Reviewer's report

Title: Diagnostic self-tests on body materials in the Netherlands: prevalence and correlates of use

Version: 1 Date: 8 December 2008

Reviewer: Patrick MM Bossuyt

Reviewer's report:

I find the subject and the study results interesting, but a number of my concerns with the previous version were not addressed.

Major Compulsory Revisions

The panel

1. Page 5 - “The panel (…) is a representative sample of Dutch Internet users”
   How is representativeness of the panel evaluated or guaranteed? Please provide more details, or a reference.

2. Page 5 - (www.flycatcher.nl)
   The Flycatcher website is in Dutch, and does not seem to have references explaining the composition of the panel.

3. Page 8 – “We found that 16% of a representative sample of Internet users had ever used a self-test, with an average of 2.1 tests per self-tester.”
   The average age of the respondents was 37 years, with a 2:1 female to male ratio, and 26% had a chronic illness or disability. How can this be a representative sample of the Dutch Internet users? Remove “representative”.

The selection of self-tests

4. Page 5 – “Whether the person had used, had ever considered using, or intended to use 25 specified self tests”
   This sentence refers to 25 specified tests. Page 3 mentions 25 conditions. Table 1 lists 25 conditions, or combinations of conditions (Thank you for including these now). For several of these conditions, such as diabetes, a number of different tests are available, varying in features and probably in accuracy (for diabetes: glucose strips, HbA1c, Chemcard etc.). 25 conditions, or 25 tests? Please remove the ambiguity.

Selection of variables

5. Page 3. “and the association between demographic factors, health-related lifestyle factors, health status, and self-test use.”
There is no explanation for the selection of variables in the questionnaire, no listing of prior hypotheses. Please include a rationale or prior hypotheses in the introduction or in the methods section to remove the suspicion of a "fishing expedition".

Conclusions

6. Abstract (Results) – Page 8 (Discussion) “self-testers seem to be more consciously engaged in health-related behaviours.”

As indicated before, this is highly speculative and not supported by the data. There were no questions about conscious decisions in the questionnaire. Self-testers also had a higher reported fat intake, a higher reported BMI, and more reported alcohol intake, and more often a lower perceived health. Remove this conclusion, or rephrase.

Minor essential revisions

7. Abstract – Conclusion. “Self-diagnosis by means of a self-test on body materials is a phenomenon that cannot be ignored. It is essential to develop appropriate information for consumers, health care providers, and policymakers about cons and pros of self-testing and specific self-tests”

Both these recommendations are not conclusions that are supported by the data collected. Please rephrase.

Discretionary Revisions

8. Why were monitoring tests excluded? Why pregnancy tests?

9. I would have liked to see the questions listed verbatim.

10. The use of decimals is still of no help in interpreting the percentages. Please consider using only two meaningful digits in all sections.

11. I still regret that there is very little information of the channel through which these tests were acquired: bought though Internet, from a pharmacist, in a supermarket, etc. I would like to see more detail.

12. Page 7 – “potential differences between the variables were calculated”

differences between groups?

13. Page 8 – “independent predictive value”

These variables are not independent, even in a multivariable analysis, and they are not predictive. Please rephrase

14. Page 9 – “the results are based on an Internet panel, and it can be assumed that the use of self-tests among Internet users is higher than among non-Internet users”
Please include the possibility of selective response in your discussion of the limitations.

**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'