

Peer Review File

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Reviewer A

Comment 1: In the abstract or at least in the introduction or methods section, the research hypothesis and a priori set main outcomes should be stated

Reply 1: Based on the comments of reviewer 3, the title of the article was changed and several changes were made to the text. We believe that the statements in the introduction/methods now clearly represent the aims of our study.

Changes in text: none specific to this comment, changes made are based on the feedback of reviewer 3.

Comment 2: The ethics committee information should be provided.

Reply 2: Thank you for this comment, additional information on the ethics committee has been added.

Changes in text 2: Permission for this study (trial number: s63108) was obtained from the Ethics Committee Research UZ/KU Leuven (EC Research, number B3222021000603). All participants in this study signed an informed consent form (ICF). – Line 189-193

Comment 3: In the discussion section, I suggest to add key-points from a recent APM editorial from the Editor in Chief on this topic.

Reply 3: Thank you very much for this suggestion. We have adapted the text in the discussion by adding some key points, as suggested.

Changes in text 3: In the discussion, some points of the editorial were added, from line 371 onwards. However, as pointed out by the editorial of Gaertner et al., having ePROMs become more established in routine clinical practice may increase operational efficiencies, reduce travelling time for patients, and increase the willingness of patients to enroll in clinical trials, especially in local intervention trials with the intent of symptom control”. The other key points from the editorial such as the difficulty of the word ‘palliation’ etc were already mentioned in the text.

Reviewer B

This is a very well written description of a two-phase implementation trial of a PRO tool using an online patient portal for patients receiving palliative radiotherapy. Not surprisingly, the

major detractor from the process was the informed consent process and document. I anticipate this step may be halted if the process becomes standard of care; at that point a single retrospective protocol for process review could be submitted for subsequent analysis.

I am unsure that daily PRO is necessary for patients, but frequency could be keyed to any follow-up period given these tools. Further, I expect that patients transferring to hospice would be exempt from such reporting.

Thank you very much for your kind review of our paper.

We agree with you that daily PRO-evaluation is probably overshooting in this population. We hope we can tailor these reminders to the individual patients in the future.

Indeed, patients transferring to hospice (or those who remained hospitalized or those who received daily palliative home care) were exempt from reporting their symptoms via ePROMs. All patients who participated in the study were informed that if they could not complete the ePROMs or if completion did not benefit them, due to frequent/daily contact with a health care provider, the completion reminders could be ignored or switched off.

Reviewer C

Comment 1: There needs to be more consistency in reporting how the RE-AIM framework was used.

Reply 1: Thank you for your comment. While we did review the RE-AIM framework during the development process of our intervention, it was indeed mainly used for reviewing the implementation. Our application of RE-AIM may not have been as thorough as it should be for reporting purposes. For instance, our assessment of REACH included determining the number of patients receiving palliative radiotherapy in our department; estimating the percentage of these patients using the MyNexuzhealth app; evaluating the number of patients who used the symptom diary during systemic treatment and willingness of palliative patients to use a symptom diary. However, as these considerations did not result in clear study goals (this also refers to your comment regarding the use of the word feasibility trial), we have decided to remove the suggestion of RE-AIM being used for implementation purposes. Changes in text: The RE-AIM framework was used to evaluate the implementation and to identify factors for sustainable adoption of this intervention (Table 2) - Line 138.

Comment 2: The objectives and the aims need to be clearly stated and aligned.

Reply 2: Thank you for this comment. We have taken your feedback and adapted the text to make it clear that this paper describes an implementation evaluation using the RE-AIM framework.

Changes in text: In the 'Introduction' under 'Objectives' : The current study aimed to evaluate the implementation of this intervention using the RE-AIM framework. – line 95/96. In the 'Methods' under 'Study Design': A mixed-method two-phase implementation evaluation of an ePROM based follow-up intervention after PRT was performed in a single, tertiary hospital. – Line 105.

In the Discussion: The objective of this paper was to evaluate the implementation of this intervention using the RE-AIM framework, to guide other researchers and clinicians in their implementation efforts. – Line 376.

Comment 3: The study was conducted in two phases. However, I am not sure what Phase II achieved in this study. I suggest describing the objectives of Phase II in terms of measures that are appropriate to assess the impact of the changes made. In other words, time points at which different measures were assessed during the adoption of intervention as the implementation evolves.

Reply 3: Thank you for this feedback and suggestions. You are right; the examples provided did not require evaluation in both phases and, perhaps more importantly, were not evaluated in phase II. Your recommendation to describe the objectives of Phase II was integrated in the text in the introduction, additionally Table 2 was slightly adjusted, indicating which RE-AIM aspects were evaluated in phase I only.

Changes in text: The last sentence of the Introduction was shortened to: 'The impact of these changes on relevant RE-AIM aspects was assessed in Phase II of the study (Table 2).' - Line 102

Comment 4: The feasibility measures are provided in Table 2, based on the RE-AIM framework. However, the feasibility determinants/outcomes have not been articulated clearly. Without predetermined feasibility endpoints, I would suggest labelling this study as an implementation evaluation rather than a feasibility study.

Reply 4: Thank you for this comment. As we did not have clear predetermined feasibility endpoints for this trial, we have taken your suggestion to change our study from a feasibility study to an implementation evaluation.

Changes in text: The term 'feasibility study' was changed to 'implementation evaluation'. The term 'study' was kept in several sentences, as patients had to sign informed consent and we did not evaluate ePROMs in routine clinical practice.

Comment 5: One of the evaluation questions under Effectiveness (Table 2) was, "What is the impact of the ePROMT diary on patients' experience of their symptoms?". As a concept, symptom experience could include perception of frequency, intensity, distress and meaning of symptoms. Hence, how patients' experience of symptoms was evaluated needs clarification.

Reply 5: Patients' experience of symptoms was evaluated qualitatively during the interviews, by questioning them on the intensity and duration of their symptoms, as well as the impact of

the symptoms on daily life. There was no objective evaluation of the symptoms performed, based on the reported ePROM outcomes.

Changes in text:

In the section ‘Results’ under ‘Effectiveness’: Although patients reported high satisfaction and a willingness to reuse the diary, they did not perceive a subjective impact on the duration, intensity, or overall impact of their symptoms. Nevertheless, patients in both phases mentioned feeling 'safer' with the diary, despite the fact that their entries were not actively monitored. – Line 288.

In the section ‘Discussion’: Patients did not feel that using the diary affected their perception of symptom intensity, duration, or impact on their lives neither positively or negatively. It should be noted that the majority of patients did not report significant side-effects. On the other hand, patients did report satisfaction with the self-management tools provided, which made them feel empowered, in control, and "safe." – Line 392

Comment 6: The TREND checklist is not appropriate for this article. In fact, out of 19 checklist items, 9 have been predominantly marked as not applicable to this study.

Reply 6: Before submitting this article the journal was contacted considering the completion of the checklist. Based on their advice the TREND checklist was completed. Unfortunately, there is not checklist available that really fits our type of study.

Changes in text: No changes in the text of the article were made as the checklist was discussed before submission.

Comment 7: The results for all items in the 24-item survey patients were asked to fill out have not been provided. I suggest providing a table with the survey results as a supplementary file and including all relevant quantitative figures from the survey with qualitative outcomes in the results section.

Reply 7: Based on your feedback we have made an additional table with the outcomes of the survey, with references to these tables in the text.

Changes in text: Several references were made in the text regarding the results of the survey.

Comment 8: It is not clear how often patients were prompted to complete ePROMT since it is not mentioned in the methods. More details of adherence to reporting will be helpful in assessing intervention fidelity.

Reply 8: We are very sorry for the oversight in the ‘Methods’ regarding the frequency of completion reminders of the diary. The sentence in line was adapted to make it more clear that patients were prompted on a daily basis.

Changes in text: ‘Patients were automatically prompted daily to complete the ePROMT diary, for a period of 21 days following PRT.’- Line 124.

Comment 9: Page 10, lines 425-426 – It is stated, “This study adds real-world information on the implementation of ePROMs in routine clinical practice. Real-world data or information refers to data obtained during routine use of ePROM – after implementation and when ePROM has been established in routine clinical care – rather than data obtained in a study setting. Hence, this study does not provide real-world information.

Reply 9: The statement was changed and the term ‘real world information’ was removed.

Changes in text: The text was changed to ‘This study adds information on the implementation of ePROMs in patients receiving palliative radiotherapy.’ – Line 476

Comment 10: The E in RE-AIM stands for effectiveness; I am not sure why “effect(iveness)” is use throughout the manuscript.

Reply 10: Thank you for pointing this out.

Changes in text: The text and tables were changed, so that it is ‘effectiveness’ everywhere without the parentheses.

Comment 11: Page 5, line 188 – parentheses at the end of the sentence should be removed.

Reply 11: Thank you for pointing this out.

Changes in text: The parentheses was removed.

Comment 12: Page 8, line 320 – there is an additional square bracket and a full stop.

Reply 12: Thank you for pointing this out.

Changes in text: The extra square bracket and a full stop were removed.

Comment 13: Page 8, line 357 - there is an additional square bracket and a full stop.

Reply 13: Thank you for pointing this out.

Changes in text: The extra square bracket and a full stop were removed.

Comment 14: Reference 32 is missing volume, issue and page numbers. The year is 2022 not 2021, as per the DOI provided.

Reply 14: Thank you for pointing this out.

Changes in text: Based on this comment all references were checked to make sure that they are complete/correct.

Comment 15: Reference 39 - Journal details are not in the correct format.

Reply 15: Thank you for pointing this out.

Changes in text: Based on this comment all references were checked to make sure that they are in the correct format.