Author's response to reviews

Title: Identifying frailty: do the Frailty Index and Groningen Frailty Indicator cover different clinical perspectives? A cross-sectional study

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Author's response to reviews: see over
Dear Prof. McKinley:

Thank you for reviewing our manuscript MS 1994128562646191 entitled “Identifying frailty: do the Frailty Index and Groningen Frailty Indicator cover different clinical perspectives? A cross-sectional study” that we have submitted to BMC Family Practice.

We have read the feedback of the reviewers with great interest, and used their comments to improve the manuscript. Please find below a point-by-point response to all questions and comments. In the resubmitted manuscript, revisions are underlined. We hope to have responded adequately to the points raised. If more information is needed, please let us know.

We hope that the adjustments make the paper suitable for publication in the journal, and look forward to your response.

Yours sincerely,

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Editorial comments to author:

1) Line 110: 'overall consultation gaps': I found this confusing and would be better renamed and defined at this point. The used of 'overall' made me think you were measuring something longitudinal about the consultation pattern rather than the time since the last consultation which appears to be the case in lines 113 to 116. This however raises the question of how you managed the data of people who have consulted recently but their consultations were irregular and there was a long gap between the last and second last consultation?

We have clarified the definition of consultation gap that we used more extensively (lines 110-115, 117-120). We did only consider the time from the data snapshot till the last consultation that was registered in the files, and did not consider earlier consultation patterns.

2) Line 184: I would encourage you to include the data on respondents ages here as well as in the table

We included the respondents' ages (lines 188-190).

Reviewers' comments to author:

# Reviewer: 1

1) Please remove data reporting from the strengths and limitations section.

We have moved the data on the Pearson’s correlation coefficient in different age groups to the results section (lines 199-201, 251-255).

# Reviewer: 2

Discretionary Revisions

1) Line 136, second paragraph under measures: it is stated that the frailty index includes social factors and this itself is a novel inclusion. The original frailty index (reference 8) did include social factors.

We have removed this statement (lines 140-141).

2) Line 155 of the same paragraph: the stated cut off of the FI was set to 0.08 based on the previously published article. As this is generally a very low cut off, it is clear that this is due to the frailty index described in the paper to be almost exclusively comorbidities with the exception of three of 39 items (general complaints, urinary incontinence and social factors). I think it is important to mention this even though there are no known directions for what proportions of which deficits should be included in the FI. This also explains the narrow range identified on line 251 (second paragraph under
strengths and limitations). This recommendation I include as discretionary as this FI has already been published. Else I would be eager to hear this research groups thoughts.

We agree with the reviewer’s suggestion that it is important to mention that the FI we constructed almost exclusively consists of comorbidities, since this has implications for the FI’s range and variability over time. Following this suggestion, we have added a statement in the discussion (lines 264-267).

3) Line 221 in summary paragraph one in the discussion: it is mentioned that there are other factors that might be modulating the correlations of the two frailty assessments. In the literature there is some growing evidence toward frailty to being modified social vulnerability. This is important to note, especially with social factors included in your frailty index definition but also your significant findings with individuals recently widowed. A interesting reference to look over would be:


We have incorporated the suggested reference in the discussion (lines 231-234) and adapted the references further in line accordingly.

4) Under implications for research and practice: A conclusion is being made that despite a sensitivity of the FI of 77% and specificity in the 50s, the FI should be used as a screening test (due to among other reasons, its ease of use) and the GFI to be used as a confirmatory test with a low GFI being looked into further by the physician. I wonder why not combining the GFI into the FI as an add on would be more appropriate second step considering, both factors are stated in the manuscript to be different aspects of frailty. Together they might be incorporating a more complete definition of frailty in this population. Previous FI have incorporated similar questions to the GFI. The GFI already has a scoring system which could be easily incorporated into the FI.

We agree with the reviewer that it is an interesting option to incorporate GFI data as deficits into the FI, and as such present an overall measure of frailty. However, because of the workload related to gathering the GFI data in daily clinical practice, we think that, especially when starting up frailty screening in general practices, it is more efficient to use the two measures seperately in sequential screening, only sending a GFI to patients with a high FI score. We have reflected on the reviewer’s suggestion in the discussion section (lines 297-300).

Minor Essential Revisions

Line 231. First paragraph under strengths and limitations: There is an extra period.

We have removed the extra period (line 242).