Reviewer's report

Title: Ethnicity, sleep, mood, and illumination in postmenopausal women

Version: 1 Date: 13 November 2003

Reviewer: Margaret Moline

Reviewer's report:

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

This is a paper that examines possible ethnic factors in mood and sleep problems in postmenopausal women enrolled in the Women's Health Initiative, an excellent cohort from which to study these questions. Given that both mood disturbances and sleep complaints are common in postmenopausal women, this type of study addresses an important public health issue.

However there were some issues. First, the background section was terse. The reader could have benefited from a longer, critical review of the few reports on ethnic differences in sleep disorders as well as in prevalence of mood disorders. In addition, with the exception of a presumption on the part of the reader that the authors expected to find a relationship between lower levels of illumination and more sleep and mood complaints, no other components of a conceptual model were presented. This is important, since many of the analyses involved different covariates without prior explanation.

The Methods section could have benefited from an explanation of "Webster's rules" (p. 4) and "ODI4" (p.5). The authors should have explained more thoroughly why the number of women with some pulse oximetry data (358 women) was so many fewer than those enrolled (459 women), a number that apparently decreased again to 300-350 women (p. 6) for some analyses. Not enough details about the urine collection for melatonin assay, such as the number of days of collection or other assay variables, were provided.

In the Results section, it was notable that only one table was provided. It would have been helpful to have a diagnostic and demographic summary table and some figures to help visualize the results. As mentioned earlier, a description of the model would have been very useful in understanding the results section. For example, why would education and age be expected to impact light exposure?

If the melatonin data are going to be part of this paper, then more data should have been presented in the section on p. 8 and p. 10. It was not clear why "details [were] not presented" on p. 9.

In summary, the topic of this paper is important. However several of the sections need major additional information inserted so that the reader can understand the patient population and the conceptual model driving the data analytic approach.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable
Statistical review: Yes

Declaration of competing interests: None