Author’s response to reviews
Title: Loneliness and social isolation causal association with health-related lifestyle risk in older adults: a systematic review and meta-analysis protocol

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Author’s response to reviews:
Reviewer 1 comments:
Background:
65: " … the health impacts of either phenomenon."  
Author Response: agreed and updated

69: " … feel lonely despite having an adequate quantity of social relationships."  
Author Response: Agreed and updated

71: " … adverse mental health outcomes …"
Author Response: Agreed and updated

120-140: For a generalist audience, I don't think you need this level of detail about postulated mechanisms by which loneliness / SI produce ill health.

Author Response: We agree this area is probably more suited for the Systematic Review itself, So, reduced level of detail to retain simplified reference to overall importance of literature focus on direct rather than indirect pathways in loneliness/SI association with ill-health while focusing instead on the lack of consensus around association with health behaviours [lines 95-107].
METHODS

Inclusion-Exclusion Criteria:

Search Strategy:

A few suggestions that may improve your yield:

* Search Pubmed.
* Review the bibliographies of studies that have undergone full-text review for additional sources.
* Do a grey literature search for theses, prepublication manuscripts, publications that aren't indexed, etc.
* Poll a sample of experts to ask if they are aware of any key publications.

Author Response:

Search strategy includes 7 databases covering main countries for studies and includes EMBASE with coverage of over 1,800 biomedical titles not offered by Medline/PubMed. We have undertaken a scoping search of additional databases which have not provided any significant additional studies. In addition, the bibliographies of all included studies will be reviewed see line 308-310 and we have included a statement in the protocol to contact key experts (line 311-312). Some of the databases included in the search strategy cover various types of grey literature
along with publisher-controlled literature and no restrictions will be placed on publication type in the search strategy.

249: If possible, see if you can objectively justify the restriction to English language studies. You could for instance do an initial scan and report that it shows, e.g., that 95% of potentially responsive studies are English language. If the inverse, this would be problematic.

Authors Response: Since unable to review non-English language studies have excluded but majority of key papers are in English and includes key European and Asian speaking academics e.g. De Jong Gierveld, Dykstra, Akerlind, Nordentoft, Orth-Gomer, Pels and Chen.

53: It would be preferable to do tandem screening of abstracts and data extraction by two reviewers. If not feasible, explain why.

Authors Response: Screening and data extraction will be completed by 1st author and checked by 2nd with disagreements checked by 3rd author. We do not have the funding for double screening and data entry throughout.

Quality & Critical Appraisal:

What tool will you use to appraise interventional studies, if any?

Authors Responses: Our inclusion criteria states that we will search for observational studies only and therefore we do not expect to include intervention studies.

DISCUSSION

358-371: This is redundant in light of the background section. I think it can be shortened to two or three short sentences.

Authors Response: Following agreed revisions to background section have adapted discussion section accordingly. [423-430]
Reviewer 2:

The section on covariates need greater explanation and more plain language description of what the authors hope to accomplish by including this in the review, for readers who may be less familiar.

Authors Response: Completed and incorporated into general evidence gaps with an additional statement in 'Aims & objective' to clarify potential role of covariates upon estimates of associations found.[104-107, 249-251]

Have the authors considering including CINAHL and other databases, and if not, why not?

Authors Response: Yes, CINAHL already included along with several other databases (see line 307)

How will this compare to previous work such as that by Cattan et al. 2005?

Authors Response: Cattan, 2005 systematic review focuses on effectiveness of health promotion interventions rather than the causal association with health behaviours themselves as per this Review and so inclusion criteria are different. However, our review will be useful in informing the evidence base for effective interventions and improved evaluations called for by Cattan et al.

In some text, the authors appear to be saying that at the end of this review the issue of causal relationships between SI/L and health risk behavior will be known. That seems like a lofty goal, and needs to be appropriately contained within the limitations of a review study.

Authors Response: Agree and revised article to say "better understood via review of current evidence and identifying gaps for future research" rather than claims relationship will be 'known'.

How will the authors identify studies that have Negative, Null and Inconclusive Results, given the publication bias towards positive results? This should be an important point addressed.

Authors Response: The NOS Quality Criteria includes assessment in studies for selection bias. For Publication bias included proposed assessment via funnel plot of sample size v. effect size should there be a high proportion of studies with significant findings [lines 391-393]