Reviewer's report

Title: Symptom experience, self-assessed health and mortality: results from the West of Scotland Twenty-07 Study

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Reviewer: Anu Molarius

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General
This is a longitudinal cohort study on common symptoms, self-assessed health and mortality. It addresses an important and interesting topic. Can common symptoms convey new information about the risk of mortality that chronic conditions and self-rated health do not cover?

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

The authors state, based on previous studies, that experience of symptoms may be the most influential factor contributing to self-assessed health. From this they conclude that the number of symptoms may be more important to mortality than self-rated health. This is hard to follow, why would it be the number of symptoms? The impact of number of symptoms is inevitably dependent on the number of symptoms provided on the check-list used, which symptoms are listed etc. This is also demonstrated in the discussion in relation to ref. 29, the only other published study on symptoms and mortality.

A more relevant and interesting way to address the question above would be to know what kind of symptoms are severe i.e. related to mortality and whether this relationship is independent or explained by chronic conditions or self-rated health.

The relationship between chronic conditions and symptoms is complex: where does the borderline between chronic conditions and symptoms go and which symptoms are just consequencies of chronic conditions. The authors have tried to take this into account by adjusting for any chronic condition (yes/no). This is, however, a very unspecific variable, including three conditions (musculoskeletal, digestive and mental health) which are not related to mortality and two conditions that are (respiratory and cardiovascular) according to Table 2. By using a dichotomous variable important information is lost. Therefore it is not surprising that the presence of any chronic condition explains less than self-rated health of the association between symptoms and mortality. Either should the authors use a variable with one category for each of these conditions or several dichotomous variables when adjusting for chronic conditions.

The authors use, what they call 5 symptom categories when studying the impact of symptoms (total number of symptoms, number of symptoms the respondent tends to have, number of symptoms which resulted in consulting the doctor etc). Table 3 shows that the results are almost the same for each of these categories (except for number of symptoms the respondent doesn’t tend to have, but this can be mentioned in the text). These categories are probably strongly intercorrelated and do therefore not add any important information to the results. My suggestion is to retain the first category (total number of symptoms) and to omit the rest, and to use classes of symptoms (gastrointestinal, musculoskeletal, mental etc) instead, as well as to revise Table 4 accordingly.

Other comments:

Background
The authors have a tendency for sweeping references i.e. very many references in one general sentence and that are never used in the discussion.

Methods
The cohort used, West Scotland Twenty-07 study, is very briefly explained. How was the cohort selected and what was the participation rate in the part included in this study?

A wide range of personal and social information was collected, according to the authors, but these are unsufficienly briefly described. A reference is missing when addressing to Carstairs deprivation category.
Several different variables are used to measure socioeconomic status. These must be highly intercorrelated, therefore it would be better to use only one or two which capture most information.

Discussion
The authors state as one of the strengths of this study that it included both genders. The only way gender was taken into account was, however, to adjust for it in the analysis of the association between symptoms, self-assessed health and mortality. Did the authors check whether there were differences in these associations between men and women?

Abstract
Conclusion
The authors should be careful when making generalisations, the results obtained may only apply to the age group and follow-up period studied and may depend on how the variables measuring the studied factors were defined.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
Delete “two-sided p-values” on p. 6.

Giving the exact odds ratios and confidence intervals for results in ref. 29 in the discussion is unnecessary, it is clearer to describe the results with words.

Discretionary Revisions (which the author can choose to ignore)

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: No
Declaration of competing interests:
I declare that I have no competing interests.