Reviewer's report

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

Version: 2
Date: 10 June 2014
Reviewer: Maria Neumann

Reviewer's report:

Minor Essential Revisions

Background:
1. What is the reference in the first sentence? 230 mill individuals worldwide?

Methods:
2. The variable label “psychiatric problem of… [e.g. father]” can be misleading from the actual measure. Can it be renamed into a more precise label, e.g. “Psychiatric problems that demanded treatment”?
3. Measures of substance use: Maybe the selection of cut-off-values could be justified here, especially where they differ from commonly used cut-offs.

Discussion:
4. Be cautious with causal language: “Siblings are able to influence…”
5. “This is in line with previous studies …, whereas … have been found to be protective factors against marijuana use [34].” I have difficulties to understand the meaning of this sentence.
6. As you chose to examine use onset along two different groups of substances, a closing statement on whether and where and maybe why predictors for cannabis use initiation differ from those of other illegal substances, might be desirable.

Discretionary Revisions

Language:
7. The terms ‘drugs’, ‘licit/illicit’, ‘legal –‘ and ‘illegal substances’ are not used consistently; I suggest the consistent use of the terms ‘legal’ or ‘illegal substance’ to avoid moral dimensions.
8. Sometimes marijuana is used instead of cannabis: this should be consistent.

Background:
10. References for predictors on cannabis use onset come from different kinds of studies, including clinical and cross-sectional samples. It should be considered to integrate more evidence from longitudinal, prospective studies.

11. “Late onset of use” as a central concept should be clearly defined. Maybe it could be substantiated, e.g. “young adult onset of use”

12. Aetiological models mainly refer to sequencing of substance use initiation, but not to other variables that are examined, e.g. psychosocial variables. Is this because an interest of the publication is in the comparison between the two groups of substances? Then this should be pointed out more clearly. Otherwise, one or two other core psychological models could be mentioned here, e.g. vulnerability-stress-model.

13. It would be desirable to justify in brief why only men are included and what difference might be expected if women were considered (This is also a point for discussion).

14. Why was cannabis treated separately from all other illegal substances? The aims of the paper should be carved out more clearly.

Methods:

15. Has the illegal substance group been controlled for cannabis use?

16. Health: explain, why SF12 and MDI? Why was major depression measured, but not externalising disorders, although they have been outlined as risk factors in the introduction? The consequences of this measurement selection on findings should be communicated and discussed!

17. Personality: Why is peer pressure in this category and not under social context?

18. Analysis: Which substances are included in (5) substance use? E.g. is cannabis included in the “other substance use” outcome?

Discussion:

19. The formulation of the main finding (2) “the following variables are the most relevant..” might be somewhat irritating, because it can suggest, that e.g. depression was a main predictor in contrast to other mental disorders. However, other disorders were not examined in detail. Is depressiveness a specific risk for the outcome or would any (other) mental disorder (better) relate to use initiation?

20. “This result is in line with the gateway hypothesis and the common liability of addiction theory”? This conclusion is not self-explanatory. Can you elaborate on this a little?

21. “Psychopathological factors, such as a previous history of depression symptoms, have been commonly studied as risk factor of drug use [7]...”: This sentence is misleading, as the cited study suggests depressive disorders to be a consequence rather than a risk factor of cannabis use.

Tables:
22. Control group in table 1 and 2: Is it possible that this group contains subjects who have initiated SU after baseline but stopped within the following 3 months are not captured by the follow-up assessment? If so, this problem should be discussed!

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

**Quality of written English:** Acceptable

**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.