Author’s response to reviews

Title: Informing the development of online weight management interventions: A qualitative investigation of primary care patient perceptions

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Author’s response to reviews:

The authors’ response letter has been included as a supplementary file due to formatting used to distinguish between reviewer comments and associated response.

Dear Professor Peter Hosick,

Thank you for the opportunity to resubmit our manuscript “Informing the development of online weight management interventions: A qualitative investigation of primary care patient perceptions” (OBSY-D-17-00026). We appreciated the constructive criticisms of the reviewers and we feel that responding to these has greatly improved the content and readability of the article. We list and respond to those requiring action below, with our responses shown in blue.

Line and page numbers refer to the lines and pages in the revised manuscript and changes made to the manuscript are highlighted using track changes as suggested by the editor. Additional amendments to the text were made to ensure consistency in the manuscript.
Reviewer reports:

Jewel Gausman (Reviewer 1):

1. Line 67: Perhaps it would be useful to describe examples of some e-health interventions to give the reader an idea about what the range of interventions is?

We have added in a sentence of the range of self-directed eHealth interventions (Introduction Lines 71 – 77, page 3).

2. Line 90: Similar comment as above. Perhaps you could briefly summarize the content/approach of the three interventions?

Websites now briefly summarized (Methods Line 107 – 125, page 5)

3. Line 90: Are the 3 interventions considered for the study similar? Please provide some rationale for conducting a pooled analysis, given that there may be important differences between the interventions that would impact the key study questions.

The reason why we choose these 3 websites was because they were (1) freely available and (2) adhered to UK and US recommendations as checked by our GP (Author SS). We were keen to try different websites to explore how different presentation of similar behaviour change techniques (i.e., goal-setting, self-monitoring, social support) would affect experiences with the programmes. (Methods, Lines 101-105, page 5).

4. Line 151: Is there an underlying theory of behavior change used to identify the stages that you discuss in Box 2? It would strengthen your discussion/analysis if it were rooted in theory.

The stages described in Box 2 are identified from the data and no underlying theory of behaviour change was used in the identification. This study aimed to explore patient experiences rather than to test a specific behaviour change theory.
5. Line 196: This sentence doesn't seem to be supported by the quotations below it. If this is an important point you want to make, I suggest trying to distill it a little more with either a different selection of quotes, by emphasizing the previous point more to bring out the contrast, or by discussing it more in the text.

We have removed one quote and replaced another with a more illustrative quote with the aim of strengthening this point. (Results, Lines 253 – 267, page 11).

6. Line 213: missing a comma or revise sentence structure (confusingly written).

Amendments made to sentence in aim of clarification (Results, lines 269 -272, page 11).

7. Line 277-284: This quotation doesn't really seem to fit with the idea in the previous paragraph emphasizing the desire to be able to set personal preferences. Perhaps there is a better quotation that illustrates this point more clearly?

We sought to clarify the link between the illustrative quotes in text. (Results, Lines 334-340, page 14).

8. Line 287-294: This idea seems to be a little underdeveloped. Is there more you can say here about this, as this seems to be an important finding about these apps.

Our participants did not use this feature interactively, they merely used the community forums and blogs as a way of gathering information, hints, and tips, from other community members. Thus, there isn’t much more to develop from the data. However, as the reviewer remarks, this seems to be an important finding. This is why we felt it necessary to discuss this lack of social network use found in our sample further (Reviewer comment 12), in relation to research that highlights the importance of engaging social support for successful behaviour change in our discussion (Discussion, Lines 562– 586, p24). Amendments to text have been made in an attempt to strengthen this point. In addition, we have made further changes in text to clarify what form of social networking was possible via the websites, and that none of our participants were actively engaged. (Results Lines 346-524, page 15).
9. Line 302: wording is confusing, especially "close to guaranteed success." Perhaps rephrase. Also, is there a quote to support that statement that the intervention must feel effortless? I do not get that point from the quote selected.

We have rephrased the text to clarify and split the paragraph to be able to illustrate the two points with separate quotes. Associated illustrative quote for second point now provided. (Results, Lines 361 – 374, pages 14-15).

10. Line 343-352: This section seems to be a bit misplaced. Not sure how it fits with the translating motivation to action. It seems to be more focused on the initial motivation section or under the continued use section. Or, if you want to leave it here, consider including more of a transition to this idea as it seems to be an abrupt change from the previous paragraph.

We agree with the reviewer and have moved the first sentence to the initial motivation section. However, the quote presented in this section is in response to a question about what has facilitated their behaviour changes and therefore fits in this section. We have amended the text to improve transition. (Results, Lines 416 – 420, page 17)

11. Line 462: Another important limitation worth discussion may be the gender dimension (70% female) and that few men agreed to participate in the follow-up meeting.

We agree that this is a limitation of this study and have now clarified this in the discussion. We have also referred to other work highlighting the underrepresentation of male participants in weight management interventions to highlight avenues for further research. (Discussion, Lines 546-555, page 23). There were 2 men in our study who did not attend the follow-up meeting. Although we agree proportionally this is big difference we feel that this is primarily due to the small uptake of men in the first place. We did not conduct withdrawal surveys and therefore cannot note any reasons for gender difference here.
12. Line 480-485: As you are focusing on the dimension of social support in the discussion, this is another reason why it would be useful to flesh out the section on social support more fully in the results section to make sure that they support each other.

Please see response to reviewer comment 8.

13. Line 486: Here you mention young people, but what strikes me about your sample is that participants tend to be older and this emerges as being important to their use of these websites (especially in relation to LiveStrong). It would be useful to discuss this here a bit in contrast with the existing literature.

We have amended text to discuss the contrast between our middle-aged sample and Tang et al’s younger sample and relate this back to the topic of social support. (Discussion, Lines 573 – 586, page 24).

Melanie Jay, MD, MS (Reviewer 2):

Summary:

This is a qualitative study of 20 primary care patients who were encouraged to use one of three publically available weight loss websites. They were then interviewed four weeks after to explore factors that could impact uptake and continued use of these sites for weight management. Overall, this paper is well-written and addresses and very interesting and important topic when considering implementation of these services within primary care settings.

My main critique of this paper is that the authors are missing some standard features necessary to determine the study was designed and executed in a rigorous manner. Please use the consolidated checklist using the link below as a guide:

Consolidated checklist for reporting qualitative studies
For instance, several elements in the study design are not adequately reported including (See below for more detail)

1. Methodological orientation and theory

2. Whether you achieved data saturation

3. Whether or not you presented the data back to participants to validate findings (Participant checking)

4. The coding process

We have attempted to improve trustworthiness of the findings, see below about how

14. Abstract:
This is clearly written. You may want to include your sampling strategy and data analysis plan in the abstract itself.


15. Background:
Clear, concise, not major feedback. To what extent is lack of internet access a barrier to using health interventions?
We are not quite sure what the reviewer is referring to here. Is it that we should note how lack of access to internet could be a barrier to eHealth?

Prevalence of use of internet among adults in the UK now cited. We don’t think this is a substantial barrier. (Introduction, Lines 74-77, page 3)

Or is this comment referring to Line 65? “and limited access restricts their use in rural areas”. This sentence is referring to face-to-face programmes not eHealth. eHealth also encompasses telephone or other information, computer, or communications technology. Therefore lack of internet access would only be a barrier to use of internet-based interventions.

16. Methods:

Study Design and setting: Here it would be good to know what theoretical framework, if any, you used when designing the study.

The stages and themes identified emerged from the data and were not predetermined – as described in our data analysis section. We have added a sentence to the beginning paragraph of the methods section to further clarify this point (Methods, Lines 97-98, page 4).

17. Weight loss websites: Was evidence of effectiveness taken into consideration when choosing? You cited at least one study about Sparkpeople.com. Were there certain elements that you wanted (e.g. social support, tracking, etc)?

Evidence of effectiveness was not taken into consideration. The selection criteria used as mentioned (Methods, Lines 101-106, pages 4-5) are (1) freely available and (2) adhere to UK and US recommendations for healthy eating as checked by our co-author who is a practising GP.
18. Participants:

In the general practice database search, how many practices were included?

Only a single practice was included. Clarified in text (Methods, Lines 127-132, page 5).

19. What do you know about the demographics of the wider population you were drawing from?

Demographics of the Wyndham House Surgery patients now provided (Methods, Lines 127-132, page 5).

20. What areas of the UK were they part of? This information would allow us to determine more about the target population.

This is mentioned in the study design and setting (Methods, Line 95, page 4), and now clarified in text in Participants as well (Methods, Lines 130-133, page 5).

21. Materials and procedures:

Where were the interviews conducted?

Interviews were conducted at the General Practice, clarified in text. We have also added interviewer characteristics and detail on participant checking as per the consolidated checklist recommended by the reviewer (Methods, Lines 151-156, page 7).

22. Were the interviews in person or over the phone?

The interviews were conducted in person, now clarified in text (Methods, Line 151-154, page 7).
23. How long did they last on average?

The interviews lasted approximately 30-50 minutes (Methods, Line 155, page 7) We don’t feel it is appropriate to provide an average for such a small qualitative sample and feel the range (which spans only 20 minutes) is more meaningful in this case.

24. Data analysis:

What framework did you use? Thematic analysis is part of several frameworks such as grounded theory, content analysis, discourse analysis, etc.

We acknowledge that the frameworks mentioned by the reviewer encompass analysis that is thematic in the sense that they describe patterns across qualitative data. However, in this study we considered thematic analysis as a standalone method (Braun & Clarke, 2006). We did not constrain our analysis to theoretical commitments. We have clarified in text some of the decisions made relating to our analysis (i.e., we used inductive thematic analysis and took a realist approach in exploring patient experiences with internet-based weight loss programme, (Methods, Lines 160 – 165, page 7)

25. More detail about the coding process would be helpful—For instance, did the 2 coders code separately and then meet to resolve differences once the coding guide was set?

The sentence has now been amended to clarify that double coding took place and further amendments have been made to highlight subsequent meetings (Methods, Lines 172-177, page 7-8)
26. Did you explore differences between genders or age?

Given the small sample size we deemed more in depth exploration of gender and age inappropriate as we would not be confident about the robustness of any distinctions. We have acknowledged this in limitations in the discussion. However, no differences between responses by gender or age were noted. (Discussion, Lines 546 – 555, page 23).

27. Was data saturation reached?

Data saturation was achieved for the main themes in the analysis. In that the last 5 transcripts did not add substantially to the thematic framework. (Methods, Lines 165-166, page 7).

28. Results:

Overall, the results are interesting and fun to read. It was difficulty for me to tell which of the headers represented themes vs. categories/codes. Are each of the bolded elements a theme? There seem to be themes/subthemes that weave in throughout all the stages (e.g. as personalization, usefulness of information, effort, motivation). In reading it, some of the "themes" in bold seem more like categories—such as "tracking features" and "email reminders." They do not seem like themes on their own but rather categories that illustrate the themes and subthemes. It might be useful to highlight which themes are common across all stages and which are stage-specific.

We agree that some of the subthemes come across and for clarity have added a table to highlight some of the similar subthemes that weave across the stages (Table 2) and refer to this table in text.
29. How were the stages developed and outlined? Did it come from the data and participants
themselves or have others described these stages?

The key stages of the participant journey was developed through an iterative process involving
consideration of the study objectives and interviewees’ responses. See response to Reviewer 1
Comment 16.

We have added text in the first paragraph of the Results section to clarify that these stages are the
key overarching themes, and that these form the structure of the paper (Results, Lines 191-199,
page 8)

30. Line 277: "This again shows the strong influence of personal preferences...." You may want
to refer to the last time in the results that this came up—I did not remember reading it and had to
go back to look for it a couple pages back. If personal preferences are a theme that weaves
throughout all the stages, this should be made explicit.

We have added a sentence in the text to highlight this common subtheme and refer to a new table
which highlights similar subthemes that cut across various stages which are considered
facilitators and barriers to weight loss websites (Results, Lines 335-340, page 14)

31. Stage 4: theme of effort—this seems similar to "time and commitment" in stage 3. It seems
like there are some similar themes in each of the stages.

Yes we acknowledge that some themes do cut across (now added to text Results, Lines 197-199,
page 8). However, we felt that presenting the themes following the stages would be most useful
to intervention developers and providers as this structure has the ability to highlight where the
user may drop out of the intervention, for what reason, and how this could potentially be
prevented at the respective stages. In the interest of further highlighting this point, as requested
by the reviewer, similar subthemes across various stages which primarily refer to specific
facilitators and barriers we have added a table highlighting this and refer to this table at various points in text.

32. In older vs. younger adults in rural areas, did you find or explore whether internet access itself and presence of a computer or smartphone were barriers to use? Did any issues of computer literacy come up?

We did not explore whether internet access or presence of computer or smartphone was a barrier to use as internet access via a computer or other device was one of our inclusion criteria (Box 1, Inclusion criteria (4)). Smartphones were noted as a potential facilitator of use due to its potential of improving accessibility to the intervention even further (Results, Lines 457 – 459, page 19).

All of our participants had access to computer and internet and were competent users. A difference noted was how the computer and internet are used in the day-to-day lives, which is referred to in Accessibility and disposability. However, no difference based on age was noted (Results, Lines, 465-470, page 19).

33. Discussion:

Well-written.

One of the strengths highlighted in this paper is the target population of "older adults (although not all of your participants were older -in fact, I would describe them as middle-aged since nobody was older than 65, standard retirement age).".

Our target population was middle aged and older adults as compared to other eHealth literature like Tang et al. (2015) who investigated experiences of eHealth use in a community sample aged 19-33yrs. Amendments made in text to reflect this (Introduction, Line 85, page 4) and the term “older” has been replaced by “middle-aged” in the sentence referred to by the reviewer (Discussion, Lines 536-537, page 22).

34. Is there anything that prior literature tells us about weight management barriers and technological barriers (or lack thereof) in this population that are similar or different from your findings?
Part of the rationale for this study was that access to traditional weight management can be costly and is limited in rural communities (Introduction, Lines 63-66, page 1 & Lines 85 -86, page 2) prior literature suggests that eHealth could provide a way of overcoming this barrier to accessing weight management (e.g., Saperstein et al., 28). There is little existing qualitative literature about facilitators and barriers to web-based weight management in this population, therefore we refer to Tang et al., (2015) to compare with existing, available literature.

35. How representative to you think that this sample is to the greater rural primary care population in the UK?

We have added population characteristics to our participant section as per Reviewer comment 20, and highlighted that the findings of this study may not transfer well to the wider rural primary care population in the UK (Discussion, Lines 553 – 555, page 23).

36. Table S1: This is good information to have. It would be good to know what websites Tang et al. were evaluating.

Tang et al (2015) were evaluating SparkPeople, LiveStrong, Calorie Count, and My Fitness Pal. This is now added to Table S1 with links.

We thank you again for this opportunity to resubmit our manuscript and we look forward to your response.

Yours faithfully,

Samantha van Beurden