Reviewer’s report

Title: Knee problems are common in young adults and associated with physical activity and not obesity: the findings of a cross-sectional survey in a university cohort

Version: 0 Date: 23 Sep 2018

Reviewer: Flavia Cicuttini

Reviewer's report:

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1. What proportion of the eligible population took part? In order to comment on prevalence it is important to know how biased this population may be.

2. How many people were excluded especially for OA and previous treatment of injuries?

3. What is the validity of (KNEST) questionnaire which has previously been used in populations aged > 50 for use in this current population?

4. The authors should compare quality of life in those with and without knee problems

5. Table 3, the BMI categorization based on 10 KG/M2 it too high in this population.

6. Page 7: the authors The impact on quality of life was reflected in the higher prevalence of mental distress among those with a knee problem (n=21, 21.0%) compared to those without (n=26, 12.4%) (P=0.012). This is not valid. There are 100 with knee problems and >200 without. The analyses on mental distress, physical activity etc should be based on the whole population not very small subgroup analyses.

7. The tables presented should include the type of knee problems. Also some analyses should be performed to examine the potential risk factors for the different types of knee problems.

8. Discussion: page 9, line 49. The comment re prevalence must be considered within the limitations. We have no data presented on the potential bias. For example it is likely that those with knee problems were more likely to take part in this study. More evidence is needed before these statements are made.
9. Page 10, line 51. The authors discuss the issue of pain versus other symptoms. However the results are only presented in passing. I suggest the authors provide more data on this. Can they provide tabulated results? I don't think that based on the current manuscript they can make this a focus of their discussion. Also it would be important to determine whether these symptoms have an effect on function or Quality of life.

10. Line 7, page 11. I would delete 'this is the first study ….this is unhelpful especially as 'knee problems 'have been examined as a composite and not well dissected. It would be helpful to consider the sub categories and perhaps look at pain versus others so we can see the impact of these distinctions.

11. The authors need to provide a paragraph on limitations. This study is cross sectional. There is no information regarding selection bias. The authors need to consider the limitation of the knee problems measure in this much younger population.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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Acceptable
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