Author’s response to reviews

Title: Barriers and facilitators to the implementation of clinical practice guidelines: A cross-sectional survey among physicians in Estonia

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Author’s response to reviews: see over
Dear Professor Sean Berenholtz

Thank you very much for peer review of our manuscript. We have revised the manuscript in light of the reviewer's comments and made required changes (uploaded).

Please find the responses to the reviewers' comments and questions:

_________________________________________________________________

REVIEWER 1
Title: Barriers and facilitators to implementation of clinical practice guidelines: A cross-sectional survey

Reviewer's report:
This is a study in an important area of research, barriers and facilitators to implementation of clinical practice guidelines.
The aim of the study is clearly defined and the methods well described and appropriate. The manuscript is well written and easy to follow.

Major revisions
1. One major problem is the selection of the study sample, physicians that have attended educational courses. Most likely this is a selection of physicians who are more open to new knowledge. How representative are they compared to the 90% that did not participate or were not selected? A description of the differences - age, work setting etc. would be informative. At least this needs to be stated in the limitations.

Response: Thank you for this important comment, we agree that selection of the sample has limitations and could cause a potential bias. This aspect has been included in the discussion.
However, all physicians in Estonia enroll to the continuous training system that ideally provides with information on evidence based medicine. There are about 4600 actively practicing physicians in Estonia. Every year, about 4000 participants attend the courses of the Department of Continuing Medical Education. As some of them participate repeatedly, there are about 2500-2600 persons who attend the courses every year. 497 responders count a bit more than 10% of Estonian active physicians but they represent more than a half of physicians’ community in Estonia who attend the courses. Exact characteristics for comparison of the groups of physicians attending the educational courses and of those who have not participated, are not available.

2. As the authors point out there were differences in the barriers and facilitators between general practitioners and hospital based physicians. A table showing differences between different settings would be an improvement. Most likely different settings need to be approached differentially when implementing guidelines.

Response: The table showing differences in barriers between settings has been added (Table 3).
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 I have no competing interest

REVIEWER 2
Title: Barriers and facilitators to implementation of clinical practice guidelines: A cross-sectional survey
Version: 1 Date: 16 July 2012
Reviewer: Annemie Heselmans
Reviewer's report:

Major compulsory revisions
1.
Please mention your study population in the title (a) and provide a short description of your population in the Methods section of your abstract (b)

Response: The title has been changed, and description of the study population has been added.

2.
The Introduction should provide references to all the articles used as background information e.g:
Barrier assessments that have been conducted since the 2007 review, identified fewer barriers, and the most frequent barriers were related to the guidelines themselves, patients, and support or resources. References?

Respondents were also concerned that guidelines would not meet the needs or characteristics of their patients. Lack of time and resources to implement guideline recommendations were additional major barriers. References?

Response: The references have been corrected, and available website of the guidelines added.

3.
Introduction – second paragraph: Over 90 guidelines in areas such as family medicine, cardiology, neurology, and oncology have been developed and are available on the public website for health care workers. What is meant by these guidelines? Evidence-based guidelines based on a systematic development process? Consensus-based guidelines? Which definition of ‘clinical practice guidelines’ is used by the authors and how is it presented in the questionnaire? This makes a difference in interpreting the results.

Response: Additional clarification has been added to the text. There is a total number of 90 guidelines prepared under different approaches available in the country. This includes around 40 prepared following the first handbook for guideline preparation and process steered by Estonian Health Insurance Fund since
2003, and additional around 50 guidelines available in the country but prepared using different approaches (initiatives by the medical associations, individual providers/specialties, interest groups, medical journals). We have referred the evidence-based clinical practice guidelines based on a systematic development process. These guidelines are available in the website: http://www.ravijuhend.ee/ravijuhendikasutajale/ravijuhendite-andmebaas/.

4. The Cabana-framework was used to structure the survey questionnaire. Resource/support barriers, system/process barriers and attitudinal / rational-emotive barriers of physicians and patient are mentioned as domains suggested by Cabana. However, the specific paper of Cabana which is used by the authors as a reference used 7 categories of barriers (lack of awareness, lack of familiarity, lack of agreement, lack of self-efficacy, lack of outcome expectancy, the inertia of previous practice or external barriers). Please provide the exact reference to the paper of Cabana or report how the framework was adapted.

Response: We used the 3 broad domains suggested by Cabana as noted in the methods. We then mapped the barriers identified in our survey to these 3 domains, so the number of specific barriers may differ from the Cabana paper.

5. How were differences in opinions between the two coders resolved?

Response: We achieved agreement by consensus, discussion among the team members. This aspect has been added to the text (Methods).

6. The lack of studies applicable to the Estonian setting, where human resources are limited is quoted as a reason to conduct this study. What about the differences and/or similarities with other studies? One can compare the results with the studies on this topic in other countries. The lack of the availability of physicians trained in EBM and the need for local guideline adaptations are barriers in high-income countries too.

Response: The lack of studies in the Estonian setting seems still to be a valid reason to conduct this study as we wanted country specific data in order to tailor an intervention to improve guideline implementation. However, we agree with the reviewer that it is useful to compare our findings to other studies and we have included this into the discussion. This is also why we used the Cabana framework as it allows us to compare our findings to others.

7. It is quoted that Physicians who have been in practice for the least amount of time had more favorable attitudes toward guidelines and on-line resources than more experienced physicians because they are more comfortable with using computer systems. What about their education? Maybe the younger ones had a training in Evidence Based Medicine or guidelines during their curriculum? Did physicians working in hospital settings had another education than the
respondents in the outpatient setting? It is important for persons not familiar with Estonian physicians to know about their education. Does it concern family physicians in the outpatient setting and specialists in the in-patient setting or both? To what extent are they ‘exposed’ to EBM/guidelines during their professional life? How homogeneous is this group of ‘active physicians’ (or respondents)?

Response: We agree with the review that familiarity of younger physicians with computing is one possible reason they may have more favorable attitudes towards online resources, and differences in education are another possible reason. The curricula in the medical faculty have changed over time but there has been very limited education on evidence based medicine separately (it is available since late 90s on the critical review and some under public health training). Components of evidence based medicine have been included into each specialty studies. The medical specialists are graduated from one medical university in the country and the main differences could emerge by the graduating years. During last decade, more emphasis is given to evidence based medicine within the curricula, but still limited. These aspects have been included in the text of the manuscript (Discussion).

8.
It is stated that demographic characteristics of the respondents are consistent with the demographics of Estonian physicians. It would be more clear to report these specific data.

Response: We have no exact demographic data of working physicians but we have data on medical students who study in the University of Tartu that is the only Medical School in Estonia, providing with medical doctors for all the country. There is a female preponderance about 65-80% in different years.

9.
What about the attitude of the physicians not included in the database? It is a database of active physicians who have attended educational courses. Does it mean that the physicians not included in the database do never attend educational courses? It could be important information to interpret the representativeness of the results for a subject where keeping up-to-date is an important issue. Do you expect that these physicians (not included in your sample) have the same attitude towards guidelines than the respondents in the sample??

There are about 4600 actively practicing physicians in Estonia, and all of them enroll to the continuous training system that ideally provides with information on evidence based medicine. Every year, about 4000 participants attend the courses of the Department of Continuing Medical Education, but in reality, there are about 2500-2600 persons who attend the courses as some of them participate repeatedly. The study sample represents the physicians who attend the courses (about half of physicians’ community in Estonia), and our findings may not be generalized to all physicians in Estonia. These aspects are included in the text, and selection of the study sample as a limitation of the study.
10. It is stated that “only 12% of respondents (150/1249) had training in incorporating research evidence into a local guideline”. This is somewhat confusing. If (local) evidence is available, guidelines should report on this evidence in the first place. Please clarify this.

Response: in this statement, the Guindon’s study has been referred and discussed, not our study. To be more clear, it is additionally mentioned in the text, and reference number added.

Minor Essential revisions
1. The tables need to be restructured or converted to charts because results are not clearly outlined. Reading and Interpreting the results is difficult now.

Response: We could not include these complex data in the chart and we feel that tables provide more complete and accurate information than a chart. One table has been added to explain the differences in barriers in different settings.

2. The discussion section would be more clear if the percentages of the results section are repeated.

Response: In the discussion section, we have added the references on tables that include the results.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Needs some language corrections before being published

Response: Additional proofreading of the article has been made during the course of revising it.

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.

Sincerely yours,

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