

Development and Validation of Treatment Integrity Measures of Classroom-Based Instructional Interventions in Early Childhood Settings

84.305A Goal Five under Early Intervention and Early Learning in Special Education Research Grants

The ultimate objective of the proposed project is to develop observational and teacher self-report treatment integrity measures designed to characterize the implementation of evidence-based instructional practices delivered by teachers in early childhood classrooms that target the behavioral (behavioral, emotional, and social) and pre-academic outcomes of preschool children at risk for emotional and behavioral disorders. Efforts to implement and evaluate evidence-based programs (comprehensive treatment models comprised of an array of evidence-based instructional practices) for children at risk for emotional and behavioral disorders across diverse early childhood classrooms face a number of implementation and evaluation barriers due in part to measurement limitations in the field. At present, there are no integrity measures designed to assess efforts to implement evidence-based instructional practices that target behavioral and pre-academic outcomes in real-world early childhood classrooms. The proposed study will directly address this measurement gap through the development and validation of observational and teacher self-report treatment integrity measures focusing on evidence-based instructional practices designed to address the problem behaviors and pre-academic deficits demonstrated by preschool children at risk for emotional and behavioral disorders. The measures will allow researchers to assess the three dimensions of treatment integrity: (a) *Treatment adherence*—the extent to which a teacher delivers instructional practices “prescribed” by a particular evidence-based program; (b) *Treatment differentiation*—the extent to which treatments under study differ along appropriate lines defined by the treatment protocol (e.g., treatment diffusion, number of protocol violations, delivery of “proscribed” instructional practices not included in a particular protocol); and (c) *Competence*—the level of skillfulness of delivery. Once developed, these novel measures will help enhance the informational value of implementation research conducted in diverse early childhood classrooms by allowing researchers to interpret study findings, diagnose treatment diffusion, and characterize the evidence-based instructional practices used by teachers in business as usual classrooms. After evaluating the psychometric properties of the two measures, the project proposes to assess the utility of the measures (e.g., generalizability, sensitivity). To realize the study objectives, the study will progress through three phases. Phase I will focus upon the development of the observational and teacher-report integrity measures, with particular attention paid to establishing content validity. Phase II will evaluate the psychometric properties of the observational and teacher-report measures. A funded IES Goal 3 randomized controlled trial evaluating the efficacy of the BEST in CLASS program relative to business as usual in early childhood classrooms will be used to evaluate the psychometrics of the integrity measures. Real-time classroom observations of children (N=120) at risk for emotional and behavioral disorders from both conditions will be coded using the observational treatment integrity measure; teachers (N=40) from both conditions will self-report on their use of instructional practices. The resulting data will be used to evaluate the reliability, validity, and generalizability of the measures. Phase III will evaluate the utility of the observational treatment integrity measure. We will code recordings from 72 children at risk for emotional and behavioral disorders and 72 teachers who delivered one of four treatments (3 evidence-based programs (BEST in CLASS; First Steps to Success; Teaching Pyramid) and business as usual) in early childhood classrooms. The resulting data will be used to assess the generalizability, and sensitivity of the items and scales of the observational measure. In sum, a major goal of the proposed project is to produce reliable and valid measures to serve as gold standards for treatment integrity measurement that allow researchers to assess the integrity of treatment implementation across diverse early childhood classrooms.