

Identifying Neurodiverse Conditions in Multilingual Children: An Analysis of Referral and Diagnosis Patterns in Wales

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Objectives

There are many challenges in identifying children with language and communication delays, including autism, from bilingual backgrounds. This study is the first to investigate disparities in autism diagnosis rates and age of diagnosis among multilingual children in the UK. It explores how language background, ethnicity, sex, and deprivation influence diagnostic patterns.

Methods

A retrospective cross-sectional study examined population-level data within the Secure Anonymised Information Linkage (SAIL) Databank to analyse trends in autism diagnosis in Wales, UK. Using routinely collected health, education, and Office for National Statistics Census 2011 data, we analysed diagnostic patterns of autism in children (aged ≤ 18 years) over a 20-year period (1999 – 2019). We report the association of language background, ethnicity, area-based relative deprivation level, educational attainment, and sex with autism diagnosis rates and age.

Results

Descriptive statistics were used to compare autism diagnoses between different language backgrounds (mono vs multilingual). Logistic regression models investigated the impact of language background on referral rates and age at diagnosis. Subgroup analyses were conducted to explore variations in diagnostic patterns by sex, ethnicity, and geographical location. Finally, hierarchical linear models were employed to explore whether specific factors, including level of relative deprivation and sex, contribute to disparities in neurodiversity diagnoses amongst multilingual children. Educational outcomes were also analysed whilst assessing the impact of age at diagnosis and language background. Statistical significance was assessed using 95% confidence intervals.

Conclusion

These findings will be crucial for identifying systemic barriers in autism diagnosis among multilingual children. By utilising data-driven insights, policymakers can guide improvements in autism screening, promoting equitable access to neurodiversity services. International efforts to improve autism identification and support services for multilingual populations can now be better informed.

