Title: The Efficacy and Utilization of Community Early Start Denver Model (C-ESDM) Coaching Strategies Used by Providers in Low-Resourced Areas

Authors: Jazmin Burns, Elizabeth Fuller, Meagan Talbott, Aubyn Stahmer, & Sally Rogers

Introduction: Specific interventions for young children with or at risk for autism spectrum disorders (ASD) demonstrate powerful effects in reducing intellectual impairment, improving social communication and language development, and improving social skills, when begun in the toddler period (e.g., Shonkoff & Phillips, 2000; Wallace & Rogers, 2010). Interventions that include parents as the agent of delivery have been shown to be particularly effective (Hampton & Kaiser, 2016), to the point that Early Interventions (EI) services delivered through Part C of the Individuals with Disabilities in Education Act (IDEA, 2004, P.L. 108-446) are required to use a family-centered approach. However, the utility of these research-based intervention approaches is often limited in practice due to several factors including: costly or time-intensive training, distance to training sites, and inflexible models of delivery that cannot be met by publicly funded agencies. The purpose of this study was to evaluate the effectiveness of a training model that combined telehealth trainings with online modules to train EI providers in low-resourced areas to effectively coach caregivers in a community adaptation of an evidence-based comprehensive for children with autism, Community Early Start Denver Model (C-ESDM).

Methods: Part C Agencies from four states (California, Alabama, Pennsylvania, and Colorado) participated. Each agency was randomized to either the Community Early Start Denver Model (C-ESDM) or All About Young Children (AAYC) (control group). We enrolled thirty-two providers from participating agencies. Each provider recruited at least one parent-child dyad. Children were identified as at risk for ASD or developmental disability. The C-ESDM providers received training via Skype in the strategies used in the C-ESDM model and in parent coaching strategies. Up to 13 sessions occurred over six months with a certified ESDM Therapist and parent coach. Each Skype meeting included a concept presentation, video examples, role-plays, and time for questions. Therapists also received written fidelity feedback for their coaching strategies via email and access to online modules detailing the ESDM strategies. The control group received six telehealth trainings over the course of six months with a developmental psychologist and access to online modules on developmental milestones. Sessions followed a similar format, except they did not receive information about coaching parents. Therapists filmed a session with a target child prior to the start of the intervention and following the 6-months of intervention. Videos were rated by two coders who were blind to group assignment and time point using an adapted scale of the Coaching Practices Rating Scale (Rush & Shelden, 2011). This 13-point checklist assessed the presence or absence of a wide range of coaching behaviors. An independent sample t-test was conducted to test the differences between groups (Objective 1). Changes in item-level data were examined for the intervention group to identify strengths and weaknesses of the coaching model (Objective 2 and 3).

Results: Following the 6-months of intervention, the C-ESDM group used an average of 7.55 (sd=3.45) of the 13 coaching strategies, compared to the control group that used an average of 3.88 (sd=3.98) of the strategies. An independent sample t-test indicated that this was a significant difference (t=2.14, p=0.04). The most frequently used strategies included interacting with the parent in a respectful manner, developing a plan for practice, and creating opportunities for parents to demonstrate target skills. The most infrequently used skills included asking probing questions, providing information about outside resources, and engaging with the learner on the usefulness of the coaching process.

Discussion: C-ESDM is an inexpensive, distally implemented intervention for increasing EI providers’ use of parent coaching strategies. Participating in the C-ESDM intervention significantly increased the frequency of coaching strategies utilized. Specifically, community providers tended to use strategies focused on building a respectful relationship with the parent(s), plan development, and creating opportunities for parents to demonstrate target skills. Given what is known about the increased effectiveness of including parents in early intervention (Hampton & Kaiser, 2016), this increase in coaching behaviors is promising for improving access to effective early interventions, particularly in low-resourced or remote settings/communities.
However, it has also highlighted areas that could be improved in future EI trainings, such as focusing more attention on teaching strategies which utilize reflection, probing, and providing information about outside resources.

References/Citations: