Reviewer's report

Title: Comparison of the Doppler Ultrasound identification ability of student and registered podiatrists

Version: 1 Date: 8 April 2013

Reviewer: Mairghread Ellis

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Please find my comments below in relation to the points on which you request comment.

1. Is the question posed by the authors new and well defined? The use of Doppler ultrasound to assess arterial circulation is not in itself new. However, it has come into routine podiatric practice only within the last 10 years or so, and the technique is now taught in UK podiatry schools as a standard evaluative tool. I am unaware of any other similar current or podiatry study to assess ability to identify the phasic nature of flow, or to compare the abilities of students and registered practitioners. In that respect, this is a new ‘question’, albeit considered by a small study.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work? Yes, I believe so. This is a simple but effective methodology, which would lend itself to generalising out to a much larger multicentre study, thus giving even more robust data.

3. Are the data sound and well controlled? I believe it would add to the rigour of the paper if more detail around the gathering of the audible signals was given. For instance did one person gather all this data? Was the same ultrasound unit used for all patients? Was the same Dictaphone used for all recordings? It is not entirely why the fifteen recordings were made up as they were (i.e. 3 recordings duplicated and used twice) – I think some more detail is needed to explain this. Consideration is given to minimising the variables at the point where participants were exposed to the audible data, so it may just be that more detail needs to be given to be seen to be consistent.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition? There is no detail on how data was stored, in terms of security, time, or access.

5. Are the discussion and conclusions well balanced and adequately supported by the data? The discussion introduces a new question (Why were the practitioners not better than the students?) This might have been addressed in the study aim at the end of the Background section. The discussion section might also address a consideration of a stratified sample of experienced practitioners. It might be worth stressing that, having developed a tight method, this study could be replicated on a greater scale.
6. Do the title and abstract accurately convey what has been found? Yes, but I would perhaps highlight the very small size of the study, so that the final sentence of the abstract is set in context and not overstated.

7. Is the writing acceptable? A spelling error was noted in the method section generator, not ‘geneator’.

**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'