Author's response to reviews

Title: Social Cohesion, Belonging, and Changes Therein Predict the Well-Being of Community-Dwelling Older People

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Author's response to reviews: see over
Reviewer's report
Title: Social Cohesion, Belonging, and Changes Therein Predict the Well-Being of Community-Dwelling Older People in the Netherlands over Time
Version: 2
Date: 28 November 2014
Reviewer: Piers Dawes

Reviewer's report:

Thank you for the invitation to review this interesting paper. The authors reported on the association between social cohesion and belonging and well-being in older adults. The paper was clearly written, and the topic is of interest for the journal readership. The design and theoretical basis seemed sensible.

We thank the reviewer for these positive remarks.

The following suggestions have been categorised according to the journal's recommended categories. However, the authors may choose to ignore them if they feel justified in doing so.

The main issues I had ("Major compulsory revisions") were with some aspects of design and analysis:

i) Description of the sample and sampling bias
The sample was recruited from 4 districts of Rotterdam. Why these 4 districts? The response rates were ~60%. How representative was the sample of the general population? Was there any indication of response bias? Could there be a differential in response bias that could affect the results?

In the methods section we clarified this study took place in the context of a larger evaluation of a transition experiment aiming to facilitate independently-living frail elderly persons (70+) to live the life they wish to live, improving their well-being. The larger evaluation consisted of an inventory (this study) as well as an experiment with a controlled pre-post measurement (including only 185 older people). The inventory is taken among the elderly (70+) in the four relevant districts of Lage Land/Prinsenland, Lombardijen, Oude Westen, and Vreewijk to investigate the general situation of elderly in these districts were the experiment takes place. A detailed description of the study design can be found in the study protocol [30].

In the results section we clarified that our final sample at T0 consisted of 945 respondents (66% response rate). Of the 945 respondents participating in this study at T0, 43% were men. Their average age was 77.5 (range, 70–101; standard deviation, 5.8) years. About one-third (34.7%) of respondents were married and 83.3% were born in the Netherlands (Table 1). No differences were found in gender and age compared to the original sample (n=1440). We did however find a small but significant difference in ethnic background; 17% had another ethnic background in our study sample, compared to 22% in the original sample.

Response rate at T1 was 62% (n = 588). We compared baseline characteristics of the 588 participants who completed both questionnaires to those who completed T0 only. No difference in social cohesion, social belonging, gender, or marital status was found. On average, respondents who completed both questionnaires were younger (77.11 ± 5.33 vs. 78.07 ± 6.41 years; p < .05), reported better well-being (2.60 ± 0.54 vs. 2.50 ± 0.53; p < .01), were more often born in the Netherlands (85.2% vs. 80.1%; p <
.05) and less often lower educated (19.6% vs. 26.3%; p < .05) than those who completed only one questionnaire.

In the limitations section we added that respondents who completed questionnaires at T0 and T1 were on average younger, reported better well-being, were more often born in the Netherlands and higher educated compared to those who completed only one questionnaire, which may have biased our results. Well-being may also be higher compared to older adults not responding at all, which may limit generalizability of our study findings.

ii) Analysis
The authors selected the 10% worse neighbourhoods based on social cohesion and social belonging scales. The authors then compared social cohesion and social belonging in the 10% worst vs all neighbourhoods (Table 2); that is a circular comparison. I suggest that the authors delete it and focus on the other analyses. With the retest data (assessed with simple paired t-test), was there any evidence of selective drop-out that might have biased the results?

As explained above there was no indication of selective drop out regarding social cohesion and belonging, but those who completed both questionnaires did report better well-being. To avoid loss of information and given the strong correlations between social cohesion and well-being as well as social belonging and social cohesion we feel that the comparison of the 10% worst vs all neighbourhoods (Table 2) provides interesting information to the readers. While these findings are similar to other results they do give a more in-depth overview of how social cohesion, social belonging, and instrumental goals to achieve well-being differ by neighborhood social deprivation. Comparison of responses from older people living in the 10% worst neighborhoods with overall averages clearly showed a great degree of variation on most social cohesion and belonging items. More than 90% of respondents from socially deprived neighborhoods did not visit or borrow/exchange things with their neighbors. The majority of respondents disagreed with the statements that living in their neighborhood gave them a sense of community (84%), that they could turn to someone in the neighborhood when they needed advice (80%), that their friendships and associations with other people in the neighborhood mean a lot to them (74%), and that they were willing to work together with others to improve their neighborhood (70%). Only 10% of all respondents, but 40% of those living in socially deprived neighborhoods, disagreed with the statement that they believed their neighbors would help in an emergency. We therefore prefer to keep this information and given that the reviewer stated 'the authors may choose to ignore them if they feel justified in doing so' we hope the reviewer and editor agree. However, if preferred we can delete this from the manuscript.

Minor points ("minor essential revisions")
i) Could the authors please articulate more clearly what that rationale was for the chronically ill and post-hospitalisation groups was? (line 131)

By distinguishing different levels of goals with regard to well-being and realizing that lower-level goals are needed to achieve higher-level goals, we can trace the consequences of living in poor neighborhoods in term of social cohesion and belonging for the well-being of community-dwelling older people, and thereby determine what changes are needed to protect their well-being. Since people achieve physical and social well-being within the set of resources and constraints they face [6] it may be more difficult for some (e.g. those living in a socially deprived area, those dealing with a chronic condition or being hospitalized) to achieve a certain degree of well-being. We expect that dealing with
the consequences of a chronic condition or hospitalization comes with greater difficulties in maintaining one's physical well-being, while living in a socially deprived neighborhood is expected to complicate maintaining a certain degree of social well-being. We feel this comparison is interesting to understand the consequences of living in a deprived neighborhood. As the results show that not only social well-being was significantly worse among respondents living in poor neighborhoods than among Dutch chronically ill patients and those who had recently been hospitalized (aged \( \geq 70 \) years); physical well-being was also worse than that of chronically ill patients and comparable to that of recently hospitalized older people. This comparison shows how difficult it is to maintain social as well as physical well-being for older adults living in a socially deprived neighborhood.

ii) Line 260. Why is it important to understand the effects of social environment on well-being?

We clarified as follows: The neighborhood social environment has been identified as an important aspect of older people’s well-being. Poor neighborhood conditions can pose difficulties in obtaining support, especially for older people who live alone since they spend a greater proportion of their lives in their neighborhoods. Research on the effects of changes in neighborhood characteristics, such as social cohesion and social belonging, on (instrumental goals to achieve) well-being is lacking.

iii) Line 262...”supporting previous findings”. Could the authors please emphasise what the novel aspects were of the present study?

We clarified that this study showed that social cohesion and belonging are related to the well-being of community-dwelling older adults in the Netherlands, supporting our previous cross-sectional finding that the social environment is related to the well-being of community-dwelling older adults in Rotterdam [9].

Thank you again for the opportunity to review this paper.

We thank the reviewer for the remarks and suggestions to further improve the manuscript.

Reviewer's report

Title: Social Cohesion, Belonging, and Changes Therein Predict the Well-Being of Community-Dwelling Older People in the Netherlands over Time
Version: 2
Date: 9 December 2014
Reviewer: Abebaw, Mengistu Yohannes

Reviewer's report:

**Major compulsory revisions**
This study examined the social cohesion, belonging as predictors of the well-being of older people in the Netherlands with two years longitudinal follow-up. It is a well-written paper.

We thank the reviewer for this positive comment.

I have the following comments for the authors’ consideration to improve the message of the paper.
Abstract
1) The abstract will benefit by having one or two lines of statement about the background of the study.

We added that the neighborhood social environment has been identified as an important aspect of older people’s well-being. Poor neighborhood conditions can pose difficulties in obtaining support, especially for older people who live alone since they spend a greater proportion of their lives in their neighborhoods. Although social environments have been found to be related to well-being among older people, the longitudinal relationship between these factors remains poorly understood. Research on the effects of changes in neighborhood characteristics, such as social cohesion and social belonging, on (instrumental goals to achieve) well-being is lacking.

2) The study aims are...

We changed the text accordingly.

3) Methods should include the number of participants, and their mean age in the study.

We added the suggested information.

Methods
4) Add a reference number for the ethics approval for the study.

As suggested by the reviewer we added the reference number (MEC-2011-197).

5) Please add if there were any inclusion and exclusion criteria for the study.

We clarified that the target population of the sample was defined as individuals ≥ 70 years who speak Dutch and do not live abroad or in an institution during the field-work period.

6) Explain the methods you have used to select randomly from the population register dataset.

As explained above the target population of the sample was defined as individuals ≥ 70 years who speak Dutch, living in the districts of Lage Land/Prinsenland, Lombardijen, Oude Westen, and Vreewijk and do not live abroad or in an institution during the field-work period. The sample included about 430 eligible older adults per district and was proportionate to the 72 neighborhoods in these districts and to age groups (70–74, 75–79, 80–84, and ≥85 years).

Results
7) It will be helpful to add ‘No change in overall .... add the exact p-values in the text.

We followed the reviewer’s advice and added p values.

8) Seventeen percent of the participants were immigrant to the Netherlands. It will be helpful to add their socio-demographic characteristics in Table 1 and compare their results with the natives. It requires a bit of analysis comparing the two groups with their p-values. In my view, this illuminate the findings of the paper.
We followed the reviewer's advice and added this information in the text.

9) Are the responders different compared to non-responders in the follow-up period? Again you can make further analysis in this area as well.

See our response to the first comment of the other reviewer. We added these findings in the results section and discuss the potential implications in the limitations section.

Discussion

10) Briefly discuss the analysis you have done in question seven.

We discuss that by distinguishing different levels of goals with regard to well-being, this study aimed to trace the consequences of living in socially deprived neighborhoods for the well-being of community-dwelling older people, and thereby to determine what changes are needed to protect their well-being. Low scores for instrumental goals, especially those related to social well-being, clearly indicate that the maintenance of overall well-being is difficult for these individuals. Policy makers and governments should invest in these amendable neighborhood social environments through measures aiming to improve social cohesion and belonging, or at least to avoid damaging existing networks, as such efforts will improve well-being in aging societies. The majority of current policies aim to discourage the use of expensive long-term care facilities or hospital care by augmenting informal and home care and shifting care traditionally provided in hospitals to the primary care setting, which has become the main context for the support of older people’s physical needs. This situation was observed, for example, in a nationwide study of disease management programs, which focused mainly on physical functioning, disease limitations, and lifestyle behaviors instead of investing in broader instrumental goals to maintain social as well as physical well-being [2]. Steverink [28] found that loss of comfort and affection (among the five instrumental goals to maintain well-being) were the main predictors of dependent living. Policy measures that concentrate only on physical instrumental goals (e.g., comfort) with the aim of avoiding institutionalization are inadequate, as older people’s social goals (e.g., affection) must also be supported.

Steverink [28] showed that people increasingly rely on goals that are less dependent on work, social roles, and good health (i.e., comfort and affection) for the realization of well-being as they age. The relative difficulty of realizing status, stimulation, and behavioral confirmation manifests earlier in the life span (among young-old individuals). Our study findings support this notion by showing that behavioral confirmation and stimulation deteriorated significantly over time and that status level was dramatically low at both timepoints in our sample of adults aged ≥ 70 years, especially among those living in socially deprived areas. Compensating for these losses may be particularly difficult, as resources for affection are difficult to establish. Policy makers’ attention to instrumental goals for the achievement of social as well as physical well-being is thus needed. To promote aging in place for community-dwelling older people living in socially deprived neighborhoods, protection against further deterioration of their social and physical well-being, especially regarding affection and comfort, is crucial. Integrated network approaches that aim to use available neighborhood social resources effectively and increase responsiveness to community-dwelling older people’s social and physical needs may be a means of supporting aging in place [30,38,39].

11) The title is a bit long and wordy – perhaps it needs tightening up.

We shortened the title.

12) In places you say, “Many... but you make one reference this needs correcting.”

We corrected accordingly.
13) In the limitation section perhaps you can comment about the response rate and ways to improve for future research.

In the study limitations, we added that increasing the number of attempts to visit people in their homes especially increases response rates among immigrant elderly.