Reviewer's report

Title: On Your Feet: Protocol for a Randomized Controlled Trial to compare the effects of pole walking and regular walking on physical and psychosocial health in older adults

Version: 3 Date: 5 March 2014

Reviewer: Garry Tew

Reviewer's report:

I thank the authors for their responses. The manuscript is well written and most things are fine. However, I do have some minor essential revisions and comments.

Randomization - you are not guaranteed to get 30 participants in each group using a random number generator. I suggest you add the word "approximately".

Statistical tests of baseline imbalance and adjustment for covariates - if the randomisation process is secure then it doesn’t make sense to assess for baseline imbalances in characteristics/demographics. If there was a difference, then this would be due to chance. I do appreciate that many people run such tests, so it’s your call on whether to amend this or not. However, you go on to say that the ANCOVA will be adjusted for significant between-group differences in baseline variables. This needs to change as it is best practice to outline your covariates a priori.

Comments:

1. It's an unfortunate limitation that there won't be any record our exercise intensity.

2. I'm really struggling with this statement: "Sample size estimates were therefore based on the premise that the PW group would achieve changes at least 20% greater than those observed in the RW group, in selected measures of the Seniors Fitness Test (30-second chair-stand test, 30-second arm-curl test, timed up and go test, and a 6-minute walk test) [55]." Maybe I'm wrong, but I think it will be highly unlikely that there will be any appreciable differences between groups in these outcomes, because the volume and intensity of exercise will be pretty much the same in both groups. Thus, I think the study is underpowered to detect the likely differences between groups (i.e. in my eyes much less than 20%).

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