Reviewer’s report

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

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Reviewer: Stuart Speedie

Reviewer’s report:

This manuscript addresses the question of what patient factors influence patient web portal use for the purpose of obtaining DXA results. It makes use of data from a larger study (PAADRN) that was a randomized controlled trial of the effect of sending out a results notification letter and an educational brochure to the intervention group at 4 weeks post imaging (obtained from another of the author’s papers describing PAADRN) compared to usual care relating to the same imaging for the control group. All subjects were surveyed by telephone at 12 weeks post imaging and were asked a battery of questions including all of the means by which they were notified of the results. This included whether or not they used a patient web portal to obtain the results. The authors note that approximately 62-65% of patients eligible for the larger study had activated their patient portal.

The authors selected out a subgroup of patients apparently from both the intervention and control groups who knew the DXA results at the 12 week survey. They divided this subgroup into patients who reported use of the portal to view the DXA result even though they may have initially learned this by other means (or not) versus those who did not use the portal to review the DXA results. They performed a logistic regression analysis of patient and provider characteristics that were related to portal use for the purpose of viewing a DXA result.

Overall, the results replicate a number of other studies of patient portal use that point out the importance of education/SES and age in predicting such use. The most interesting finding of the study is the same versus different genders of providers and patients.

Combining these experimental groups for the purpose of this secondary data analysis raise several questions.

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 reasonable 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.

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.

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.

In addition, there are the following more minor issues:

1. 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.

2. 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.

3. 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.

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If not, please specify what is required in your comments to the authors.

Yes

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