Reviewer's report

Title: Complementary and Alternative Medicine Use Among US Navy and Marine Corps Personnel

Version: 1 Date: 1 February 2007

Reviewer: Karen Sherman

Reviewer's report:

General

This is a standard study of CAM use in a "special population", this time an active duty military population, which makes the study noteworthy. Overall, it is well done, but I have two more serious concerns. First, the response rate is extremely low and thus, I have real questions about how generalizable the results are the military population, even if the demographic characteristics of the respondents are similar to those of the population as a whole. Second, while I am pleased the authors attempted to validate their findings in a sub-sample of the respondents, I do not find the results reassuring. For example, I would expect a kappa statistic of 1.0 for gender and race, as presumably those do not change over a period of 15 months. Conceivably household income and education could change over that time frame, but I am not certain how much and thus, question the degree of error. The kappa statistics for satisfaction with physicians and number of CAM therapies are hard to evaluate since these data could easily have changed between the first and second surveys.

A more concern is the use of Chi-square testing with this large population - it's quite easy to find significant differences (e.g., education in table 2) that are actually quite modest. This seems to be common among such studies, however.

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

I would like the authors to respond to my concerns shown above.

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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) In the Background, I think the authors should cite the newest US CAM survey, published by Barnes in 2004, since it has data that are five years newer than Eisenberg's study.

2) Background section, first paragraph, the age group most likely to use CAM based on prior surveys is 25 - 49, not 25-29.

2) Results section - paragraph 2 - the part discussing demographics should be discussed before the CAM use.

3) Page 8 , paragraph 2 - line please reword the third sentence as it's confusing - do you mean that a change of less than 15% in the odds ratio with the addition of a particular variable suggests it is NOT a risk factor?

4) Page 10, last sentence in first paragraph - I am not sure precisely why use of megavitamins would demonstrated perceived healthy ideas that are often evident and encouraged in military populations. Please reword sentence to clarify this.

5) Page 10, second paragraph, first sentence - the phrase "controlling for other influential characteristics needs rewording for clarity.

6) page 10, third paragraph - 4th and 5th sentences could be deleted, since the findings are not robust.

7) Page 11, paragraph 2, 5th sentence - this statement, although true, is probably not meaningful, since the data set is very large, some of the Chi-square tests that are significant probably describe trivial differences.
Discretionary Revisions (which the author can choose to ignore)

1) In second paragraph on page 8, I suggest you have a consistent approach to describing risk as follows: replace "2 times" with twice; replace "1.5 times" with 50%; replace "1.59 times" with "almost 60%"

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

Level of interest: An article whose findings are important to those with closely related research interests

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.