# PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

# ARTICLE DETAILS

| TITLE (PROVISIONAL) | Effectiveness of Internet-based Support Interventions on Breast<br>Cancer Patients : A Systematic Review and Narrative Synthesis |
|---------------------|--|
| AUTHORS             | Huang, Yanwei; Li, Qianqian; Zhou, Fang; Song, Jingyuan  |

# **VERSION 1 – REVIEW**

| REVIEWER        | Fernández-Lao, Carolina                         |
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|                 | University of Granada, Physiotherapy Department |
| REVIEW RETURNED | 30-Jan-2022                                     |

| reviewed studies set in their information. |
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| REVIEWER        | Fletcher, Chloe   |
|-----------------|---|
|                 | University of South Australia, Department of Rural Health |
| REVIEW RETURNED | 31-Jan-2022   |

| GENERAL COMMENTS | Thank you for the opportunity to review the manuscript, entitled<br>'Effectiveness of internet-based support interventions on breast<br>cancer patients: A systematic review and narrative synthesis'. This<br>study examined internet-based supportive interventions for breast<br>cancer patients, with the aim to identify the important elements of<br>these interventions and assess their effectiveness on reducing<br>patients' psychological distress, symptoms of anxiety and<br>depression, quality of life, self-efficacy, perceived social support,<br>and variables related to physical symptoms (symptom distress,<br>severity, prevalence). This research is valuable; however, I don't<br>feel that the manuscript in its current form achieves the objective<br>that it sets out to. I also feel that the authors would benefit from<br>considerable English language support in order to best<br>communicate the findings of their research.<br>I have some suggestions for the authors to consider in revising<br>their manuscript for publication. |
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|                  | Abstract:  |

| <ul> <li>You refer to "physical variables (distress, severity, and/or prevalence)" several times. It is initially unclear what this means, although I now understand it to mean prevalence of physical symptoms, severity of physical symptoms, and distress related to physical symptoms. I think it would be worth clarifying this or defining what you mean by this the first time you refer to it.</li> <li>"quality of life in patients with breast cancer patients" (Line 10-11, pg. 2) 'patients' is repeated</li> <li>It would be good to include directionality in your aim/objective, for example "To identify the elements of internet-based support interventions and assess their effectiveness at reducing psychological distress, symptoms, severity of physical symptoms, and distress related to physical symptoms, and improving quality of life, social support, and self-efficacy among breast cancer patients." Alternatively, you could say that your aim is to "identify the elements of interventions and examine their impact on psychological (distress, anxiety, depression, quality of life, self-efficacy), social (social support), and physical variables (symptoms) in patients with breast cancer."</li> </ul> |
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| Strengths and limitations of this study:<br>- Dot point 2 and 3 don't appear to be strengths of the study itself  |
| <ul> <li>Introduction:</li> <li>First two sentences of introduction are repetitive</li> <li>"largest high incidence" (Lines 40-41, pg. 3)</li> <li>Use of "symptomatic distress" (Line 50, pg. 3) when referring to pain, loss of limb function, lair loss, nausea and vomiting, and bone marrow suppression seems strange.</li> <li>Introduction would benefit from more discussion of the features of internet-based supportive interventions for women diagnosed with breast cancer - i.e., what do (or can) these interventions look like?</li> <li>e.g., written psychoeducation materials, self-guided psychotherapeutic modules, telehealth consultations, videos sharing experiences of other women with breast cancer, etc.</li> <li>Final paragraph of Introduction would benefit including directionality – what do you expect the impact of supportive interventions to be on each of these constructs? i.e., reduce psychological distress, improve quality of life, etc.</li> </ul>   |
| Methods:<br>- Data synthesis section: "The heterogeneity of the data in terms of<br>interventions" this sentence should be included in limitations.<br>- Assessment of risk of bias section: In the next section you talk<br>about studies being "graded", but there is no reference point.<br>Could you include the grading levels in the assessment of risk of<br>bias section?   |
| <ul> <li>Results:</li> <li>"transmission carriers" (Line 47, pg. 7) – might be better to use the word "modes"</li> <li>"personalized customization intervention" (Line 53, pg. 7) – might be better to use "tailored interventions"</li> <li>Lines 55-59, pg. 7: unclear what grading indicates, as mentioned for methods section</li> <li>Perhaps worth including the names of the intervention? This could be included in Table 3.</li> </ul>   |

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|   | <ul> <li>Line 21, pg. 8: "internet-based support intervention involves six topics" – re-word as "internet-based support interventions contained six elements"</li> <li>Would be useful to include references so reader is guided to</li> </ul>  |
|   | know which intervention contained which element<br>- Lines 45-47, pg. 8: repetitive – cognitive behavioural therapy   |
|   | written twice, mindfulness training = meditation training,<br>expressive writing = reflective diary   |
|   | - Lines 4-28, pg. 9: include citations so reader knows which studies/interventions you are referring to   |
|   | - Interventions and associated outcomes section: might be useful to include in each of outcome sections how each variable was measured.   |
|   | - Quality of life section: "Eighteen studies reported on Quality of life<br>with significant positive intervention effects reported by seventeen"<br>include citations  |
|   | - Line 51, pg. 9: "distress-related problems" – does the study indicate what "distress-related problems"? might be useful to include an example   |
|   | <ul> <li>Symptoms of anxiety and/or depression section: mentions quality of life, but already covered above – don't include in this section</li> <li>Symptoms of anxiety and/or depression section: sentence starting "In the other three RCTs, the patients reported"</li> </ul>   |
|   | confused as to why these RCTs haven't been included in the previous sentence - if I'm reading correctly, anxiety and depression improved in all six RCTs?   |
|   | - Line 14, pg. 10: what is a "relatively normal" degree of anxiety, depression, and psychological distress?   |
|   | - Physical variables/symptoms section: I'd be inclined to include<br>symptom distress with other psychological variables. Also, feeling<br>sad (Line 59, pg. 10) is not a physical variable   |
|   | <ul> <li>Social support section: what do you mean by "background"?</li> <li>(Line 17, pg. 11)</li> <li>p-values / effect sizes (as reported in original studies) are</li> </ul>   |
|   | - Self-efficacy section: what is a "full-process information  |
|   | management system"? What is an "expert support self-<br>management program"? What is the difference between a web-  |
|   | based and computer-based supportive intervention?   |
|   | Discussion:<br>- "due to the rapid growth of online intervention in this group in<br>recent years, this review focuses on studies published over the<br>past five years" – this is the first time you have mentioned this and   |
|   | <ul> <li>contradicts what is stated in Methods section that databases were searched from inception.</li> <li>Line 52, pg. 12: sentence starting "on the one hand, the reason may that the area what the area that the area what the section is a set of the section of the section is a set of the section of the</li></ul> |
|   | may be that the" - What study was this and what was their<br>explanation for why their intervention may not have significantly<br>impacted quality of life? Was this intervention different in some<br>way to the other interventions that reported a significant impact on   |
|   | <ul><li>quality of life? What elements of the intervention appear to be</li><li>most important for improving quality of life?</li><li>Discussion could be improved by more clearly drawing out what</li><li>is the most important aspect of an internet-based intervention</li></ul>  |
|   | targeted to breast cancer patients? Is it peer support?<br>Communication with health professionals?   |
|   | - Lines 45-57, pg. 13: sentences starting "although social support<br>and self-efficacy are important" are repetitive   |

| Table 1:<br>- Typo: "quality grade" sub-heading  |
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| <ul> <li>Table 3:</li> <li>Change "size (I/C)" sub-heading to "sample size (I/C)"</li> <li>Ventura, et al. delivery columns states "support system" – what does this mean?</li> <li>Change "intervention group" to "intervention characteristics"</li> <li>Under sub-heading "content elements", it would be more useful to list the elements in the table rather than use numbers</li> <li>Change "personalized customization" to "tailored"</li> </ul> |
| <ul> <li>- Under sub-heading "outcome indicators of interest" please list the outcome variables rather than use letters</li> <li>- Could also include whether the intervention was self-guided / involved automated reminders / involved interaction with clinicians</li> <li>- Egbring, et al. and Korkmaz, et al. both include three figures under "size (I/C)" – what does this mean?</li> </ul>  |

## **VERSION 1 – AUTHOR RESPONSE**

Reviewer #1:

Minor comments:

Comment 1: Section Discussion: Page 14, line 21. Please correct "physiical symptoms" Response 1: Thank you for your comment. We are sorry about our mistakes and the "physiical symptoms" has been corrected to "physical symptoms". (Page 51, Line52, this refers to the page in BMJ Open Proof.)

Comment 2: In discussion section, please add a little paragraph explaining the importance or not of adding face-to-face contact or control if reviewed studies set in their information. Response 2: Thank you very much for your advice. Based on your advice, we have added a little paragraph explaining the importance or not of adding face-to-face contact or control if reviewed studies set in their information. (Page 50, Lines 41-49)

Reviewer #2:

Major comments:

Abstract:

Comment 1: You refer to "physical variables (distress, severity, and/or prevalence)" several times. It is initially unclear what this means, although I now understand it to mean prevalence of physical symptoms, severity of physical symptoms, and distress related to physical symptoms. I think it would be worth clarifying this or defining what you mean by this the first time you refer to it.

Response 1: Thank you for your suggestion. The English language of the phrase is not clear and unambiguous. Based on your suggestion and comment 25, we have clarified "physical variables" as "physical

variables refer to the prevalence, severity and distress from physical symptoms" in "Introduction" when it first appeared. (Page 42, Lines 51-52)

Comment 2: -"...quality of life in patients with breast cancer patients..." (Line 10-11, pg. 2) 'patients' is repeated.

Response 2: We are sorry about our mistakes. The repeated words in the manuscript have been deleted. (Page 38, Lines 10-11)

Comment 3: It would be good to include directionality in your aim/objective, for example "To identify the elements of internet-based support interventions and assess their effectiveness at reducing

psychological distress, symptoms of anxiety and depression, prevalence of physical symptoms, severity of physical symptoms, and distress related to physical symptoms, and improving quality of life, social support, and self-efficacy among breast cancer patients." Alternatively, you could say that your aim is to "identify the elements of internet-based support interventions and examine their impact on psychological (distress, anxiety, depression, quality of life, self-efficacy), social (social support), and physical variables (symptom prevalence, symptom severity, distress related to symptoms) in patients with breast cancer."

Response 3: Thank you very much for your comment. We are very sorry for our incongruous writing. Based on your comment, we have revised the description of the aim/objective as "To identify the elements of Internet-based support interventions and assess their effectiveness at reducing psychological distress, anxiety and/or depression, physical variables (prevalence, severity and distress from physical symptoms), and improving quality of life, social support, and self-efficacy among breast cancer patients". (Page 38, Lines 12-18)

Strengths and limitations of this study:

Comment 4: -Dot point 2 and 3 don't appear to be strengths of the study itself Response 4: Thank you very much for your suggestion. Based on your suggestion, we have deleted point 2 and 3. (Page 40)

#### Introduction:

Comment 5: First two sentences of introduction are repetitive.

Response 5: Thank you for your suggestion. Based on your comment, we have deleted the sentence of "Breast cancer (BC) ranks first in the incidence of female malignant tumors." because of semantic repetition. (Page 40, Lines 42-43)

Comment 6: "largest high incidence" (Lines 40-41, pg. 3) Response 6: We apologize for the mistakes. The "largest high incidence" has been corrected to "highest incidence". (Page 40, Line 48)

Comment 7: Use of "symptomatic distress" (Line 50, pg. 3) when referring to pain, loss of limb function, lair loss, nausea and vomiting, and bone marrow suppression seems strange. Response 7: Thank you for your comment. The word "treatment toxicities" is more suitable to be used here, so the "symptomatic distress" has been corrected to "treatment toxicities". (Page 40, Line 60)

Comment 8: Introduction would benefit from more discussion of the features of internet-based supportive interventions for women diagnosed with breast cancer - i.e., what do (or can) these interventions look like? e.g., written psychoeducation materials, self-guided psychotherapeutic modules, telehealth consultations, videos sharing experiences of other women with breast cancer, etc.

Response 8: Thank you for your excellent advice. Based on your advice, a little paragraph on the features of an Internet-based support intervention for women diagnosed with breast cancer has been added to the introduction. (Page 42, Lines 10-41)

Comment 9: Final paragraph of Introduction would benefit including directionality – what do you expect the impact of supportive interventions to be on each of these constructs? i.e., reduce psychological distress, improve quality of life, etc.

Response 9: Thank you for your excellent point. Based on your comment, final paragraph of Introduction has been revised. There we clarify points out directionality "This systematic review aims to identify the elements of Internet-based support interventions and assess their effectiveness at reducing psychological distress, symptoms of anxiety and depression, physical variables, and improving quality of life, social support, and self-efficacy among breast cancer patients.". (Page 43 Lines 10-16)

Methods:

Comment 10: Data synthesis section: "The heterogeneity of the data in terms of interventions..." this sentence should be included in limitations.

Response 10: Thank you for your comment. Based on your comment, we have deleted this sentence. (Page 44, Line 37)

Comment 11: Assessment of risk of bias section: In the next section you talk about studies being "graded", but there is no reference point. Could you include the grading levels in the assessment of risk of bias section?

Response 11: Thank you for excellent advice. The grading level in the assessment of risk of bias section includes "A, B, C" three grades, which are commonly used by Chinese researchers to evaluate the quality of RCT according to "Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0". However, such a method of quality assessment is rarely used in international journals. Therefore, considering acceptance from an international perspective, we have deleted the grading level for this section.

References:

1. Shi Zhiyi, Gu Ping, Si Manli, et al. Risk of type 2 diabetes in pregnant women with gestational diabetes during pregnancy under lifestyle intervention: a systematic evaluation. CHINESE NURSING RESEARCH 2018;32(09):1415-22.

2. Tian Yutong ZY, Wang Ronghua, Zijuan, Du Can, Li Hongjie, Zhao Jing, Li Sisi, Liu Zhen. Effect of Respite Care on the Disabled Elderly and Elderly with Dementia and Their Caregivers: A Systematic Review. Nursing Journal of Chinese People's Liberation Army 2019;36(12):41 44+48.

3. Sun Yuxiang, Jia Xueli, Liao Shufan, et al. Effect of Swallowing Rehabilitation on Swallowing Function and Quality of Life for Head and Neck Cancer Pa-tients: A Meta-analysis. Chinese Journal of Rehabilitation Theory and Practice 2019;25(07):751-60.

4. Li Miaomiao, Zhong Qingling, Yu Sisi, et al. Meta-analysis of effects of combing resistance exercises with aerobic exercises on promoting rehabilitation of patients with coronary heart disease. Chinese Nursing Management 2018;18(08):1043-50.

5. Gong Chen, Dai Qi, Shi Runze, et al. Systematic review on managing barriers and intervention of medication adherence in heart transplant recipients. Chinese Journal of Nursing 2020;55(04):535-41.)

Results:

Comment 12: "transmission carriers" (Line 47, pg. 7) – might be better to use the word "modes" Response 12: Thank you for your advice. The "transmission carriers" has been replaced by "delivery modes". (Page 45, Line 45)

Comment 13: "personalized customization intervention" (Line 53, pg. 7) – might be better to use "tailored interventions"

Response 13: Thank you very much for your suggestion. Based on your suggestion, the "personalized customization intervention" has been replaced by "tailored interventions". (Page 45, Lines 50-52)

Comment 14: Lines 55-59, pg. 7: unclear what grading indicates, as mentioned for methods section Response 14: Thank you for excellent advice. Based on our response 11, we have deleted the grading levels.

Comment 15: Perhaps worth including the names of the intervention? This could be included in Table 3.

Response 15: Thank you very much for your suggestion. The names of the intervention have been included in Table 3 and Table 4, and all citations of tables are in ascending order.(Page 19-Page

30, this refers to the page in Main Document). Base on this comment and the other comments below and comments of reviewer#1, we have added "Intervention

Description (Including "Name" and "Structure"), Intervention characteristics (Including "Delivery" and "Self-guided" and "Automated reminders" and "Face-to-face contact"), Measurements,

Results (Including p-values/ effect sizes). In this case, Table 3 is too huge, so we separate the contents as Table 3 and Table 4. Table 3 refers to "Internet-based Support Interventions RCTs: study characteristics and results". Table 4 refers to "Internet-based Support Interventions Quasi-experiment studies: study characteristics and results".

Comment 16: Line 21, pg. 8: "internet-based support intervention involves six topics" – re-word as "internet-based support interventions contained six elements"

Response 16: Thank you for your advice. Based on your advice, we have revised the sentence. (Page 46, Line 21).

Comment 17: Would be useful to include references so reader is guided to know which intervention contained which element.

Response 17: Thank you for your excellent comment. We have marked references in the paragraph. (Page 46-47)

Comment 18: Lines 45-47, pg. 8: repetitive – cognitive behavioral therapy written twice, mindfulness training = meditation training, expressive writing = reflective diary Response 18: Thank you for this comment. We are sorry about our mistakes and the repeated phrases have been deleted (Page 46, Lines 45-49).

Comment 19: Interventions and associated outcomes section: might be useful to include in each of outcome sections how each variable was measured.

Response 19: Thank you for your excellent comment. The measurement scales have been included in each of outcome sections in Table 3 and Table 4 and "Interventions and associated outcomes section".(Page 47, Line 39)

Comment 20: Quality of life section: "Eighteen studies reported on Quality of life with significant positive intervention effects reported by seventeen" include citations. Response 20: Thank you for your suggestion. We are sorry about our mistakes and references has been marked in the sentence. (Page 47, Line 44-46)

Comment 21: - Line 51, pg. 9: "distress-related problems" – does the study indicate what "distress-related problems"? might be useful to include an example.

Response 21: Thank you for your thoughtful advice. In the study, distress was measured using the Dutch DT/PL. On the 47-item PL, cancer survivors can indicate whether or not (yes/no) they experienced practical, family/social, emotional, religious/spiritual, and physical problems. The example words have been added. (Page 47, Line 55)

Comment 22: Symptoms of anxiety and/or depression section: mentions quality of life, but already covered above – don't include in this section.

Response 22: Thank you for your excellent advice. Based on your advice, we have deleted "quality of life". (Page 48, Lines 6-12)

Comment 23: Symptoms of anxiety and/or depression section: sentence starting "In the other three RCTs, the patients reported..." confused as to why these RCTs haven't been included in the previous sentence - if I'm reading correctly, anxiety and depression improved in all six RCTs? Response 23: Thank you for your advice. To make the meaning clearer, we combined these RCT studies and described them together. (Page 48, Lines 4-9).

Comment 24: Line 14, pg. 10: what is a "relatively normal" degree of anxiety, depression, and psychological distress?

Response 24: We apologize for the confusing words. The "the relatively normal degree of anxiety, depression, and psychological distress" has been corrected to "the average level of anxiety and depression among participants at baseline was within the normal range for non-clinical samples", suggesting any disease- related anxiety and depression that patients may have experienced had largely dissipated by the time women completed the baseline survey. (Page 48, Lines 18-20)

Comment 25: Physical variables/symptoms section: I'd be inclined to include symptom distress with other psychological variables. Also, feeling sad (Line 59, pg. 10) is not a physical variable. Response 25: Thank you very much for your suggestion. Because in this systematic review has analyzed the psychological variables of interest, such as anxiety, depression, psychological distress, so in this paragraph will not include psychological variables in physiological variables or symptoms. Based on your recommendation, we have corrected "physical variables/symptoms" to "physical variables" and deleted "feel sad". (Page 48, Line 43; Page 49, Line 14)

Comment 26: Social support section: what do you mean by "background"? (Line 17, pg. 11) Response 26: Thank you for your comment. We have replaced "background" by "sociodemographic background" to make it more clearly understood. (Page 49, Line 29)

Comment 27: p-values / effect sizes (as reported in original studies) are missing throughout Response 27: Thank you very much for your advice. Based on your advice, p-values / effect sizes have been included in Table 3 and Table 4.(Page 19-30, Page 58-77)

Comment 28: Self-efficacy section: what is a "full-process information management system"? What is an "expert support self-management program"? What is the difference between a web-based and computer-based supportive intervention?

Response 28: Thank you for this comment. The web-based expert support self-management program (WEST) is the name of this intervention study. WEST is based on the self-efficacy theory and is a self-health management program consisting of a web-based program, DIETEX (which entails keeping a health diary, identifying a lifestyle type, inputting personal health information), and expert support. (Reference: Kim HJ, Kim HS.Effects of a web-based expert support self-management program (WEST) for women with breast cancer: A randomized controlled trial. *J Telemed Telecare* 2020; 26(7-8):433-42.doi: 10.1177/1357633x19850386 [published Online First: 2019/05/18]) The full-process information management system is a follow-up system based on computer and phone, which can provide information support for patients in the five-year period after diagnosis of breast cancer or the period from diagnosis to death. (Reference: Du Ping, Zhou Zheng, Lu Yao, et al. Application and effectiveness evaluation of clinical decision support in breast cancer follow-up management. *Chinese Nursing Management* 2021;21(01):110-15.)

Computer-based supportive interventions are based on e-Health supportive systems. Since they are provided over the Internet, these systems allow a self-paced access when and where the individual needs it. (Reference:Ventura F, Sawatzky R, Öhlén J, et al. Challenges of evaluating a computer-based educational programme for women diagnosed with early-stage breast cancer: a randomised controlled trial. *European journal ofancer care* 2017;26(5):e12534.)

## Discussion:

Comment 29: "due to the rapid growth of online intervention in this group in recent years, this review focuses on studies published over the past five years" – this is the first time you have mentioned this and contradicts what is stated in Methods section that databases were searched from inception.

Response 29: We apologize for the mistakes and we have made corrections in Methods according to the Reviewer's good instructions. (Page 43, Lines 34-35)

Comment 30: Line 52, pg. 12: sentence starting "on the one hand, the reason may be that the…" -What study was this and what was their explanation for why their intervention may not have significantly impacted quality of life? Was this intervention different in some way to the other interventions that reported a significant impact on quality of life? What elements of the intervention appear to be most important for improving quality of life? Response 30: Thank you for this excellent comment. The study was a web-based tailored psychoeducational program. Patients were not guided throughout all the problem solving therapy phases and may have been exposed too little to the content of the program to solicit any observable effect, which were their explanation for why their intervention may not have significantly impacted quality of life. (Page 51, Lines 17-23) For the comment "Was this intervention different in some way to the other interventions that reported a significant impact on quality of life?", we have discussed it in the sentence of "the reason may be that the intervention content of this study is unitary, and only psychological and information intervention is carried out". (Page 51, Line 24) For the comment "What elements of the intervention appear to be most important for improving quality of life?", we have answered it in Response 31.

Comment 31: Discussion could be improved by more clearly drawing out what is the most important aspect of an internet-based intervention targeted to breast cancer patients? Is it peer support? Communication with health professionals?

Response 31: Thank you for your thoughtful advice. Based on your advice, the paragraph of 'Discussion' has been revised as "Breast cancer patients believe peer support or interacting with professionals is more useful than simply providing care information or psychological support. This suggests that multi-element Internet-based support interventions are favored by breast cancer patients." (Page 50, Lines 15-20)

Comment 32: Lines 45-57, pg. 13: sentences starting "although social support and self-efficacy are important..." are repetitive.

Response 32: Thank you for your comment. We have deleted the repetitive sentence. (Page 52, Line17-23)

Table 1:

Comment 33:- Typo: "quality grade" sub-heading

Response 33: We apologize for the mistakes. Based on our response 11, we have deleted the grading levels.

Table 3:

Comment 34:- Change "size (I/C)" sub-heading to "sample size (I/C)". Response 34: Thank you for your comment. Based on your advice, we have changed "size (I/C)" subheading to "sample size (I/C)".

Comment 35:- Ventura, et al. delivery columns states "support system" – what does this mean? Response 35: Thank you for this comment. The "support system" means "computer-based supportive educational programme" that has been used for this intervention study.

Comment 36:- Change "intervention group" to "intervention characteristics" Response 36: Thank you for your advice. Based on your advice, we have changed "intervention group" to "intervention characteristics" Comment 37:- Under sub-heading "content elements", it would be more useful to list the elements in the table rather than use numbers

Response 37: Thank you for your excellent point. Based on your advice, we have listed the elements Under sub-heading "content elements".

Comment 38:- - Change "personalized customization" to "tailored" Response 38: Thank you for your thoughtful advice. Based on your advice, we have changed "personalized customization" to "tailored".

Comment 39:- Under sub-heading "outcome indicators of interest" please list the outcome variables rather than use letters

Response 39: Thank you for your thoughtful advice. Based on your advice, we have listed the outcome variables under sub-heading "outcome indicators of interest".

Comment 40: - Could also include whether the intervention was self-guided / involved automated reminders / involved interaction with clinicians

Response 40: Thank you for your thoughtful advice. Based on your advice, we have included whether the intervention was self-guided / involved automated reminders. While, whether the intervention was involved interaction with clinicians is repetitive to "Communication with health professionals via mail/web" under sub-heading "content elements". So, we have not included the "involved interaction with clinicians". So, we have changed "Communication with health professionals via mail/web" to "Interaction with health care professionals" in the table 3.

Comment 41:- - Egbring, et al. and Korkmaz, et al. both include three figures under "size (I/C)" – what does this mean?

Response 41: Thank you for your thoughtful advice. Egbring, et al. include three figures under "size (I/C)" means that an unsupervised group that used a mobile app to record data (n=46), or a supervised group that used the app and reviewed data with a physician (n=49), or a control group(n=44). Korkmaz, et al. include three figures under "size (I/C)" means that Web-based Education Group (n=24), Brochure-Assisted Education Group (n=24), Control Group (n=24).

Special thanks to you for your good comments.

We tried our best to improve the manuscript and made some changes in the manuscript. In addition, we have also made further amendments to the draft as follows:

We have revised point 1 in "Strengths and limitations of this study" section, since it will be more comprehensive and appropriate to describe the strengths of this systematic review. (Page 40) We have deleted the sentences in Introduction section (Page 41, Lines 29-52) and the sentences (Page 47, Lines 21-29) in "Content elements of Internet-based support Intervention Internet-based support" section because of the semantic repetition.

We have corrected some spelling mistakes which are marked in red in revised paper. These changes will not influence the content and framework of the paper. We appreciate for Editor Shona Reeves and Reviewers' warm work earnestly, and hope that the correction will meet with approval. Once again, thank you very much for your comments and suggestions!

#### **VERSION 2 – REVIEW**

| REVIEWER        | Fernández-Lao, Carolina<br>University of Granada, Physiotherapy Department |
|-----------------|--|
| REVIEW RETURNED | 13-Mar-2022  |

| GENERAL COMMENTS | The manuscript is ready to be published since the authors have addressed all the requierements made by the editor and the |
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|                  | reviewers.  |