Reviewer's report

Title: Determinants of smoking initiation among women in five European countries: a cross-sectional survey

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Reviewer: Anton Kunst

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A strong feature of this paper is that it is based on new European survey with rich information on determinants of smoking. Comparisons can be made between five countries from different parts of Europe. Despite this promise, the paper suffers from a number of drawbacks.

1. It is uncertain what the added valued of the paper is, as compared to previous studies on determinants of smoking initiation. The introduction does not make clear which questions on the patterns and determinants of smoking initiation have not yet been answered, and how this survey can be used to address these questions.

2. The European added value of this paper is not clear. One would expect that new lessons would be learned from comparisons between these five countries, or that the authors would aim to construct a European overview out of these five different countries. However, the Discussion section rarely addresses the variations between countries observed. Instead, the discussion is mostly “geography blind”, and even uncritically includes references to findings outside of Europe.

3. The previous point is complicated by the fact that the samples per country are small. As a result, for individual countries, estimates of associations between smoking and its determinants have very wide 95% confidence intervals. This has the effect that in tables 2 to 5, it is not possible to distinguish true cross-national variations from random fluctuations. Unfortunately, the statistically more efficient approach taken in table 6 is applied only in this single case.

4. Much of the discussion focussed on determinants of smoking initiation. This information is obtained retrospectively by asking respondents themselves about their reasons to initiate smoking. The problem here is that the majority of the respondents is 45 years of older (18% is 45-54 years, and 37% is 55+ years) and thus reports on motives behind behaviours that were formed 25 to 50 years ago. The potential for recall bias is very large here, but not evaluated by the authors.

5. Smoking initiation rates are not related to wealth or educational level. The authors aim to explain this surprising finding. In this attempt, they overlook the well-known fact that the association between education and (ever) smoking has radically changed in subsequent generations, with the “timing” of this change varying between European regions. These changes have been charted in much
detail in European overviews by Huisman et al, Giskes et al, and Schaap et al. Most likely, the lack of educational differences that the authors observed for their broad but relatively old age group is consistent with these generalised patterns.

6. The results are potentially biased to an important extent due to the selective nature of the sampling method (landline telephone calls) together with sometimes low non-response rates (ranges from 31% to 65%). Even though there may be little that the authors can do to correct for this problem, one would at least expect a systematic evaluation of the potential effects of this problem on the key findings. However, in the Discussion section, this problem is mentioned only in passing when discussing the results for income and education.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests