Author’s response to reviews

Title: Test–retest reliability of tip, key, and palmar pinch force sense in healthy adults

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Author’s response to reviews:

Dear Dafne Solera,

Thank you for considering the revised version of our manuscript, "Test–retest reliability of tip, key, and palmar pinch force sense in healthy adults," (BMSD-D-19-00686R2) that was submitted to BMC Musculoskeletal Disorders. We thank the editor and reviewers for pointing out revisions that were important and necessary for our manuscript. We have thoughtfully taken into account these comments.

Charlotte Beaudart (Reviewer 1): The authors responded well to my previous comments. However, I am still sceptical about the sample size used in this study. Authors just add a short sentence in the discussion ("the sample size is insufficient to represent the population") but it seems insufficient for me to add such a simple sentence to recognized this important limitation.

Authors cited some previous studies using a smaller sample size than theirs. However, to me, it is not a gage of evidence. I am still convinced that 50 subjects is the minimum sample size needed for this type of analyse and I expect the authors to discuss more deeply about this limitation in the discussion section.

R: The phrasing “Twenty-one healthy subjects (11 women and 10 men)” has been replaced with “Fifty-six healthy subjects (31 women and 25 men).” Another 35 healthy people have agreed to participate in this experiment.

Ruud W. Selles (Reviewer 2): The authors have significantly improved the manuscript and have carefully addressed the reviewers comments.

My only concerns that I have left is that the authors make a number of statements in the text that I think are too bold or imprecise and that can be adjusted or removed without taking away any of the significance or the relevance of the manuscript.

More specifically, there are two statements that relate force sense to musculoskeletal disorders that I think are not sufficiently substantiated:
Abstract: "To prevent hand musculoskeletal disorders, it is critical that the force sense of different types of pinch grips is understood."

Introduction: "To attain a better understanding of the causes of MSDs, which are prevalent, and to develop preventive strategies to decrease the risk of injury, it is critical that the force sense of different types of pinch grips is understood."

In the discussion, the first sentence, "The reliability of a measurement method determines the success or failure of a study." I agree that a reliable instrument is important but the success and failure of a study depend on much more than that.

R: We have deleted the specified sentences from the abstract, introduction, and discussion sections. Abstract: "To prevent hand musculoskeletal disorders, it is critical that the force sense of different types of pinch grips is understood." Introduction: "To attain a better understanding of the causes of MSDs, which are prevalent, and to develop preventive strategies to decrease the risk of injury, it is critical that the force sense of different types of pinch grips is understood." Discussion: "The reliability of a measurement method determines the success or failure of a study."

We hope that these revisions have made our manuscript acceptable for publication in BMC Musculoskeletal Disorders.

I look forward to hearing from you soon.

Sincerely yours,

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