Reviewer's report

Title: Gender Differences in Traumatic Brain Injury: a Cohort Study

Version: 1 Date: 19 July 2010

Reviewer: Shameran Slewa-Younan

Reviewer's report:

General comments:

This manuscript presents results of a retrospective study seeking to examine gender differences in functional outcome using a self report measure, the Problem Checklist (PCL) from the Head Injury Family Interview (HIFI). The authors briefly review the clinical literature on gender differences in functional outcome following traumatic brain injury (TBI) in the introduction, underscoring appropriately the need for further research in this field. Advancing our knowledge of this topic has many important implications given our current understanding of TBI is dominated by data derived from male only samples or where no consideration for sex differences has been made. Indeed, a greater understanding of the impact sex differences play in TBI outcomes is necessary in order to develop well designed research trials and treatment programs.

Major Compulsory Revisions

1. The title should be revised to be more informative to the readers. It should make reference to fact that this is a study of long term functional outcome following moderate to severe TBI using a self report scale.

2. The authors report that Bonferroni adjustments were made for the multiple group comparisons (page 8, line 9). However, the next sentence states “Significance level was set at p<0.05 for all comparisons”. This would suggest that a Bonferroni adjustment was not undertaken. No where in the paper (such as next to tables 2 and 3) is any reference made to what the corrected p value was set at, following a Bonferroni adjustment. This should be addressed by the authors and may have implication on the reported significant findings.

3. Another limitation that needs to be addressed is that the PCL was developed using a sample of participants with widely varying injury severity levels and whom were primarily three years post injury. Given that this current study includes a longer follow-up period, this difference should be acknowledged.

4. Reference is made by the authors to use of control group data (page 12, line 23) to minimise specificity errors (i.e. symptoms reported to be due to TBI that exist in general population). However, this is the first reference to control group data, with no such reported data in the results section.

Minor Essential Revisions
1. Consistently throughout the paper, there are examples of awkward wording, sentence structure or spelling mistakes (for example, pg 4 line 8 “know should be known” pg 4 lines 14-16, pg 8 lines 17-19, pg 13, lines 5-6) that detract from the true impact of the paper. The authors are encouraged to seek assistance of an external reader prior to re-submission.

2. There appears to be some confusion regarding references made to papers (for example on page 4 a sentence states “and a recent systematic review [6] supported this finding but for older women only [7].” This would imply the more recent review is denoted as reference 6 but in actual fact it is listed as number 7 in the reference list.

Discretionary Revisions

1. Additional references on gender differences in functional outcome could be included, specifically those that have looked at longer term outcomes.

Final comment:

In summary, this paper adds to the growing literature in this area and should be considered for publication following the authors responses and consideration of the above points.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

I declare that I have no competing interests.