Author’s response to reviews

Title: Characteristics of older adults using patient web portals to view their DXA results

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Author’s response to reviews:

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Dear Editor:

Thank you to you and the reviewers for the opportunity to revise and resubmit our manuscript to BMC Medical Informatics and Decisions Making. We appreciate the time and thought you have given to our manuscript.

We have given attention to each comment and revised our manuscript. We believe these revisions have significantly improved this paper.

On the proceeding pages you will find a point-by-point response to each reviewer comments along with the line numbers in the manuscript where we made revisions. In the manuscript we have revised using track changes.

Again, thank you for considering our manuscript for BMC Medical Information and Decision Making.
Sincerely,

Stephanie W. Edmonds, PhD, MPH, RN on behalf of the co-authors

Project Coordinator

1. Patient web portal usage rate: While the authors do indicate that they did not determine which of their subjects had an activated account, they did provide some overall information that might be useful - the overall rates of activation at each of the two institutions. This data indicates that about 1/3 of all eligible patients did not have an activated account. Therefore, one could reasonably surmise that approximately the same percentage of patients in the selected population did not have the means to use a patient portal to view their DXA result. One could further argue that based on the number of patients who might reasonably have such access that the usage was higher than the 19% reported in this paper.

Authors’ response: You make a good point that we could estimate that about a third of our study sample may not have activated their web portal account and if we examined only those with an activated account, a higher percentage of patients could have access their DXA results on the web portal. However, we are not able to determine who in our sample had an activated account and who did not, thus we cannot provide these rates. Additionally, those who did not have an activated account are still considered non-users of web portals and as such did not view their DXA results on the web portal. Thus, the rate we use in this manuscript is reflected of those who did report accessing their DXA result via the patient web portal.

2. The same concern could be applied to the logistic regression analysis. Since it is well known that patients with higher levels of education and younger age are more likely to activate a patient portal account, the reported findings may have less to do with seeking a particular diagnostic report and be more dependent on factors that lead to activation of an account.

Authors’ response: Again, this comment reflects a limitation of our analysis. We have added a sentence to the limitations section of our discussion to address this concern (Lines: 287-294).

3. The usage rate of the web portal for DXA results would seem to be dependent on a number of factors including organizational and provider workflows for notifying patients of results. In many organizations, all results must be reviewed by a provider before being made available on a portal. Furthermore, it is not uncommon for providers to treat abnormal results differently than normal ones by withholding release until they are discussed with the patient. These procedures can all lead to a number of scenarios where patients are notified by other means of their DXA results and there is no need to access a portal for such results. For example, it appears that patients in the intervention arm of the
experiment should have all received written notification of results by 4+ weeks after imaging. Data that could possibly reflect this is the difference between UI and KPGA in portal use listed in table 1. The discussion needs to address this in interpreting the findings of the study to a greater extent than it does now.

Authors’ response: Your comment is a concern that we had as well when we were conducting the analysis on web portal usage. To address this concern, we examined associations between those who learned of their DXA results via web portal only, those who learned of their DXA results through more than one method, but the web portal first, and those who learned of their DXA result via web portal but another method first (See Table 2). We that these three groups did not differ statistically on any characteristic.

4. There is some not particularly relevant description in the paper about the larger PAADRN study that has little bearing on this paper. This includes the Study Participants section under methods, Ethics Approval and Consent to Participate as UAB study participants were excluded from the study, and the Acknowledgments sections where certain individuals were acknowledged who did work not reported in this study.

Authors’ response: We revised the Study Participants Section (lines 100-114) and retitled it to clarify that this manuscript describes a secondary data analysis from a larger study removed some of the details related to the larger study to make this section more concise. We also removed references to the UAB IRB from the Ethics Approval and Consent to Participate section (lines 319-324) and UAB staff from the acknowledgement section (lines 368-369) because UAB participants are not included in this manuscript.

5. Table 1 There is a difference between the more general identification of patient web portal users and use of the web portal to review a particular result. Certainly, one must be a portal user to review a result on the portal but the not all portal users used the portal for such a purpose. A more specific column label would be helpful.

Authors’ response: You make an excellent point. We have revised the title and the column headings of Table 1 to more accurately describe these two groups.

6. Patient's Provider gender is used in the analysis but patients are nested within provider. Depending the number of actual providers involved, the interpretation of this significant difference in Table 1 may differ. That analysis of this particular variable should address this issue. In particular this might affect the same provider-patient gender finding which could possibly be due to specific providers rather than gender of the provider. This finding also deserves more discussion as it represents the single novel finding of this work.
Authors’ response: In the analytic sample, there were 584 providers. Providers had a range of 1 to 74 patients, with a median number of 3 patients and a mean of 8 patients. Accordingly, we believe that our interpretation of this effect is correct.

Carolyn Turvey (Reviewer 2)

1. This is a unique contribution to the growing literature on patient portals in that it examines patient use of the portal to review bone density test results. This is a very specific application but it serves as a good example where patients, if informed, can improve follow-up treatment for a significant chronic condition. The findings of the paper have been reported in the past, but remain important in that simply providing patient portals is not enough to yield benefits of improved patient self-management and eventually improved outcomes.

Authors’ response: Thank you for this comment.

2. There are several aspects of the presentation of the study that are confusing and need some clarification. This manuscript frequently refers to this as a randomized study. If I am understanding correctly, the portal registration and assignment was not what was randomized, though that is the focus of this paper. What was randomized was the sending of the informational letters. Please clarify this and, if the portal registration was not randomized, please omit references to this being randomized because it is confusing.

Authors’ response: You are correct in your description of the informational letter being randomized but not the portal assignment, which is the focus of the paper. We have revised the following areas in the manuscript to clarify: 1) Abstract: Lines 42-43, 2) Methods: Line 101 and Lines 143-144; and 3) Results: Line 182.

3. In addition, what proportion of the sample used their web portals to view their DXA results? 19.1%? 13.9%?

Authors’ response: We apologize for this confusion. In the abstract we wrote 13.9% of the total 4,669 patients viewed their DXA results on the portal (649/4669), but in the results section, we wrote that 19.1% did. This is because we used the denominator of those 3,399 who knew the results. This was an error. We corrected line 184 to reflect the actual percent of 13.9% of the total sample.

4. A limitation to this study that should be mentioned in the discussion is that the sending of the letter may have reduced the number of people who accessed their information via a portal. There was already a system of notification in place and, if the consent process
gave patients a heads up about this, this may have altered their behavior. Were the patient portals mentioned in the information letter.

Authors’ response: When we designed this study, we were concerned about the potential to “unblind” participants to the intervention arm. Thus, we requested and the IRB granted us permission to “deceive” participants in the consent process by not telling them that they would be randomized to receive a result letter or not from the study. After participants completed the study, they received a “debriefing” letter by postal mail notifying them that they were randomized and which study arm they were assigned to. Thus, research assistants did not mention to participants about the potential of getting a DXA result letter from the study nor did they mention that they could find the results on a portal. However, it is worth mentioning in the limitations that participants receiving a letter may be less likely to access their DXA results on the portal. We would add that we waited 4 weeks before mailing the result letter to participants to allow them to get their results in another manner. We added text to the manuscript to clarify (Lines 290-294).

5. The introduction discusses how the use of portals can address the fact that providers are either not reviewing results or communicating them to patients. Proponents of portals do not recommend using portals to replace clinical practice but to be used to help patients collaborate with their providers in managing their health. Portals should enhance relationships that are already in place, not replace faulty clinical relationship. Unfortunately, and somewhat predictably, providers are relying on patients to check their portals, but this was never the original intention and it is bad practice. It would be good to delete these aspects of the discussion in the Introduction and simply state that access to portals is one of many ways a patient can have access to the information when needed.

Authors’ response: Your comment is an important consideration to using web portals in clinical practice. We revised the introduction (Lines 71-72 and Line 82) to clarify that using web portals to communicate with patients is a way to enhance to clinical practice.

6. Determining the order in which patients received their results is a strength.

Authors’ response: Thank you for this positive feedback.

7. In the Discussion section, please provide a citation for the statement. "While web-portals are strongly endorsed, many patients do not like them? What proportion of patients in prior studies indicate that they do not like portals.

Authors’ response: We revised line 231 to clarify that patients may not like portals. In the proceeding section we discussed the study by Schultz et al. which elaborated on this statement. We also provided a citation for that sentence.
8. Another phase is confusing in the Discussion: "KPGA patients, however, may have received their test results from the ordering provider . . . ." I do not understand what the authors are saying here.

Author’s response: We wanted to highlight the limitation of assessing patient web portal usage because KPGA patients may not have had the desire to go on to the web portal because their provider may have already sent them a letter, which is the policy of Kaiser. In other words, a patient may have received an email or a letter from their provider, making web portal use lower at this site. We decided to remove this entire paragraph from the discussion in response to your next comment. Additionally, the letters from Kaiser had no additional information from the physician, and thus were generic form letters.

9. The Discussion seems long for results that are not entirely new.

Authors’ response: We agree that the discussion is a bit long. We removed one paragraph and shorted a few others. We can make additional edits at the discretion of the editor.

10. In the last paragraph of the Results, it is confusing when the authors state that p-values were larger due to reduced sample sizes. What are they referring to here?

Authors’ response: We revised lines 210-212 to clarify.