Reviewer's report

Title: Awareness of risk factors for cancer: A comparative study of Sweden and Denmark

Version: 2 Date: 26 May 2015

Reviewer: Terry Slevin

Reviewer's report:

1. Is the question posed by the authors well defined?

The question of cancer risk perception being addressed is clearly defined and worthwhile. It also has relevance beyond the two populations featured in the study.

2. Are the methods appropriate and well described?

The methods are relevant and appropriate to the question. The modest response rates of approx. 38% are not ideal but are increasingly typical of studies of this kind. This response rate does none the less raise a question for the validity of the generalisability of the findings.

The choice to include the “Don't know” response into the “lack of awareness” category may be a problem. Without knowing the precise framing of the question it is a little difficult to offer clear judgement. However, for example, in the category of alcohol, some people may believe alcohol increases cancer risk. Some may believe some forms of alcohol (eg red wine) reduced cancer risk. To aggregate “don't know responses into an “unaware” category may lose some of the nuance of the data. The authors might consider reporting the data with “don’t know” separately reported.

3. Are the data sound?

The data are sound (although I refer to comments above) and in line with similar studies from elsewhere.

4. Do the figures appear to be genuine, i.e. without evidence of manipulation?

The data appear nothing other than genuine.

5. Does the manuscript adhere to the relevant standards for reporting and data deposition?

6. Are the discussion and conclusions well balanced and adequately supported by the data?

There appears a heavy emphasis on finding and interpreting differences between Sweden and Denmark in the cancer risk perception data - and seeking explanations in cultural or other differences between the nations. As an outsider
any such differences may result from different emphases placed on the communications of such risk factors by reputable authorities such as Government Health Authorities or cancer societies. Another suggestion is to pool the data and report an “all sample” finding on risk perception. The paper acknowledges example of this effect when referring to the anti sun bed and fruit and veg campaigns run in Denmark.

I would caution against the final sentence in the conclusion. To state that “the higher awareness of risk factors in Sweden compared to Denmark may be a contributing factor in the disparities in cancer incidence and prognosis between the two countries”

Assumes many links between “awareness levels” and outcomes such and incidence and stage of prognosis. This allows the final statement of the paper to be open to significant challenge.

7. Are limitations of the work clearly stated?

Yes – the low response rate is identified in the discussion. So too were demographic difference between the countries.

8. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?

Some relevant studies the authors may be interested in but are not cited include MacTiernan A1, Fritschi L2, Slevin T3, Jalleh G4, Donovan R4, Heyworth J1. Public perceptions of cancer risk factors: a Western Australian study Health Promot J Austr. 2014 Aug;25(2):90-6.


9. Do the title and abstract accurately convey what has been found?

The abstract reasonably reflects the content of the study.

10. Is the writing acceptable?

The writing is an acceptable standard.

• I recommend publication and offer my comments as Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

**Level of interest:** An article of importance in its field
Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I have no conflicts of interest