Reviewer's report

Title: A randomised controlled trial comparing active versus control internet-based cognitive bias modification for obsessive compulsive disorder.

Version: 1 Date: 3 April 2014

Reviewer: Sean Perrin

Reviewer's report:

This is a very well written manuscript and very interesting study that will make a useful contribution to the field. I have several comments that I hope the authors will address to improve the clarity and impact of the article.

1. Major Compulsory Revisions

1.1 The manuscript is rather long and there is some repetition that could be reduced.

1.2 The authors need to closely follow/use the headings requested by the Journal:

Abstract
Keywords
Background
Methods/Design
Discussion
Trial status
List of abbreviations used (if any)
Competing interests
Authors’ contributions
Authors’ information
Acknowledgements
Endnotes
References
Illustrations and figures (if any)
Tables and captions (if any)
Preparing additional files

1.3 The introduction would greatly benefit from the authors introducing effect sizes for all reported studies and not just study 30. Where the authors are reporting effects of CBM for other anxiety disorders across a range of studies - a
range of ES could be given.

1.4 On page 7, the sentence starting, "Based on these collective results...." is overly strong given the effect sizes achieved with CBM, largely with non-clinical populations, and very few with individuals high in OC with OCD. I think the sentence should read, "The available literature suggests that CBM produces modest changes in beliefs and emotional processes that may underpin symptom change in Individuals with OC symptoms recruited outside of clinics." To be clear, this trial does not "establish" efficacy. It is rather, proof-of-concept and feasibility - a form of words that would be better used throughout this protocol.

1.5 The paragraph under the heading Study Objective is partly redundant with the Hypotheses section and can be removed. The second half of this paragraph should be moved to the Methods section and placed in the interventions section. The heading Trial Design and the sentence beneath should be moved to the Methods section.

1.6 I think many readers will be somewhat confused by the hypotheses and greater clarity is needed here.

If your intent is show that CBM might be a useful addition to the available treatments for individuals with a diagnosis of OCD, why are you including people with a lifetime diagnosis of OCD? I really see this as muddying the waters and there is no justification for this anywhere in the introduction. The authors need to explain this better.

It seems to me that you could find yourself at the end of recruitment with an imbalanced number of folks in each condition with/without a current diagnosis of OCD, or arguably worse, very few people with a current diagnosis of OCD in the study overall. These are not critical flaws if one is simply wanting to see whether CBM alters processes that might underpin OC symptom change or diagnostic status - but it is potentially critical if the purpose of the study is to demonstrate the ES achievable with CBM for adults with a diagnosis of OCD (i.e. relevant to treatment-seeking clinical populations).

I do not understand why you do not predict a change in OC symptoms in individuals with a lifetime diagnosis of OCD? This needs explanation.

If you are going to predict changes in OC symptoms in those with current OCD, I think you should specify the amount of change you are expecting (i.e. in line with your power analyses) and say whether these symptom changes correspond to clinically meaningful changes.

1.7 The article would benefit from a brief description of the procedures in place to train the assessors in the use the MINI and to check on the reliability of the diagnoses of OCD (current and lifetime) made by this interview.

1.8 The article needs to specify if the post-intervention MINI assessments were conducted blindly and if not why.
1.9 The authors should specify what level of non-completion of the computerized tasks constitutes a drop-out - and what is the longest length of time the authors would permit between computerized training and still consider the participant to be in the trial.

1.10 The description of the CBM procedure requires greater detail. The reader needs to know how many items are used, a rough overview of content areas, and if they are exactly the same as used in a previous study.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I have no competing interests in relation to this trial, no association with the authors.