring as well as "Competent" children on most measures at transition to kindergarten. Findings resonate with existing research highlighting the relationship between regulatory abilities and success with social and school outcomes (Mendez, Fantuzzo, Cichetti, 2002; Sroufe, 1996) and suggest the predictive value in examining patterns of early competencies and subsequent outcomes.

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Teacher Education and Soothing Strategies with Infants and Toddlers

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The infant/toddler years are a key period in development. Children not only learn social, language, and cognitive skills, but also develop internalized emotions about how lovable they are. When nurtured well, at home and in group care, they grow into enthusiastic young learners. More data and insights are needed about what interactions in early care settings promote emotional and cognitive positive development. Close body contact and prompt responsiveness to distress cues from babies are crucial for the development of a *secure attachment* between infant and mother (Ainsworth et al. 1978). This study examined *teacher soothing strategies* when infants and toddlers are distressed. Distress intensity was noted on a 4-point scale; duration was coded in seconds, and then recoded into 6 (30-second) intervals. Caregiver techniques were coded as proximal (body contact) or distal, verbal/non-verbal, positive/ not positive. Intercoder reliabilities were 80% for source of distress, 90% for level of distress, 88% for teacher comforting behaviors.

Teacher education level in childcare varies extensively. This research focused on whether soothing strategies varied according to teacher education and in relation to child age, gender, distress levels, and duration of distress episodes in 10 centers with 146 infants and toddlers and 35 ECE teachers of varying educational levels (high school or lower, n= 10); CDA/some college, n=20) and college degrees (n= 5).

Child age varied significantly (2-way ANOVA) with *duration of distress* {F (2, 741)= 31.62, p=. 00}. Tukey post hoc HSD tests showed that distress episodes lasted significantly longer for the younger (0 to 12 month) babies (M=2.98, SD=1.97) and older (25-36 month) toddlers (M=2.42, SD= 1.91) when compared with younger (13-24 month) toddlers (M=1.65, SD=1.30. Also, teacher positive (verbal plus non-verbal) responses to distress varied significantly with child age {F (1, 746)= 23.31, p=. 00}. The youngest group, 0-12 months, infants received significantly more positive caregiver responses when distressed (M=1.67, SD=1.13) compared with children age 13-24 months (M=1.24, SD=1.01) and children 25-36 months (M=. 97, SD=. 86).

Teacher education was significantly related to child distress duration {F (2, 776) = 15.81, p=00}. Post hoc tests indicated that the high school education group (M=2.06, SD=1.65) differed from the college graduate group (M=3.07, SD=2.05) but not from the midlevel education group (M=2.30, SD= 1.86). Because only 5 college graduates were sampled, we examined (by T-test) the high school education group vs. teachers with any college education (M=2.53, SD=1.95), in a one-way ANCOVA (controlling for child age) and found a significant impact of teacher education on distress duration {F (1, 745) = 17.69, p=. 00}; high school group (M=2.06, SD=1.56), any college group (M=2.45, SD=1.92).

Level of child distress varied significantly with teacher education {F (2, 774) = 5.94, p=. 00}. Post hoc Tukey HSD tests revealed that recorded level of distress was significantly lower for infants/toddlers whose teachers had high school education or less (M=2.21, SD= .79) compared

with children whose teachers had some college (*M*=2.45, *SD*= .92) or were college graduates (*M*=2.27, *SD*= 1.04). With child age as a covariate, an ANCOVA showed significant relationship between teacher education and child distress level (*F* (2, 743) =4.74, *p*=. 00}. Although some researchers report more needy bids from male toddlers (Honig & Wittmer, 1985), this study found no relationship between distress and gender. Frequency of distress needs was not different for males vs. females, and teachers responded to distress cues and child needs regardless of child gender.

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Primary Caregivers' Reactions to their Head Start Preschoolers' Negative Emotions: Relations with Social and Emotion Competence

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Past research on relations between caregivers' reactions to children's emotions and children's emotion and social competence has been conducted primarily with white, middle-class families. In this study, caregivers' reactions to preschoolers' negative emotions and their relations to social and emotion competence were examined in 95 primary caregiver-child dyads from a low-income, primarily African American, sample.

Based on results of research with other populations, helping children cope with negative emotions by helping them deal with their distress, helping them solve the distressing problem, or encouraging them to express their emotions was expected to relate to higher emotion and social competence. Punitive and minimizing reactions were expected to predict lower emotion and social competence. Caregiver depressive emotions, disorganized parenting, and harsh parenting were also included in regression models to investigate whether caregivers' reactions to children's negative emotions are significant predictors of child emotion and social competence after controlling for these variables.

Research assistants administered two emotion knowledge tasks. In a 12-item emotion situation knowledge task, research assistants read short descriptions of events likely to elicit particular emotions and asked children to point to the photographs which portrayed the children described. In a 12-item emotion expression labeling task, research assistants asked preschoolers what emotions were felt by children in photographs. The Peabody Picture Vocabulary Test-3 (Dunn & Dunn, 1997) was also administered to provide a control for children's verbal and test-taking ability. Teachers rated children's emotion regulation ability and lability/negativity using the Emotion Regulation Checklist (Shields & Cicchetti, 1997). Teachers rated children's prosocial and disruptive behaviors using the Adaptive Social Behavior Inventory (Hogan, Scott & Bauer, 1992). Primary caregivers reported their supportive and non-supportive reactions to their children's emotions on the Coping with Children's Negative Emotions Scale (Fabes, Eisenberg, & Bernzweig, 1990). Harsh parenting and disorganized parenting variables were drawn from caregivers' responses on the Parenting Dimensions Inventory-Short Version (Power, 2002). Caregiver reports of emotion experiences on the Differential Emotions Scale-IV (Izard, Libero, Putnam, & Haynes, 1993) were used to create a depressive emotionality variable.

After controlling for primary caregivers' self-reported depressive emotions, disorganized parenting, and harsh parenting, several significant relations were found between caregivers' self-reported reactions to children's negative emotions and teacher ratings of children's emotion and social competence. Caregivers who reported helping children cope with their distress or solve the underlying problems had children with lower teacher-reported emotion lability/negativity and lower disruptive behavior problems. Caregiver encouragement of emotion expression predicted boys' emotion regulation ability. Emotion regulation fully mediated the effect of caregiver encouragement of emotion expression on boys' prosocial behavior. Punitive and minimizing

reactions to children's negative emotions were not significant predictors in the full regression models. Caregiver encouragement of child emotion expression related to children's emotion knowledge in zero-order correlations but only approached significance in the regression model. Results provide some support for the hypothesis that caregiver reactions to children's negative emotions are important to children's social and emotional development. Results also extend research on the correlates of caregiver reactions to child emotions to a low-income, ethnic minority population.

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