Reviewer's report

Title: Gender and the professional career of primary care physicians

Version: 2 Date: 15 November 2010

Reviewer: Markus P. Gnaedinger

Reviewer's report:

Major compulsory revisions
None.

Minor essential revisions

General:
- Numbers are given with up to four digits, what would be o.k. when constructing an engine – but for ‘soft data’ from questionnaires three digits would be enough and easier to read. As for the rounding I would express the mean value with equal digits after the decimal point as the SD (49.1±4.3 NOT 49.1±4.34).

Abstract:
- The last sentence of “results” section cannot be understood without explications.

Patients and methods:
- statistics: You should mention what your numbers denote. E.g.: “Our values are given as mean±SD”. You should state whether significance of 0.05 represents two-sided hypothesis. You only mention logistic regression as inference testing done within this study: But data presented in table 1 seem rather to be tested with chisquare. And data in table 2 with T-test or U-test and again chisquare. If my impression is correct, you should state that in the methods section. The ICC in table 3 may denote “INTRACLASS correlation coefficient” rather than “INTERCLASS correlation coefficient”.

Results:
- Table 3 is hard to understand. I would like to give some suggestions to help your readers: I would give percentages only with one digit after decimal point e.g. N=9 (5.0%), NOT N=9 (4.95%). I would highlight statistical significant inferences of the tested variables (like asterisks); you did so, but only for 0.05 < p < 0.1 – so the reader will not be guided to the right variables. In the footer of this table, it would be adequate to mention all variables the odds ratio were corrected for.
- Towards the end of this section when describing results of table 3, you give an
incomplete list of variables odds were corrected for. Please write “among others” to highlight, that there have been other variables in the list.

Discussion:
- You state that adjusted odds generally were higher than crude ones; you mention adjusting for work and family loads – please mention also age (which showed a significant gender difference).
- When discussing the (surprisingly) equal number of principal investigatorship between men and women, you explain this with focusing of women on leading projects. An alternative hypothesis was that the small number of it (9 vs. 12%) precluded statistical significance.
- When discussing intrinsic obstacles of female doctors getting more professional achievements, the concept of “in- and extrinsic motivation” should be unfolded.

The Swiss author Barbara Buddeberg-Fischer did a cohort study in medical school leavers. Her last publication was:
http://www.smw.ch/for-readers/articles/smw-2010-13056/.

Limitations:
- You are doing a power analysis in methods section, but do not take into account the expected response rate of only 40 to 60% in such questionnaire surveys. I would erase this section in “Methods” and state that the study was underpowered in ”Limitations”.
- You do not state the problem of repeated statistical testing and you do not correct your significance values for it. In explorative studies like yours, this may be o.k., but a statement about it in limitations seems adequate to me.

Discretionary revisions
Title: The statement that all authors contributed equally to this paper sounds polite, but the section authors’ contributions shows that this was not the case. I would suggest that only the two authors writing the manuscript should be mentioned here.

Background:
- In section 2 the word “occupied” can be omitted.

Results:
- In table 3, in male percentage for PhD, the decimal point was omitted.

Discussion:
- When discussing ICC-findings, two words have to be included: “… who publish group together …” should probably be written as “… who publish as a group
The question posed by the authors was well posed.
Statistical methods must be improved.
Otherwise the manuscript adheres to relevant standards.
Discussion and conclusions are adequate.
Limitations may have to be extended.
Some additional references are needed.
Abstract needs some minor corrections.
English is o.k.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

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

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