Reviewer's report

Title: Knee complaints seen in general practice: athletes versus non-athletes

Version: 1 Date: 17 December 2007

Reviewer: Elaine Thomas

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Major compulsory revisions

Introduction
1. The authors do not present a convincing argument for the need for this study. Although they state in a number of places that it is of interest to study the differences between athletes and non-athletes, they do not state why this is interesting. For example, would it be beneficial to treat the two groups separately if differences were found between diagnosis, prognosis or GPs initial policy of treatment?

Discussion
2. This section is a rewording of the results section. There is no discussion of the implications of the research and only one reference to other work (which relates to the dropouts rather than the main study findings). There is some mention of limitations but this could be expanded upon.

Conclusions
3. This section in particular needs to reflect on the implications for practice. The results suggest that there is no need for policy for GPs to treat athletes and non-athletes differently as they are very similar. Is this what the author would conclude?

Figures

Figure1

4. The percentages presented in the last two boxes, labelled total recovery, are calculated including those lost to follow-up in the denominator. Hence, you present a total recovery of 54.9% for the athletes which I assume is calculated as 231/421. However, 35 people were lost to follow-up, so should the total recovery percentage not be 231 / (421-35) = 59.8%? The authors need to clarify whether they have assumed that those lost to follow-up did not recover, in which case, they need to justify this and explain whether similar assumptions have been made in the other analyses in this paper, or they need to amend these results accordingly.

Minor essential revisions

Title
5. I would suggest that the term "athlete" is not appropriate for this study. This term is usually used to relate to professional sports people, rather than those who partake in sport in their leisure time. It seems that the authors are interested in differences between those who are physically active and those who are not. A term such as "physically active" or "regular exercisers" would be more appropriate than "athlete".

Abstract
6. The conclusions are the results presented in a slightly different form. The authors should use the results to draw conclusions about the implications of their study for practice and/or future research.

Methods
Study Design
7. How did GPs define knee consultations? Was this using a code, free text or just their feeling about the consultation? Also, were GP consultations taking the same format that they would usually take?

8. In general, were GPs aware of whether a patient was an athlete or not, either by the definition used in this study or by some other definition?

9. Line 17: I do not understand the word "anamnesis". Please could the author use a term which is more widely used?

Outcome measures
10. Line 5 The authors refer to the WOMAC functional disability score as being a "global score". Perhaps the description would be better without the term "global".

Potential confounders
11. Everything discussed in this section is also mentioned in the Statistical Analysis section. This section could therefore be removed.

Statistical Analyses
12. This section could be written more concisely, which would be easier for the reader to follow. I suggest something of the form:

"Logistic regression analyses were used to test the association between athletic status and i) the type of knee complaint, ii) initial policy of the GP, iii) medical consumption, iv) patient satisfaction with treatment received, v) recovery at one-year follow-up, vi) discomfort during employment, vii) discomfort during daily activities. All of these analyses were adjusted for age gender and BMI. In addition, models ii, iii, v, vi and vii were adjusted for trauma and baseline severity (measured by the WOMAC). Models vi and vii were also adjusted for the appropriate baseline discomfort score. Linear regression was used to test the association between athletic status and the pain and function, as measured by the WOMAC. These analyses were adjusted for age, gender, BMI, trauma, baseline severity and baseline pain level."
However, from the current explanation, I am not clear as to what adjustments were made in the pain and function analyses. This needs to be clearer.

13. In the final paragraph, the authors need to add that the results of the linear regression analyses are presented as, for example, adjusted means. They cannot be presented as odds ratios, as this paragraph currently suggests, as it is not possible to obtain odds ratios from linear regression.

Results
14. The use of the ± symbol in relation to standard deviations is inappropriate and an outdated presentation style. This should be changed. For example, instead of showing the mean age of the study population as 45.3 ± 16.9 years, this should be shown as 45.3 (16.9) years, where it is clarified previously that values will be shown as mean (SD).

15. The use of p-values in the text is not particularly helpful to the reader. P-values are to a large degree dependent on sample size and so do not give an idea of the magnitude of the relationship. It is more informative to show odds ratios. Although the odds ratios are already shown in the Tables, it would be useful to present them, either with or without their corresponding confidence intervals, in the text.

Study Population
16. Page 7, line 3. This sentence reads as though the two groups presented are the dropouts and non-dropouts, when in fact the authors are referring to the athletes and non-athletes. This needs to be made clearer.

17. Page 7, line 8. WOMAC is written as Womac. This needs to be changed to WOMAC.

18. Differences between study completers and dropouts are more usually presented as percentage differences, for categorical data, and mean differences, for numerical data. The use of odds ratios here is not particularly helpful as it suggests that the odds of dropping out in those with less pain are higher than the odds of dropping out in those with more pain. What the reader really wants to know is whether the same proportion of those with and without pain dropped out.

Course and prognosis
19. On page 5, the authors set up the term “clinically relevant improvement” and define it as those who report “total recovery” or “major improvement” on the experienced recovery variable. However, in later parts of the manuscript they use other terminology, e.g. in the Statistical analyses section they use “recovery,” in the Course and prognosis section and Figure 1 they use “total recovery.” This is confusing as I am not sure whether they mean the defined “clinically relevant improvement” or actually only those reporting “total recovery.” Consistency in terminology is needed.

Tables
Table 1

20. P-values are not 0.000, statistically they are <0.001. This needs to be corrected.

21. All figures should be given to the same number of decimal places and % signs are not needed within the body of the Table as they are given in the header. For example, in the Athletes/Gender cell, the values should read 58.0, not 58%.

22. The “type of knee complaints” seems to be rather confusingly categorised. People can clearly fall into two or more of the displayed groups. For example they could have bilateral acute distortion caused by trauma. I suggest that this part of the Table is split into sections (Cause: trauma; Description of problem: Bilateral, recurrent; Diagnosis: general knee complain to chronic meniscus fracture). Alternatively, the first three rows could be removed, as they do not really represent “working diagnoses”. If these concepts remain in the Table, further explanation is needed of the term “recurrent”, for example in respect of osteoarthritis.

Table 2

23. The % sign could be put in the first row of the Table i.e. Athletes (%), Non-athletes (%), rather than next to every value in the Table. This would make it easier to read.

24. Is there any overlap between treatment strategies here? For example, can patients be advised to reduce weight and given medication? This should be mentioned.

25. It is not clear what is meant by the term “Save the knee”. Is this taken from Dutch guidelines, or is this a term chosen by the authors? This needs to be clearer. I am also unsure as to whether “compresses” belong in the same category as the other three treatments under “Save the knee”.

26. The column of p-values is not needed because the confidence intervals describe the significance of the association.

27. Footnote. WOMAC needs to be re-written as WOMAC.

Table 3

28. The header for this Table says the medical consumption is over the one-year follow-up. This needs to be made clear in the Statistical Analysis section as medical consumption is compared as part of the initial policy as well as data over the 12-month follow-up period.

29. The % sign could be put in the first row of the Table i.e. Athletes (%), Non-athletes (%), rather than next to every value in the Table. This would make it easier to read.

30. It might be better to present the types of therapists or specialists as physiotherapist, orthopaedic surgeon, other, because of the small numbers.

31. As in Table 2, p-values are not needed.

Figures
Figure 1

32. The final two boxes of this flow chart are labelled "total recovery". This does not fit with the definition given on Page 5. See Comment 20.

Figure 2

33. This Figure shows pain and function scores at three-month intervals throughout the one-year follow-up. This needs to be clearer in the text, which suggests that Figure 2 only shows the results at one year.

34. Could the authors make it clearer what is shown in this Figure? Is it the adjusted means from the linear regression analysis or is it unadjusted means?

Discretionary revisions

Methods

Outcome Measures

35. The description of the WOMAC function scale is a little confusing as the authors say that the scale measures functional disability of the knee and then say the score ranges from 0 (poor) to 100 (excellent). This reads as though disability is "excellent" and I think the word "disability" should be changed to "ability".

36. This section details some measures that were collected in the study, but not used in the analyses presented in this paper. It would be simpler not to mention these measures (e.g. satisfaction with GP's policy at one-year follow-up).

Study Population

37. In line 6 of this section, it should read, "satisfaction with the GP's"

38. In line 7, the sentence would make more sense if the word "registered" were changed to "recorded".

GPs initial policy and medical consumption

39. Page 8, line 14-15. Should this read, "Most patients visited a physiotherapist (30%) or an orthopaedic surgeon (19%).", rather than "and an orthopaedic surgeon?"

Figures

Figure 1

40. If those lost to follow-up have been removed from the analysis, it may be more appropriate to add in a box to show the total number eligible for analysis. The authors may want to consider removing the "results", i.e. the percentages recovered, from this as it is not clear that this is the primary outcome and that it deserves a more prominent position in the paper than other results.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

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