STRONG CHILDREN'S RESEARCH CENTER

Summer Research Scholar

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ABSTRACT

Title: *The Reach of Telemedicine and In-Person Behavioral Services for Children with Autism Spectrum Disorder (ASD): An Assessment of Social Determinants of Health*

Background: Previous investigations have aimed to determine the impact of telemedicine on the engagement with and accessibility of mental and behavioral pediatric care. One study reported increased visit absences in pediatric telehealth cases, but decreased absences in adults. The study further clarified that children preferably attended visits dedicated to support services, rather than psychotherapy, through a virtual modality.[1] Another investigation, using visits from a large service provider in California, analyzed the effect of patient-specific demographics, such as insurance type, gender, race, language, and household count, on the attendance of telehealth attendance for patients with autism spectrum disorder (ASD), but discovered no significant correlation.[2] However, other ASD-specific explorations into the correlation between patient demographics and missed appointments have uncovered correlations between child race and in-person attendance, [3] characterizing race as a variable determinant, perhaps dependent on modality. A recent study examined several factors as possible predictors for missed appointments at a pediatric outpatient neuropsychology clinic and noted that community-specific, rather than patient-specific, demographic indicators, such as Area Deprivation Index, are effective predictors of attendance.[4] Thus, this study aims to consider community-specific metrics, in the form of social determinants of health, concerning missed appointments and referrals to departmental services.

Objective: To determine if the reach of behavioral services for children with ASD permeates into socioeconomically vulnerable communities by characterizing the communities of patients served by the University of Rochester Developmental and Behavioral Pediatrics (UR DBP) Department and assessing appointment attendance, modality, and frequency of service referrals.

Methods: Encounters with the Developmental and Behavioral Pediatrics Unit, occurring during a pre-selected set of randomized dates, between April and June, were collected only if ASD was identified in the patientôs chart. Once determined eligible, demographic information, such as sex, age at the encounter, race, ethnicity, zip code, and county, were recorded. Each encounter was characterized by modality, attendance, referrals made to DBP programs, and follow-ups pursued by the family. Using social determinants of health data from the Agency for Healthcare Research and Quality (AHRQ), we assessed the social vulnerabilities of patient communities as determined by the collected postal codes.

Results: Increased appointment attendance rates increased from pre-pandemic (66.8%) throughout the pandemic, to 2022, and remained elevated (95.3% in 2020, 82.1% in 2021, and 75.1% in 2022). The attended appointment modality, though overwhelmingly in-person during 2019 (97.8%), and overwhelmingly virtual during 2020 (99.2%), has slowly evened out to a 50.6% and 49.4% split between in-person and telehealth respectively. Following the shift to telemedicine in 2020, the majority of missed appointments, excluding provider cancellations, were scheduled telemedicine visits (72.7% in 2020, 65.4% in 2021, and 61.1% in 2022). No significant differences in appointment attendance emerged across the sex, race, or ethnicity of the patient. In 2019, the distribution of the tracked social determinants of health for missed appointments generally trended with the distribution of attended appointments, as demonstrated by similar medians; in 2020, however, though the body was missed appointments was far reduced, the distribution of social determinants trended towards more vulnerable metrics for missed