Author's response to reviews

Title: Discriminant and Concurrent Validity of a Simplified DSM-Based Structured Diagnostic Instrument for the Assessment of Autism Spectrum Disorders in Youth and Young Adults

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RE: "Discriminant and Concurrent Validity of a Simplified DSM-Based Structured Diagnostic Instrument for the Assessment of Autism Spectrum Disorders in Youth and Young Adults" MS: 2084893701537863

Dear Editor,

We thank you and the reviewers for your thorough review of our manuscript. We have responded below to each item and point out the modifications to our text.

**Referee 1**
One may be surprised to see that the DSM-III R is the criteria used for diagnosis and I think that the authors should be explicit about why it was used rather than having the readers guess as to why it was used.

Following statement has been incorporated in the manuscript:
“...This DSM-III-R based structured interview for ASD was developed prior to the release of DSM-IV criterion for ASD. This interview for ASD was administered to all the participants in this study. As data collection for the psychiatric comparison group in this study preceded the advent of DSM-IV, in order to maintain consistency in assessment the DSM-III-R criterion was retained beyond the release of DSM-IV.”

Also, whereas it states explicitly that the autistic individuals were interviewed by a clinician, that is not stated for those diagnosed with ADHD. I think that if this is so it should be addressed.

Following modification is now added to the manuscript:
“We included subjects if they met diagnostic criteria for ADHD on a structured diagnostic interview (Schedule for Affective Disorder and Schizophrenia for School-Age Children Epidemiologic Version [K-SADS-E]) [9]. The status of ASD in the ADHD control participants was assessed by the DSM based structured interview for ASD (see below).”

**Referee 2**

In order to accept the article for publication, several major compulsory revisions are required:

1. In the background section, the limitations of the ADI-R are overstated. The interview is described as "highly guarded in terms of who can administer it." This statement is unclear. Perhaps the intention is to state that specialized training is required in order to administer it? The word "extremely," with expert respect to the cost is also overstated. It is more accurate to state that the ADI-R requires 1.5 to 2.5 hours to administer including scoring. (it is scored during the
administration and requires approximately 10 min. to complete the algorithms)

Following revision incorporated in the manuscript:

“This interviewer requires specialized training in order to administer it, and the training to become proficient in its administration is expensive and time consuming. Additionally, the ADI-R takes at least 2 hours to complete making it of limited feasibility in clinical settings and in large population-based studies.”

2. Within the methods section, the participants are described as consecutively referred youths to a specialized program for the treatment of ASD is at a university affiliated hospital. Later, 123 individuals are noted however the authors do not say whether these were 123 consecutive patients or if some of the referrals did not result in an autism spectrum disorder diagnosis. This information should be included either with in the description of the methods or the results.

Following narrative is now added to the results section of the manuscript:

“Out of 196 consecutive referrals to the program between October 2007 and August 2009, 123 individuals met the diagnostic criteria for ASD (75 autistic disorder, 22 Asperger’s disorder, and 26 PDD-NOS) on clinical evaluation by the expert clinician (GJ).”

3. The authors provide a tabular format of the structured questions and how they correspond to both DSM-III-R and DSM-IV criteria. They do not, however, describe how the interviewers administering the questions determined if the question was positive indicating that the criteria was met. Was this simply a yes/no response? Were the interviewers allowed to probe? And if they were how was that information used?

The following narrative is added to the manuscript:

“This DSM-based structured interview for ASD is added as a module to K-SADS-E and is administered by the trained interviewer in similar manner as the structured interview. All questions in the structured interview are asked in yes/no format. If the interviewee positively endorses a question, interviewers have specific follow-up questions they are required to ask. These questions include ages a symptom began/ended, if such statements have been true in the past month, and specific examples to elaborate on responses to the initial probes. Responses to follow-up questions help to determine whether each criterion is met.”

4. There is no mention of DSM-5. The authors have already highlighted the difficulty with a DSM-based structured interview. The DSM has been and is changing over time. Therefore, they must describe the inherent difficulties in a DSM-based structured interview. How would these questions be revised for DSM-5?

The following narrative is added to the manuscript:

“Just as the current version of the structured interview is able to capture both DSM-III-R and DSM-IV diagnostic criteria, a revised version will capture DSM-V measures. As currently proposed, DSM-V criteria for Autism Spectrum Disorders are more narrow and unidimensional. As such, the DSM-based structured interview presented in this paper incorporates the criteria proposed in DSM-V. Coding criteria could also be altered in the future to encompass the changes proposed in the diagnostic criteria for ASD in DSM-V.”

5. The limitations of the SRS are not stated and should be described.
Following statement is added to the manuscript:
“Though SRS is a valid quantitative measure of autistic traits, the instrument lacks the ability to distinguish autism from the spectrum (Asperger’s disorder and PDD-NOS) in individuals with ASD [8].”

6. In the results section, false positives for the SRS are not stated. This information must be included.
As the focus of this study is to examine the concurrent and discriminant validity of the ASD diagnostic instrument in question and not the SRS, we choose not to include information on the parameters that are not essential for addressing the primary aim of this study.

7. In the discussion section, the statement “these results indicate that a DSM-based structured diagnostic interview for ASD can be a useful and cost-effective standardized assessment instrument for reliably identifying ASD in clinical and research settings” is overstated as the authors did not make a clear case for use of this interview as opposed to the SRS which by their report was equally sensitive designating cases.
Following narrative is now added to the manuscript:
“Many clinics and research settings employ diagnostic structured interviews for screening a broad range of psychiatric disorders but these structured interviews lack measures to evaluate ASD. Therefore, this DSM based structured diagnostic interview - that is administered in a similar manner as structured interviews - would complement methods that are often used and can be easily added to the diagnostic interviews. This may improve the efficiency of the assessment, as it is included with screening of other psychiatric conditions.”

We hope that with these changes you will now find our manuscript worthy of publication in BMC Psychiatry.

Sincerely,

Gagan Joshi, MD