**Symposium Title:** Innovations in Parent-training Interventions for Parents of Children with Intellectual and Developmental Disabilities

**Chair:** Kate Guastaferro, Ph.D.¹

**Discussant:** Ann Kaiser, Ph.D.²

**Overview:** In the United States, it is estimated the prevalence of intellectual and developmental disabilities (IDD) for children is between three to four percent (Emerson, 2012). Although a considerable number of intervention approaches have been developed for individuals with IDD, it is likely that children with IDD require a unique approach. One promising and strongly supported intervention approach includes parents in treatment implementation (Matson, Mahan, LoVullo, 2009). Parents, or primary caregivers, spend the most time with a child and therefore including them as intervention mediators is critical to maintenance and/or generalization of newly taught skills and to the success in improving child behavior and children learning new skills (Matson et al, 2009). However, no singular parent-focused intervention approach is relevant across all forms of IDD.

Thus, this symposium will highlight three distinct implementations of innovative evidence-based parent-training intervention approaches for parents of children with IDD. The first paper describes the results of a randomized trial examining the effect of an existing parent-training intervention (Incredible Years Parent Training) adapted for parents of children with IDD. The second paper discusses the potential for using peer-training among Latina mothers of children with autism spectrum disorder. The third paper highlights a burgeoning effort to introduce parent-training curriculum specific to challenging behavior of males with Fragile X Disorder through a telehealth platform. Taken together, these presentations will emphasize varying approaches to parent-training for parents of children with IDD, but also indicate the potential benefit of creating parent-focused intervention approaches.

**References:**


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**Paper 1 of 3**

**Paper Title:** The Efficacy of the Incredible Years Parent Training to Reduce Problem Behavior in Children with DD

**Authors:** Laura Lee McIntyre³ & Davis S. DeGarmo³

**Introduction:** Young children with developmental delay may be at risk for a number of negative outcomes, including heightened risk for problem behaviors and poor adaptation to early school experiences (McIntyre et al., 2006). Families with young children with concomitant developmental and behavioral concerns may experience stress and caregiving burden that may relate to child problem behavior over time (Neece et al., 2012). The current study is part of an ongoing NIH-funded longitudinal investigation evaluating the efficacy of an early family-centered parent training intervention on child behavior outcomes in families with young children with developmental delay.

**Methods:** 180 parents with preschool-aged children (mean age = 37 months) with developmental delay were recruited through early intervention and early childhood special education programs in a mid-size city in the Pacific Northwest. Half of participants were randomly assigned to receive a 12-week group-based intervention based on Carolyn Webster-Stratton’s *Incredible Years*

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**Parent Training (IYPT)** with modifications for parents of children with developmental disabilities (IYPT-DD; McIntyre, 2008) and the other half received community treatment as usual. Child problem behaviors were assessed via parent reports on the Child Behavior Checklist and through observed parent-child interactions video recorded during home visits. Assessments occurred at baseline (wave 1), 3-months (wave 2), and 9-months (wave 3). Maternal depression was investigated as a main effect and moderator of treatment outcomes.

**Results:** Attrition was 8% at the wave 3 assessment and equal across groups. Although half of the sample was randomized to the IYPT-DD intervention condition, significant barriers interfered with group attendance for half of the intervention sample. Nevertheless, we tested the intent-to-treat efficacy hypothesis that children in the IYPT-DD would exhibit a decrease in observed noncompliance over time relative to the control group. Results supported the key hypothesis. Controlling for initial status, child age, gender, and caregiver depression, assignment to IYPT-DD was associated with a greater rate of decrease in noncompliance over 9 months relative to the control condition (β = −.20, *p* < .05). Among the control variables, girls decreased at a marginally greater rate than did boys (β = −.17, *p* < .10), and higher levels of caregiver depression were associated with increases in noncompliance over time (β = −.28, *p* < .01).

**Discussion:** While Webster-Stratton’s program has been well-established with families with typically developing children with externalizing problems, this program is establishing an evidence base for use with families who have young children with developmental delay. Barriers to intervention participation will be discussed, as well as recommendations for future research, practice, and policy.

**References:**

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**Paper 2 of 3**

**Paper Title:** Mechanisms for Change: Using Peers to Deliver Parent Education for Latina Mothers of Children with Autism Spectrum Disorder (ASD)

**Authors:** Sandy Magaña⁴, Wendy Machalicek⁵, & Kristina Lopez⁵

**Introduction:** Latinos represent the fastest growing population in the US, and Latino children are one of the fastest growing ASD populations. Yet they are one of the most underserved groups with respect to diagnostic services, health care, and specialty autism services. Barriers for receiving diagnosis and services in a timely way among Latino children include lack of insurance, low income status, language, lack of information and knowledge about autism and disabilities, and limited bilingual and culturally competent providers. We developed a culturally-based approach to address educational and informational needs of Latino parents and used parent-leaders as the educators called, Parents Taking Action. We called these parent-leaders promotoras de salud. In this paper, we will present qualitative data to explore the role of promotoras in educating other parents. Our research questions were: 1) How do promotoras experience their roles? and 2) How do promotoras foster change among participants?

**Methods:** The promotoras de salud in this intervention are bilingual, bicultural, from the same community as participants, and are trained in the curriculum delivery. As mentioned, they were also mothers of children with an ASD. A 14-week curriculum was

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developed and pilot tested in a single arm pre and post-test study (Magaña, Lopez, & Machalicek, 2015). Currently, we are conducting a two site randomized trial with 60 mothers of children with ASD between the ages of 2 and 8 years old in the treatment group, and 60 in the control group. For the present analysis, two focus groups were held with 10 promotoras after they delivered the 14-week program to one or more families. All focus groups were audio-recorded, and transcribed. Thematic analysis was conducted by two different researchers who independently read transcripts and then met to discuss agreement and common themes.

**Results:** The following themes emerged: Promotoras 1) experienced personal growth, 2) learned new information that benefited their own families, 3) felt accomplished and satisfied with helping others, 4) valued shared experiences as a way to foster change, and 5) believed that being a role model was a powerful mechanism for change among participants. Our preliminary quantitative findings show that intervention participants increased their efficacy in using evidenced-based strategies, and increased their actual use of these strategies between pre and post-test; whereas control group participants did not. These results further validate qualitative findings.

**Conclusions:** Results suggest that parent-leaders can be a powerful mechanism for change in delivering autism education to Latino parents of children with ASD.

**References**


**Paper Title:** Tele-Behavioral Consultation for Families of Young Males with FXS Who Engage In Challenging Behavior

**Authors:** Wendy Machalicek & Andrea McDuffie

**Introduction:** Challenging behaviors are common to males with fragile X syndrome (FXS) and often appear during early childhood. Past research utilizing indirect and direct measures of behavioral function suggests that males with FXS exhibit a unique behavioral phenotype. For instance, Machalicek et al. (2014) used experimental functional analyses to examine the operant function of challenging behaviors exhibited by 12 males (ages 27 – 51 months) with FXS. Eight children met criteria for negatively reinforced challenging behavior in the form of escape from demands and/or escape from social interactions. Nine children met criteria for positively reinforced challenging behavior in the form of obtaining access to highly preferred items. Attention was identified as a maintaining consequence for only three children. Results align with past research in that challenging behaviors may more likely be tangibly and escape maintained than attention maintained. Findings suggest that parent implemented function-based behavioral intervention will result in decreased challenging behavior and improved functional communication skills.

**Methods:** The intervention will prepare mothers of young males with FXS (24 months – 60 months of age) who engage in challenging behavior to implement Functional Communication Training (FCT) aimed at improving child participation and decreasing child challenging behavior (tantrums, aggression, self-injury) during family routines. The study will take place entirely in family homes using telehealth hardware and software to facilitate behavioral consultation (i.e., functional behavior assessment, behavior intervention plan development, and parent coaching while they practice with their child). Parents will receive (1) parent education sessions utilizing information-sharing, modeling, and joint problem-solving to support parent use of targeted behavior support strategies, and (2) coaching sessions providing opportunities for guided practice and feedback during real-time parent-child interaction. The use of telehealth technology to deliver early intervention may be especially well-suited to the low-incidence nature of FXS as it reduces travel time and increases access to specialists where shortages exist. This concurrent multiple-baseline design study across four parent-child dyads will examine whether a functional relation exists (a) between behavioral consultation delivered via a telehealth platform and increased frequency of parent implementation of behavior support strategies during family routines; (b) between increased parent implementation of behavior support strategies...
during family routines and decreased frequency of child challenging behavior and increased child communication and will use a social validity questionnaire to evaluate the degree to which (c) this model of telehealth behavioral consultation is perceived by participating mothers to be feasible, acceptable, and effective.

**Results:** This study is underway with intervention data to be completed in February 2017. Based on earlier research with this population (e.g., McDuffie, Oakes, Machalicek, Bullard, & Abbeduto, 2016; Oakes, Ma, McDuffie, Machalicek, Abbeduto, 2015), we anticipate that a telehealth parent education intervention consisting of parent education and coaching with immediate performance feedback will result in measureable improvements in parents’ ability to implement intervention strategies with their child and (b) that parent-implemented behavioral intervention with high fidelity of implementation will result in decreased child challenging behavior and improved functional communication.

**Conclusions:** Little research to date has investigated the potential effectiveness of behavioral interventions with children with FXS. In part, the lack of intervention research may be explained by the low incidence of FXS and the inherent difficulty in conducting experimental group research with a low incidence population. This study overcomes these two barriers to evaluating interventions with this population by implementing experimentally rigorous single-case research designs and leveraging telecommunication technology to pilot an intervention with young males with FXS and their mothers at a distance.

**References**