Reviewer's report

Title: Enthusiasm for homework and improvement in depression during cognitive-behavior therapy: Secondary analysis of data from a randomized controlled trial

Version: 1 Date: 31 March 2014

Reviewer: Lisa Burke

Reviewer's report:

Major Compulsory Revisions

- First three paragraphs of Background seem to reference literature assessing Major Depression. However paragraph 4 switches to “subthreshold depression” which is cited as being “high prevalence, morbidity and societal cost but effectiveness of CBT is less clear.” (Note that this sentence also has no citations to support this claim.) This reflects a significant issue that continues throughout the paper. It is unclear what “subthreshold depression” refers to in this paper – perhaps distress, dysthymia, Minor Depression, Depressive Disorder NOS, or Depressive Personality Disorder? The paper would benefit from greater clarification of focus from the beginning. That is, if examining “subthreshold depression”, then state this term in the title; define it in the introduction; clarify it in the method; and reflect only on the implications for subthreshold depression (not Depression) in the discussion.

- The paper uses the terms ‘depression’ and ‘subthreshold depression’ interchangeably as explained above, but then there a further confusing element is introduced with the K6 as dependent variable (which is regarded as a measure of distress). This confusion is evident, for example, in Treatment paragraph 2 (“Each session began with an assessment of depressive symptoms using the K6” – should say “assessment of distress symptoms”). This brings the methodology into question, as the authors have not fully justified that the results truly reflect “depressive severity” as opposed to distress.

- Is it valid to assess weekly changes in “depression severity”? How much change would one expect between single sessions? Or does change eventuate from receiving a full package of CBT? This question is at the heart of the research design, assessing session-by-session changes in clients’ presentations.

- There seems to be confusion between motivation, enthusiasm, interest, confidence, self-efficacy, willingness, and compliance as contributors to homework completion. The questions used to assess homework compliance require further clarification. An overlooked question may have been understanding (eg, How well do you understand this homework?) Although the authors point out in Discussion that there is no standardized method to measure “enthusiasm”, this is difficult to accept given their earlier claim that CBT (including homework) is the best researched psychotherapy.
• The paper would benefit from including results of inter-rater reliability analysis, given multiple counselors from different professional backgrounds were employed as therapists.

• No explicit hypotheses stated in this paper.

• The section on Data Analysis raised significant concerns as to methodology and analysis. Prior to this, the authors explained that they would be conducting session-by-session analysis of relationships between homework enthusiasm and mood symptomatology across an 8-session course of CBT. However only three sessions (sessions 2 to 4) were then analysed. A justification for this was offered in that “subthreshold depression had already responded well to the initial behavioral activation intervention and there was not much variability left throughout the latter half of the program. It was also important to limit analyses up to session #4 because the latter half of the program... differed in content from the first half.” This raises the following questions that do not appear to have been addressed: 1) Has the analysis therefore only assessed homework for the Behavioral component of CBT, ignoring the Cognitive component and essentially rendering this to a study of compliance with Behavioral Therapy homework? 2) What implications would this have for the authors’ conclusions, given that the cognitive component in CBT makes strong use of homework such as thought records? 3) Where is the analysis supporting the claim that depressive symptomatology responded well to the initial behavioral activation? 4) If depressive symptomatology responded well to behavioral activation, then why conduct the cognitive component?

• Leading on from this, it is questionable whether structural equation modeling is appropriate given the sample size of n=71, and no power calculations have been referenced.

• The results appear to be overstated given the above limitations (eg., in Discussion: “The obtained results were clear-cut”).

• In summary, the paper appears to merge the distinct experiences of depression, subthreshold depression, and distress. The question posed early in the paper is not the question subsequently analysed, with the data analysis focused on behavior therapy (not CBT as suggested). It is also unclear whether it is valid to assess changes in symptomatology session-by-session. Data analysis may not be appropriate based on sample size, and thus discussion and conclusions do not appear balanced. The paper would benefit from further definition of the research questions, further justification of design and analysis, and a more careful conceptual writing approach.

Minor Essential Revisions

• Background, paragraph 1 – “CBT is the best researched psychotherapy…” Please clarify expression “best researched”.

• Background, paragraph 2 – “When homework completion was measured several times, only the average result was used to predict the outcome of the treatment.” Uncertain what this statement is trying to communicate.
• ‘Counselors’ and ‘therapists’ are terms used interchangeably throughout the paper.

Discretionary Revisions

• Unsure as to the statement in Treatment final paragraph, “They were also free to seek any professional help, such as professional counselors”. Would seeing another professional thus potentially confound your analysis of changes across time in attitudes towards homework and depressive symptomatology?

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