Reviewer’s report

Title: Sleep, symptom ratings and serum ferritin levels in children with ADHD: a case control study

Version: 1 Date: 1 August 2013

Reviewer: Omer Moghraby

Reviewer’s report:

I have reviewed this paper and have numbered my comments in the sequence that the paper was written. I made recommendations, as per journal guidance, at the end of each of my numbered comments as follows:

Major Compulsory Revisions [MC]
Minor Essential Revisions [ME]
Discretionary Revisions [DR]

1. The authors may choose to allude to findings in the title [DR]

2. Not clear that this was a retrospective study. I do not believe that Case control adequately describes this as not all participants had ferritin measured [ME].

3. It is not clear how ‘controls’ were determined other than ADHD had not been identified on records. There was no evidence of psychiatric testing (especially given there may have been genetic loading) or Conner’s rating scale to demonstrate significant differences in presentation. [MC]

4. The hypothesis is relatively clear with regard to the sleep “an impact on their sleep”, however they go on to find significance in an association within a particular aspect of sleep. It may be worth them clarifying a priori (from the evidence they have already quoted) which areas within sleep they were hypothesising that ferritin may have an impact on. [DR]

BACKGROUND

5. In background, 4th sentence (“Although sleep problems…..”) refers to “research conducted” and implies a larger body of knowledge or studies than that have been quoted. It would be helpful to refer to more evidence that this statement is true or else add “some research” or a recent study. [ME]

6. In background, 6th sentence, starts with “previous studies…”, however only refers to a single study. This sentence must be revised to reflect that it was a single (small) study or quote more research.

7. In background, penultimate sentence (“Although several studies…””) also states that there were either several studies – but does not quote any evidence - or “…few studies…” – but only quotes one study. This would benefit from further quotes or revising statement to reflect the evidence available to the authors. [MC]

8. I believe the background would benefit from a quotation of a wider selection of studies and research [MC]
METHODS

9. Table 1, items sleep onset delay, night wakings and sleep disordered breathing all had 40 participants with ADHD instead of 41. It has not been explained in the methods or elsewhere how or why there was one missing (compared to the others). [MC]

10. Table 2, items sleep onset delay, night wakings and sleep disordered breathing had one fewer participant than the others. Again this has not been explained. [MC]

11. Under “Serum ferritin levels:” – at the end of the sentence it refers to “previous studies” but only quotes one. This needs to be either re-worded or (preferably) quote more papers were this level was used as I understand it is not a universally accepted limit/level. [ME]

DISCUSSION

12. The first two paragraphs in my opinion are the ones that need the most revision. I may be incorrect in this but there is not enough elaboration on the findings and putting this in to context in a cogent manner such that it fits the orginal arguments made in the introduction. Studies are quoted to support their argument however this has not been pulled together enough. I am not really quite sure how to make this more clear from my point of view. [MC]

13. In particular is the second paragraph where I believe that there has only been a finding of sleep duration in association with ferritin levels and to say “disturbances” is a little misleading in my opinion. [MC]

14. The final paragraph might be worth outlining where future studies could be directed. I do not believe that they have adequately addressed the limitations of the study, including the size of the sample and how they ensured that the control cases were truly controls. [MC]

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

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

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests