Reviewer's report

Title: How does gender influence the recognition of cardiovascular risk and adherence to self-care recommendation? A study in Polish primary care

Version: 2 Date: 19 August 2013

Reviewer: Mark W Massing

Reviewer's report:

This is an interesting paper exploring associations among cardiovascular risk, coping behaviors, and adherence to self care recommendations among 134 primary care patients seen in Poland with a special emphasis on gender differences. There is increasing recognition of the importance of patient self-care. This study contributes to the literature with a focus on Poland where cardiovascular disease has been well studied for decades and where culture and social factors have been shown to contribute to observed levels and trends of CVD. This paper attempts to understand how gender differences in management of CVD self-care may explain some differences in risk and patient coping strategies - how is risk interpreted and how do patients respond to it.

In general it is a well written paper considering the challenges of writing in a foreign language. The questions or aims are specified, but the analyses and results are not always presented in a manner that aligns clearly with these aims. Literature is cited in the background section which builds a case for this study and could allow for the development of specific hypotheses. But hypotheses to be tested are not clearly stated.

The methods were not clearly stated. The paper is a prospective study with a baseline and a six month followup period, but it is not always clear what was done/measured at each period and by whom and where. It is impressive that there was apparently no loss to follow-up over a six month period.

The statistical methods need to be explicitly related to the study questions. It is difficult to assess whether the methods are appropriate because they are not always well described. But what is described appear appropriate. The data appear to be derived from standard risk assessment and psychometric tools adapted for Poland. The authors do discuss potential issues related to limitations, bias and generalizability of the study sample. The discussion and conclusions are well balanced and adequately supported by the data. The abstract could include more specifics on the methodology and the conclusions should align with the explicitly stated study aims. The manuscript does adhere to the relevant standards for reporting and data deposition as I best as I can determine. To the best of my knowledge, the authors clearly acknowledge any work upon which they are building, both published and unpublished.

Major Compulsory Revisions:
Minor Essential Revisions:

1. Page 7 - Section 2.2.1: Could you be more specific about when and where and by whom the questions/surveys were administered. Were these instruments completed at routine office visits? At home? Administered by the doctor/nurse? At six months were followup assessments made at routine visits, by mail, by phone, special study visits, etc? "see Fig 1" - strike the word "see".

2. The statistical analysis section on page 9 should specify the analytic approaches and statistical tests to address each of the study aims outlined on page 6. A statistical approach and test for each aim should be specified. Are there specific hypotheses associated with the study aims and tests? These need be explicitly stated. "test t" should be "t test". A univariate analysis is to describe the study population. A bivariate analysis would be required to compare study variables by gender. Please describe the regression models. What were the outcome variables? What were the predictor variables, confounders, explanatory variable of interest (if any).

3. Results Table 1: Does the T test result in Table 1 apply only to age? Did you test for gender differences for marital status and education? Please present to findings in Table 1 in the results section.

4. Results Table 2: What statistical test was used here? Could you describe the meaning of the numbers in Table 2?

5. Results Paragraph 2, final sentence beginning "No difference was observed between..." Where are the coping styles data referred to here presented?

6. Table 5 and Table 6 - Please specify the statistical regression models used for these tables as a footnote or in the methods/results section. Were all the factors listed in the table included in the same model?

Discretionary Revisions:

1. Abstract Background Section: Final line - it is not clear what you mean by "discrepancy between CVR and the acquistions of health behaviors".

2. Abstract Methods Section: Please specify how long on average follow-up occurred. Please state explicitly what was measured at baseline and what was measured at followup. I assume that health care behaviours and other factors listed in the final line were measured after a period of follow-up. But this is not clearly stated.

3. Results Section: Final statement - "In women total risk values were most important...." - Most important for what. Please specify. By most important do you mean "most strongly correlated with" or "explains most of the variance" or what?

4. Background Section, Paragraph 4, Second sentence beginning with "Compliance is more ..." This sentence is not clear to me. What is meant by "gender role conflict" and how does it relate to the factors listed in this sentence (e.g., aspirin use).

5. Page 7 First Sentence starting with "150 patients were recruited ..." the phrase
"such as" implies that the following list may not include all criteria. Are these all the inclusion/exclusion criteria? If so, please use a term other than "such as", An example: "if they met the following criteria".

6. Page 7, Second Paragraph final sentence beginning with "Eventually were recruited... " I recomend changing this to "A total of 134 patients met all criteria and were included in the study"

7. Figure 1 Legend: Strike the word "Patients".

8. Figure 1 First Box: Strike the phrase "Patients' recruitment"

9. 10,7% - if using US standard should use period rather than comma for decimal

10. Table 3 - "with regard to gender" may be better expressed "by gender". What does the header "M" mean? Should the be "Gender"? What statistical test was used?

11. Table 4 - "The correlation model between" could be written "The correlation between". Specify in the table footnotes what these numbers are (presumably they are pearson correlation coefficients).

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.