Reviewer's report

Title: The effect of a sports chiropractic manual therapy intervention on the prevention of hamstring and lower limb injuries in semi-elite Australian Rule footballers: A randomized controlled trial

Version: 1 Date: 15 December 2009

Reviewer: Stephen Perle

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Major Compulsory Revisions

1. If this manuscript was submitted to a chiropractic publication the readers might be likely to understand the distinction between manual and mechanically assisted techniques. However as this journal is geared to a more heterogeneous population a short explanation of the differences in these interventions are in order.

2. The results section of the paper is inconsistent in what details it provides in text and what only in tabular format. For example when talking about Injury Surveillance the authors, appropriately I believe, provide chi squared values and probability of type I errors ($p=...$). However, for low back pain and health status the authors note statistical significance without reporting the probabilities.

Minor Essential Revisions

3. The information presented on what types of treatment were provided to the subjects would be easier to understand if it was also in tabular form.

4. On page 9 of the manuscript the authors write “all data collected was manually…,” on page 10 “If data was extremely skewed…” and on page 17 “Although data was not recorded…” Data is a pleural word and the verb should agree in number, thus ‘was’ should be replaced by ‘were.’

5. I think the use of the phrase “based regions” used as “joint based regions” and “soft tissue based regions” is confusing. Does this mean that joint based regional treatment meant that a treatment was provided to the region around, for example, the ankle and soft tissue based regions means that the treatment was applied to all muscles

6. On page 13 the authors write “of the soft tissue therapy provide” should be “provided,”

7. The vast majority of the discussion section is an exposition of the literature that supports the theories concerning why chiropractic care might provided added value in preventing hamstring injuries. As this is speculative I think this should be pared down and more time spent on what we do know than what we theorize.

8. On page 16 the authors imply that manipulative physiotherapists tend to use more slow velocity or mobilization treatments. The reference is a paper by
physical therapist educators from the U.S. regarding usage of manipulation in professional education. I do not think that this is good documentation about what manipulative physiotherapists in Australia actually do in practice.

9. I was really expecting that the authors would discuss what I believe was an unusual outcome in this study. I thought it unusual that lower limb muscle strain injury incidence was significantly lower while the missed weeks was not. Conversely the non-significant difference in incidence of non-contact knee injury incidence but significant reduction in weeks missed for non-contact knee injury

Discretionary Revisions

10. Although discussed the authors never actually say that as an under powered study this work is prone to type II error.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests