Reviewer's report

Title: Clinical characteristics in schizophrenia spectrum disorder patients with or without suicide attempts and non-suicidal self-harm - a cross-sectional study

Version: 1 Date: 3 May 2013

Reviewer: Graham Pluck

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This is a generally a good report with a large sample. However, I have some concerns with the representation of the statistics.

Minor Essential Revisions
1. Has any of this data been reported previously? In the final paragraph there is discussion of your previous study on a similar topic. This should be referenced. And in the fifth paragraph of the discussion there is the statement ‘Studies of first episode patients (including a subsample of the current) indicate that..’. If any data is being re-reported on the same patients this should be stated clearly.

2. In 'Clinical Assessments' it is not clear what reference 22 refers to, this should be clarified.

3. Duration of untreated psychosis is not defined as DUP in ‘Clinical Assessments’ paragraph 1. It should be.

4. In the discussion section, second paragraph, your claim to be the first to describe NSSH + SA and its correlates is not really true (e.g. Pluck et al 2012, European Psychiatry). That text should be altered.

Discretionary Revisions
5. A Venn diagram would be useful for understanding the different groups. Consider including one.

6. In Tables 1 and 2, the notation used for Kruskal Wallis tests is x2, which is confusing. ‘K’ would be better considering there are other chi2 tests reported with the notation x2.

Major Compulsory Revisions
7. A general issue about the data in Tables 1 and 2 is that you are comparing three groups, therefore with the ANOVAs, Kruskal Wallis or the Chi2 analyses, there are various pairings which could differ from each other. The p values presented in Tables 1 and 2 are simply for all the differences between the three groups. However in the text (e.g. the section entitled ‘Illness history and medication’) you are presenting the findings as if they show that one group differs from the second group and also differs from the third. The p values as they are don’t give that information. If you want to show that one group is different from
both other groups then you would need to show some post-hoc comparisons / planned contrasts. I would recommend re-running the ANOVAS and reporting the contrasts between the ‘SA+NSSH’ group and each of the other two groups (‘SA only’ and ‘No suicide attempt’). Similarly, the simplest solution to this issue for the categorical data may be to perform additional 2x2 Chi2 tests with SA+NSSH vs ‘SA only’ and ‘No suicide attempt’. This is a bit long-winded but it may be the simplest way to get the stats for what it is that you are trying to say.

8. In regards to the current medication chi2 in Table 1. The same problem applies, the contingency table is so big that the significance of the difference doesn’t tell us much. You would have to do more 2x2 tests to really pin-down the significant differences. In light of this, you can’t justify the statement in the paragraph above ‘Strengths and limitations’ in the Discussion, that one third of the SA-NSSH group did not use antipsychotics and that this was a significant difference. Additional statistics should be performed to remedy this.

9. A related issue is that you are not using the word ‘significant’ to describe your univariate findings in the results section, as the results are currently ambiguous, that’s probably OK. However, if you add the extra analyses as described above, it would be clearer in the text if you use the word ‘significant’ when described those results that are.

10. In the section entitled ‘Multivariate analysis’, I feel that there isn’t enough information provided to understand the methods. For example, why were some variables selected to be included in Model 1, but not others? Overall, I think this manuscript should be reviewed by a statistician, in which case their advice could override the above major compulsory 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 have no competing interests that might have influenced my review.