Reviewer's report

Title: Drop-out and mood improvement: a randomised controlled trial with light exposure and physical exercise

Version: 1 Date: 30 March 2004
Reviewer: Shawn D Youngstedt

Reviewer's report:

General

This is an interesting, well-written article on an important topic. It follows a series of important papers on this topic by the authors.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

(1) It would be of interest to explicitly report how the 3 treatments compared in reducing the measures of depression. Throughout reporting of the results, it is not clear whether no effect was observed, or whether the effects were not tested. The authors should be more explicit in reporting the results.

(2) The authors should explain further how number needed to treat is defined.

(3) Page 10, bottom of page: It is not clear whether exercise also had a significant effect on the number of responders or the NNT.

(4) Page 11, associations of baseline alcohol with SIGH-SAD-SR. Association of baseline data with other questionnaires is not stated. Are we to assume there is none?

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

(1) Page 3, line 5: Place hyphen, i.e., "well-being"

(2) Page 4, lines 9 to 7 from bottom: Suggest following change: "... have also been investigated. Although harm avoidance scores..... light therapy in one study [19], another study found no predictive value of avoidance scores[20]."

Discretionary Revisions (which the author can choose to ignore)

(1) There is too much focus on circadian rhythms, particularly since rhythms were not assessed in this paper. Research has shown that both light and exercise can have significant antidepressant effects without necessarily resulting in circadian shifts.

(2) Suggest discussion comparing efficacy of 2500 lux vs. 400-600 lux. The circadian phase-shifting effects are related to the cube-root of brightness, so these stimuli are not that different in these terms. Are they different in terms of antidepressant efficacy?

(3) A comment on the huge variability in relative exertion associated with the exercise (given differences in age and fitness) is warranted.

(4) Authors should comment on Type I error associated with multiple testing in their analyses.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field
Quality of written English: Acceptable

Statistical review: No