Reviewer's report

Title: Five-factor model personality traits in opioid dependence

Version: 3 Date: 11 July 2007

Reviewer: Morten Hesse

Reviewer's report:

General

The manuscript is a descriptive study of a sample of opioid dependent patients in treatment that are compared with a non-clinical sample. The study is focused, with a single purpose, to compare the samples' self-descriptions.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

None

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

In the abstract, the authors state that "the two groups were similar with regard to Openness to Experience and Agreeableness." However, with domain scores half a standard deviation below the norm, the opioid dependent sample differed from the norm, even if the difference was modest compared with the three other domain scales.

Also in the abstract, in the conclusion, there is a somewhat puzzling text:

"Despite a modest number of cases, we found differences of medium and large effect sizes between the opioid dependent group and the matched comparison group. In addition, statistical power > 0.80 suggests that the personality traits of people with opioid dependence are in fact different from those of non-clinical peers."

If statistical power is adequate, the sample is neither "modest" nor "large", but adequate.

This reflects a confusion over power and sample size.

The power to detect a difference in the sample, given that the population effect size is 0.50 is >0.8. This means that given that the real population difference is d=0.5, the authors can be confident that they will find a statistically significant difference between the two groups. But the power to detect whether the real effect size is exactly 0.5 or 0.8 is much lower than that. Therefore, the elaborate
discussion of whether the effect size on one of 5 domain scales is smaller or larger than expected is not appropriate.

Discretionary Revisions (which the author can choose to ignore)
The authors may enter confidence intervals for the effect sizes given in table 1.

**What next?:** Accept after minor essential revisions

**Level of interest:** An article of limited interest

**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.