Reviewer's report

Title: Air ions and mood outcomes: A review and meta-analysis

Version: 4 Date: 7 December 2012

Reviewer: Timo Partonen

Reviewer's report:

The authors have responded well to my comments. However, I think that there is still a point that needs amendment as follows.

Minor Essential Revisions

The authors responded to my second comment as follows.

Response: The effect sizes for each individual study are shown in our Figures 1 and 2. The weighted group mean differences generated in our forest plots (Figures 1 and 2) show the combined effect sizes associated with high- and low-density negative air ionization. We have already reported the effect sizes in the manuscript as follows: “Utilizing the later post-baseline mean score where applicable, the weighted difference in group means when exposed to high-density air ionization was indicative of a beneficial negative air ion effect on SAD (Atypical symptom subscale mean=5.64 (95% CI: 4.44-6.85); Hamilton subscale mean=9.23 (95% CI: 8.52-9.94); composite SIGH-SAD scale mean=14.28 (95% CI: 12.93-15.62); P for heterogeneity (SIGH-SAD) < 0.0001) (Figure 1). The effect sizes for low-density ionization were statistically significant, yet smaller in magnitude than for high-density exposure (Atypical symptom subscale mean=1.98 (95% CI: 0.57-3.40); Hamilton subscale mean=4.87 (95% CI: 0.96-8.77); composite SIGH-SAD scale mean=7.23 (95% CI: 2.62-11.83); P for heterogeneity (SIGH-SAD) < 0.0001) (Figure 2).”

This response is fine, but I see that instead of the term "mean" used in the text in the parentheses, it would be clearer to the readers to use the term "mean difference", or it would be even better to write here: "the weighted difference in group means for Atypical symptom subscale, Hamilton subscale and composite SIGH-SAD scale were 5.64 (95% CI: 4.44-6.85), 9.23 (95% CI: 8.52-9.94) and 14.28 (95% CI: 12.93-15.62), respectively; P for heterogeneity (SIGH-SAD) < 0.0001) (Figure 1)”, and similarly: "the weighted difference in group means for Atypical symptom subscale, Hamilton subscale and composite SIGH-SAD scale were 1.98 (95% CI: 0.57-3.40), 4.87 (95% CI: 0.96-8.77) and 7.23 (95% CI: 2.62-11.83), respectively; P for heterogeneity (SIGH-SAD) < 0.0001) (Figure 2)". Please consider.

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 declare that I have no competing interests.