RESEARCH-TO-PRACTICE SUMMARY

A Comprehensive Look at Peer Social Competence in Preschool

Tracy Carter Clopet and Rebecca Bulotsky-Shearer

University of Miami

Best practice in early childhood assessment supports a comprehensive multi-method, multi-source measurement approach, with tools validated for use with culturally, linguistically, and economically diverse populations (National Research Council, 2008). This study employed this approach, by incorporating teachers' and outside observers' perspectives on children's positive and conflictual engagement with peers in the preschool classroom to examine how peer social competence was related to gains in academic readiness skills for 527 Head Start children. Children's positive engagement with peers was related to increased gains in language and literacy skills and conflict engagement with peers was associated with fewer gains in alphabet knowledge and mathematics. Findings support the need for a comprehensive measurement approach that includes multiple perspectives and methods for examining peer social competence with culturally and linguistically diverse preschool children from low-income backgrounds.

Peer social competence encompasses the ability to fit in with and develop a network of positive relationships with peers (Raver & Zigler, 1997) and has been identified as an important protective factor for preschool learning, helping to buffer the negative influence that living in poverty has on children's early school adjustment (Hamre & Pianta, 2007; Mashburn et al., 2008; National Association for Young Children (NAEYC), 2009). However, peer social competence is complex to measure as it is embedded within social relationships, interactions and contexts. Studies typically rely on a single source of measurement, such as a parent or teacher, to provide ratings on children's peer social competence. Current best practice in early childhood assessment recommends the use of a comprehensive, multi-method, multi-source approach that is sensitive to culturally, linguistically, and economically diverse populations (National Research Council, 2008; Standards; American Educational Research Association [AERA], American Psychological Association [APA] and the National Council on Measurement in Education [NCME], 1999).

CURRENT STUDY

The purpose of this study was to extend prior work by examining three aims. First, we were interested in understanding the relationship between peer social competence as rated by a teacher and an outside, objective observer. Additionally, we were interested in understanding how teachers and objective observers ratings of peer social competence measured in the fall were uniquely related to children's gains in academic readiness skills across the preschool year. Lastly, we were interested in knowing whether the relationship between peer social competence and academic readiness differed for boys and girls.

Social Competence and Learning

Early childhood researchers have identified a set of positive and negative behaviors observed within the context of peer interactions in the preschool classroom that have been differentially associated with preschool learning outcomes (Fantuzzo, Coolahan, Mendez, McDermott, & Sutton-Smith, 1998). Behaviors that promote positive peer interactions are conceptualized as strength-based, prosocial behaviors such as initiative, problem solving, helping other children, and showing creativity during play (Fantuzzo et al., 1998). These prosocial behaviors have been linked to increased mathematics, literacy and receptive vocabulary skills (Ginsburg, Pappas, & Seo, 2001; Pellegrini, 1984). Conversely, research suggests that difficulties interacting with peers can be characterized by two types of behaviors: disruptive behaviors and disconnected behaviors (Arnold, Homrok, Ortiz, & Stowe, 1999; Fantuzzo et al., 1998; Hart et al., 2000; Winsler & Wallace, 2002). Children characterized as being disruptive with their peers show overt and relationally aggressive behaviors that include initiating fights, taking objects from peers, excluding peers from play, and tattling to the teacher (Arnold et al., 1999; Wood, Wood, Cowan, & Baker, 2002). Children characterized as being disconnected from their peers show a lack of engagement, including a preference for solitary activities, or a social anxiousness or fearfulness that inhibits engagement with peers (Hart et al., 2000). Both disruptive and disconnected behaviors with peers have been linked to lower engagement in positive, cooperative peer interactions, which support learning in the preschool classroom (Coolahan, Fantuzzo, Mendez, & McDermott, 2000; Fantuzzo et al., 1998).

Measuring Peer Social Competence in Context

There is a critical need for child-focused assessment measures that capture children's behavior and development as it is naturally occurring in transaction with complex proximal systems, such as the preschool classroom. Examining information from multiple methods and sources is critical as distinct information about a child's behavior can be gleaned through various perspectives. Teachers' have extended time and experience with the children in their classroom, in addition to having knowledge of normative behavior with reference to the many children they have taught. However, characteristics of the teacher (i.e., level of education, mental health, classroom stress) may affect both their assessment of a child's behavior and the level of agreement across raters (Kohen, Brooks-Gunn, McCormick, & Graber, 1997; Szatmari, Archer, Fisman, & Streiner, 1994; Waterman et al., 2012). Whereas, observation methods, while considered a "more

objective" approach to assessment, are often criticized for only capturing a snapshot of children's behavior during a circumspect moment in time. In addition, until recently observation measures for studying this association in preschool were not available. This study combines the unique strengths of a teacher report and observation measure, to capture children's interactions with peers as they naturally occur in the preschool classroom.

Study Design

To test this, a sample of 527 Head Start children across 72 classrooms participated in our study. During the fall, teachers filled out the Penn Interactive Peer Play Scale (PIPPS; Fantuzzo et al., 1998) to assess children's interactive, disruptive and disconnected behaviors with peers during play. Trained data collectors also observed children's positive and negative engagement with peers during routine activities in the classroom using the Individualized Classroom Assessment Scoring System (inCLASS; Downer, et al., 2010). Additionally, in the fall and spring children were directly assessed on the Learning Express (McDermott, et al., 2009) to capture children's gains in alphabet knowledge, vocabulary, mathematics and listening comprehension. A series of correlation and regression analyses were conducted to examine the relationship between both teacher reported and observed peer social competence and gains in children's academic readiness skills across a year in Head Start.

Study Findings

There were three important sets of findings from out study. First, we found that teachers' and outside observers' reports of children's behavior were related in meaningful ways, such that behaviors that promoted positive engagement with peers were strongly correlated across the two sources of measurement and inversely related to the set of conflictual behaviors with peers. And, behaviors that interfered with positive engagement with peers were more highly correlated with each other across methods and sources, and inversely related to the set of prosocial peer engagement behaviors. This set of findings confirms that regardless of measurement method, peer social competence is a multidimensional construct, reflecting multiple dimensions of behaviors that promote and interfere with positive engagement with peers.

The second major set of findings from our study related to the unique contribution of the teacher reported and observed measures of peer social competence in relation to gains in academic readiness skills. We found that children who were rated by their teacher with higher interactive play skills in the beginning of the year showed greater gains in vocabulary skills by the spring. Observed communication with peers was associated with greater gains in listening comprehension across the year. Conversely, observed conflict with peers in the fall was related to fewer gains in alphabet knowledge and mathematics. The pattern of associations is consistent with previous research conducted with preschool children from low-income backgrounds. For example, several studies have found that prosocial engagement with peers is positively associated with gains in academic readiness skills, whereas conflict with peers is negatively associated with academic readiness skills during the preschool year (Bulotsky-Shearer, Bell, Romero & Carter, 2012; Bulotsky-Shearer, Manz et al., 2012; Cohen & Mendez, 2009; Coolahan et al., 2000; Fantuzzo et al., 2004; Ginsburg, Pappas, & Seo, 2001; Ladd, Kochenderfer, &

Coleman, 1996; Mendez & Fogle, 2002; Pellegrini, 1984). This study is unique in combining both teacher and observer perspectives' to reveal different, yet equally important aspects of a child's behavior with their peers.

Lastly, no difference in the association between peer social competence and gains in academic readiness skills was found between boys and girls. This finding suggests, that interventions and curriculum targeting peer social competence and academic readiness in Head Start may not have to be tailored separately for boys and girls. Taken together, findings support the need to incorporate a comprehensive measurement approach that includes multiple perspectives and methods for examining peer social competence with culturally and linguistically diverse preschool children from low-income backgrounds.

IMPLICATIONS FOR PRACTICE

Our study has three important implications for practice: (a) the importance of measuring behavior in context, (b) the need to incorporate multiple perspectives when evaluating children's behavior, and (c) the key role teachers can play in promoting prosocial behavior.

Based on developmental research and theory we know that, opportunities for children to practice and master developmental challenges are embedded within interactions in proximal contexts, such as the preschool classroom (Kontos & Keyes, 1999). As children interact with teachers and peers in the classroom, they have direct opportunities to master social and academic skills (Downer et al., 2010; Pianta, 2006). It is through children's interactions in the classroom that school readiness skills develop over time (Bronfenbrenner & Morris, 1998; Carta & Greenwood, 1985). Additionally, both researchers and practitioners have called for assessments that have practical utility and directly inform curriculum planning and intervention (Hirsh-Pasek et al., 2005). Assessment tools that rely on observations of children's behavior as they emerge within routine classroom activity settings lend themselves more easily to classroom instructional activities implemented by the teacher than direct assessments of isolated skills (Meisels, 1999). To address these needs, measures that examine children's classroom engagement within the dynamic developmental demands of the peer context are needed.

In addition, incorporating multiple perspectives on children's development from those individuals most proximal to the child is critical to inform a comprehensive understanding of their developmental competencies and needs (Fantuzzo, McWayne, & Bulotsky, 2003). Teachers are key informants when assessing children's behavior, but their individual perspectives may contain variance associated with their perspective, rather than the child's skills (Waterman et al., 2012). In contrast, observers are able to be more objective as they are free from prior knowledge of the child, but they only see a snapshot of the child's behavior during a circumspect moment in time. Therefore, combining the strengths of these two perspectives can provide a comprehensive picture of children's competencies with peers in the classroom that could be used to inform interventions with children in the Head Start classroom.

Of concern, are children with difficulties engaging with their peers in Head Start classrooms who we, and others, have found are at risk for missing out on early learning opportunities, which may set them further behind academically as they transition to kindergarten (Coolahan, Fantuzzo, Mendez, & McDermott, 2000; Fantuzzo et al., 1998; Ladd, Kochenderfer, & Coleman, 1996). Head Start, one of our nation's largest and most comprehensive programs to address the school readiness needs of children from low-income families, supports both social-

emotional and academic skills. This whole child approach recognizes that children's ability to successfully navigate social relationships with peers is a foundational skill set that children take with them as they transition to kindergarten. Thus, a comprehensive, multi-method approach to assessing peer social competence within the classroom can help to identify those children at greatest risk for poor academic readiness and aid in teachers' selection and implementation of interventions that build on children's strengths while targeting areas of difficulty within everyday routines in the classroom.

REFERENCES

American Educational Research Association, American Psychological Association, & National Council on Measurement in Education (1999). *Standards for educational and psychological testing*. Washington, DC: American Psychological Association.

Arnold, D. H., Homrok, S., Ortiz, C., & Stowe, R. M. (1999). Direct observation of peer rejection acts and their temporal relation with aggressive acts. *Early Childhood Research Quarterly*, *14*, 183-196

Bulotsky-Shearer, R. J., Bell, E. R., Romero, S. L., & Carter, T. M. (2012). Preschool interactive peer play mediates problem behavior and learning for low-income children. *Journal of Applied Developmental Psychology*, *33*(1), 53-65.

Bronfenbrenner, U., & Morris, P. A. (1998). The ecology of developmental processes. In Damon, W. (Ed.), *Handbook of child psychology: Theoretical models of human development (5th edition, Volume 1)* (pp. 993-1028). New York, NY: Wiley.

Bulotsky-Shearer, R. J., Manz, P. H., Mendez, J. L., McWayne, C. M., Sekino, Y., & Fantuzzo, J. W. (2012). Peer Play Interactions and Readiness to Learn: A Protective Influence for African American Preschool Children From Low-Income Households. *Child Development Perspectives*, *6*(3), 225-231.

Carta, J. J., & Greenwood, C. R. (1985). Eco-Behavioral Assessment A Methodology for Expanding the Evaluation of Early Intervention Programs. *Topics in Early Childhood Special Education*, *5*(2), 88-104.

Cohen, J. S., & Mendez, J. L. (2009). Emotion regulation, language ability, and the stability of preschool children's peer play behavior. *Early Education & Development, 20*, 1016-1037.

Coolahan, K., Fantuzzo, J., Mendez, J., & McDermott, P. (2000). Preschool peer interactions and readiness to learn: Relationships between classroom peer play and learning behaviors and conduct. *Journal of Educational Psychology, 92*, 458-465.

Downer, J. T., Booren, L. M., Lima, O. K., Luckner, A. E., & Pianta, R. C. (2010). The Individualized Classroom Assessment Scoring System (inCLASS): Preliminary reliability and validity of a system for observing preschoolers' competence in classroom interactions. *Early Childhood Research Quarterly, 25*(1), 1-16.

Fantuzzo, J., McWayne, C., & Bulotsky, R. J. (2003). Forging strategic partnerships to advance mental health science and practice for vulnerable children. School Psychology Review 32, 17–37.

Fantuzzo, J., McWayne, C., Perry, M. A., & Childs, S. (2004). Multiple dimensions of family involvement and their relations to behavioral and learning competencies for urban, low-income children. *School Psychology Review*, *33*(4), 467-480.

Fantuzzo, J., Coolahan, K., Mendez, J., McDermott, P., & Sutton-Smith, B. (1998). Contextually-relevant validation of peer play constructs with African-American Head Start children: Penn Interactive Peer Play Scale. *Early Childhood Research Quarterly, 13*, 411-431.

Ginsburg, H. P., Pappas, S., & Seo, K. H. (2001). Everyday mathematical knowledge: Asking young children what is developmentally appropriate. *Psychological Perspectives on Early Childhood Education: Reframing Dilemmas in Research and Practice* (pp. 181-219). Mahwah, NY: Lawrence Erlbaum Associates.

Hamre, B. K., & Pianta, R. C. (2007). Learning opportunities in preschool and early elementary classrooms. In Pianta, R. C., Cox, M. J., & Snow, K. L. (Eds.), *School Readiness and the Transition to Kindergarten in the Era of Accountability* (pp. 49-84). Baltimore, MD: Brookes Publishing Co.

Hart, C. H., Yang, C., Nelson, L. J., Robinson, C. C., Olsen, J. A., Nelson, D. A., … Wu, P. (2000). Peer acceptance in early childhood and profiles of socially withdrawn behaviour in China, Russia, and the United States. *International Journal of Behavioral Development, 24*, 73-81.

Hirsh-Pasek, K., Kochanoff, A., Newcombe, N. S., & de Villiers, J. (2005). Giving Child and Youth Development Knowledge Away.

Kohen, D. E., Brooks-Gunn, J., McCormick, M., & Graber, J. A. (1997). Concordance of maternal and teacher ratings of school and behavior problems in children of varying birth weights. *Journal of Developmental & Behavioral Pediatrics*, *18*(5), 295-303.

Kontos, S., & Keyes, L. (1999). An ecobehavioral analysis of early childhood classrooms. *Early Childhood Research Quarterly*, *14*(1), 35-50.

Ladd, G. W., Kochenderfer, B. J., & Coleman, C. C. (1996). Friendship quality as a predictor of young children's early school adjustment. *Child Development, 67*, 1103-1118.

Mashburn, A.J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D. Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79*, 732-749.

McDermott, P. A., Fantuzzo, J. W., Waterman, C., Angelo, L. E., Warley, H. P., Gadsden, V. L., & Zhang, X. (2009). Measuring preschool cognitive growth while it's still happening: The learning express. *Journal of School Psychology, 47*(5), 337-366.

Meisels, S. J. (1999). Assessing readiness. In R. C. Pianta & M. Cox (Eds.), *The transition to kindergarten: Research, policy, training, and practice.* Baltimore: Paul H. Brookes.

Mendez, J., & Fogle, L. (2002). Parental reports of preschool children's social behavior: Relations among peer play, language competence, and problem behavior. *Journal of Psychoeducational Assessment, 20*, 370–385

National Association for the Education of Young Children (NAEYC). (2009). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8: Position Statement.* Washington, DC: NAEYC.

National Research Council. (2008). Early Childhood Assessment: Why, What, and How. Committee on Developmental Outcomes and Assessments for Young Children, C.E. Snow and S.B. Van Hemel, Editors. Board on Children, Youth, and Families, *Board on Testing and Assessment, Division of Behavioral and Social Sciences and Education.* Washington, DC: The National Academies Press.

Pellegrini, A. D. (1984). The social cognitive ecology of preschool classrooms. International *Journal of Behavioral Development, 7*, 321-332.

Pianta, R. C. (2006). Teacher-child relationships and early literacy. In D. Dickinson & S. Newman (Eds.), *Handbook of Early Literacy Research* (Vol. II, pp. 149-162). New York, NY: The Guilford Press.

Raver, C. C. & Zigler, E. F. (1997). Social competence: An untapped dimension evaluating Head Start's success. *Early Childhood Research Quarterly, 12*, 363-385.

Szatmari, P., Archer, L., Fisman, S., & Streiner, D. L. (1994). Parent and teacher agreement in the assessment of pervasive developmental disorders. *Journal of Autism and Developmental Disorders*, *24*(6), 703-717.

Waterman, C., McDermott, P. A., Fantuzzo, J. W., & Gadsden, V. L. (2012). The matter of assessor variance in early childhood education—Or whose score is it anyway? *Early Childhood Research Quarterly*, *27*(1), 46-54.

Winsler, A., & Wallace, G. L. (2002). Behavior problems and social skills in preschool children: Parent-teacher agreement and relations with classroom observations. *Early Education and Development*, *13*, 41-58.

Wood, J. J., Cowan, P. A., & Baker, B. L. (2002). Behavior problems and peer rejection in preschool boys and girls. *The Journal of Genetic Psychology*,*163*(1), 72-88.