REPLY TO LETTER TO EDITOR: THE DOSE-RESPONSE PHENOMENON ASSOCIATED WITH STRENGTH TRAINING IS INDEPENDENT OF THE VOLUME OF SETS AND REPETITIONS PER SESSION

ANSWER LETTER
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The recruitment of volunteers took place from the invitation sent to students regularly enrolled in the eighth semester of the Physical Education course. As indicated in the manuscript, the randomization process took place in a block of six subjects, with each block resulting in the distribution of two subjects per group ensuring balanced recruitment in the study favoring the similarity of the measurements at the pre-moment between the groups (3x10 vs. 10x3 vs. 5x6). It is worth mentioning that, according to Yudkin et al.[1] and Barnet et al.[2], this strategy reduces the risk of bias and is considered as a quality criterion in experimental designs that aims at comparisons between groups.

Additionally, this is a recurring phenomenon in studies with intentional sample selection between groups with strength training[3-4]. As an example, we used mode A ultrasound, in accordance with the methodology of previous studies[5-6], presenting similar absolute values in the muscles analyzed among the subjects in the pre-intervention moment.

With regards to items b and c, we agree and thank the authors of this letter. This failure allowed coherent interpretations mentioned by the authors, which occurred due to an error in the indication of the exercise used to measure the strength of the lower limbs in the present study. Thus, the correct exercise used for the evaluation was the leg press instead of the squat. We indicate that this inconsistency was previously identified by the authors and signaled via email to the Brazilian Journal of Sports Medicine, even before we received the indication of this document. Therefore, it is worth mentioning that the absolute values of the present study, now considered as leg press, are similar to those reported by Lasevicius et al.[7], using a similar sample. In addition, we recommend that authors use the term "magic pill" with caution to express positions for future studies.

In fact, the way of quantifying the total load shown in figure 2 was not shown in the manuscript. This equation is classic in literature and has been used in previous studies[8-9]. Thus, to facilitate clarifications for future readers, we will request the Brazilian Journal of Sports Medicine that this information can be inserted in the chapter of the study design, following the appropriate process. Thank you for your indication.

We understand that the aforementioned studies[10-11] demonstrate a reduction in the number of repetitions performed with concentric failure when manipulating the pause time between sets. In the present study, the number of repetitions throughout the series in the 3 groups were maintained in the stipulated RM zone (3 vs. 6 vs. 10 repetitions). To maintain this number of repetitions, the weight used for the exercises was adjusted when necessary, in accordance with previous publication[12]. Therefore, there was no such reduction in repetition as possibly argued because the external load was adjusted.

It is also necessary to remember that the recovery interval of our methodology should not be considered as "short" but as "moderate", according to Schoenfeld[13]. According to the author, moderate pauses (between 60 to 90 seconds) offer satisfactory rest time to maximize muscle hypertrophy. Furthermore, a classic study still indicates that strength is restored within the first minute of recovery[14].

Finally, one of the articles[11] cited by the authors of this letter used a methodology quite different from the present study. Which makes possible comparisons and / or inferences about the influence of recovery difficult to establish.

All authors declare no potential conflict of interest related to this article

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