Reviewer's report

Title: Women doctors and their careers in European university hospitals: what now in the 21st century?

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Reviewer: Michael J Goldacre

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Major compulsory

1. The study was based in one hospital. I suggest that the title should be changed slightly to reflect that, e.g. “Women doctors and their careers in a European university hospital…”.

I think that the Discussion should focus a little more around what was found in this hospital and should not necessarily assume that the findings are likely to be universal. This said, I think it is likely that women are under-represented in senior positions in many other places (though I’m not sure that this is so in the Scandinavian countries).

2. The substantial increase in the proportion of medical graduates who are female in recent years means that quite a substantial proportion of women doctors have not been qualified for long enough to have reached very senior positions (see, for example, first pubmed link, below, for discussion of the importance of ‘years since qualification’ as a variable in the analysis of career achievement comparing men and women). The authors mention taking account of age in their analysis. This may be an adequate proxy for ‘time since primary medical qualification’. However, ‘time since primary medical qualification’ (or, if not available, age as a proxy) is such an important determinant of reaching senior roles that there should be more discussion of it. For example, what are the age distributions of the men and women doctors in the ‘denominators’ in the study? Did differences between men and women in attaining senior positions, seen in univariate analysis, diminish in analyses that adjusted for differences in ‘time from qualification’ (or age, as a proxy)? One of the findings in reference 12 (the McManus paper) was “The [low] proportion of women in hospital career posts was largely explained by the rapidly increasing proportion of women entering medical school during the past three decades.”

3. As a related point, the study population is a mixture of new appointments and of people already in post in 1996. Have the authors analysed the results separately for these two populations, to ensure that bringing them together does not hide important findings? Presumably many of the doctors in senior positions are in the pre-1996 appointments.

Minor essential revisions
4. Page 5, first paragraph, comments about the reluctance of European countries to provide data on the careers of women compared with men. The authors seem to be unaware of a very large body of information from my group, the UK Medical Careers Research Group, which has published on careers and comparisons of women and men in the UK for many years, see for example first three papers with pubmed links below. There are also papers from other European countries, see fourth link below. The authors could search pubmed for 'women career medicine Switzerland' (as I did for the fourth link) and put in Sweden, Norway, and other European countries to see what they get.


There are also reports from European professional societies, see for example https://www.rcplondon.ac.uk/publications/women-and-medicine

I don't mind if the authors quote my group's work or not, but it would be wrong to leave the impression that this has been a neglected topic in Europe.

5. There are some places where, because of the English, it is hard or impossible to know what the authors mean. It would be good if the authors could ask for advice from a colleague who speaks/writes with English as their first language.

6. The authors use the term 'call'. Does this mean 'application'? E.g. on page 7 does the 'number of calls' mean 'number of applications'? Or perhaps it means 'appointments'?

7. The authors define the 'femininity index' (page 6) as the number of women and men. It is the ratio of women to men.

8. The authors state that the 'age of institute and department chairs was 13' (page 9). They cannot mean this; but I do not know what they do mean.

9. Page 16, sentence about 'first analyses [for] 13 years. It is not e.g. see 4 above).

10. Legend for Figure 1 – 'ratio between proportions' should presumably be 'ratio of women to men'; and 'throughout the study period' should presumably be 'in each period of the study'.

11. Figure 3 – comments as for Figure 1.

Discretionary

12. The authors quote beta coefficients in the Abstract and Results. It would help non-statistical readers to explain how these should be interpreted (at least in the
Results), e.g. “This means that …”

Level of interest: An article of importance in its field

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