Reviewer’s report

Title: Predictors of the late onset of cannabis and other drug use in male young adults

Version: 2 Date: 7 July 2014

Reviewer: Peter Gates

Reviewer’s report:

I thank the authors for their contribution in defining the predictors of late onset substance use among young adult males. I have a few comments that need to be addressed before I can recommend this manuscript for publication.

Major Compulsory Revisions

Abstract:
Need to describe how the samples of participants were obtained (C-SURF) and the 'n' at follow-up

Background:
- A definition of “early” and “late” onset to substance use is missing and why the distinction is important?
- It is not clear why a sample of only young males was chosen and not a wider sample. It appears that the main reason for this choice was limitations of the data rather than purposeful selection.

Methods:
- What were the circumstances of the follow-up interview? Who conducted this? Was it the “three army recruitment centres”?
- How did the final sample come to be pooled from the three centres? Any differences?
- If not all, but “virtually all” Swedish males were selected, then who was not?

Participants:
- How could the non-inclusions be said to be random when they included those who were dropped due to illness?
- The percentages provided refer to different totals and need further explanation

Measures:
- Many different measures are described and some cut-off points, with no information on validity or reliability
- No information on the follow-up interview is provided including the drop out and measures
Analysis:
- The importance of this study appears to hinge on the inclusion of many different predictors into the one study. I am not completely familiar with the statistical methods, however; given how many analyses were conducted I would assume that Bon Ferroni corrections would apply? In the least, the authors should describe how they addressed the number of univariate analyses beyond only including the significant factors to “account for suppressor effects” as this is not sufficient.
- Is the power of analyses sufficient given the great difference between groups with minimal drug users (I note some cases with ‘n’ less than 10 for example)?

Discussion:
- The authors do very little other than repeat the results and show how they were in line with previous study and brief mention of gateway hypotheses. The importance of the study is lost unless the authors offer some information on the implications of their findings.
- The authors summarise their findings by suggesting topics for screening instruments. Is there nothing more the study findings can offer?

Minor Essential Revisions
Background:
- The first paragraph includes a few sentences that leave the readers to make assumptions that should be clarified. First it is not described where the 230 million individuals are from, and the information that is cited does not state current use as is insinuated but past year use. Second, it is not clear what “manner” of use leads to health problems.
- The second paragraph switches between associations between factors and drug use (current?), onset to use, subsequent problems and back to onset of use, and is a bit haphazard. I would suggest a re-write.
- The third paragraph is more important and I would suggest moving this to earlier in the introduction. The sentences, “Most studies underline the early-onset drug use concept” means, and “…period of risk initiation can be extended further into adulthood…” do not read well.

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: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests