Symposium Title: Examining the Impact of Disparities in Regards To Access, Implementation, and Quality of Services for Youth with ASD

Chair: Colby Chlebowski Ph.D. 1,2

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Overview: Autism spectrum disorder (ASD) is a complex neurodevelopmental disorder that is estimated to impact 1 in 68 children. Racial and ethnic disparities in regards to early detection and diagnosis for youth with ASD have been well documented but less is known about the impact of disparities on service utilization and intervention implementation. The presentations in this symposium will examine the presence and impact of disparities in regards to access, implementation, and quality of services for youth with ASD. The first presentation will use administrative claims data from the San Diego Regional Center to characterize service utilization patterns, examining differences in service use by ethnicity and disability group. The second presentation explores the implementation of services, examining associations between client characteristics, including race and ethnicity, and therapists’ observed delivery of intervention strategies in the context of structured EBI for children with ASD. The third presentation focuses on service quality, characterizing differences in classroom quality for students with autism in a large urban sample based on school and district level factors. Collectively, these presentations explore the potential impact of disparities across contexts (Regional Center, mental health services, Special Education) and provide important information to inform targeted interventions to address disparities across settings.

Paper 1 of 3

Title: Exploring Disparities in Patterns of Use of State-Funded Disability Services

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Introduction: Access to and utilization of effective, evidence-based services for youth with developmental disabilities in the community is limited, especially for ethnic minority populations where significant disparities in identification, service entry and utilization are documented (Harrington et al., 2008; Mandell et al., 2007, 2009). There are a growing number of large-scale, system-driven efforts to address service disparities but little is known about the specific patterns and influences of service disparities among minorities, which are key to informing efforts to address service disparities. In 2016, the State of California Department of Developmental Services launched a large-scale initiative to address disparities in care for Latino clients statewide. As part of this effort, the San Diego Regional Center (SDRC) prioritized the identification and tracking of current service expenditures and authorizations disparities by ethnicity and race. The aim of the current study is to examine patterns of service use and expenditures for individuals with developmental disabilities receiving state-funded disability services to identify service disparities by ethnicity and specific disability. Service use patterns from birth to adulthood were also examined to identify age groups in which such disparities emerge.

Methods: SDRC administrative claims data from fiscal years 2015-2016 were extracted. Purchase of service (POS) data for 27,343 SDRC clients were used to characterize service utilization patterns, including differences in service use by ethnicity as well
as disability group from birth to adulthood. Specific disability categories include intellectual disability (ID), autism spectrum disorder (ASD), and comorbid medical issues.

**Results:** Analyses indicate significant differences in POS for Latino and Non-Latino/White clients ($F(3,27,332)=107.47, p<.01$) were noted, with smaller POS for Latino clients. Follow-up analyses aimed to understand patterns to these disparities revealed a significant 3-way interaction between ethnicity, age, and disability types. Post-hoc analyses revealed significant differences in POS between Non-Latino/White clients and Latino clients with ID that emerge between the ages of 14-18:11 and for clients with ASD that emerge between the ages of 16-18:11, with lower POS for Latino individuals. A similar pattern was observed for individuals with comorbid ASD and ID, ID and medical issues and ASD and medical issues beginning at ages 19-21:11. Further analyses examining these disparities by service type will be discussed.

**Discussion:** These results reveal important patterns of service disparities among individuals with developmental disabilities. Specifically, these data point to middle adolescence as a key time point for the emergence of service disparities that persist throughout the lifespan. Additionally, our results provide relevant information for targeted disparity reduction efforts, including identification of strategies targeting these age ranges.

**References/Citations:**

**Paper 2 of 3**

**Title:** The Influence of Child Characteristics on Therapist Delivery of Evidence Based Mental Health Intervention Strategies for ASD: Do Cultural Factors Matter?

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**Introduction:** Disparities exist in identification, diagnosis, and treatment for Latino children with Autism Spectrum Disorder (ASD) (Magaña, Lopez, Aguinaga, & Morton, 2013). Research thus far has explored how the cultural adaptation of interventions, therapist’s multicultural competency, and therapist-client ethnic match (Hall, Ibaraki, Huang, Marti & Stice, 2016; Sue, Fujino, Hu, Takeuchi, Zane, 1991) can improve intervention outcomes (e.g., effectiveness and client retention) for ethnic minority families, including Latinos; however, minimal studies have examined how client characteristics, such as race and ethnicity, may impact therapist’s delivery of evidence-based strategies broadly and among ASD interventions more specifically. Understanding these relationships is an important step in improving evidence-based interventions (EBIs) accessible to Latino children with ASD and their families. The current study examines the associations between client characteristics and therapists’ observed delivery of intervention strategies when implementing a structured EBI for children with ASD following intensive training. Data were drawn from a community effectiveness trial of AIM HI (*An Individualized Mental Health Intervention for ASD;* Brookman-Frazee & Drahota, 2010) an intervention designed for children with ASD served in community mental health programs.

**Methods:** Data from a subset of therapist participants from the training condition of the larger AIM HI effectiveness study (n=126) delivering AIM HI to a child with ASD (n=143) were included in the current analyses. Therapist participants were an
average age of 34 years (SD=8.3); 85% female; 71% White; 33% Hispanic; and 44% MFT discipline. Child participants were an average age of 9 years (SD=2.45); 83% male; 74% White; and 58% Hispanic. 1,153 recorded therapy sessions were rated by coders blind to intervention condition. Recordings were coded to identify the use of AIM HI intervention strategies directed to child clients including providing psychoeducation, modeling skills, providing an opportunity for the child to practice skills in session, providing reinforcement and feedback regarding in-session practice, and assigning between session practice (i.e. homework). A composite score of all active teaching skills directed by the therapist to the child, the active teaching composite, was also calculated. Associations between client characteristics and delivery of AIM HI intervention strategies were examined using mixed models.

Results: Mixed model analyses indicated that child race/ethnicity, and gender were not significantly associated with delivery of any individual AIM HI strategy or with the active teaching composite. Greater child age (F= 15.28, \(p<.001\); and lower autism severity (F=8.95, \(p=.003\)) were associated with therapist delivery of more intensive observed psychoeducation. Greater child age (F= 16.92, \(p<.001\) was associated with more intensive delivery of between session practice. Both greater child age (F= 3.502, \(p=.065\) and autism severity (F=3.634, \(p=.059\) were related to the overall active teaching composite score.

Discussion: Child presentation of cultural characteristics (race, ethnicity) do not appear to impact therapist delivery of evidence based intervention strategies. Child age and level of autism severity influence therapists’ delivery of psychoeducation and between session assignments, which may relate to therapist perception of a child’s potential receptiveness to these strategies. Results suggest that implementation of a structured intervention protocol may help address intervention disparities as therapists may be more likely to implement intervention strategies consistently to clients from different cultural backgrounds when using a structured treatment protocol. Results will be integrated with qualitative data collected from parents and providers to understand whether cultural factors impact therapist and parent experiences of the AIM HI therapy process.

References/Citations:

Title: Characterizing Disparities in Special Education Classroom Quality for Students with Autism

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Introduction: Schools provide the majority of services for children with ASD (Brookman-Frazee et al., 2009). Despite known special education disparities in identification and placement for minority and low-resource students with autism (Hibel, Farkas, & Morgan, 2010; Travers, Krezmiern, Mulcahy, & Tincani, 2014), very few studies have looked at the quality of special education program that children receive. Some data suggest that students with autism from racial/ethnic minority and low-resource backgrounds may not be receiving high quality programs or recommended evidence-based practices due to teacher training constraints (McLeskey & Billingsley, 2008; Odom, Cox, & Brock, 2013). However, few studies have examined the impact of district
and school level factors (e.g., racial/ethnic minority enrollment, percentage of students receiving free and reduced lunch) on special education classroom quality, which may affect implementation of effective practices. Additional research is needed to understand potential disparities in classroom quality in order to best direct resources and professional development efforts. The purpose of the current paper is to characterize differences in classroom quality for students with autism in a large urban sample based on school and district level factors (enrollment, % White, % Hispanic/Latino).

Methods: Data from a four-year study of 113 teachers from 17 school districts serving children under the educational classification of autism in public schools were examined. An expert assessor conducted an observational assessment of classroom quality (based on the Professional Development Assessment; Hume et al., 2009) in each student's classroom at intake to the larger study (Fall of the school year). The PDA includes 54 individual items across 7 domains. Student race/ethnicity and other demographics were collected via parents report upon intake. School and district level factors were collected from data from the California Department of Education, retrieved from Ed-Data.org in August 2017. Factors examined included school overall enrollment, district and school percent enrollment of White students, district and school percent enrollment of Hispanic/Latino students, percent of students at the school receiving free and reduced-price lunch, and school Title 1 status.

Results: Analyses indicate that both district and school level factors are significantly related to aspects of classroom quality. Specifically, a higher percentage of Non-Hispanic/Latino-White students at the district level (B=.01, p=.06), lower percentage of Hispanic/Latino students at both the district (B=-.01, p<.05) and school level (B=-.01, p=.06), and lower percentage of students receiving free or reduced lunch within the district (B=-.01, p<.05) were associated with higher quality ratings related to opportunities for peer interaction. Higher school enrollment was also associated with decreased use of strategies to promote peer relationships (p's<.05). Additionally, a higher percentage of Non-Hispanic/Latino-White students at the district (B=.01, p=.085) and school (B=.01, p<.05) levels as well as a smaller proportion of schools classified as Title 1 (B=-.47, p=.08) were associated with higher quality ratings of teachers' instructional planning.

Discussion: Disparities in the promotion of peer relationships and teachers’ instructional planning exist in special education classrooms based on school and district level factors. Targeting these areas with professional development and additional resources may help address disparities in classroom quality.

References/Citations: