Reviewer’s report

Title: Hypnotic susceptibility and affective states in bipolar I and II disorders

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Reviewer: Devin Terhune

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The authors tested the prediction that Bipolar patients would differ from controls in hypnotic suggestibility. They report that the two groups differ on 2 suggestions from the SHSS:C, a widely-used measure of hypnotic suggestibility. Although the question of whether depression is related to hypnotic suggestibility is worth investigating, the study and the predictions are not properly justified and the study is not publishable in its present form.

1. Abstract

a) The motivation for the study is, frankly, poor. The authors write:

"Patients with bipolar disorders have impaired inhibitory control and enhanced impulsivity, while hypnotizability also has some personality correlations. Bipolar I (BD I) and II (BD II) disorder patients might have some distinct performances of hypnotic susceptibility, which plays a role in related cognitive hypnotherapy."

Hypnotizability having personality correlations has nothing to do with bipolar disorders. The second line doesn't make sense - just because hypnotic suggestibility relates to cognitive hypnotherapy does not mean that it would relate to Bipolar disorders. The authors need to better justify the study.

2. Introduction

a) p. 3, the authors claim that hypnotic suggestibility is important for hypnotherapy but research shows that it is a poor, albeit significant, predictor of hypnotic treatment outcome (Montgomery et al., 2011, Int J Clin Exp Hypn).

b) p. 3, highly suggestible individuals do not uniformly have better visual imagery (Terhune et al., 2011, Cognitive Neuropsychiatry). Also, many of the correlates the authors highlight have not been replicated. Finally, they should note research showing elevated empathy in highly suggestible individuals (see research by Wickramasekera).

c) p. 5, the authors predicted that bipolar patients are more responsive to motor suggestions, and less responsive to cognitive-perceptual suggestions, than controls. This prediction was never
justified and conforms exactly to what the authors found so it seems to me that they just retro-fitted their prediction to the outcomes. If these were generally the predictions, they need to be better justified.

d) p. 6, the prediction about emotional states needs to be qualified. There is no evidence to suggest that highly suggestible individuals have stronger affective experiences. Rather, it has been shown that they exhibit great emotional contagion (Cardena) and empathy (Wickramasekera). These data do not justify the prediction that is presented.

3. Methods

a) Please report Cronbach's alphas for all measures.

4. Results

a) Please report effect sizes for all effects.

b) The authors need to justify why comparisons of all scales used total/summary scores whereas this was not done for SHSS:C (hypnotic suggestibility). The SHSS:C provides a total score and that is what should be used here. Frankly, it appears that the authors found no group differences on SHSS:C total scores and thus performed exploratory item-level analyses. The item-level analyses raise the problem of multiple comparisons - the authors performed 12 tests for this set of analyses and thereby inflated the familywise error rate. Once the authors correct for multiple comparisons, both significant effects will disappear and thus I am not confident that these reflect genuine effects.

c) My recommendation is that the authors report the total SHSS:C score and correct for multiple analyses. There will not be any group differences. They should then compute Bayes Factors in order to determine whether the observed results are consistent with the null hypothesis.

d) The authors also report different p-values for these effects in the Table and the text. Finally, it is unclear what the superscript "a" means in the Table.

e) The regression analyses are not properly described and reported. They further raise concerns about multiple comparisons.

5. Discussion

a) There is no evidence the mosquito hallucination on the SHSS:C is driven by individual differences in executive functioning. Contemporary research has emphasized source monitoring and metacognition as potential underlying mechanisms.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
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Yes

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