Reviewer's report

Title: Socioeconomic factors from midlife predict mobility limitation and depressed mood three decades later; Findings from the AGES-Reykjavik Study

Version: 2 Date: 9 December 2012

Reviewer: Martijn Huisman

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The purpose of this study was to assess the associations of several classic and alternative indicators of socioeconomic status measured at midlife with mobility limitations and depressed mood in old age. The authors used data from an Icelandic study; the Reykjavik Study and its follow-up the AGES-Reykjavik Study. The paper is generally well-written and results are presented adequately.

The authors chose to submit this manuscript as a brief report. This is unfortunate. It leaves too little space for adding some crucial discussions and information. The potential benefits of this study lie with the fact that the authors were able to include socioeconomic factors that were assessed in midlife and alternative indicators of SES, such as housing tenure, car ownership and household amenities. The authors claim that their study adds to the literature because most studies of older persons include only measures of current SES and use primarily the classic indicators of SES. I have some comments on this point.

Major compulsory revisions

1) Firstly, the benefits of this study are somewhat overstated because the classic indicators that the authors include are education level and occupation. Education level is usually completed very early in the lifecourse - no matter if you assess it at midlife or at old age it will not make much difference - and studies in old age addressing occupation also usually refer to earlier adulthood since older people beyond retirement age are not in the workforce anymore. Besides, I doubt that reporting of such key factors as education level and occupation category will be hampered by the recall bias the authors refer to. The one indicator where having information on midlife levels in addition to information of current levels would be truly beneficial is income, but income is the one classic indicator of SES that the authors lack. The authors should therefore not give the impression that they have considerably improved on the study of associations of SES with health in old age because they were able to include self-reports of education and occupation obtained at midlife.

2) Secondly, it is true that most studies do not include housing tenure and car ownership, although there have been several. When the authors truly want to claim that this is novel and an improvement on the state of the art in the field, they should take more space to: 1) describe the theoretical underpinnings of considering housing tenure and car ownership as indicators of SES. Why should
we include them? What makes them indicators of socioeconomic status in their own right? Do people who own a car or own a house always have a higher socioeconomic status than people who do not? And 2) describe the empirical state of the art with regards to associations of these factors with health in old age; i.e. provide information on the studies that already investigated the associations.

3) Thirdly, since the authors did not have information on income to adjust for, it seems entirely likely that any associations of car/house ownership and amenities with health are in fact confounded by income. In all fairness, the authors include one sentence that refers to the lack of data on income as a limitation of the study. But they do not indicate why it is a limitation and that there is considerable scope for confounding by income. In fact, income is a crucial factor if indicators like car/house ownership are related to health and the aim of the study is to demonstrate that they have additional value over classic SES measures!

4) In my opinion, the authors should refrain from making too many statements about prevention of health problems in old age on the basis of these results. See paragraph two of the discussion section. Obviously, this is done with a genuine concern for public health and some of it may well be true, but I feel that the authors are not really in a good position to make recommendations for research and potential prevention beyond what has already been suggested by previous research. I suggest that they focus their discussion more on what their theoretical and empirical contribution to the literature is.

Minor essential revisions

5) The authors should provide response information for the respondents of the Reykjavik Study who were approached for participating in the AGES-Reykjavik Study. How many of the N=30,795 were approached to do so? How many could not be included in AGES because they were deceased and how many refused to participate?

6) The authors should also provide information about any differences in background characteristics of the respondents who were included in the study and those that were dropped because of missing information and any who were in the Reykjavik Study but not in AGES.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

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

Declaration of competing interests:
I declare that I have no competing interests