Author’s response to reviews

Title: Using technology to support caregivers of people living with dementia: A systematic review of research output and quality

Authors:

Amy Waller (amy.waller@newcastle.edu.au)
Sophie Dilworth (sophie.dilworth@newcastle.edu.au)
Elise Mansfield (elise.mansfield@newcastle.edu.au)
Rob Sanson-Fisher (rob.sanson-fisher@newcastle.edu.au)

Version: 1 Date: 06 Sep 2017

Author’s response to reviews:

Dear Dr Ya-Huei Wu,

Thank you for recently reviewing our manuscript entitled: Using technology to support caregivers of people living with dementia: A systematic review of research output and quality (BGTC-D-17-00345). Enclosed is a revised version of our manuscript, addressing the points identified by the Reviewers as outlined below.

Reviewer 1

Contribution to the literature

We apologise our argument was unclear. It was not our intention to assert that limited synthesis of the literature has occurred in relation to self-management interventions for caregivers of people with dementia. We acknowledge that a number of systematic reviews and a meta-systematic review have examined the evidence pertaining to professional-led self-management support interventions in this population. Our argument is that there has been limited synthesis of the literature focused on those interventions delivered by computer or telephone (e.g. Boot et al, 2014), and that none of these reviews have examined research effort invested this field by examining the type, quality and impact of research. There is the potential that remote delivery
methods (i.e. telephone, computer) will result in differential effects when compared to interventions delivered face-to-face. Consumer views of acceptability of these interventions may also differ. Therefore, our primary interest was to explore the evidence base for interventions implemented with minimal professional involvement. We believe that computer and telephone interventions have the potential to alleviate some of the increasing burden placed on finite health care resources by providing information and support to caregivers. We hope our changes have clarified this argument in the introduction.

Volume and type of research

No previous reviews have described the volume and type of research that has been conducted to examine the acceptability, feasibility and effectiveness of computer and telephone delivered interventions for carers of people with dementia. There is increasing recognition of the need to improve the outcomes of carers of people with dementia and supporting technology is developing at an exponential rate. Therefore, it might be expected that research efforts in this area would also have increased over time. Although not without limitations, examining the volume of peer-reviewed research output using bibliometric methods is a proxy indicator of scientific productivity. Volume of research output provides information about the research capacity of a field, including where clinician and researcher effort have been directed. Further, achieving improvements in health outcomes is complex and depends on a number of factors, one of which is the type of research evidence generated. While descriptive research provides important information about current practice, it does not maximise research benefits by comparing the effectiveness of approaches to improve care. We only describe the results of studies utilising an EPOC accepted study design to ensure that only those studies presenting reliable evidence with low risk of experimental bias are used to inform the evidence base. Studies utilising other designs outside of these criteria should be interpreted with caution given the high risk of bias.

Implications for policy and practice

We have added a section on implications for policy and practice in the discussion.

Definition of technology

Our criteria for inclusion was that intervention components had to either be delivered via computer or via telephone. This is described in the inclusion criteria. However, we acknowledge
that the use of technology may not be clear to the audience and as such, have changed the title so that it now reads “Computer and telephone interventions to support caregivers of people with dementia: A systematic review of research output and quality”.

Table 2: delivery of interventions
The information has been added to the Table.

Supplementary table 2
An explanation of the symbols used have been added to the Table. The type of intervention (computer or telephone-delivered) and references have also been added as requested.

Reviewer 2
Methods section
We apologise for the typos in the methods section. These have now been corrected.

Redundancy in presentation of results
We have checked for further redundancies and removed the section in the results identified by the reviewer from the Intervention section.

Table 1 revisions
The headings in Table 1 are standard headings for EPOC criteria tables.
Table 2 revisions

Cross referencing of the studies has been added to the Table. We have refined the headings as requested.

Study limitations

The reviewer is correct that limiting the review to include only those studies that meet EPOC criteria does restrict the study sample. While we agree that insights on the effectiveness of interventions may be obtained from studies using designs excluded by these criteria, these restrictions increase the likelihood of including studies with high quality evidence. This is both a limitation and a strength. We have highlighted this in the study limitations section as suggested.

We hope that these changes have adequately addressed the concerns of the reviewers, and look forward to hearing back from you soon regarding the status of this manuscript.

Yours Sincerely,

Dr Amy Waller (on behalf of the authors)