Reviewer's report

Title: Tourette Syndrome and Learning Disabilities

Version: 3 Date: 20 June 2005

Reviewer: Mark Mahone

Reviewer's report:

General

June 20, 2005

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Review of revised submission

I have had the opportunity to review the revised manuscript above, along with the responses by the authors to my original review, as well as their responses to the other reviewers. The authors have adequately addressed two of my original points, including:

- Clarification of the numbers in the tables;
- Explanation of the method used to diagnose learning disabilities.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

I do not believe the authors have fully addressed the issue of ADHD as a confounding diagnosis. The behavioral phenotype associated with TS + ADHD may be different than that expressed in children with TS without ADHD. I believe this is an important issue to be addressed, and can lead to different interpretations of the data.

Using information presented in the revised manuscript, I made some calculations. The sample included the following:

- Of the children with TS with ADHD (n = 3151), 990 (31%) had LD and 2161 (69%) did not have LD. As noted in the original review, this observed comorbidity between ADHD and LD is in line with what has been documented in the literature for ADHD and Reading Disorders alone (25% to 40%; Dykman & Ackerman, 1991; Semrud-Clikeman et al., 1992).

- Of the children with TS without ADHD (n = 2279), 225 (9%) had LD and 2054 (91%) did not. The 9% LD rate for this group is consistent with the prevalence of LD in the general population (possibly even less). As such, it does not seem appropriate to interpret the behavioral phenotypes of TS + LD without taking into account the very important variable of whether or not the child has ADHD.

As such, the data as presented are not convincing with regard to behavioral sequelae of TS itself, and many of the conclusions can reasonably be attributed to the coexistence of ADHD rather than TS.
Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

I declare that I have no competing interests.