Author’s response to reviews

Title: Behavioral and neural adaptations in response to five weeks of balance training in older adults: A randomized controlled trial

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Author’s response to reviews:

Dear Dr. Yuan, dear reviewer

Thank you very much for reviewing the revised manuscript and for your comment. Please find our response to your comment below.

Sincerely,
Jan Ruffieux

Response to the reviewer’s comment

Reviewer #1

For question #3 regarding the sample size, what is the calculated sample size using the method the authors described? Is it significantly larger than the actual sample size of the trial? The authors need to comment on this in the discussion.

Response: The required sample size calculated was 30 in total (15 in each group). We have now included the following in the methods section:
“A priori calculation of the required sample size (G*Power, 3.1 [18]; 2x2 mixed design ANOVA, effect size f = 0.25, α = 0.05, power (1 - β) = 0.75) yielded a total sample size of 30. To compensate for possible drop outs, two additional participants were recruited for the training group.”

Furthermore, the fact that for some tests, the actual sample size that could be included in the analysis was considerably below the calculated sample size is now discussed in an additional paragraph in the discussion:

“A last limiting factor that needs to be discussed is the sample sizes. For different reasons, the actual sample sizes that were included in the statistical analyses were for some parameters considerably smaller than the required sample size that had been calculated a priori (see results section). The statistical tests of the concerned parameters might therefore be underpowered.”