REVIEWER'S REPORT

Title: Determinants of foot pain severity in adults with hallux valgus: a cross-sectional study

Version: 1 Date: 12 May 2014

Reviewer: Joshua Burns

Reviewer's report:

An interesting study with an unusual finding that neither HV severity angle nor presence of 1st MTP joint OA was associated with level of foot pain, and that the resulting comprehensive models predicted only modest amounts of variation in foot pain (20-33%). Some comments:

Major Compulsory Revisions

1. A major limitation of the study is that the foot pain measures were not specific to the Hallux Valgus/1st MTP joint region. This has been acknowledged in the discussion on page 15 as well as the fact that some participants actually had pain in the arch and heel, and not the Hallux Valgus/1st MTP joint region at all. Do the authors think that this non-specific measure of Hallux Valgus pain as well as the likelihood of pain in other regions of the body (not reported) might explain the unusual findings, as well as some of the variance in the general health, education and occupational correlations?

2. With only 1 of 20 plantar pressure variables showing a significant association with foot pain, might the lack of standardised footwear during testing explain this finding? Using participant’s own footwear is more a measure of footwear pressure attenuation than an inherent foot pressure profile, especially considering the range of footwear people wear in any given week?

3. Same size: Please provide further justification that n=57 and n= 58 is large enough to perform the multivariate linear regression models shown in Table 4 (9 variables) and Table 5 (6 variables).

Minor Essential Revisions

4. The word ‘Determinants’ in the title suggests causality which is not possible to identify in a cross-sectional study. Please consider another terms like ‘Factors associated with’ or ‘Explanatory correlates’.

5. Is the gender bias of the sample representative of the general population of those with painful Hallux Valgus?

Discretionary Revisions

6. The foot pain locations section on page 13 seems out of place. Should this be used instead to describe the sample initially?
**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

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

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