**Title**: Facilitators and barriers to recruitment of culturally and linguistically diverse patients in a longitudinal study of early sensory behaviors.

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**Introduction**: Culturally and linguistically diverse (CLD) patients are underrepresented in clinical research (Sharma et al., 2021). Increasing the rate of inclusion for CLD patients in research has been a federal priority for years (Bibbins-Domingo et al., 2022). Understanding strategies that improve recruitment and retention of CLD patients in research is essential for improving social equity in care and establishing trust with patients.

**Method**: The current project critically analyzed recruitment rates across White and CLD patients from a longitudinal study of early sensory behaviors in children with intellectual or developmental disabilities between the ages of 2-12. Study participation included annual survey questions about restricted and repetitive behaviors and optional study tasks including modified quantitative sensory testing, serum collection (only if clinically ordered), saliva collection, skin biopsy (only if sedated procedure clinically ordered) and home telehealth observations. An initial evaluation of recruitment rates was completed for June 2019-December 2022. Barriers to recruitment and retention of CLD patients were identified through community engaged research strategies and targeted action plans were enacted from January 2023-May 2023. A secondary analysis of recruitment rates across White and CLD patients was performed from June 2023-September 2024 to assess progress in increasing CLD rates of accrual.

**Results**: From June 2019 to December 2022, we recruited 104 out of 219 eligible White participants and 31 out of 91 eligible CLD participants. White participants were 1.38 times more likely to be recruited into the study. Barriers to identification and recruitment of CLD families were identified through interviews with diverse community representatives (Somali and Hispanic mothers of children with neurodevelopmental disorders) and critical feedback from study staff members. Barriers identified included (a) language (complexity and time when using interpreters to describe research, recruitment materials developed for English speaking population, families understanding the expectations), (b) accessibility (recruitment sites not being equally accessed by CLD families, transportation to appointments, time off work to come into the clinic), and (c) trust (understanding why research is done, believing that research leads to better care). To address the barriers action plans included: translating recruitment materials with feedback from Spanish and Somali speaking families, training translators to understand the research purpose prior to speaking with families, lengthening study visit times for CLD families with interpreters and expanding recruitment outside of specialty medical appointments. From June 2023-September 2024, post action plan implementation, we recruited 16 out of 38 eligible White participants and 6 out of 58 eligible CLD families.

**Discussion:** This study intended to identify barriers to recruitment of CLD families and assess the success of modifications to recruitment practices during study implementation. Actions taken to broaden the recruitment from specialty care clinics to general pediatrics increased the identification of eligible participants in diverse populations that would have otherwise been missed. While identification of study eligible CLD patients improved, our efforts did not result in increased accrual of diverse patients. Even with attempts to over recruit diverse families and translate documents, our rates of CLD patient accrual did not improve. These results suggest that more research is clearly needed to move from identifying diverse patients into accrual of diverse patients. These results likely suggest that more work needs to be done to build trust and equitable access to research participation for CLD families. For example, trust and support for research is likely a continued barrier for many families. Future directions may include a Community Engagement Studio to interview and learn from our specific recruitment populations, adding more diverse staff to our research team and allowing for more of the research protocol to be done outside of the clinic (have phlebotomists go to the participant’s home to obtain study samples).

**References:**

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