Author's response to reviews

Title: Patient educational technologies and their use by patients diagnosed with localized prostate cancer

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Author's response to reviews: see over
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Dr. Stefano Bonacina
Karolinska Institute
BMC Health Services Research Editorial Board

Re. Revision of manuscript 9067333171617155, “Patient educational technologies and their use by patients diagnosed with localized prostate cancer”

Dear Dr. Bonacina:

Please find attached the revised manuscript entitled “Patient educational technologies and their use by patients diagnosed with localized prostate cancer.” We appreciate the opportunity to revise this manuscript based on the feedback of the reviewers. Below we outlined the changes we have made, if possible, in response to the reviewers. We have also made the one editorial request to include all author email addresses on the title page of the document.

Reviewer 1. Emily Warren

Item 1. I am not sure if you need to account for the limitation described in lines 183-187. I think it is reasonable to assume that patients get information from other sources, even if it is only from consultations with the clinicians. I don’t think this is a weakness of the study or has implications for the results or discussions.

Response: This section has been removed from the paper.

Item 2. Line 53: An episode of care is generally something like one doctor’s appointment or one nurse visit. I think for the purpose of this it would be more accurate to write “...at different times throughout their care.”

Response: We have made this change.

Item 3. Line 82: I would add a clause or sentence explaining what accreditation from HON means.

Response: We have made this change.

Item 4. The figures need to be labelled. It would be helpful to color-code the figures so that readers could see which categories (as described in table 1) the modules belong to. I think it would be beneficial for the readers to be able to have a visualization of the changing information needs over time. Perhaps a line chart with modules or categories showing the change between first, second, and subsequent visits? I think that might provide more useful data to readers.

Response: We have made several changes to the figures. Per your suggestion, we color-coded the figures and what was originally table 1 is now figure 1. We also re-ordered the figures to provide a clearer presentation of our findings. There was a request for the figures to be labelled, but we were following the author instructions of the journal, which stated that the figure titles and legends should be provided in the main manuscript rather than the figure file.

Item 5. The background of the paper is clear but could be strengthened by pulling from more published
data sources. Most assertions only have one citation which makes them seem less robust than they actually are and consequently weakens the paper’s credibility. Some claims, such as on lines 42-44 and 53-54 have no citations.

**Response:** We have strengthened the background section, provided references for our statements, and added more information to clarify our arguments.

**Item 6.** In lines 44-48 you explain that some PETs provide individualized information tailored to their particular learning style. Can you please clarify that or explain how that is done. From the description of your intervention, the PETs used in this study seem standardized. Can you also clarify what is meant by “auditing of relevant data pertaining to their use”? How is this done?

**Response:** We agree that this was not the best choice of words in this section. We changed this to focus more on the fact that the system may be tailored from the perspective that a patient may choose when to access the PET at a time that is best for him. Have changed this to “These “patient education technologies” (PETs) offer more engaging material through interaction and can provide “just-in-time” learning that allows patients to access the information at their own pace and at a time that is best for them. Web-based platforms also allow clinicians and health educators to track the most visited portions of the PET so that they can understand the informational needs of their patients.

**Item 7.** On line 113, you report that the average age of the PET users was 56.4 years old. Are you able to report anything else about the patients? Given that only about one third of patients “prescribed” the library used it, it would be helpful to have any other information about how people who did use it were similar or different from those who chose not to. I understand that an ethics board put limits on what data could be collected, but any other information would be helpful.

**Response:** Unfortunately, we are unable to provide additional descriptive information on the patients.

**Item 8.** I think the first sentence of the discussion is slightly misleading. This paper, while very helpful, does not actually tell us much about “how patients access and interact with information.” This paper does tell readers about changing patterns of information needs after diagnosis with prostate cancer. To know more about how patients access and interact with information, qualitative research would be ideal.

**Response:** This has been changed to say “PETs offer an opportunity to better understand how patients’ patterns of information needs change after diagnosis with prostate cancer.”

**Item 9.** Since the objective of the study is to see how people interact with the PET, it would be useful to acknowledge that, due to the study design, you were unable to assess the implications of receiving additional information. It would be helpful to acknowledge that in future studies, researchers could analyze the associations between PET use, quality of life scores, and treatment choices and outcomes. This intervention could also be evaluated qualitatively to find out how patients felt about using the PET.

**Response:** We incorporated these suggestions of future study work into the Practical Implications section, and also mentioned the study design as a limitation to understanding the impact of the PET library on other outcomes.
Reviewer 2. Karin B Dieperink

**Item 1.** The title is informative, but the authors could add the information that this manuscript is about patients with localized prostate cancer. Patients with advanced cancer may have different educational needs.

**Response:** The title has been modified to reflect this change.

**Item 2.** Abstract, results: I need information about how many patients logged in more than once.

**Response:** 94 patients logged in more than once. This has been added to the abstracts and results sections.

**Item 3.** Abstract, conclusion: The authors conclude that information technology offers clinicians an opportunity to provide a richer educational experience to patients that conventional media, but I don’t think the authors have justification to conclude this as they didn’t compare the different medias.

**Response:** This has been modified to “Information technology offers clinicians an opportunity to provide a rich educational experience to patients.”

**Item 4.** Keyword: The authors use the words “Patient educational technology”, and this should be placed in the keywords instead of health information technologies.

**Response:** We have added the term “patient education” to the list of keywords. This is a MESH term and will make it a more effective search term.

**Item 5.** Background: The authors present a short argument that favours the conduct of the study. It would be desirable if the studies were briefly presented with design, patients and primary outcome. In general, I need more information about why it is important to investigate in prostate cancer patients? What is the state of knowledge of how they usually get information, before this study?

**Response:** We have strengthened the background section, provided references for our statements, and added more information to clarify our arguments.

**Item 6.** In the third paragraph the authors write that “PETs offer more engaging material through interaction and can provide more individualistic information ....” However, it is a claim without support as there is no reference.

**Response:** This item was also raised by the other reviewer. We had adjusted the sentence in question and also added more support and references in this section.

**Item 7.** Methods: There is a lack of information about inclusion and exclusion criteria. I presume there must have been some kind of clinical judgment of which the patient could benefit e.g what about foreign people or patients with cognitive problems?

**Response:** Every patient was offered access on the assumption that even if they had difficulty accessing the PET due to cognitive or language issues that a family member or friend could assist them in using the PET. This information has been added to the methods section.

**Item 8.** What was done to educate the patients about the PET e.g. how to login?
Response: Each patient was provided with a handout that outlines the login instructions for the PET. This information has been added to the methods section.

Item 9. The PET was developed between urologists based on research and patients were furthermore included in the development, which is good, but when did this happen?

Response: The PET was reviewed and approved in 2007 and 2009 by the Patient Information Committee of the CUA. This information has been added to the methods section.

Item 10. The statistics seem appropriate, but there is a lack of descriptive statistics.

Response: Unfortunately, we are unable to provide further descriptive information about the study sample.

Item 11. Results: It is a strength that it is a large sample size with n=394, but a limitation that this is a retrospective study, and only a third of the patients logged into the library. And we don’t know why. All patients with localized prostate cancer are having a login to the PET. This means that there must be information available from the medical journals regarding risk group, comorbidity, social information e.g. marital relations, educational level, and life style. I think this is very important information lacking in this study to understand which patients use information technology and which don’t. However, the authors discuss this limitation and if the data is not available there is nothing to do about this, but it limits the interest of the results.

Response: Unfortunately, we are unable to provide this information. We recognize that this limits the interest in this research in some ways, but also feel that the information we are able to present here can be useful to clinicians and health educators when they are considering the type of information that is important to patients diagnosed with localized prostate cancer, and how those needs change over time. The information can help researchers set up studies in ways that will allow them to address the questions you’ve raised.

Item 12. It is very disturbing that the figure legends are placed in the results section.

Response: The figure legends have been removed from this spot.

Item 13. Discussion: The authors don’t discuss or compare their results with other research results. This is a serious lack and a simple literature search is showing interesting publications within this field.

Response: We have added references to three other studies comparing our findings to theirs.

Item 14. Quality of Tables/Figures: A Table/Figure has to be understood without the main text available, but it is difficult to understand Figure 3, as we don’t have information about the columns. The y-axis has to be numbered from 0-100. Furthermore, the number of patients and place of research should be shown in the table and figure legends.

Response: The original Figure 3 is now named Figure 2. Several things have been done to improve this figure. Color has been added to make it easier to differentiate between the columns. These colors also correspond to the categories in Table 1. We did not adjust the Y axis scale as we felt it appropriate to leave the range at 0-60% given that it is consistent between first visit and subsequent visits.
We appreciate your consideration of this revised manuscript for publication. Please do not hesitate to contact me if you require further clarification.

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Regards,

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