

Head Start Graduate Student Research Program: 2009 Research Scholars

Sheila Anderson

Project Title:

Dads' Parenting Interactions with Children Checklist of Observations Linked to Outcomes (PICCOLO-D): Developing a Measure for Head Start Practitioners to Use with Fathers

Mentor:

Lori Roggman, Ph.D.

Project Funding Years:

2009-2011

University Affiliation:

Utah State University

Project Abstract:

To promote father contributions to child development outcomes, Head Start/Early Head Start programs need a valid and reliable measure of positive father-child interaction linked to child outcomes. The purpose of this project is to develop a valid, reliable measure of father-child interaction that predicts child outcomes, identifies fathers' strengths, and meets the needs of Davis/Morgan/Summit Head Start/Early Head Start Fatherhood program. The new PICCOLO-D Checklist of father interactive behaviors will complement the PICCOLO Checklist developed for mothers (Roggman et al., 2009). The Checklist will be developed based on the literature on father-child interactions and validated using archived video clips of father-child interaction observations. After the measure is developed, it will be pilot field-tested and its usefulness for Head Start practitioners and programs evaluated.

Sample for Measure Development:

Approximately 400 children (14, 24, & 36 months) and fathers from the National Early Head Start Research and Evaluation Project archived video-taped observations.

Sample for the Pilot Field Test:

10 Head Start practitioners.

General Measure:

Parenting Interactions with Children-Checklist of Observations Linked to Outcomes (PICCOLO; Roggman, Cook, Innocenti, Jump Norman, & Christiansen, 2009)

Construct Validity Measure:

Three Bag Assessment Coding Scales (Berlin, Brady-Smith, and Brooks-Gunn, 2002; NICHD Early Child Care, 1992; Ware, Brady, O'Brien, and Berlin, 1998)

Predictive Validity Measures:

Child Behavioral Checklist (Achenbach & Rescorla, 2000)
Bayley Scales of Infant Development (Bayley, 1993)
Peabody Picture Vocabulary Test-III (Dunn & Dunn, 1997)

Measures of Covariates:

Emotionality and Socialibility (Buss & Plomin, 1984)
Attachment Q-Set (Waters, 1987)

Christopher Campbell

Project Title:

Adapting an Evidence-Based Intervention to Improve Social and Behavioral Competence in Head Start Children: Evaluating the Effectiveness of Teacher-Child Interaction Training

Mentor:

David Hansen, Ph.D.

Project Funding Years:

2009-2011

University Affiliation:

University of Nebraska – Lincoln

Project Abstract:

The primary objective of this study is to evaluate the efficacy of an empirically-based, cost-effective, and short-term teacher training program, Teacher-Child Interaction Training (TCIT). The TCIT intervention (an adaptation of Parent-Child Interaction Therapy for use with teachers) was designed to improve social and behavioral competence in Head Start children, and to increase teacher-efficacy and satisfaction for Head Start teachers. The aims of the proposed project are to evaluate: (1) the acquisition of TCIT skills by teachers in the training room (as assessed by behavior observations); (2) the generalization and maintenance of TCIT

skills in the classroom (as assessed by behavior observations); (3) changes in Head Start children's social and behavioral competencies (as measured by behavioral observations in the classroom, teacher reports, and parental reports); and (4) Head Start teachers' perceptions of teaching efficacy and satisfaction (assessed by teacher-report measures). This research will provide important information to Head Start researchers, practitioners, and policy makers on the efficacy of a widely applicable and easily disseminated teacher training program in reducing a broad spectrum of social and behavioral problems that could negatively impact preschoolers' acquisition of important skills relevant to future school readiness and adjustment.

Sample:

6 Head Start Teachers
90 Head Start Children
90 Head Start Parents

Measures of Child Behavior:

The Campbell and Martin Behavioral Observation of Preschoolers System (CAMBOPS-40)
Child Behavior Checklist – Teacher Rating Form (C-TRF)
Social Competence and Behavior Evaluation, Preschool Edition (SCBE) (Teacher report)
Sutter-Eyberg Student Behavior Inventory - Revised (SESBI-R) (Teacher report)
Child Behavior Checklist / 1 1/2 - 5 (CBCL) (Parent report)
Eyberg Child Behavior Inventory (ECBI) (Parent report)

Measures of Teacher Behavior and Outcomes:

Dyadic Teacher-Child Interaction Coding System (adapted from the Dyadic Parent-Child Interaction Coding System – Third Edition)
Teacher Efficacy Scale (TES) (Teacher self-report)
Teaching Satisfaction Scale (TSS) (Teacher self-report)

Katherine Cheung

Project Title:

An investigation of parenting traits, parenting behaviors, and children's social competence in a sample of Chinese Head Start families.

Mentor:

Christine McWayne, Ph.D.

Project Funding Years:

2009-2011

University Affiliation:
New York University

Project Abstract:

This study will focus on Chinese families, and how Chinese cultural values shape parenting and children's social competence. The overarching purpose of this study is to provide a deeper understanding of the cultural context of parenting and the implications for low-income, Chinese children's social competence, while taking into account important within-group variability. From a culturally-relevant framework, this study will be focused upon how parents' Interpersonal Relatedness (as measured by the Cultural (Chinese) Personality Assessment Inventory-2, a standardized measure of personality traits relevant to the Chinese culture) shapes and influences parenting behaviors (as emphasized by Western formulations, e.g. Baumrind, as well as by parenting behaviors that characterize Chinese parenting), and their relation to children's social-emotional competence. The proposed project will 1) identify variability within Chinese parenting practices; 2) describe within-group variation of individual personality traits of Chinese parents; 3) describe the relationship between Chinese parents' traits, Chinese parenting practices, and children's social competence; and 4) test a model where Chinese parenting practices mediate the relationship between Chinese parents' traits and children's social competence. Results from this study will be relevant for building the cultural competence of Head Start staff to provide culturally-relevant services (e.g., culturally-informed parenting programs) to Chinese families.

Sample:

The Educational Alliance Head Start serves approximately 400 three and four year-old children and their families. The student population is equally divided by gender and age. Approximately 75% (~ 299) of the children are Chinese, 20% are Latino, and 5% represent other ethnic groups. The center is comprised of 21 classrooms. The teaching staff consists of twenty-one head teachers, twenty-one assistant teachers.

General Measure:

Demographic Questionnaire

Parent Trait Measure:

Cross-Cultural (Chinese) Personality Assessment Inventory-2 (CPAI-2; Cheung, Leung, Song, & Zhang, 2001).

Parenting Measures:

Child Rearing Practices Report (CRPR; Block, 1986)

A survey that determines differences in Chinese and White American parenting (Chao, 1994)

Children's Social Competence Measures:
Adjustment Scales for Preschool Intervention (ASPI; Lutz et al., 2002),
Withdrawn/Low Energy and Socially Reticent Behaviors scales.
Penn Interactive Peer Play Scales (PIPPS; Fantuzzo, Sutton-Smith,
Coolahan, Manz, Canning & Debnam, 1995), teacher and parent versions.
Emotion Regulation Checklist (Shields & Cicchetti, 1997).

Tracy Cummings

Project Title:
Talking About Mathematics in preSchool (TAMS)

Mentor:
Dale C. Farran, Ph.D.

Project Funding Years:
2009-2011

University Affiliation:
Vanderbilt University

Project Abstract:
Many children begin school without important experiences in mathematics and using mathematical language needed for success in elementary school. Children who fall behind in elementary school mathematics are likely to spend the remainder of their school career just trying to catch up. The TAMS Project aims to explore methods of engaging young children in mathematics and use of mathematical language and determine if such strategies lead to greater preparedness for elementary school mathematics. If a positive relationship is identified between student talk about mathematics and math achievement in preschool, then researchers will collaborate with practitioners to implement strategies in the classroom that successfully engage children in using "math-talk."

Sample:
Phase I is exploratory in nature and will use data collected in 3 classrooms with 60 four-year-old children to pilot test activities and protocols to be used in Phase II.
Phase II is experimental in nature and will use data from an additional 12 classrooms with 180 four- and five-year-old children.
Phase III will engage 6-8 Head Start practitioners.

Outcome Measure:
Test of Early Mathematics Ability (TEMA) (Ginsburg, Baroody, & Pro, 1983)

Measure of Predictors:
Growth in children's "Math-Talk"

Measures of Covariates:
Preschool Language Scale-3 (PLS-3) (Zimmerman, Steiner, & Pond, 1992)
Leiter International Performance Scale-Revised (Leiter-R) (Roid & Miller, 1995, 1997)
Classroom Assessment Scoring System (CLASS) (La Paro, Pianta, & Stuhlman, 2004)
Behavior Assessment System for Children (BASC) – Teacher Rating Scales (Reynolds & Kamphaus, 1992)

Janna Fuccillo

Project Title:
Higher-level instructional interaction in Head Start classrooms: Variation across teacher-directed activities and associations with school readiness outcomes

Mentor:
Daryl Greenfield, Ph.D.

Project Funding Years:
2009-2010

University Affiliation:
University of Miami

Project Abstract:
Higher-level, teacher-child interaction in preschool classrooms, in which teachers encourage meaningful conversations and emphasize conceptual skills over basic skills, is associated with higher academic outcomes (Burchinal et al., 2008). Preschool classrooms serving low-income children tend to have low levels of these kinds of interactions (Dickinson & Tabors, 2001) and emphasize basic skills over conceptual skills (Stipek, 2004). Research suggests that, for children who are at-risk for poor educational outcomes due to poverty, higher-level instructional interactions may be particularly important (Dickinson & Tabors, 2001; Stipek et al. 1998). In order to promote these teacher-child interactions in Head Start classrooms, it is necessary to understand the specific situations in which they are currently occurring. Science instruction, a new emphasis in many Head Start classrooms, may be one teacher-directed activity that is particularly conducive to higher-level instructional interaction between teachers and children. The current study will employ videotaped observations of Head Start classrooms to examine instruction across four teacher-directed

activities (circle time, math activities, science activities, and storybook reading). Higher-level instructional interaction will be assessed with a multi-method approach, using both global ratings of instructional support (Classroom Assessment Scoring System; Pianta, La Paro, & Hamre, 2008) and an utterance-level analysis of teachers' use of higher-level questions (Massey, Pence, Justice, & Bowles, 2008). Associations will be tested between higher-level instructional interaction and important school readiness outcomes, including language and literacy, math, science, and initiative.

Sample:

24 Head Start classrooms

208 Head Start preschoolers

Child Outcome Measures:

The Learning Express (McDermott, Fantuzzo, Waterman, Angelo, Warley, Gadsden, et al., 2009)

The Preschool Science Assessment (Greenfield, Dominguez, Greenberg, Fuccillo, Maier, & Penfield, in preparation)

The Devereux Early Childhood Assessment (DECA; LeBuffe & Naglieri, 2002)

Classroom Quality Measures:

The Classroom Assessment Scoring System (Pianta, La Paro, & Hamre, 2008)

Coding for "cognitively-challenging questions" described in Massey, Pence, Justice, & Bowles (2008)

Katie Hart

Project Title:

Promoting Successful Transitions to Kindergarten

Mentor:

William Pelham, Ph.D.

Project Funding Years:

2009-2011

University Affiliation:

SUNY-Buffalo

Project Abstract:

The purpose of this study is to develop, implement, and evaluate the efficacy of kindergarten transitional services for behaviorally at-risk preschoolers from Head Start organizations in the Miami, Florida area. Sixty children identified as being at high-risk for problematic transitions to kindergarten

due to behavior problems will be randomly assigned to one of two groups. Group 1 (Kindergarten Summer Readiness Class (KSRC)) will receive four weeks of intensive kindergarten readiness services in a summer program in which children's behavioral, social-emotional, and academic functioning will be targeted using evidence-based approaches. Caregivers of children assigned to the KSRC will be invited to attend 8 weekly parent transitional workshops in which they will learn skills to support their child's transition to kindergarten. Group 2 (comparison treatment group) families will be invited to attend a similar 8-week series of parent transitional workshops prior to the start of kindergarten, but the children will not receive daily KSRC programming. Parent transition services will continue to be offered throughout the kindergarten year for both groups. The children's transition to kindergarten will be evaluated and compared in the fall and spring of the kindergarten year via parent and teacher report, child assessment, and objective measures of behavioral, social-emotional, and academic functioning. Caregiver involvement in the transition to kindergarten will also be evaluated and compared. It is hypothesized that 1) children in the KSRC will demonstrate fewer problems in their behavioral and academic functioning in kindergarten than children who do not receive the KSRC, and 2) caregivers of children in the KSRC will be more involved in their child's transition to kindergarten and their child's learning activities than caregivers in the comparison treatment group.

Sample:

60 behaviorally at-risk children entering kindergarten, and their caregivers, who are enrolled in Head Start organizations in Miami-Dade County, Florida.

Child Outcome Measures:

Eyberg Child Behavior Inventory (Parent Report) (ECBI; Eyberg & Ross, 1978)

Sutter-Eyberg Student Behavior Inventory-Revised (Teacher Report)(SESBI-R; Funderburk & Eyberg, 1989)

Disruptive Behavior Disorders Rating Scale (Parent & Teacher Report)(DBD; Pelham, Gnagy, Greenslade, & Milich, 1992)

Impairment Rating Scale (Parent & Teacher Versions) (IRS; Fabiano, et al., 2006)

Social Competence Scale (Parent & Teacher Version) (CPPRG, 1995).

Observations of Classroom Behavior

Frequency of Disciplinary Actions

Retention in Grade

Referral for Special Education

Peabody Picture Vocabulary Test, Third Edition (PPVT-III; Dunn & Dunn, 1997)

Alphabet Knowledge

Number Knowledge

Measures of Parents', Teachers', and Children's Relationships:
Student-Teacher Relationship Scale (Teacher Report) (STRS; Pianta, 2001)
Parent-Teacher Involvement Questionnaire (Parent & Teacher Versions)
(CPPRG, 1991)
Parent Daily Report of Parental Involvement in Child's Learning Activities

Whitney LeBoeuf

Project Title:

A Population Study of the Protective Benefit of Head Start in the Context of Early Risks and School Transitions

Mentor:

John Fantuzzo, Ph.D.

Project Funding Years:

2009-2011

University Affiliation:

University of Pennsylvania

Project Abstract:

This study intends to take a population-based look at the protective benefit of Head Start in an entire cohort of children who are transitioning into kindergarten in a large, urban school district and who live in a context of multiple early risks to development. There are three primary purposes of the proposed research study. The first is to understand the unique influences of child maltreatment, homelessness, high lead exposure, and low maternal education on academic and behavioral adjustment for an entire cohort of children entering kindergarten. The second purpose is to examine the protective benefits of having a Head Start experience for academic and behavior adjustment among these kindergarten children living in a context of multiple risks. Finally, this study proposes to investigate whether the protective benefit of Head Start is maintained through the end of first grade. The proposed study will analyze a subset of data from a longitudinal study using the Kids Integrated Data System (KIDS). KIDS is designed to integrate data across city agencies for research to inform public policy and practice. This unique capacity allows for population-based epidemiological research that considers the complex contexts in which children and families live.

Sample:

All children who were enrolled in public kindergarten and continued through first grade in a large urban school district (N = 8,300). The average age of children at kindergarten entry is 5.5 years (SD = 0.47). Half the children in the sample are male (50%) and the race/ethnicity demographics of the

sample match those of the entire kindergarten cohort: 15% Caucasian, 66% African American, 15% Hispanic, 4% Asian, and 1% other.

Measure of Child Experience:

The Early Care and Education Interview (ECEI) (Parent-Teacher Interview) (Fantuzzo & Cohen, 2003)

Child Outcome Measures:

Developmental Reading Assessment (Kindergarten only) (DRA; Pearson Learning Group, 2003)

TerraNova, Second Edition (First Grade only) (CTB/McGraw-Hill, 1997)

Learning Behaviors Performance Assessment (Fantuzzo, Rouse, McDermott, Sekino, Childs, & Weiss, 2005)

Social Skills Performance Assessment (Fantuzzo, Rouse, McDermott, Sekino, Childs, & Weiss, 2005) Program and School Attendance

Measures of Risk Factors:

Substantiated reports of child maltreatment

High lead exposure

Homeless experience

Low maternal education

Ferne Pinard

Project Title:

Parental Involvement and Consistent Parenting Practices as Protective Factors for Pre-Schoolers At-Risk for Externalizing Behaviors

Mentor:

Tammy D. Barry, Ph.D.

Project Funding Years:

2009-2011

University Affiliation:

University of Southern Mississippi

Project Abstract:

This project is designed to illuminate possible protective factors that promote resiliency among at-risk children. Building on findings from a pilot study conducted with Head Start children, parents, and teachers, the current study will examine the contextual correlates (i.e., socioeconomic status [SES] and parenting practices) and biologically-based, child-specific correlates (i.e., child temperament and executive functioning) of ADHD symptoms and aggressive behaviors in preschoolers. Data will be collected

on level of SES; home confusion and disorganization; parental stress, depression, and anxiety; parental involvement; consistent discipline; child temperament; child aggression and ADHD symptoms; child's executive functioning; and child's cognitive abilities. Home confusion and disorganization, parental stress, parental depression/anxiety and child's cognitive abilities will be treated as control variables in this study. It is hypothesized that low SES, as well as higher levels of problematic child temperament dimensions and impaired executive functioning will be related to higher levels of ADHD symptoms and aggressive behaviors among preschoolers. In fact, it is expected that these factors will present a cumulative, additive risk. Furthermore, it is expected that parenting practices (parental involvement and consistent discipline) will interact with these variables in a multiplicative fashion in predicting child externalizing behaviors. Specifically, it is expected that positive parenting factors (parental involvement and consistent discipline) will serve as protective factors.

Sample:

100 preschoolers (ages 3-5) and one of their parents or primary caregivers and their teachers will participate. Participants will be drawn from Head Start preschools and non-Head Start preschools, to ensure SES diversity.

General Measures:

Demographic Questionnaire

The Confusion Hubbub Order Scale (CHAOS; Matheny & Phillips, 1993; Matheny et al., 1995)

Parent Outcome and Parenting Measures:

Parenting Stress Index (PSI; Abidin, 1995)

Brief Symptom Inventory (BSI; Derogatis, 1991)

Alabama Parenting Questionnaire-Preschool version (Frick, 1991; Shelton, Frick, & Wootton, 1996; Clerkin, Marks, Policaro, & Halperin, 2007)

Child Outcome Measures:

Child Behavior Questionnaire-Short Form (CBQ-SF; Rothbart et al., 2001)

Behavior Assessment System for Children-2-Parent Rating Scale and Teacher Rating Scale (BASC-2-PRS and BASC-2-TRS; Reynolds & Kamphaus, 2004)

Neuropsychological Assessment of Children - II (NEPSY- II; Korkman et al., 2007)

Woodcock-Johnson Test of Cognitive Abilities III (WJ III COG; Woodcock, McGrew, Mather, & Shrank, 2003)

Adina Schick

Project Title:

Home and School Emergent Literacy Practices of Latino Dual-Language Learners in a Bilingual Head Start

Mentor:

Gigliana Melzi, Ph.D.

Project Funding Years:

2009-2011

University Affiliation:

New York University

Project Abstract:

Building on an existing partnership, the proposed study seeks to examine the continuities and discontinuities between the home and school literacy practices of Latino dual-language learners. The primary objectives include: (1) investigating the literacy practices used by mothers and teachers of Latino dual-language learners enrolled in bilingual Head Start classrooms, and determining the extent to which these practices are continuous (or aligned); and (2) exploring the relationship between the degree of continuity in home-school literacy practices and children's emergent literacy skills. To address the first objective, home and school literacy practices will be assessed using an adaptation of the FACES surveys and an observational measure of parent-child and teacher-class book sharing interactions. For the second objective, children's oral language skills will be assessed in both Spanish and English, and print-related literacy skills will be assessed and observed using three measures. Results of this study will be used to collaborate with parents, teachers, and directors of the Head Start center on developing a classroom oral storytelling curriculum which will build on the home literacy practices. The findings will suggest ways in which Head Start programs serving children from Latino backgrounds might help support children's narrative skills and overall academic achievement.

Sample:

120 Latino Mothers and their Head Start Children

12 Head Start Teachers

Measures of Mothers' Behavior:

Home Literacy Survey

Mother-Child Book Sharing Task

Measures of Teachers' Behavior:

Classroom Literacy Survey

Teacher-Class Book Sharing Task

Child Outcome Measures:
Preschool Language Scale–IV
Concepts about Print
Letter Recognition
Independent Book Sharing