Reviewer's report

Title: Effect of simulated dawn on quality of sleep - a controlled study

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Reviewer: Raymond Lam

Level of interest: A paper of considerable general medical or scientific interest

Advice on publication: Unable to decide on acceptance or rejection until the authors have responded to the compulsory revisions

Review of Leppamaki et al, Effect of simulated dawn on quality of sleep - a controlled study
Journal: BMC Psychiatry

Compulsory Revisions

1. This is an interesting paper, and although it is weakened by not having a control condition, the ABAB design is stronger than a simple open study. However, it is not possible to review this paper because there are insufficient data included. It is not adequate to merely give the results from the overall analysis. The authors must include the raw data in tables or figures (e.g., mean scores from the outcome measure for each condition).

2. The main outcome measure used (the Groningen Sleep Quality Scale) is referenced only as an abstract. The authors should reference other published studies where this measure is described or used. Has it been properly validated? For readers not familiar with the main outcome measure, the authors should describe some sample items, as well as mean scores for a "normal" population.

3. It is still not clear how the subjects were recruited and if they were really a random sample. For example, in the recruitment letter did the authors ask for volunteers who had trouble sleeping? Or with winter problems?

4. The background on dawn simulation needs to be more detailed and critical. The authors should briefly explain why dawn (vs. dusk) is important for circadian hypotheses. They should also provide a more critical review of dawn simulation studies, and should discussion of the negative studies relating to dawn simulation (e.g., Lingjaerde's 1998 study showing superiority of light box over dawn simulator).

5. There should be more information about the dropouts, and when the dropouts occurred.

6. It is unclear from the results how the authors justified the statement that effects took 8 days to occur, given their main statistical test. Was this done with post hoc testing? Were tests controlled for multiple comparisons? Again, seeing the raw data is essential in this regard.
Discretionary Revisions

1. One can argue that placebo effects do NOT regularly wane with time, as evidenced by countless antidepressant studies of 8 weeks or longer in duration.

2. Given that this study was conducted in winter, it would be of interest to know whether seasonality scores were obtained from the subjects (i.e., did these patients have SAD or subsyndromal SAD).

3. Since lux is such a short word, there is no need to use an abbreviation!

**Competing interests:**

I am on the professional advisory board for Litebook Company, Inc., which makes a light device.