Reviewer’s report

Title: The prevalence and impact of self-reported foot and ankle pain in the over 55 age group: a secondary data analysis from a large community sample

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Reviewer: Edward Roddy

Reviewer's report:

This is a potentially interesting and important manuscript which compares the impact of foot and ankle pain with that of pain at different sites and comorbidities. The findings suggest that foot and ankle pain makes a significant contribution that is at least comparable to other sites which are more widely recognised to have significant impact such as back pain.

Major comments

1) Abstract results, lines 39-41: the estimated percentage increased risks are sometimes rounded but sometimes not. It would be better if they corresponded more exactly with the odds ratios i.e. going up and down stairs should be 71% not 70% (OR 1.711), getting up from a seated position should be rounded up to 44% if providing a whole number without decimal places (OR 1.438), putting on shoes/socks should be 52% not 53% (OR 1.532). It would be preferable to provide the confidence intervals for the ORs rather than the p-values.

2) I appreciate the authors' desire, articulated in their cover letter, to avoid undue repetition of their previous papers from this cohort in the methods. However, I feel that a little more detail about how the study population was identified and how data were collected would help the reader to interpret the data and assess generalisability. For example, participants were randomly selected from the North Yorkshire Family Health Services Authority but how were they contacted? Presumably postally? How were data collected - postal questionnaire, face-to-face assessment, or other? Pg 5 mentions a first questionnaire but other questionnaires are not mentioned. Which comorbidities were asked about?

3) Statistical analysis, pg 5: were any co-variates adjusted for in the logistic regression models? Similarly in the results tables it would be helpful to state whether the ORs are unadjusted or adjusted.

4) Throughout the results and tables, comorbidities are presented as a single characteristic but the methods does not describe how this variable was derived? Is this the presence of any comorbidity? Which comorbidities were included (see point 2 above)? Given that the prevalence
of comorbidities was 40%, there would be scope to investigate if any particular individual comorbidities or groups of comorbidities make a particularly strong contribution eg (cardio)vascular disease, obesity, diabetes, mental health.

5) Results, pg 5, line 51/52: how did respondents differ from non-respondents? Again this has probably been published previously but any differences between respondents and non-respondents could be summarised in a single sentence and would help the reader.

6) Table 2: could confidence intervals be provided for the prevalence estimates? The data suggest that foot and ankle pain was the second most common site after the knee and more common than the back and hip. This could be an important message from the paper but the confidence intervals are need to assess this. A minor point is that legend does not fit the data presented well - the legend refers to joint pain, swelling and stiffness but the table includes age and comorbidities also. A further minor point is that although the legend states that adjustments were made for age and gender presumably age was adjusted for gender only.

7) Results, page 6: the first complete paragraph on this page does not fit well in the results section as it attempts to explain how these analyses and manuscript differ from the authors' previous publications. I suggest moving this text to the last paragraph of the background and/or the discussion.

8) Results, page 6/7: there are four paragraphs in the results which provide a narrative comparison of the impact of comorbidities and pain at the different sites on standing and walking, getting up from a chair/toilet, going up or down stairs, and putting on shoes or socks, based mainly on the magnitude of the odds ratios. However, for many of these comparisons the 95% confidence intervals overlap suggesting that caution is needed when interpreting difference in magnitude between the odds ratios.

9) Discussion, pg 7: in the opening paragraph summarising the study findings, some of the results are not mentioned in the results or tables - eg prevalence of wrist/hand pain, median count of reported joint sites, combinations of pain at different sites. These are important data and should be added. Furthermore, in the third sentence in this paragraph I was unsure of the distinction between the "most common site of self-reported joint pain" and the "most common single joint presentation" - could this be rephrased?

10) Discussion, pg 8: the second paragraph of the discussion states that there was a correlation between increasing number of sites of pain and functional impairment. Again, I could not find these data in this paper and wonder if this statement refers to the authors' previous published work. Could these data be added if not published previously or the distinction between the current and previous work be made clear by rephrasing?
Minor comments

1) In several places, the word "data" is used as a singular item rather than a plural e.g. data "was", "has", "is"

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