Author's response to reviews

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

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Author's response to reviews:

Dear Editors,

Please find attached a revised version of our manuscript "How does gender influence the recognition of cardiovascular risk and adherence to self-care recommendations? A study in Polish primary care", which we would like to resubmit for publication as a research article in the BMC Family Practice.

The comments made by you as well as the reviewers were highly insightful and enabled us to greatly improve the quality of our manuscript. Several language amendments have been made in the submitted article. 'Conclusions' section has been moved at the end of the text, straight after the 'Practical implication' section. The abstract's content has been modified. Tables 2,3 and 5 have been modified and supplemented. The following pages contain our point-by-point responses to each of the comments of the reviewers as well as your own comments.

We hope that the revisions in the manuscript and our accompanying responses will be sufficient to make our manuscript suitable for publication in BMC Family Practice.

We look forward to hearing from you at your earliest convenience.

Yours sincerely,
Ewa Wojtyna, MD, PhD

Responses to the comments of Reviewer #1 (Kate Jolly)

1. However, I found the paper quite difficult to follow, I think it needs more explanation about the psychological concepts and about the research process.

Response:
Information about the research process has been expanded. Additions regarding
styles of coping with stress and regarding sex differences in engaging in health behavior as well as perceptions of one’s health have also been introduced.

2. The methods state that 150 consecutive participants were recruited, yet then goes on to explain that 16 did not participate because of time constraints. It would be useful to include some information about the process of recruitment: when was consent taken? Over what time period did recruitment take place? Were consenting people brought back for their baseline questionnaires and the appointment with the physician, or did this all occur at recruitment? Were additional tests done to complete the SCORE? It would be helpful for the reader to have a brief summary of the components of SCORE.

Response:
Additional information congruent with the reviewer’s suggestions has been provided in the article.

3. The 6 month follow-up needs more detail. How was it undertaken: post, in the practice, opportunistically? Did all 134 participants respond at 6 months?

Response:
The kind of information mentioned above has been added to the article.

4. The paper needs a much clearer description of the participants. If 150 consecutive participants were recruited, then it is likely that their CVD risk will vary and it is likely that the women will have a lower risk profile given the age of the participants. Table 1 needs to include the risk score of all the participants and ideally the recommended actions in terms of lifestyle modifications and medications commenced.

Response:
Information about the CVD risk levels for the whole group as well as for each sex separately has been added in Table 1. Results of inter-sex comparison (chi-squared test) regarding the mentioned risk have also been demonstrated. Doctors’ recommendations of lifestyle change haven’t been described in detail due to their dependence on patient’s health state and estimated CVD risk; therefore, they had been individually discussed with each patient, which makes them difficult to describe in a generalized manner.

5. On page 4 the authors discuss how women often delay diagnostics and preventive procedures. The picture is more complex than is described in this paper. Women are generally more frequent users of primary and preventive health services than men, although it is true that women may also put their own self-care behind that of their family duties. I think the paper needs to acknowledge the complex picture more. It is also true that women may perceive themselves to be less at risk of CVD than men and thus delay preventive activities for CVD due their belief about their lower risk.
Response:

We agree that women’s perceptions of their health and level of engaging in health care behaviors is more complex. The authors’ idea was mainly highlighting the problem of incongruence within research to date regarding differences between men and women, not a full description of the phenomenon. The reviewer’s recommendation, however, suggests that the image might be worth expanding; therefore, changes in the article have been introduced in line with the reviewer’s remarks.

6. Page 5 line 4: the term 'vague' may better be expressed as inconclusive. The following two sentences may also be written more clearly, perhaps: Research describing women's evaluation of their physical health is contradictory, with reports that regardless of their lower CVD risk women evaluate their health as poorer than men, (refs) or in some cases better than men (ref).

Response:
An alteration has been made in line with the reviewer’s proposal.

7. Page 8: it would be useful either here or in the background to have more description of what task-centred, emotion-centred and avoidance-centred styles are and why they may be important.

Response:
A description of coping styles has been added.

8. The results need to start with a description of the CVD risk of the men and women.

Response:
The Results part has been started with a description of the CVD risk; necessary data has been added to Table 1.

9. In table 2 and table 4 I am uncertain about what analysis has been done. The analysis section in the methods suggests it is a t test, although for a t test one would usually present a mean and standard deviation or difference between means and 95% confidence interval of the mean difference. This needs clarifying, as does the column labelled Quarter’s sum. I presume ‘M’ is mean, if so it needs to be written in full.

Response:
The section regarding statistical methods has been corrected. Table 2 has been corrected as well; it contains results of inter-sex comparisons based on Student’s t-test (in the previous version of the manuscript results of variation analysis were described). Data regarding coping styles has also been added to Table 2. The
mentioned data has been described by mean and standard deviation. The symbol “M” has been replaced by word “mean”.

Assuming that the reviewer meant Table 3, not Table 4, the former is currently replaced by a table, which demonstrates results of multivariate repeated measures ANOVA. In the results’ description section data regarding the main effects’ sizes and interactions between the examined variables (sex, possessing information on one’s CVD risk and the sex*information interaction) has been added to the text.

10. I suggest that tables 5 and 6 are merged

Response:
The reviewer’s suggestion has been followed; Tables have been merged, forming Table 5 in the current version of the text.

11. Page 9 line 5: a fatal....

Response:
The section regarding statistical methods has been modified.

12. Page 11, para2, line 6: sentence starting ‘The higher the risk.... ‘ is rather sweeping. It might be better changed to: ...."Polish Mother” seeks to self-care, possibly because her family is in danger.

Response:
The reviewer’s suggestion has been followed.

13. Table 1: having 2 decimal points for the percentages is unnecessarily precise, one would be sufficient.

Response:
The reviewer’s suggestion has been followed.

Responses to the comments of Reviewer #2 (Mark W. Massing)

1. 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.

Response:
Changes regarding the description of statistical methods, used according to the goals set, have been introduced. Detailed hypotheses haven’t been formulated in
the presented study due to incongruence of research results to date.

2. The methods were not clearly stated. The paper is a prospective study with a baseline and a six month follow-up 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.

Response:
Suggested information has been added to the text. The lack of data loss was probably due to the specifics of Family Practice functioning. Patients of this institution are in a relatively frequent contact with the GP and know the Family Practice employees well. Telephone contact allowed to obtain data from participants who couldn’t visit the institution in person. During the recruitment for this study participants received information about the prospected procedure and provided their telephone numbers. They were also informed about the amount of time needed for the research. Those participants (16 persons) who stated in advance that they could not spend that amount of time withdrew from the research at an early stage of the recruitment.

3. 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.

Response:
The part regarding description of the statistical methods has been corrected.

4. The abstract could include more specifics on the methodology and the conclusions should align with the explicitly stated study aims.

Response:
Corrections have been introduced.

5. 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".

Response:
The suggested corrections have been made; the above mentioned information has been added to the text.

6. 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).

Response:
Description of the statistical methods has been corrected in accordance with the reviewer’s advice. No specific hypotheses have been formulated due to incongruence of research results to date – our study was meant to be exploratory in nature.
Changes in the tables have been made.
Results of inter-sex comparisons based on the t-test have been shown in Table 2.
The models of variation and regression analysis used have been described.

7. 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.
Response:
The t-test was calculated only for age. Other differences were tested with the use of chi-squared test. Additional data regarding the CVD risk level has been added to Table 1.

8. Results Table 2: What statistical test was used here? Could you describe the meaning of the numbers in Table 2?
Response:
In the initial version univariate analysis of variance was used. In the current version data regarding coping styles has been added to the table, while inter-group comparisons have been based on the t-test.

9. Results Paragraph 2, final sentence beginning "No difference was observed between..." Where are the coping styles data referred to here presented?
Response:
In the current version the mentioned data has been included in Table 2.

10. 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?
Response:
The methods section has been expanded. The table showing results of regression analysis has been completed. Also Tables 5 and 6 have been merged and modified (forming Table 5 in the current version).

11. 1. Abstract Background Section: Final line - it is not clear what you mean by "discrepancy between CVR and the acquisitions 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?

Response:
Corrections have been made in the abstract.

12. 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).

Response:
Corrections have been made in the text. "Gender role conflict" is defined as a psychological state in which the socialized gender role has negative consequences for the person and others. Gender role conflict occurs when rigid, sexist, or limiting gender roles result in restriction, devaluation, or violation of self and/or others.

13. 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".

Response:
The suggested alteration has been made. All criteria of inclusion to the study have been pointed out in the manuscript.

14. 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"

Response:
The proposed change has been introduced.

15. Figure 1 Legend: Strike the word "Patients".
Response: The reviewer’s suggestion has been followed.

16. Figure 1 First Box: Strike the phrase "Patients' recruitment"
Response: The reviewer’s suggestion has been followed.

17. 10,7% - if using US standard should use period rather than comma for decimal
Response: The reviewer’s suggestion has been followed.

18. 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?
Response: Table 3 has been modified, including the suggested changes (also in the Data analysis section). Table 2 shows results of the multivariate repeated measures ANOVA. A comment on the results showed in this table has been added to the Results section.

19. 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).
Response: Suggested changes have been made. The table 4 shows results of an analysis of Pearson’s r correletion coefficients.