Reviewer's report

Title: An accurate and efficient identification of children with problems by means of Computerized Adaptive Testing

Version: 1 Date: 28 February 2011

Reviewer: Carla Bann

Reviewer's report:

The manuscript has the potential to provide a useful tool for researchers and clinicians to allow for screening of child psychopathology. However, more information is needed for interpreting the results and understanding the process used to develop and validate the computerized-adaptive assessment.

Methods:
- Data collection:
- How were the organizations selected?
- Were the patients invited as a part of regular care?
- 84% of the parents were invited to participate, but what percentage agreed to participate?
- The authors state that the sample is representative of the population for this age group. If possible, please provide a reference regarding the population demographics.
- Explain what the Cohen's W is testing.
- Please include a table with the demographic characteristics of the population.
- Please provide information about the measures (PSC, SDQ, and PSYBOBA) and their psychometric properties, including references to relevant literature, for readers who are not familiar with these measures.

Methods analysis:
- The authors mention the distinction between clinical and non-clinical CBCL scores; however, a clinical score is not defined. Please indicate what cut score is used to define a clinical CBCL score.
- Were items exhibiting DIF excluded from the bank of items for the computerized adaptive assessment?

Results:
- The authors discuss the statistical results for the items. Was item content included in the decisions regarding item selection to maintain content validity?
- Provide a table with the item characteristics, including the response distributions and/or means, descriptions, item locations, infit/outfit, etc., so readers can see the characteristics used in selecting items for the
computerized-adaptive assessment.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.