Author's response to reviews

Title: A Controlled Trial of the Litebook Light-Emitting Diode (LED) Light Therapy Device for Treatment of Seasonal Affective Disorder (SAD)

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Author's response to reviews:

Dear Sirs,

Thank you for your review of our manuscript "A Controlled Trial of the Litebook Light-Emitting Diode (LED) Light Therapy Device for Treatment of Seasonal Affective Disorder (SAD). We found the reviewers' comments very helpful and have revised the manuscript to meet their concerns. We have also corrected a few typographic and formatting errors.

With regard to comments from Dr. Loving:

1. To comply with BMC editorial policy and for general respect to the participants in this trial, the authors should change “subject” and "subjects" to "participant" and "participants".

   This change has been made.

2. On page 5, Study Protocol, first paragraph, this sentence "Subject who appeared to meet incusion and exclusion criteria..." should be changed. Suggestion " Subjects who appeared to meet inclusion and not meet exclusion criteria...".

   This change has been made.

3. On page 7, Subjects, last paragraph, " Subjects were required to have...a habitual sleep end time before 9 A.M." It needs to be clarified if this was a candidate screening criteria and refers to habitual sleep time outside of the
research protocol, otherwise there is potential for confusion regarding the (in protocol) requirement of a 30 minute treatment prior to 8 A.M.

This has been clarified.

4. On page 7, Treatment Devices, first paragraph, second sentence, there is a typographical error, "unblended clinician" should read "unblinded clinician".

This has been corrected.

5. On page 9, Results, second paragraph, line 4, "...10.8 years", there should be a closing parenthesis after "years". A similar correction is needed following "(85.7% versus 100%; in the active treatment group)", need a closing parenthesis here. Also this paragraph is a little awkward and would benefit from some rewriting.

These corrections have been made and this part clarified.

6. On page 13, Discussion, paragraph five, "...observed by Terman et al [4]." this appears to be a reference error, reference 4 is Eastman et al.

This error has been corrected.

7. On page 15, Acknowledgements, two suggestions: "...analysis, interpretation..." rather than "...analysis or interpretation..." please correct and confirm credential for Ms Stinson; correct to "B.Sc.N." or "B.S.N."

All these improvements have been made.

8. Reference 19, Horne and Ostberg, is missing the year of publication.

This has been added.

Discretionary Revisions

1. On Page 11, Results, paragraph 6, the first sentence would read more clearly if written as follows: "Times of self-reported sleep start, sleep midpoint, sleep end, and treatment start are shown in Table 2 for all participants who completed the trial, for the week before treatment, the first week of treatment, and the last week of treatment."

This rewrite has been used.

2. On Page 11, Results, paragraph 6, the observation of a shift to a later sleep end time between the first week and the last week of treatment, without a concurrent shift in sleep start time, for the active group and not for the control group is potentially important. It is suggestive of an increase in sleep duration due to an improvement in the condition of depression symptoms (one of which, of course, is sleep duration). Suggest mentioning this here or, more appropriately,
in the Discussion section.

Some participants presented with insomnia and some with hypersomnia, so interpretation of this change is complex.

3. On page 12, Discussion, paragraph one, sentence one, last word, I would suggest that "confirmed" is too close to "proven" to be acceptable for the requirements of scientific scepticism. It is conventional for an hypothesis to be supported by data, not confirmed.

This change has been made.

4. On Page 14, Discussion, last paragraph, first sentence, again, as above, I would suggest restraint of enthusiasm and suggest the use of "...supported the hypothesis that the Litebook LED device is significantly superior...", rather than "... showed that the Litebook device is superior...".

This change has been made.

5. On page 14, Conclusions, three suggestions: "...as percent of individual..." rather than "... as percent individual..." "These results support the opinion that the Litebook device..." rather than "These results suggest that the litebook device..." "... as clock time, or as time..." rather than "...as clock time or as time..."

All three improvements were made.

With respect to comments from Dr. Winkler:

* The necessity of further non-inferiority studies of the Litebook LED treatment device vs. bright light therapy should be mentioned in the discussion section.

Such a comment was added.

* The need for additional clinical trials of longer duration (8 weeks in most acute phase studies in depression) should be discussed.

A comment regarding this possibility has been added.

* Page 10: p-values should be provided for the correlation coefficients.

This has been done.

* Page 10: "There was no significant correlation between pre-treatment MEQ scores and...": statistical values should be given for this statement.

These have been added.

* The information contained in figure 2 can easily be described in the text.
We agree and have deleted this figure and improved the text.

* Some of the information given in table 1 is redundant with figure 1. The rate of subjects in remission could also be graphically depicted e.g. in a survival plot.

There is one column which is redundant with figure 1, but it would be difficult to remove either the figure or the table. We do think it is important to publish the specific outcomes of the trial in detail. We note that the other reviewer specifically accepted the figure and table as at present.

Thank you very much for your consideration of our manuscript, and we hope that it is now correctly formatted.

I have failed several times to get your website to upload the revised file, and am trying now with a third computer system.

Paul Desan, MD, PhD