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)	Online peer support interventions for chronic conditions: A scoping review protocol
AUTHORS	Munce, Sarah; Shepherd, John; Perrier, Laure; Allin, Sonya; Sweet, Shane; Tomasone, Jennifer; Nelson, Michelle; Guilcher, Sara; Hossain, Saima; Jaglal, Susan

VERSION 1 - REVIEW

REVIEWER	Wytske Geense
	Radboudumc, The Netherlands
REVIEW RETURNED	12-Jun-2017

GENERAL COMMENTS	 1. The research question is: what is known from the existing literature about the key characteristics of one-on-one online peer support interventions for adults with chronic conditions. For me it is not really clear what is meant by 'key characteristics of peer support interventions'. Please make this more specific,
	because I think it is too broad: do the authors mean for example the underlying theories? Types of interventions? Delivery settings? Intervention length? Participants? Feasibility? Working mechanisms? Context? Behavior change techniques? Implementation? Effectiveness? By making it specific it will also be more clear how the authors are going to use the (qualitative/ quantitative) data and what their outcomes will be.
	• What is the definition of one-one-one peer support? Do the authors include for example online forums as well? Please explain why you choose for the one-on-one online peer support intervention and not for the online peer support groups for example.
	3.The authors aim to include all study designs. I am afraid they will find many many studies. Suggestion: select the EPOC study designs for example.
	 4. The search strategy and study selection are clearly described. However, the description of the syntheses is very short. Please describe what kind of data are you going to analyze with the thematic analysis? How are you going to do this? Using Atlas.ti?
	• A description of the primary and secondary outcomes and outcome measures is lacking, including the qualitative outcomes. Please specify what the outcomes are you are searching for.
	8.

 References introduction, page 3, line 41 (A promising intervention) are missing. References introduction page 4, line 27 (, there is an increasing need) are missing, while this is the rational of the study.
12. The expected limitations are not described.
Other comments: • I recommend to register the study in PROSPERO. • How are you/and are you going to use the three types of support in the review (as explained in the introduction)? • Please explain why patients with Alzheimer disease and dementia are included, while patients with mental illnesses are excluded.
I was wondering, why do the authors use Pedro, a database for physiotherapy, for the search for online peer support interventions?

REVIEWER	Edwin Fisher University of North Carolina - Chapel Hill USA
	I am actively involved in research on peer support and in promoting peer support and related interventions through our program, "Peers for Progress" (peersforprogress.org). thus I have strong feelings and an interest in advancing the approaches we have promoted through Peers for Progress.
REVIEW RETURNED	25-Jun-2017

GENERAL COMMENTS	Page 5: The Paragraph running from line 15 to line 37, concerning the "seven predominant types of peer support models" treats these in a somewhat concrete manner. A number of individuals have identified varied models and numbers of models for peer support. These are not written in stone but just ways of organizing discussion of the field. Treating them as if they are fully defined and highly distinct may lead to overlooking important commonalities. See: Eng et al. (1997). Lay health advisor intervention strategies: a continuum from natural helping to paraprofessional helping. Health Educ Behav, 24(4), 413-417.
	On p. 6, the reference in lines 50 to 51 to "community health workers who are not peers" again reflects the concreteness, noted above, regarding types of peer support. Frequently, individuals who are labeled as "community health workers" are, in many respects, peers of those they serve. The distinction needs to be justified relative to the objectives of the review rather than simply asserted.
	Limitation of the review to "one-on-one, on-line peer support interventions" (p. 5, lines 33-35) may be too narrow, relative to what the authors hope to achieve. It seems that the majority of online resources provide mutual support more than individual, one-on-one support. The authors might consider why they are making this limitation. The manuscript does not seem to justify it.
	Page 5: It would be helpful for the manuscript to explain the "methodological frameworks" referred to in lines 41-42

Page 6: In lines 20 through 30, it is unclear why a " a systematic review on the effectiveness of quality improvement strategies for coordination of care to reduce use of healthcare services" would provide the basis for excluding mental illness from the present review. The cited review may provide such a basis, but that needs to be explained.
On page 8, lines 5 through seven, it is not clear how a pilot test on 1% of the articles will provide sufficient data for estimate of inter- rater reliability. Several lines later, it is not clear how discrepancies will be identified for resolution with a third reviewer if all articles are not to be initially coded by both of two reviewers.
The text bridging pages eight and nine indicates that the review will "determine the key characteristics of one-on-one, on-line peer support interventions for adults with chronic conditions." It is not clear how this will be achieved by surveying the published, research literature since many programs in these areas are available but not published in these arenas.

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1 Wytske Geense Radboudumc, The Netherlands Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below

1. The research question is: what is known from the existing literature about the key characteristics of one-on-one online peer support interventions for adults with chronic conditions.

• For me it is not really clear what is meant by 'key characteristics of peer support interventions'. Please make this more specific, because I think it is too broad: do the authors mean for example the underlying theories? Types of interventions? Delivery settings? Intervention length? Participants? Feasibility? Working mechanisms? Context? Behavior change techniques? Implementation? Effectiveness? By making it specific it will also be more clear how the authors are going to use the (qualitative/ quantitative) data and what their outcomes will be. We have added the following to our research question: What is known from the existing literature about the key characteristics (e.g., duration, frequency, delivery setting, type of intervention, type of support provided - emotional, informational and appraisal, underlying theories for the intervention/behaviour change techniques/working mechanisms, context etc.) of on-line peer support interventions for adults with chronic conditions?

We have also added these items to the items that we abstract data on.

4, 7

What is the definition of one-one-one peer support? Do the authors include for example online forums as well? Please explain why you choose for the one-on-one online peer support intervention and not for the online peer support groups for example. Given the comments of both Reviewers, we have since removed this criterion of one-on-one peer support and now will include all on-line, peer support interventions. 4, throughout the manuscript

3. The authors aim to include all study designs.

I am afraid they will find many many studies. Suggestion: select the EPOC study designs for example. Thank you for this suggestion. However, by limiting the review to the EPOC study designs, we feel

that we may miss important contextual factors/working mechanisms (as pointed out above) that may be included in qualitative studies. Furthermore, we have limited our search to the last five years to promote feasibility. The results from our Medline search (although only one database) indicate that the outlined search strategy is feasible. Unchanged

4. The search strategy and study selection are clearly described.

• However, the description of the syntheses is very short. Please describe what kind of data are you going to analyze with the thematic analysis? How are you going to do this? Using Atlas.ti? We have since added the following details to this section: "The data from this scoping review will be summarized quantitatively using numerical counts and qualitatively using thematic analysis and will be grouped by chronic condition type (e.g., what kind of underlying theories are found in on-line peer support interventions in cancer?) This data will be coded/analyzed manually. The results of this review will determine the key characteristics (e.g., duration, frequency, delivery setting, type of intervention, type of support provided - emotional, informational and appraisal, underlying theories for the intervention/behaviour change techniques/working mechanisms, context etc.) of on-line peer support interventions for adults with chronic conditions. 8

A description of the primary and secondary outcomes and outcome measures is lacking, including the qualitative outcomes. Please specify what the outcomes are you are searching for. Thank you for this suggestion. We have made the following addition: "Outcomes reported may include, but are not limited to, self-efficacy, depression, and quality of life. In fact, we aim to identify the variety of reported impacts". 7-8

8.

• References introduction, page 3, line 41 (A promising intervention..) are missing.

• References introduction page 4, line 27 (...., there is an increasing need).. are missing, while this is the rational of the study.

We have since added references to these sentences. 3,4

12. The expected limitations are not described. To address this comment, we have added the following sentences, "There will be expected limitations to this review. For example, this review will not include (primary) mental health conditions and a variety of other disabilities. Furthermore, this review will be limited to English language studies only. Lastly, our review will be limited to the published research literature. We acknowledge that we will be excluding reports on available, relevant programs but not published in these arenas. However, the currently proposed scoping review has a number of strengths..." 9

Other comments:

• I recommend to register the study in PROSPERO.

PROSPERO is only for the "international prospective register of systematic reviews" https://www.crd.york.ac.uk/PROSPERO/

Thus, we have not registered our scoping review with PROSPERO. Unchanged

• How are you/and are you going to use the three types of support in the review (as explained in the introduction)?

We appreciate your attention to detail. We have since added this characteristic – type of support – as one the key characteristics that we will abstract data on. 4, 7, 8

• Please explain why patients with Alzheimer disease and dementia are included, while patients with mental illnesses are excluded. We have expanded on the explanation for excluding mental health conditions:

Mental illness was excluded from the list given that peer support interventions for this group may have particularly unique features not generalizable to other chronic disease patient populations. "Similarly, in a systematic review on the effectiveness of quality improvement strategies (i.e., including patient education and promotion of self-management) for coordination of care to reduce use of health care services, Tricco and colleagues19 determined that these quality improvement strategies reduced hospital admissions among patients with chronic conditions other than mental illness, indicating that different approaches are needed for mental health". 5

• I was wondering, why do the authors use Pedro, a database for physiotherapy, for the search for

online peer support interventions?

We have founded that a number of peer-based telephone interventions involve the promotion of physical activity; thus, we thought that we would include Pedro in order to capture these types of studies. Unchanged

Reviewer: 2 Edwin Fisher University of North Carolina - Chapel Hill, USA Please state any competing interests or state 'None declared': I am actively involved in research on peer support and in promoting peer support and related interventions through our program, "Peers for Progress" (peersforprogress.org). thus I have strong feelings and an interest in advancing the approaches we have promoted through Peers for Progress.

Please leave your comments for the authors below

Page 5: The Paragraph running from line 15 to line 37, concerning the "seven predominant types of peer support models" treats these in a somewhat concrete manner. A number of individuals have identified varied models and numbers of models for peer support. These are not written in stone but just ways of organizing discussion of the field. Treating them as if they are fully defined and highly distinct may lead to overlooking important commonalities. See: Eng et al. (1997). Lay health advisor intervention strategies: a continuum from natural helping to paraprofessional helping. Health Educ Behav, 24(4), 413-417.

We appreciate this comment and have since added the following sentence and suggested reference: "At the same time, it is also important to recognize that there are varied models of peer support and that treating them as if they are fully defined and highly distinct may lead to overlooking important commonalities.13 " 4

On p. 6, the reference in lines 50 to 51 to "community health workers who are not peers" again reflects the concreteness, noted above, regarding types of peer support. Frequently, individuals who are labeled as "community health workers" are, in many respects, peers of those they serve. The distinction needs to be justified relative to the objectives of the review rather than simply asserted. We appreciate Reviewer 2's attention to detail. We have clarified this distinction and have added, "(i.e., health care professionals),..." 6

Limitation of the review to "one-on-one, on-line peer support interventions" (p. 5, lines 33-35) may be too narrow, relative to what the authors hope to achieve. It seems that the majority of online resources provide mutual support more than individual, one-on-one support. The authors might consider why they are making this limitation. The manuscript does not seem to justify it. We appreciate and thank Reviewer 2 for this comment. As noted above, we have since removed this criterion from our proposed review. 4, throughout the manuscript

Page 5: It would be helpful for the manuscript to explain the "methodological frameworks" referred to in lines 41-42 We have since added the following sentences: "These frameworks outline six different stages involved in a scoping review: (1) identifying the research question; (2) identifying relevant studies; (3) selecting studies; (4) charting the data; (5) collating, summarising and reporting the results; and, (6) consulting with relevant stakeholders.15,16" 4-5

Page 6: In lines 20 through 30, it is unclear why a " a systematic review on the effectiveness of quality improvement strategies for coordination of care to reduce use of healthcare services" would provide the basis for excluding mental illness from the present review. The cited review may provide such a basis, but that needs to be explained.

This point was covered in our response to Reviewer 1. This explanation is repeated here: Mental illness was excluded from the list given that peer support interventions for this group may have particularly unique features not generalizable to other chronic disease patient populations. "Similarly, in a systematic review on the effectiveness of quality improvement strategies (i.e., including patient education and promotion of self-management) for coordination of care to reduce use of health care services, Tricco and colleagues19 determined that these quality improvement strategies reduced hospital admissions among patients with chronic conditions other than mental illness, indicating that different approaches are needed for mental health". 5

On page 8, lines 5 through seven, it is not clear how a pilot test on 1% of the articles will provide sufficient data for estimate of inter-rater reliability. Several lines later, it is not clear how discrepancies will be identified for resolution with a third reviewer if all articles are not to be initially coded by both of two reviewers.

We have previously used this proportion of articles in a previous scoping review (Pitzul et al., 2017). We anticipate approximately 7000-10000 articles for level 1 screening. We believe that a pilot test of between 70 and 100 articles would be sufficient and is in keeping with our previous experience. Furthermore, it should be underscored that both level 1 and 2 screening as well as abstraction will be performed in duplicate. Thus, a third reviewer can be consulted in the event that discrepancies cannot be resolved. Unchanged

The text bridging pages eight and nine indicates that the review will "determine the key characteristics... of one-on-one, on-line peer support interventions for adults with chronic conditions." It is not clear how this will be achieved by surveying the published, research literature since many programs in these areas are available but not published in these areas. We appreciate this comment and have added the following as a limitation: There will be expected limitations to this review. For example, this review will not include (primary) mental health conditions and a variety of other disabilities. Furthermore, this review will be limited to English language studies only. Lastly, our review will be limited to the published research literature. We acknowledge that we will be excluding reports on available, relevant programs but not published in these arenas. However, the currently proposed scoping review has a number of strengths..." 9

VERSION 2 – REVIEW

REVIEWER	Edwin Fisher Peers for Progress and Department of Health Behavior, Gilllings School of Global Public Health, University of North Carlina at Chapel Hill, USA

	As Global Director of Peers for Progress, an organization dedicated to promoting research on and quality improvement of peer support interventions worldwide, I have a strong interest in peer support research and programs.
REVIEW RETURNED	13-Aug-2017

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GENERAL COMMENTS	This paper describes a planned scoping review of online peer support interventions for chronic conditions. There is ample reason for such a review: the growing evidence for and attention given peer support approaches, and the growing need for effective approaches to encouraging ongoing chronic disease management and quality of life.
	Several aspects of the planned review seem questionable. First is the definition of peer support. On p. 4, lines 22-30, the paper notes the variety of peer support approaches and the importance of not "overlooking important commonalities." Yes, in the Methods do not define how peer support will be defined, what will be the inclusion criteria vis a vis peer support. Exclusion criteria are noted (p. 6, lines 20-25) but, with the exception of "We will limit our review to peer support interventions delivered through on-line formats," how peer support will be operationalized is not described. Additionally, it should be noted that the Abstract says the focus will be on "one-on- one, on-line" interventions, apparently omitting group based on-line applications, an unnecessary truncation.
	The second questionable exclusion is of interventions addressing mental illness. In fact, one of the most exciting features of the landscape of research on peer support is the success of applications to mental illness. Although, as the authors note, these may "have particularly unique features not generalizable to other chronic disease patient populations" (p. 5, lines 41-44), nevertheless, reasonably straightforward problem solving approaches are emerging as quite effective when administered by nonprofessionals trained in their application, including in low-resource settings [e.g., Chowdhary et al. (2016). The Healthy Activity Program lay counsellor delivered treatment for severe depression in India: systematic development and randomised evaluation. Br J Psychiatry, 208(4), 381-388; Rahman et al. (2016). Effect of a Multicomponent Behavioral Intervention in Adults Impaired by Psychological Distress in a Conflict-Affected Area of Pakistan: A Randomized Clinical Trial. JAMA, 316(24), 2609-2617; Rahman et al. (2008). Cognitive behaviour therapy-based intervention by community health workers for mothers with depression and their infants in rural Pakistan: a cluster-randomised controlled trial. Lancet, 372(9642), 902-909.]. The possibility of implementing these on-line would be very exciting to note.
	Beyond these questions about the plan for the review, the current manuscript seems to add little to our understanding beyond description of standard methods for conducting reviews. There is little discussion other than the points noted above about how the nature of peer support or the nature of chronic disease management is raising important issues for conducting a review or about how, reciprocally, the approach to those challenges illuminates important issues for peer support, chronic disease management, or scoping reviews. Thus, other than informing that the review will be conducted and a description of sound but fairly standard review methodology, the paper seems to provide little new information. Perhaps the

	authors might revise the paper to provide more of an emphasis on critical or emerging perspectives.

VERSION 2 – AUTHOR RESPONSE

Thank you for the re-review of our article, "Online peer support interventions for chronic conditions: A scoping review protocol". We appreciate Dr. Fisher's very thorough review of our protocol and have responded to all of the suggested changes and comments below.

Several aspects of the planned review seem questionable. First is the definition of peer support. On p. 4, lines 22-30, the paper notes the variety of peer support approaches and the importance of not "overlooking important commonalities."

Yes, in the Methods do not define how peer support will be defined, what will be the inclusion criteria vis a vis peer support. Exclusion criteria are noted (p. 6, lines 20-25) but, with the exception of "We will limit our review to peer support interventions delivered through on-line formats," how peer support will be operationalized is not described.

>>We have made the following addition to the Eligibility Criteria section: "Peer support in the context of chronic disease management is operationalized as "support for a person with a chronic condition from someone with the same condition or similar circumstances".6,11 This type of support could be emotional, informational, and/or appraisal.12 Examples of on-line peer interventions could include Skype-based discussions, social media peer interactions, or text messages from a peer(s)" (page 6).

Additionally, it should be noted that the Abstract says the focus will be on "one-on-one, on-line" interventions, apparently omitting group based on-line applications, an unnecessary truncation.

>>Thank you for catching this oversight. We have since removed the two references to "one-on-one" from the Abstract section.

The second questionable exclusion is of interventions addressing mental illness. In fact, one of the most exciting features of the landscape of research on peer support is the success of applications to mental illness. Although, as the authors note, these may "have particularly unique features not generalizable to other chronic disease patient populations" (p. 5, lines 41-44), nevertheless, reasonably straightforward problem solving approaches are emerging as quite effective when administered by nonprofessionals trained in their application, including in low-resource settings [e.g., Chowdhary et al. (2016). The Healthy Activity Program lay counsellor delivered treatment for severe depression in India: systematic development and randomised evaluation. Br J Psychiatry, 208(4), 381-388; Rahman et al. (2016). Effect of a Multicomponent Behavioral Intervention in Adults Impaired by Psychological Distress in a Conflict-Affected Area of Pakistan: A Randomized Clinical Trial. JAMA, 316(24), 2609-2617; Rahman et al. (2008). Cognitive behaviour therapy-based intervention by community health workers for mothers with depression and their infants in rural Pakistan: a cluster-randomised controlled trial. Lancet, 372(9642), 902-909.]. The possibility of implementing these on-line would be very exciting to note.

>>We maintain that the inclusion of mental health conditions have particularly unique features that are not generalizable to the other chronic disease patient populations included in the present review; however, we have made the following additions, including the suggestion for the consideration of a future, separate systematic/scoping review on on-line peer support interventions for mental health conditions:

For example, this review will not include (primary) mental health conditions and a variety of other disabilities. "A number of problem-solving approaches for mental health conditions are emerging as quite effective when administered by nonprofessionals, including in low-resource settings.22-24 The possibility of implementing these on-line would represent exciting advances in the field of peer support, and thus, a future, separate systematic/scoping review on on-line peer support interventions for mental health conditions should be considered" (pages 9-10).

Beyond these questions about the plan for the review, the current manuscript seems to add little to our understanding beyond description of standard methods for conducting Beyond these questions about the plan for the review, the current manuscript seems to add little to our understanding beyond description of standard methods for conducting reviews. There is little discussion other than the points noted above about how the nature of peer support or the nature of chronic disease management is raising important issues for conducting a review or about how, reciprocally, the approach to those challenges illuminates important issues for peer support, chronic disease management, or scoping reviews. Thus, other than informing that the review will be conducted and a description of sound but fairly standard review methodology, the paper seems to provide little new information. Perhaps the authors might revise the paper to provide more of an emphasis on critical or emerging perspectives.

>>We thank Reviewer 2 for these suggestions and have added the following: "This review will contribute to critical and emerging perspectives on peer support. For example, the results of the review will identify the key features of on-line peer support interventions, and in doing so, assist in the future development of other on-line peer support programs (i.e., so that effective and sustainable programs can be developed). Similarly, the current review will provide considerations for programs that are not yet in the on-line format so that they can be modified with features that are unique to the on-line environment" (page 10).

We thank you for such a thorough review of our protocol paper and we very much look forward to hearing from you again!