

## Autism spectrum disorder diagnosis across cultures

Tafla, Tally Lichtensztein; Teixeira, Maria Cristina Triguero Veloz; Woodcock, Kate Anne; Sowden-Carvalho, Sophie

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# Autism spectrum disorder diagnosis across cultures: Are diagnoses equivalent?

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Tally Lichtensztein Tafla<sup>1</sup> , Maria Cristina Triguero Veloz Teixeira<sup>1</sup>,  
Kate Anne Woodcock<sup>2</sup> and Sophie Sowden-Carvalho<sup>3</sup>

In an increasingly interconnected world, the recognition of autism spectrum disorder's (ASD) global prevalence demands a deeper understanding of its diagnosis within diverse cultural contexts. Approximately 1 in 100 children are diagnosed with ASD around the world, with prevalence estimates increasing in recent years (Zeidan et al., 2022). The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR) and the 11th revision of the International Classification of Diseases offers standardized criteria, but the interpretation of ASD behaviors within cultural frameworks raises intriguing questions about the equivalence of diagnoses across cultures.

Over time, psychiatric diagnostic systems have tried to capture ASD heterogeneity, including intellectual and language levels, the presence of cooccurring mental health conditions, and genetic, neurological, and other medical conditions. However, no diagnostic biomarkers for core features of autism exist (Myers et al., 2020), making observation-based diagnosis pivotal. This includes clinical evaluation by parents, professionals, and standardized instruments like the Autism Diagnostic Observation Schedule, 2nd Edition and Autism Diagnostic Interview, Revised.

ASD is defined by recognizable behavior and socio-emotional patterns, but diverse cultural contexts can impact the interpretation of these behaviors, leading to differences in identification (de Leeuw et al., 2020). Culture influences how parents and caregivers perceive ASD symptom severity due to varying child development expectations (Hus & Segal, 2021; Matson et al., 2017). Assessing 'social communication difficulties' relies on deviations from culturally defined 'typical' social communication, potentially leading to disparate interpretations. Thus, assigning 'social communication impairments' to children across cultures may lack equivalence, potentially overlooking crucial cultural differences in ASD assessments.

The International Test Commission (2017) underscores the significance of cross-cultural validations, advocating for equivalence analysis involving experiential (contextual understanding) and idiomatic (natural translation) equivalence. These precautions mitigate relying solely on single

translations, ensuring assessments transcend language barriers and encompass cultural intricacies (ITC, 2017). Despite the ITC's work to guide the quality of cross-cultural validations, a lack of focus on the validity of some behavioral assumptions across cultures means there is still something missing in this validation.

Cross-cultural comparisons are vital for ASD, as cultural views on appropriate behaviors and 'typical' development can impact parent/caregiver reports and ASD diagnoses (Matson et al., 2017). Carruthers et al.'s study (2018) analyzing parent-reported data from India, Japan, and the United Kingdom found universal autistic traits, along with potential cross-cultural differences in traits like spontaneity and social conversation (Carruthers et al., 2018). Cultural influence on autistic traits extends to ethnicity (Athar et al., 2021) and even race within a country (DSM-5-TR; Aylward et al., 2021), affecting epidemiological rates and the perception of social communication difficulties.

Our focus is not to challenge standardized assessments measuring intellectual and language skills, but rather to scrutinize observational and medical evaluations. We may consider if 'social communication difficulties' carry uniform connotations across countries with distinct social norms. We may also question the sensitivity and accuracy of screening instruments, especially with respect to detecting mild difficulties. Interpretation of peer interactions and eye contact differ across cultures; a Western ASD trait (lack of eye contact) contrasts with Asian cultures, where direct eye contact can be impolite. Moreover, cultural variability

<sup>1</sup>Center for Research on Childhood and Adolescence, Postgraduate Program in Human Development Sciences, Mackenzie Presbyterian University, São Paulo-SP, Brazil

<sup>2</sup>Centre for Applied Psychology, School of Psychology & Institute for Mental Health, University of Birmingham, Birmingham, UK

<sup>3</sup>Centre for Developmental Science, School of Psychology, University of Birmingham, Birmingham, UK

#### Corresponding author:

Tally Lichtensztein Tafla, Graduate Program in Human Developmental Sciences, Mackenzie Presbyterian University, Rua da Consolação 896, Prédio 28, 1º andar, Consolação, São Paulo, Cep: 01302-000/ SP, Brasil.  
Email: tafla.tally@gmail.com

in adaptive functioning, intrinsic to diagnostic criteria, is pivotal. Acknowledging culture as integral to the autism evaluation process (Golson et al., 2022; Hus & Segal, 2021; Matson et al., 2017) is crucial.


Discussions of cultural aspects of the behavioral and socio-emotional phenotype underlying an ASD diagnosis are therefore necessary and this is in line with other recent calls for research prioritizing cultural factors (Carruthers et al., 2018; Golson et al., 2022; Hus & Segal, 2021). Cross-cultural studies can illuminate context-based criteria shaping the global understanding of ASD diagnosis and enhance its comprehension around the globe. Research strategies considering diverse cultural factors influencing diagnosis promote a broader view across cultures.

Expanding our lens beyond ASD, it is imperative to consider other neurodevelopmental conditions within the context of cross-cultural diagnosis. While each condition has its unique features, the challenges posed by cultural nuances in assessment are likely to be common. For instance, conditions such as attention deficit hyperactivity disorder (Chan et al., 2022) and some aspects of intellectual disabilities (Gangavati et al., 2023) may manifest differently across cultures, impacting the accuracy of diagnoses. What is socially expected for an individual and consequently seen as a delay or deficit in adaptive functioning, for example, may vary across different cultures, and need to be considered when assessing for an accurate diagnosis.

Navigating ASD's intricate landscape demands cross-cultural research. Embracing diverse cultural perceptions of social behaviors enhances accurate and sensitive diagnoses not only for ASD but for a spectrum of neurodevelopmental conditions. Collaborative efforts among clinicians, researchers, and policymakers bridge assessment tools and cultural nuances, ensuring appropriate care worldwide.

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**ORCID iD:** Tally Lichtensztejn Tafla  <https://orcid.org/0000-0002-8782-8905>

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