Author's response to reviews

Title: E-health physical activity interventions and moderate-to-vigorous intensity physical activity levels among working-age women: a systematic review protocol

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Author's response to reviews:

Reviewer's report

Title: E-health physical activity interventions and moderate-to-vigorous intensity physical activity levels among working-age women: a systematic review protocol

Version: 2 Date: 3 December 2014

Reviewer: Harmieke Van Os-Medendorp

Reviewer's report: An interesting and relevant proposal for a systematic review. The planned methodology seems appropriate.

Some questions (Minor Essential Revisions):

- Do you also include studies of working women with physical disabilities or chronic diseases?

Response to reviewer: Yes, we will include studies of working women with physical disabilities and or chronic diseases. As noted in the Data Extraction section, we will extract participant characteristics including chronic diseases and health states.

- EHealth interventions are often an add-on to face-to-face interventions; will a distinction be made in results of eHealth interventions carried out instead of usual care and eHealth interventions in addition to usual care?
Response to reviewer: we thank the reviewer for this comment and agree that e-health interventions are often an add-on to face-to-face interventions. We will compare the effects of e-health interventions to control groups, when available. No restrictions will be placed on the control groups and these may consist of usual care. We previously noted in the Types of Comparators section that control groups may include no PA intervention or low intensity PA intervention. We have now added that control groups may include no e-health interventions or usual care. Further, we will extract the description of control groups, as previously noted in the Data Extraction section.

- An important functionality of eHealth interventions is the possibility for personalized feedback; should this functionality be a condition for the eHealth interventions to be included in the review?

Response to reviewer: we thank the reviewer for this comment. We agree that an important functionality of e-health interventions is the possibility for personalized feedback. We plan to include, but not limit, studies which provide personalized feedback. We will include all forms of e-health interventions that meet our inclusion criteria and will extract the intervention details as noted in the Data Extraction section.

- The number of planned subgroup analyses is relatively high, what is the rationale for these analyses and which subgroup analysis is most important according to current knowledge?

Response to reviewer: we included a number of planned subgroup analyses to be systematic in our review of effective e-health physical activity interventions to increase moderate-to-vigorous intensity physical activity levels among working-age women. It is important to note, however, that these analyses will be performed only if sufficient data are available. Of the subgroup analyses listed, intervention focus (e.g. text messaging vs. online web forums vs. virtual care programs vs. feedback from wearable PA devices vs. mobile smart phone application vs. telephone) and mode (e.g. wearables vs. telemedicine vs. mobile devices vs. health informatics vs. multi-component vs. single-component) may be the most important as it remains unknown which e-health interventions are most effective at increasing moderate-to-vigorous intensity physical activity levels in working-age women in developed countries. We have now added the following sentence to the Subgroup Analyses section: “Of these subgroup analyses, intervention focus and mode may be the most important as it remains unknown which e-health interventions are most effective at increasing MVPA levels in working-age women in developed countries.”

To improve the clarity of the Planned Analyses section, we have now included the following sentence: “If high heterogeneity is found, a meta-analysis will not be performed.”

- Recently, a proposal within the same the theme was published by the same group: Prince SA, Reed JL, Nerenberg KA, Kristjansson EA, Hiremath S, Adamo
KB, Tulloch HE, Mullen KA, Fodor JG, Wright E, Reid RD Intrapersonal, social and physical environmental determinants of moderate-to-vigorous physical activity in working-age women: a systematic review protocol. Syst Rev. 2014 Nov 4;3(1):132. doi: 10.1186/2046-4053-3-132. Is it possible to that the results of that review (Intrapersonal, social and physical environmental determinants) influence the effects of the eHealth interventions in this population?

Response to reviewer: we thank the reviewer for noting that several members of our investigative team are conducting several systematic reviews. It is possible that intrapersonal, social and physical environmental determinants may influence the effects of e-health interventions in working-age women. These systematic reviews (i.e. environmental determinants vs. e-health interventions) are however discrete reviews with separate objectives. We plan to use the findings from each systematic review for a larger funded project we are currently working on.

- What is the reason to include grey literature (not peer reviewed)?

Response to reviewer: we will be including both peer-reviewed and grey literature. As noted in the Cochrane Handbook (10.3.2, Including unpublished studies in systematic reviews), not including grey literature may result in publication bias which is a major threat to any type of review. We therefore plan to include peer-reviewed and grey literature in this systematic review. As noted in the manuscript, a funnel plot of the included studies’ estimates of effect sizes will be used to assess the presence of publication bias. The plots will be assessed both visually and by using Egger’s test, with p<0.10 used to indicate the presence of a significant publication bias [57]. This will provide the opportunity to examine publication bias from peer-reviewed vs. grey literature.

- “The Cochrane Collaboration’s tool will be used to assess risk of bias for each RCT”. That is clear, but some sentences later is written that “Risk of bias for the RCTs will be assessed using Review Manager (RevMan) 5.3.3”; please explain.

Response to reviewer: we thank the reviewer for this comment and apologize for the lack of clarity. Review Manager (RevMan) is the Cochrane Collaboration’s software tool used for preparing and maintaining reviews. We have now added this information to the Overall Quality of Evidence section.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests: none to declare

Editorial requests:

Please mention each author individually in your Authors? Contributions section. We suggest the following kind of format (please use initials to refer to each author’s contribution): ?AB carried out the molecular genetic studies, participated in the sequence alignment and drafted the manuscript. JY carried out the
immunoassays and revised the manuscript. MT participated in the sequence alignment and drafted the manuscript. ES participated in the design of the study, performed the statistical analysis and helped to revise the manuscript. FG conceived of the study, and participated in its design and coordination and helped to draft the manuscript. All authors read and approved the final manuscript.

Response to editor: we previously noted the following information in the Authors’ Contributions section of the manuscript: “JLR and RDR conceived the idea for this study. JLR, SAP and CAC developed the methods and drafted this protocol. AS developed the search strategy. KAN, SH, HET, JGF, LAM, KAM and ALP acted as secondary reviewers. All authors read and approved the final manuscript and gave final approval of the article to be published.”