

Sex-Based Differential Item Functioning in the Broad Autism Phenotype-International Test

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Abstract

Background: The Broad Autism Phenotype (BAP) refers to subclinical levels of autism-related traits, which, according to the dimensional model of autism, are continuously distributed beyond individuals with autism spectrum disorder (ASD) and their relatives, extending into the general population. Recently, the Broad Autism Phenotype—International Test (BAP-IT) was developed to assess the BAP in two countries, Spain and the United Kingdom. Initial validation studies showed strong psychometric properties (e.g., configural invariance and partial metric invariance, high reliability, and adequate validity evidence). However, the BAP-IT has not yet been examined in relation to one of the most salient issues regarding the assessment of BAP and ASD: the lack of evidence of invariance between sexes. This, together with the predominance of BAP and ASD studies on samples mainly composed of males and the differential expression of some BAP/ASD traits between sexes, could have contributed to the underdiagnosis of women. **Objective:** This study aims to evaluate the dimensional structure of the BAP-IT by applying the Rasch Rating Scale Model. Specifically, we seek to assess differential item functioning across sexes in the United Kingdom and Spain. **Method:** The study included two community samples from Spain (SP1 = 970; SP2 = 460) and one from the UK (EN = 530) that completed the BAP-IT in their respective languages. **Results:** The psychometric properties of both BAP-IT versions were good, and both showed no DIF between sexes (differences greater than 0.50 logits). Mean sex comparisons revealed no differences in the UK sample and small size differences in the ES sample. **Conclusion:** These results are not only important for supporting the international use of the BAP-IT but also a first step in studying BAP sex differences and their interplay with culture and language.

Keywords

Rasch; BAP; DIF; Sex; ASD

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