Reviewer’s report

Title: Economic burden of symptomatic iron deficiency - A Survey among Swiss women

Version: 2 Date: 18 Apr 2018

Reviewer: Michèle Dramaix-Wilmet

Reviewer's report:

This is an interesting paper, clearly presented but I have a few questions (in particular on the methodology) and remarks listed below.

Methods
- Selection of the persons included in the consumer panels: was the % of non-respondents important?
- Why were Italian speaking women excluded from the ID survey?
- How was the sample size determined? On what basis was it computed?
- p. 4, line 72: "Within the survey population", does it means the whole sample from the consumer panels (> 130'000 active)? In which analyses were the weights applied?
- Data collection: were questionnaires completed on line by participants or administrated by telephone by an investigator?
- Spearman correlation coefficient: why does it not provide reliable estimate of effect size? Cannot it be interpreted as a Pearson's correlation coefficient using a rule a thumb for interpretation such as for example those listed below?

* <0.3 : "very weak"
* 0.3-<0.5 : "moderate"
* 0.5-0.8 : "strong"
* 0.8-1.0 "very strong"

Such an interpretation has been done for the two correlation coefficients presented p.10. However, one usual assumption to use Spearman's correlation coefficient is that the two variables should be measured on an ordinal or continuous scale (i.e., interval or ratio scale) and it seems that one of the two variables used to compute correlation coefficient p. 10 was dichotomous (presence of misdiagnosis or sick leave). In that case, Wilcoxon - Mann-Whitney test is usually used, it provides the same P-value and the difference between the medians of the two groups can provide an idea of effect size.
Results
- Figure 1: 266 women (18%) with missing information were eliminated, were the characteristics of these women not too different from those of women included in the analyses?

- p. 7, lines 154-155: "weeks until a medical doctor was consulted": mean and median are very different, so there should be high values for this number of weeks, what's the range for this variable?

- p.8, lines 171-174: what's the test used to compare mean number of consultations and mean duration of sick leave? Were these two variables normally distributed? The methodology refers to 3 tests: t, Mann-Whitney and Chi²; where are these tests applied?

- p. 9, line 188: what's the range for sensitivity analysis? Is it 20% of 9.5%? How was this value chosen?

Discussion
- p. 11, line 246: "if they are aware of their ID condition or not", this is not clear for me. Can the undiagnosed patients be aware of their ID condition?

Figures
- Figure 4: what does it means "ranked impact"? The two most important factors impacting daily living negatively are not at the top or bottom of the graph.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics
Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal