Two ADHD Scales Used With Deaf Adults Are Not Confounded by Cultural Identity

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ABSTRACT

Thirty three deaf and hard of hearing (Deaf/HH) adults took the Deaf Acculturation Scales (DAS) and two common self-report scales used for diagnosing ADHD, the Attention Deficit Scales for Adults – Sign Language Version (ADSA-SLV), and the Behavior Rating Inventory of Executive Function (BRIEF-A). Strength of Deaf or hearing cultural identity on the DAS did not significantly influence ADSA-SLV or BRIEF-A score scales, suggesting their existing norms may be valid for deaf adults.

INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD)

A biological disorder of frontal lobe executive functions causing inattention and/or hyperactivity/impulsivity

A recognized barrier to learning and success in school, career, and life

A disorder linked to increased risk of comorbid mental health conditions like anxiety and depression

ADHD rating scales used clinically with Deaf/HH adults

Attention Deficit Scales for Adults - Sign Language Version (ADSA-SLV)

Behavior Rating Inventory of Executive Function (BRIEF-A)

Research Problem

The original DAS and the BRIEF-A were developed and normed on hearing samples.

The ADSA-SLV and BRIEF-A have now been partially validated for Deaf/HH college students.

Nevertheless, it has been argued that culturally specific behavior and attitudes of Deaf/HH adults might bias ADSA-SLV and BRIEF-A scores, and therefore undermine their validity.

Study Purpose

Determine if cultural identity, measured by the Deaf Acculturation Scales, significantly influences ADSA-SLV and BRIEF-A scores. If so, ADSA-SLV and BRIEF-A test content or norms should be adjusted for cultural bias.

METHOD

Participants

29 Deaf/HH RIT college adults with no history of ADHD (See Table 3 for demographic summary statistics)

Measures

ADSA-SLV²

54-item self-report sign language instrument with 9 scales using a 5-point Likert scale (Table 1)

Nine scale scores and one total ADSA score - higher scores imply greater attentional dysfunction

Linguistically accessible: ASL, English-based sign language with or without voice, and English print.

Excellent reliability, item functioning, criterion and predictive validity for Deaf/HH college adults

BRIEF-A³

75-item self-report English language instrument with 9 scales using a 3-point Likert scale (Table 2)

Nine scale scores and three summary indexes – higher scores imply greater executive dysfunction

Behavior Regulation Index (BRI): Sum of first four scales in Table 2

Metacognitive Index (MI): Sum of last five scales in Table 2

Global Executive Composite (GEC): Sum of all 9 scales in Table 2

Good to excellent reliability, item functioning, and criterion validity for Deaf/HH college adults

Deaf Acculturation Scales (DAS)⁴

58-item self-report English Language instrument with 2 scales using a 5-point Likert scale (Table 3)

5 scale subscales and 10 sub-scale scores – higher scores imply stronger cultural identity

Well validated on a national community sample of Deaf/HH people

Analysis

Regressions of ADSA-SLV and BRIEF-A onto DASa and DASb separately

Regressions controlled for common demographic factors: age, gender, race/ethnicity, and childhood SES

RESULTS

Table 3: ADSA-SLV and BRIEF-A means were close to the normative means for non-Deaf adults

Table 4: Regression of DASa and DASb onto ADHD measures

With common demographic variables controlled, there was no evidence for a significant influence of Deaf or hearing cultural identity on ADSA-SLV or BRIEF-A scores.

More precisely estimate the correlations between cultural identity measures and the ADSA-SLV and BRIEF-A

Confirm the absence of significant influence of cultural factors on ADSA-SLV and BRIEF-A scores

CONCLUSIONS

Further research with a larger sample size and additional cultural identity measures is warranted:

Develop more precise scales to measure cultural identity

REFERENCES


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Table 1. ADSA-SLV Scales and Item Examples

Table 2. BRIEF-A Scales and Item Examples

Table 3. DAS Scales, Subscales, and Item Examples

Table 4. Demographic and Test Statistics

Table 5. Semipartial Correlations (age, gender, race/ethnicity, childhood SES controlled)

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