The revised manuscript has improved and addressed several previous concerns, particularly by clarifying the grouping procedure, softening causal language, expanding the methods, and adding a Bonferroni correction. These changes strengthen the manuscript.

However, some scientific concerns remain. The main limitation is that participants are still grouped according to maximal acceleration and then compared using acceleration-related variables, especially step acceleration and estimated step horizontal force. Although the authors now acknowledge this and frame the results more cautiously, the manuscript should consistently present the findings as descriptive associations rather than true determinants.

We have added this to the discussion and limitations sections to make this explicitly clear.

The statistical interpretation should also be fully aligned with the Bonferroni-corrected alpha level (i.e. statistical interpretation should be made fully consistent with the revised analysis. The manuscript states that a Bonferroni-corrected alpha of 0.01 was adopted. Yet, some parts of the Results and Discussion still refer to findings with p 0.04 or p 0.05 in ways that may still suggest meaningful statistical differences. Even if the authors intend to discuss effect sizes and descriptive patterns, the distinction between statistically significant findings after correction and non-significant trends should be made much clearer throughout).

We have cleaned this up in the discussion as highlighted.

In addition, the equations and definitions for derived variables, especially estimated SFh, Sa, and Sv, should be clarified further to ensure full reproducibility. The added reliability information is helpful, but it remains unclear whether it applies specifically to all step-level variables central to this study.

*We have expanded the definitions and added the text "*The repeatability and accuracy for base measures, velocity, position, and time were found to have a low error rate (<1%) by the manufacturer, and low bias and low error rates for step length, step force, and step velocity were also reported by Sugisaki [24]."

Overall, the manuscript is stronger than before and remains potentially publishable, but further revision is still needed to improve scientific framing, statistical consistency, and methodological precision.