Author’s response to reviews

Title: Increasing Educational Attainment and Mortality Reduction: A Systematic Review and Taxonomy

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To the Editor:

We appreciate the opportunity to address the Editors’ comments to revise and improve our manuscript. Below, please find and item-by-item response to the Editor’s comments, which are included verbatim. All page and paragraph numbers refer to locations in the revised manuscript.

Editor’s comments are now designated in italics. Our responses are in plain text. Changes to the manuscript are designated in bolded text.

The work is informative, addressing the current notion on health inequality by education. Authors thoroughly examined existing research evidence. Yet presentation could be refined addressing methods section of the PRISMA checklist that is the gold reference for systematic review. (see http://www.prisma-statement.org/documents/PRISMA%202009%20checklist.pdf)

We appreciate an opportunity for additional clarification. We have added language in the abstract and manuscript to specifically state we have followed PRISMA guidelines while performing our
systematic review (abstract line 24, manuscript pg 4, line 78-79). We have added the PRISMA checklist used our study as Appendix Figure 1 to further clarify where all components of the PRISMA guidelines are found in the manuscript.

Authors need to address why half of identified work are not screened, and why nearly a half of screened work is not eligible according to their criteria.

We have taken the opportunity to further clarify the inclusion and exclusion of studies in an updated Figure 1. We specify that we excluded most studies during the title and abstract screening phase of this review (n=1216) and that of the 418 articles that were eligible for the study, 154 were excluded for specific content reasons which are outlined on pg 5, lines 102-106).

Authors well discussed their results and strengths of their work. But it will be helpful to have discussion on potential bias for including work with full-text only (in abstract as well).

Thank you for this comment regarding our discussion of strengths and weaknesses in our review. We agree that discussing potential for bias in the included studies is critical to a meaningful review. We applied the Downs and Black criteria to assess risk of bias in the included studies (pg 13, line 267-268). We have added language in the manuscript to highlight that Downs and Black criteria are recommended by the Cochrane Collaboration to evaluate bias in non-randomized studies. We have also added the reference for the Downs and Black Criteria: Downs, Sara H., and Nick Black. "The feasibility of creating a checklist for the assessment of the methodological quality both of randomised and non-randomised studies of health care interventions." Journal of epidemiology and community health 52.6 (1998): 377-384.

It is also useful to have discussion on how the extracted taxonomy could be applied in research and policies in the areas of inequalities in education and health.

We whole-heartedly agree with the editor on this point, that this taxonomy has the potential for use beyond mortality to better understand the literature on contributions to health inequalities more broadly. We have the following language to the manuscript (pg 16-17, lines 347-353):
Building on this framework, a similar methodology could be employed to the education and health literature more broadly, as the themes identified in this review are not unique to mortality inequality. Further evaluation into the explanatory pathways domain specifically - including meta-analyses of behavioral or social network level factors - can have significant policy relevance by highlighting factors that may be contributing to broader health inequalities, but amenable to targeted interventions.