

Reviewer's report

Title:A consensus definition and rating scale for minimalist shoes

Version:1**Date:**23 July 2015

Reviewer:George S Murley

Reviewer's report:

This paper presents a series of studies that validate a scale for rating the structure of minimalist-style running shoes. The work presented is comprehensive and the authors have done well to condense the information into a single paper. Reflecting on my comments below, the key issue is that there are several instances where the authors speculate, unnecessarily, about the effects of minimalist footwear. This gives the impression of prevailing bias toward the use and importance of minimalist shoes. I am left wondering if members of the research team are strong minimalist/barefoot running advocates or have commercial/clinical agenda. If so, this should be declared/explained in the conflict of interest statement. Irrespective, the authors need to revise the paper, (particularly the introduction), to restore balance.

For example, I am a podiatrist without a conscious preference for barefoot or traditional running shoes. However, I develop educational material for an orthotic laboratory, which one could argue might induce preferential bias against minimalist shoes or indeed this paper. So I declare this as a potential conflict of interest.

Major Compulsory Revisions

General comments:

1. First sentence of background. 'might have a possible influence' is two 'maybes'. This sets the paper up as being speculative from the start.
2. Line 69 – 'weight and stack height – should read 'low weight and stack height'?
3. Line 52-53 seems to repeat the quoted text in lines 48-50.
4. Line 57. What is 'market use'
5. Line 58-59. 'May have to decrease injuries related to footwear transition' – this statement is too speculative and doesn't really make sense as stated (without explanation in the conclusion).

Introduction

6. Line 84. 'Such disparities are certainly related to different shoe models' — this is a BIG statement, suggesting that the lack of consistent findings are clearly related to variations in shoe structure.

7. Lines 72-76 of the introduction is a little bias toward the minimalist concept and would be seen to be provocative to readers who are pro-traditional running shoes. I completely understand the authors' responsibility here is to tell a story and provide a compelling case for the study. Line 73 'hypothetically result in injury risk' is a weak argument to make and unnecessary.

Conclusion

8. Line 59 - the comment 'may help to decrease injuries related to footwear transition' is a new concept not discussed elsewhere (i.e. discussion). It is only raised in the conclusion of the abstract and the main conclusion of the paper. If this authors wish for this to be a key message for the reader to take away from the paper, then further discussion and explanation is required. My feeling is that the content in this paper is unlikely to provide evidence to support this statement.

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 am a podiatrist without a conscious preference for barefoot or traditional running shoes. However, I develop educational material for an orthotic laboratory, which one could argue might induce preferential bias against minimalist shoes or indeed this paper. So I declare this as a potential conflict of interest.

Aside from this, I declare that I have no competing interests