ABSTRACT

Descriptive Title: Embedded Practices and Intervention with Caregivers (EPIC)
RFA: Early Intervention and Early Learning In Special Education – Goal 2 Development

Purpose: There is a compelling need for an evidence-based approach that focuses on infants and toddlers with significant disabilities and their caregivers. While research on preschool children with significant disabilities indicates they learn best when instruction is systematic, distributed across the day, and focused on the acquisition of skills presented in context, research focused on infants/toddlers with significant disabilities and their primary caregivers is notably absent. The absence of evidence-based intervention practices for infants and toddlers impacts the effectiveness of early intervention providers and the acquisition of essential learning outcomes with this vulnerable population. To address this need, this project’s research team will use an iterative process to design, develop, and validate a caregiver implemented intervention approach called Embedded Practices and Intervention with Caregivers (EPIC). Once developed, the EPIC approach will be evaluated to determine whether its use leads to increased caregiver use of embedded intervention and improved child outcomes.

Setting and Population: 20 multidisciplinary Part C early intervention providers and 50 infants/toddlers with significant disabilities and their primary caregivers from IL and FL will participate in the home based study.

Intervention: The EPIC intervention involves two components: (1) a provider protocol that will guide their instructional support (coaching) of caregivers; and (2) an intervention protocol for caregivers that includes a systematic five question (5-Q) process and visual model. The provider coaching protocol involves four elements grounded in adult learning research and practice. Providers will begin with three-times weekly sessions of two hours in duration to build caregiver knowledge and skill with embedded instruction and the 5-Q process/visual model. As caregivers demonstrate competence with the 5-Q intervention process, the frequency and duration of provider support will be faded. Caregivers will initially use the 5-Q process in one high-priority routine that serves as the context for teaching a caregiver identified motor or communication skill. As fidelity increases, the 5 Q process will expand to multiple routines and additional goals throughout the day.

Research Design and Methods: Qualitative and quantitative data collection methods will be used during the iterative design process to determine whether the intervention is working as intended and leading to improved caregiver and child performance. In year one, a small n study will validate the implementation protocol while a series of single subject studies will be undertaken in Year 2 to validate the intervention protocol. In Year 3, a two-group contrast design (EPIC vs- Business as usual) will be used to evaluate potential impacts of the intervention on caregiver and child outcomes. Throughout all phases, social validity measures by providers and caregivers in the studies, and a stakeholder panel will evaluate the approach.

Key Measures and Data Analysis: Focus group, child outcome (acquisition of target motor or communication skills; interactions with the caregiver), caregiver outcomes (complete learning trials, opportunities to learn, perceptions of self-efficacy), ratings of the feasibility, acceptability, perceived utility of the intervention components and materials. Proportional change index analysis of child change on assessment data; pre-post descriptive analysis on caregiver surveys; 30-sec interval coding of videotapes using structured protocol; thematic analysis of textual data; within and across site analysis of caregiver ratings on surveys; visual inspection of single subject data