**Paper 1 of 4**

**Symposium Title**: Culturally Informed Early Intervention: Efficacy Studies to Support Culturally and Linguistically Diverse Autistic Learners

**Chair**: Shana R. Cohen[[1]](#footnote-1)

**Discussant**: Sandy Magaña[[2]](#footnote-2)

**Overview**: This symposium will highlight three autism interventions focused on supporting culturally and linguistically diverse learners with, or at risk for autism. The first two papers examine the efficacy of the “Parents Taking Action” intervention within a sample of low-income Chinese mothers (Paper 1) and Korean immigrant parents (Paper 2). Findings from both papers showed improvement in children’s social communication and behavior and parents’ self-efficacy and empowerment. The third paper examines the feasibility, acceptability, and utility of the ASPEN screening program, a screening and parent engagement intervention to support culturally diverse families and their autistic children. Findings show that caregivers reported high satisfaction of the intervention program for a sample of low-resourced families including multilingual households. Discussant remarks will identify connections and reflections for how to build upon this work and design interventions that are culturally sustainable and meaningful for all families.

**Paper 1 of 3**

**Title**: Pilot Results of a Culturally-Adapted Parent Training Intervention for Low-Income Chinese Immigrant Families of Children with Autism

**Authors**: Yue Xu[[3]](#footnote-3),[[4]](#footnote-4), Feifei Chen2, Mansha Mirza[[5]](#footnote-5), Sandy Magaña[[6]](#footnote-6),[[7]](#footnote-7)

**Introduction**: Asian children have higher rates of autism (1 in 19 versus 1 in 36 Maenner et al., 2023). However, Asian children with autism are underserved compared to White children (Son et al., 2017; Bilaver et al., 2021). Chinese is the largest ethnic group among Asians. When accessing services, Chinese American families, especially newer immigrants, often face language barriers, lack of culturally appropriate services, and unfamiliarity with the complex special education and healthcare systems (Lo, 2008; Son et al., 2017). There is a critical need for culturally appropriate interventions addressing these health disparities. The current study aims to present the pilot results of a culturally adapted intervention, “Parents Taking Action” (PTA) for low-income Chinese immigrant families of young children with ASD.

**Method**: We recruited 27 Chinese immigrant mothers of children with ASD between 2 and 10 years old to participate in the culturally adapted version of PTA, a psychoeducational intervention originally designed for Latino families of children with ASD. 15 mothers were from the Chicago metropolitan area, while 12 were from New York City and its suburbs. The majority (70.4%) of them live in low-income households and do not speak English well (66.7%). The majority (59.3%) of the children with ASD had severe symptoms (categorized using CARS-2). The average age of children in the sample was 5.4 years and most of them were born in the US. Four trained community health workers who are themselves Chinese mothers of children with ASD delivered the intervention online via Zoom during the COVID-19 pandemic.

For family outcomes, we collected family empowerment using the Family Outcome Survey-Revised (Bailey et al., 2011), parental stress using the PSI-SF(Abidin, 1990), parental self-efficacy and frequency in using evidence-based strategies (Magaña et al., 2020). For child outcomes, we collected child’s frequency and severity of challenging behaviors (SIB-R, Bruininks et al., 1995), social communication skills using the SCQ (Rutter et al., 2003), and the number of services received. Data were collected at baseline, 3month follow-up (immediately after intervention completion), and 6 month follow-u. linear mixed models with the SAS MIXED procedure were used to account for correlations among repeated measurement.

**Results**: Outcomes showing a 10% or greater improvement from baseline to 3 months, which were sustained or further improved at the 6-month follow-up, included the number of evidence-based outpatient services, parent self-efficacy in using evidence-based strategies (EBS), frequency in using EBS, and family empowerment. These outcomes remained significant even after adjusting for significant characteristics. In addition, more outcomes with significant changes were observed at the 6-month follow-up than at the 3-month follow-up when compared to baseline. At 6-month follow-up, more child outcomes showed a significant increase: child social communication, challenging behavior, and the number of clinical services. Parents’ self-efficacy and frequency in using EBS, family empowerment, and the number of social supports sustained at 6 months follow-up.

**Discussion**: To our knowledge, this is the first culturally adapted intervention targeting low-income Chinese immigrant families of children with ASD. The culturally adapted parent-educational intervention showed promising preliminary effects in both family and child outcomes. Despite the difference in intervention modes of delivery compared to the original PTA, the intervention still showed significant increase in similar outcomes found in the original PTA study(Magaña et al., 2020) .

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**Paper 2 of 3**

**Title: Pilot Trial of a Peer-led Psychoeducational Intervention for Korean Immigrant Caregivers of Children with Autism**

Authors: *Irang Kim[[8]](#footnote-8); James Lee2; Veronica Kang[[9]](#footnote-9); Sandy Magana2*

**Background:** The prevalence of autism among Asian American children has grown 2.7 times faster than non-Latinx white children in the recent years (Maenner et al., 2021). However, there remains an absence of intervention studies specifically addressing the needs of Korean immigrant caregivers of young autistic children in the U.S. This study examined feasibility, acceptability, and the short-term impact on child, family, and parent outcomes of *Parents Taking Action* (PTA), a culturally adapted peer-led psychoeducational intervention for Korean immigrant parents of children with autism.

**Methods:** We employed a mixed-methods convergent study design. Participants were recruited nationwide using diverse methods (e.g., collaborations with parent associations, online communities). Five Peer Mentors delivered the program to nine groups of 18 Korean immigrant parents, between August 2023 and April 2024. Over half of participants had a college degree (55.6%) and earned more than $70,000. On average, participants had lived in the U.S. more for 14 years. Children with autism were 5.8 years old (SD=1.6). Participants completed pre- and post-measures on parenting stress (APSI; Silva & Schalock, 2012), depression (CESD; Radloff, 1977), family functioning (FOS-R; Bailey et al., 2011), and child behavior (NCBRF; Aman et al., 1996). Peer Mentors submitted fidelity checklist weekly, with one of their sessions observed by a research assistant. We also conducted interviews with participant parents and Peer Mentors. We used paired t-test to examine pre- and post- changes.

**Results:** All participants completed the program with an average of 12 weeks (SD=2.4; range 10-16 weeks). A significant improvement was observed in one FOS-R subscales, “families know their rights and advocate effectively for their child”, (t (17)=-3.6, p=.00). Although other quantitative outcomes did not show significant change, qualitative findings indicated positive changes. For example, parents reported becoming more active participants in various aspects of caregiving (e.g., communication with teachers, therapist, engaging in daily activities with children with autism), and feeling more confident. Also, they applied strategies, leading to gradual improvement in their child’s challenging behaviors.

**Discussion:** Both quantitative and qualitative data suggest that the culturally adapted PTA benefits family and child outcomes. Although significant improvements were only found in advocacy, qualitative responses suggest increased in parental confidence and reducing in child’s challenging behavior. The lack of significant results from quantitative data might be due to underreporting of mental health issues in Asian population (Sue et al., 2012). Additionally, factors such as, length of staying in the U.S., may moderate outcomes. Future study should consider using strength-based quantitative measures and examine interaction effects with other factors on program outcomes.

**Paper 3 of 3**

**Paper Title**: Feasibility, Acceptability, and Utility of the **A**SD **S**creening and **P**arent **EN**gagement (ASPEN) Program for Families in Low-Resource Households

**Authors**: Sandra Vanegas2, Sandy Magaña2, Stephany Brown2

**Introduction**: Children with autism and other developmental disabilities (DD) from racial/ethnic minority backgrounds and low-resource households experience significant disparities, including lower access to services and lower quality of care (Magaña & Vanegas, 2021). These disparities are further compounded by additional stressors often experienced by racial/ethnic minority and low-resource communities (e.g., immigration, language acculturation, discrimination; Ramirez et al., 2017). The ASD Screening and Parent ENgagement (ASPEN) Program was developed as a potential solution for the need of culturally responsive and linguistically appropriate interventions for families in low-resource households. The ASPEN Program builds on evidence-based naturalistic, developmental, and behavioral intervention strategies to empower caregivers with the tools and knowledge to improve their child’s communication, play, and behavior. This presentation will focus on the feasibility, acceptability, and utility of the ASPEN Program from a randomized controlled trial currently underway in Texas.

**Method**: Caregivers were eligible to participate if they had a child between 18 months and 6 years of age, the child had an autism diagnosis or screened at elevated likelihood for autism, and the family met low-resource criteria (i.e., Medicaid, primary caregivers had a high school or lower education, household income <=200% federal poverty level). Eligible caregivers completed a comprehensive assessment measuring demographics, family empowerment, parenting stress, family quality of life, caregiver use and perception of caregiving strategies, child adaptive behavior, and a 15-minute play observation. Caregivers were then randomly assigned to the Intervention group (12 weekly videoconferencing sessions with a student clinician and peer leader) or Comparison Group (4 triweekly phone sessions with a student clinician). Caregivers completed a short evaluation survey after every session. Upon completing the intervention program, caregivers participated in a comprehensive post-intervention assessment, including a social validity questionnaire to determine the feasibility, acceptability, and utility of the ASPEN Program. A comprehensive follow-up assessment was administered 3-4 months after completing the ASPEN Program.

**Results**: To date, 67 caregivers have enrolled in the ASPEN Intervention Program. Families reported learning something new in 94.6% of sessions. Overall, 86.3% of the English sessions and 98.9% of the Spanish sessions were reported to be Extremely or Very Useful (92.8% overall). Additionally, caregivers reported being Very Satisfied or Satisfied with 98.6% of the English sessions and 95.7% of the Spanish sessions (97.0% overall). Caregiver comments suggest that the ASPEN Program was “an eye opener” and that they were able to learn how to identify their child’s strengths, such as nonverbal communication, creativity, and imagination. Additional analyses will evaluate the outcomes for feasibility and social validity across the Intervention and Comparison groups.

**Discussion**: Access to culturally responsive intervention programs is a critical step in addressing the significant disparities that families of children with autism and developmental disabilities experience. The preliminary outcomes of the ASPEN Program suggest that it is caregivers find it useful and are satisfied with the sessions, with most caregivers learning something new. Once the randomized controlled trial is completed, evaluations of the ASPEN Program will reveal how this program can be used to improve child, caregiver, and family outcomes. Additional work is needed to evaluate how to incorporate the ASPEN Program into community settings to increase the engagement of families in low-resource communities to address disparities in autism and developmental disabilities.

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