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)	A protocol for a systematic review of quantitative and qualitative
	studies of the unmet needs of informal carers of stroke survivors
AUTHORS	Denham, Alexandra; Baker, Amanda; Spratt, Neil; Guillaumier, Ashleigh; Wynne, Olivia; Turner, Alyna; Magin, Parker; Bonevski, Billie

VERSION 1 – REVIEW

REVIEWER	Hannah Kuper
	LSHTM
REVIEW RETURNED	05-Oct-2017

GENERAL COMMENTS	Congratulations on a very clearly written protocol.
	My only concern is whether the search terms for "need" are adequate. I think perhaps these could be expanded.
	Other than that, I have only a few small comments:
	Introduction of abstract - there is not always these negative impacts - but they often occur. Perhaps temper the language.
	2. Introduction, page 7, paragraph 3. Defining unmet needs in this way is not particularly informative. I suggest dropping the first sentence.
	3. Methods, page 11, Search Strategy. Perhaps rephrase the first few sentences to clarify that these terms have now been developed. The points on searching reference lists is repeated in that paragraph, and reference to no time limit and English publication is mentioned already earlier in the methods.
	4. Methods, page 12. Why is only one reviewer scanning titles? Better if that is 2.
	5. Page 14 - sentence 2. In the abstract it says that analysis will be narrative, whereas her it is implied that there will be pooled analysis. Same paragraph - can you explain how the averages will be standardised.

REVIEWER	Ashish Stephen MacAden Raigmore Hospital, NHS Highland, Inverness, Scotland
REVIEW RETURNED	07-Oct-2017
GENERAL COMMENTS	Consider also using the COREQ check list to assess the structure of

the qualitative research articles.

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Hannah Kuper

1. My only concern is whether the search terms for "need" are adequate. I think perhaps these could be expanded.

Response: The search strategy used in our protocol was based off of published work, Lambert et al.'s systematic review of unmet needs of partners and caregivers of adults diagnosed with cancer. In consultation with a medical library at the University of Newcastle, we were advised that our search strategy would capture the terms used in Lambert et al. The search yielded around 14,000 results and 8,000 unique studies. Based on these results, we believe that the current search strategy is inclusive and capturing all relevant publications.

2. Introduction of abstract - there is not always these negative impacts - but they often occur. Perhaps temper the language.

Response: In the abstract (Page 4), the word "often" has been added:

- "Stroke events deeply affect not only the stroke survivor, but also often the quality of life, and physical and psychological health of the family and friends who care for them."
- 3. Introduction, page 7, paragraph 3. Defining unmet needs in this way is not particularly informative. I suggest dropping the first sentence.

Response: On page 7, paragraph 3, as per suggestion, the first sentence has been deleted for clarity.

4. Methods, page 11, Search Strategy. Perhaps rephrase the first few sentences to clarify that these terms have now been developed. The points on searching reference lists is repeated in that paragraph, and reference to no time limit and English publication is mentioned already earlier in the methods.

Response: On Page 11, Search Strategy, language has been changed to past tense. The repetition of the reference lists has been removed, and the reference to no time limit and English publication has also been removed. The paragraph has been restructured to read as follows:

"Stroke' terms based on a Cochrane Review1 have been developed. 'Needs' and 'Partners and Caregivers' terms were based on a systematic review of unmet needs of partners and caregivers diagnosed with cancer 2. In May 2017, a search strategy was developed on the MEDLINE database and then adapted for the other databases. This included medical subject headings (MeSH) and freetext terms using applicable controlled vocabulary.

The following electronic databases will be searched: Medline, PsycINFO, EMBASE, Allied and Complementary Medicine Database (AMED), Cumulative Index to Nursing and Allied Health Literature (CINAHL), Scopus and Cochrane Database. Reference lists of included studies and relevant systematic reviews will be searched to identify additional studies for potential inclusion in this systematic review. Databases were searched in May 2017, and the search strategy will be conducted weekly across databases to retrieve and screen relevant publications until completion of the systematic review. The search terms for MEDLINE can be found in Appendix A."

5. Methods, page 12. Why is only one reviewer scanning titles? Better if that is 2.

Response: Methods, page 12 has been changed to read as follows:

"Two reviewers will independently screen all titles, abstracts, full text and data extraction. The two will meet to resolve any issues, and if a decision cannot be made, a third reviewer will be contacted to make the final decision."

And the following sentence has been removed:

"All titles of retrieved publications will be screened by one reviewer."

6. Page 14 - sentence 2. In the abstract it says that analysis will be narrative, whereas her it is implied that there will be pooled analysis. Same paragraph - can you explain how the averages will be standardised.

Response: The abstract (Page 4) has been modified to read as follows:

"A narrative synthesis and pooled analysis of the main outcomes will be reported."

The following statement has also been added into Page 14, under "Quantitative Studies" to explain how averages will be standardised:

"For example, where one study reports that the average number of unmet needs is 3 on a maximum of 33 items, a second study might report that it is 7 on a maximum of 44 items. The average will be recalculated on 100, so the average number of unmet needs can be compared across studies."

Reviewer: 2

Reviewer Name: Ashish Stephen MacAden

1. Consider also using the COREQ check list to assess the structure of the qualitative research articles.

Upon further consideration, the research team has decided to use the COREQ check list over the CASP due to its rigorous reporting of qualitative studies.

Response: The following statement has been added on Page 12, under "Qualitative Studies": "The methodological quality of qualitative studies will be assessed using the Consolidated Criteria for Reporting Qualitative Research (COREQ)3. The COREQ was cited by Luker et al.4 in the systematic review of qualitative studies of carers' experiences, needs and preferences during inpatient stroke rehabilitation. This quality assessment tool is 32-item tool that promotes comprehensive and rigorous reporting of qualitative studies that use data collection methods of interviews and focus groups. Two reviewers will assess the methodological quality of all studies, and if an agreement cannot be reached, a third reviewer will make the final decision."

Note: the search strategy has been added as a supplementary file, Appendix A.

References

- 1. Lager KE, Mistri AK, Khunti K, Haunton VJ, Sett AK, Wilson AD. Interventions for improving modifiable risk factor control in the secondary prevention of stroke. The Cochrane Library. 2014.
- 2. Lambert SD, Harrison JD, Smith E, Bonevski B, Carey M, Lawsin C, et al. The unmet needs of partners and caregivers of adults diagnosed with cancer: a systematic review. BMJ supportive & palliative care. 2012:bmjspcare-2012-000226.
- 3. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. International journal for quality in health care. 2007;19(6):349-57.
- 4. Luker J, Murray C, Lynch E, Bernhardsson S, Shannon M, Bernhardt J. Carers' experiences, needs and preferences during inpatient stroke rehabilitation: a systematic review of qualitative studies. Archives of Physical Medicine and Rehabilitation. 2017.

VERSION 2 – REVIEW

REVIEWER	Hannah Kuper LSHTM, UK
REVIEW RETURNED	30-Oct-2017

GENERAL COMMENTS	Thank you for making the suggested changes.