Association Between Self-Reported and Clinician-Rated Anxiety in Adults with Autism Spectrum Disorder and Adults with Schizophrenia Spectrum Disorders


McPartland Lab, Yale Child Study Center, New Haven, CT

Background

- There has been recent recognition of the importance of accurately assessing and understanding comorbidities, such as anxiety disorders, in adults with Autism Spectrum Disorder (ASD; Tremblay et al., 2012).
- The assessment and conceptualization of comorbidity in individuals with ASD and individuals with Schizophrenia Spectrum Disorders (SSD) can be complex due to different anxiety symptomatology.
- Multiple assessment modalities are used to capture specific symptomology when assessing anxiety in both populations (Seedat et al., 2007).
- There is limited research examining self-assessing anxiety in both populations (Seedat et al., 2007).
- The assessment and conceptualization of comorbid anxiety in individuals with ASD and SSD have regarding their own anxiety.
- Future research should continue to examine the relationship between self-report and clinician-rated levels of anxiety to further elucidate the level of insight individuals with ASD and SSD have regarding their own anxiety.

Method

Participant Demographics:

- **N** (Female) Age (SD) Full Scale IQ (SD)
- ASD 27 (9) 25.06 (5.25) 105.10 (15.51)
- SSD 22 (14) 23.29 (3.59) 96.96 (11.14)

Characterization:

- **Demographics** for both groups including gender and age were collected.
- The Autism Diagnostic Observation Schedule, Second Edition (ADOS-2), a diagnostic assessment, was administered by research-relate clinicians with expertise in ASD.
- The Structured Clinical Interview for DSM-IV (SCID-IV) was utilized to confirm diagnoses for the participants with SSD.
- Cognitive ability was measured with the Wechsler Abbreviated Scale of Intelligence – Second Edition (WASI-II).
- ASD symptomology was assessed using the Mini-International Neuropsychiatric Interview (MINI).
- ASD symptomology was measured by the ADOS-2 Severity Score (DSM-5:ADOS-2 Module-4 algorithm; Hus & Lord, 2014).
- SSD symptomology was measured by the Scale for the Assessment of Positive Symptoms (SAPS) and the Scale for the Assessment of Negative Symptoms (SANS).
- There has been recent recognition of the importance of accurately assessing and understanding comorbidities, such as anxiety disorders, in adults with Autism Spectrum Disorder (ASD; Tremblay et al., 2012).
- The assessment and conceptualization of comorbidity in individuals with ASD and individuals with Schizophrenia Spectrum Disorders (SSD) can be complex due to different anxiety symptomatology.
- Multiple assessment modalities are used to capture specific symptomology when assessing anxiety in both populations (Seedat et al., 2007).
- There is limited research examining self-assessing anxiety in both populations (Seedat et al., 2007).
- The assessment and conceptualization of comorbid anxiety in individuals with ASD and SSD have regarding their own anxiety.
- Future research should continue to examine the relationship between self-report and clinician-rated levels of anxiety to further elucidate the level of insight individuals with ASD and SSD have regarding their own anxiety.

Clinician-Reported Measures:

- ASD symptomatology was assessed using the Mini-International Neuropsychiatric Interview (MINI).
- ASD symptomology was measured by the ADOS-2 Severity Score (DSM-5:ADOS-2 Module-4 algorithm; Hus & Lord, 2014).
- SSD symptomology was measured by the Social Responsiveness Scale, Second Edition (SRS-2).

Self-Reported Measures:

- Anxious symptomatology was measured using the self-report Beck Anxiety Inventory (BAI).
- ASD related symptomatology was measured utilizing the Social Responsiveness Scale, Second Edition (SRS-2).

Procedure:

- **Data cleaning** (>4.0% of the total sample) were found to be missing at random (i.e., unrelated to the dependent variables in the analyses); therefore, deletion was list-wise for the given statistical technique utilized.
- The average score was calculated for each of the SAPS/SANS subscales. These scores were then summed to create a total average score that was combined for the two measures.
- A dichotomous (yes/no) variable was created to indicate the presence (ANX)absence (N-ANX) of an anxiety disorder based on the MINI.

Statistical Analyses:

- Point biserial correlations were examined to look at the associations between self and clinician ratings of anxiety for the ASD and SSD participants.
- An independent-samples t-test was conducted to investigate differences in self-report ratings between the ANX group and N-ANX group.
- To further explore this relationship, a binomial logistic regression was performed to ascertain the effects of age, gender, IQ, level of autism and SSD symptomology, and self-report ratings of anxiety on the likelihood of receiving an anxiety diagnosis on the MINI.

Table 1. Classification Table of Anxiety Diagnoses

<table>
<thead>
<tr>
<th></th>
<th>Predicted</th>
<th>MINI-ANX</th>
<th>N-ANX</th>
</tr>
</thead>
<tbody>
<tr>
<td>MINI</td>
<td>14</td>
<td>3</td>
<td>39</td>
</tr>
<tr>
<td>N-ANX</td>
<td>3</td>
<td>28</td>
<td>1</td>
</tr>
</tbody>
</table>

Results

- **Gender** (β=2.27, Wald χ²=14.90, OR=194.08, p<.003).
- **ADOS-II Severity Score** (β=-6.60, Wald χ²=10.23, OR=0.01).
- **SRS-2 Total Score** (β=-38, Wald χ²=39.28, OR=0.001).
- **Age** was trending towards significance (β=2.39, Wald χ²=3.54, OR=1.19, p=.06).
- Increasing ADOS-2 severity scores were associated with an increased likelihood of clinician-rated diagnosis but increasing SRS-2 scores were associated with a reduced likelihood.

- **Results** demonstrated an association between self-report and clinician ratings of anxiety. Counter to our predictions, self-report of anxiety was not predictive of an anxiety diagnosis.
- The ADOS-2 and the SRS-2 scores predicted in opposite directions which may indicate that clinicians are capturing symptomatology that is not captured in self-report (BAI ratings did not significantly predict the MINI diagnosis).
- The odds of being diagnosed with anxiety by a clinician is 194 times greater for males than females.
- Limitations included a lack of individuals with ASD or SSD with only comorbid anxiety and no other additional diagnoses and group differences on IQ, though both groups did have IQ in the average range.
- Future research should continue to examine the relationship between self-report and clinician-rated levels of anxiety to further elucidate the level of insight individuals with ASD and SSD have regarding their own anxiety.

Conclusions

References


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