Reviewer's report

Title: Time-course of cannabis withdrawal symptoms in poly-substance abusers

Version: 2 Date: 5 February 2013

Reviewer: Ryan Vandrey

Reviewer's report:

Major Compulsory Revisions.

1) It is not entirely clear what this study adds to the current literature on cannabis withdrawal. While it is true that cannabis withdrawal has not been well characterized among poly-substance users, the authors do not make a compelling case that this is necessary. Is there reason to believe that the withdrawal associated with cannabis use would be different in this population compared to the cannabis withdrawal experienced by those who are not poly-substance abusers? If so, this should be clearly described in the background section of the paper. This is particularly important since the statistical approach used in the analyses controlled for use of other drugs and medications, which are the things that make this sample different from other studies. Without that initial rationale for conducting this assessment, the present study seems to simply be a replication of prior work and should be framed as such in the language of the manuscript.

2) The authors state that a major limitation of the current literature on cannabis withdrawal is that prior studies have not addressed demand characteristics, suggesting that cues revealed experimental hypotheses for the studies conducted. In fact, the papers described explicitly state that demand characteristics were carefully controlled (did not the word "withdrawal" on questionnaires or in descriptions of the study, added filler items on withdrawal questionnaires, and duration since last cannabis use was experimentally manipulated). This section needs to be revised to correctly reflect the experimental rigor of prior studies.

3) It is unclear if the withdrawal data presented in Appendix A and in the Figures are limited to the 68 participants who reported any cannabis use and completed more than one booklet. This would make sense, but is not explicitly stated.

4) There is a host of clinical and laboratory research that has been conducted examining medications that can attenuate cannabis withdrawal symptoms that should be included in section 1.4.2.

5) Figure 1 is confusing. It is unclear how the # of days cannabis was used in the past 30 (x-axis) relates to pre versus post treatment admission. If this represents pre-treatment use, it would suggest that less use is associated with more withdrawal. If post-treatment, it would suggest there is more withdrawal after longer periods of abstinence. This needs to be clarified and discussed.
appropriately.

Discretionary Revisions.

1) Strongly recommend incorporating symptom labels in the Figures to help the reader know which symptom is being depicted in each panel.

2) Another possible contributing factor to the time course of effects in the present study is that the stress of being admitted to a residential treatment facility may have increased initial symptom ratings making it more likely to have a faster peak and linear decline in symptom severity rather than a curvilinear change over time in treatment.

3) It would be helpful to present data on the percentage of study participants who endorsed each withdrawal symptom.

Level of interest: An article of limited interest

Quality of written English: Acceptable

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