Reviewer’s report

Title: Item response analysis of the Positive and Negative Syndrome Scale

Version: 1 Date: 27 July 2007

Reviewer: David Dozois

Reviewer’s report:

Manuscript Review for BMC Psychiatry

Title: “Item response analysis of the Positive and Negative Syndrome Scale”

Authors: Darcy A Santor, Haya Ascher-Svanum, Jean-Pierre Lindenmayer and Robert L Obenchain

This is a very well-written, statistically advanced and clinically compelling research paper. The authors describe the psychometric properties of the Positive and Negative Syndrome Scale (PANSS) using option characteristic curves of the instrument’s items in a sample of 9205 patients with schizophrenia or schizoaffective disorder. The results suggest that the PANSS performed very well although there were exceptions with some individual items. They also found that the Positive and Negative subscale scores provide greater specificity in symptom severity than does the General Psychopathology score. Finally, on the basis of their findings, they recommend that the criteria for one of the items be lowered to determine remission. Overall, I found this to be an excellent manuscript. I only have a few suggestions which are outlined below.

It might be helpful to provide some information about this sample other than simply gender, age and PANSS scores. Some information on how these patients were diagnosed and the reliability of the diagnoses would also be informative. In addition, did the authors examine the stability of the option characteristic curves across gender?

Additional information about the factor solution would be helpful. Also, did the authors force different factors and examine the residuals to provide additional support to their factor solution? Providing a table with the factor loadings might also be appropriate.

The authors refer to an appendix which was not appended to this manuscript.

The differences in figures 4 and 5 do not seem dramatic to someone who is not an expert in item response theory. Could the authors explain how item 5 is rated as good whereas item 19 is rated as poor. What specifically are the criteria for this determination?

What next?: Accept after minor essential revisions
Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests