Corrigendum to “Effects of training with elastic resistance versus conventional resistance on muscular strength: A systematic review and meta-analysis”

Lopes JSS, Machado AF, Micheletti JK, et al. Effects of training with elastic resistance versus conventional resistance on muscular strength: A systematic review and meta-analysis. SAGE Open Medicine 2019; Feb 19; 7. doi: 10.1177/2050312119831116

The authors would like to draw attention to the following errors in the above paper:

The standardized mean difference (SMD) in the Abstract should have been stated as -0.11 instead of -0.011.

The sentence in the Abstract which reads “The results of the meta-analysis demonstrated no superiority between the methods analyzed for upper limb (SMD = -0.011, 95% CI -0.40, 0.19, p = 0.48) or lower limb muscular strength (SMD=0.09; 95% CI -0.18, 0.35; p=0.52)” should have read “The results of the meta-analysis demonstrated no superiority between the methods analyzed for lower limb (SMD = -0.11, 95% CI -0.40, 0.19, p = 0.48) or upper limb muscular strength (SMD=0.09; 95% CI -0.18, 0.35; p = 0.52)”.

The legends of Figures 2 and 3 were mistakenly swapped. The forest plot of Figure 2 output contains data for lower limb outcomes and should have been labelled “lower limbs” instead of “upper limbs”. The opposite is true of Figure 3.

For the sake of clarity, it is reiterated that the authors used a fixed-effect model for the meta-analysis “through the I2 value” (the I2 value being mentioned in the Methods section).

In the Results section, the sentences which read “The search carried out in the databases identified a total of 365 articles, of which 23 were considered eligible. Of these, 10 studies were excluded as they did not compare training between elastic devices and conventional machines; three did not use muscular strength as an outcome; and two did not perform training with elastic devices. Thus, eight articles (Table 1) corresponded to the inclusion criteria, comprising a total of 224 individuals aged between 15 and 88 years” should have read “The search carried out in the databases identified a total of 365 articles, of which 29 were considered eligible. Of these, 17 studies were excluded as they did not compare training between elastic devices and conventional machines; three did not use muscular strength as an outcome; and two did not perform training with elastic devices. Thus, seven articles (Table 1) corresponded to the inclusion criteria, comprising a total of 224 individuals aged between 15 and 88 years”.

In the Results sub-section “Methodological quality of included studies”, the sentence “One study 3 scored 8; four 1,6 scored 7; one scored 6, and two 2 scored 5 on the scale, thus classifying the articles as “moderate quality” according to the classification used in the review and meta-analysis study by Machado et al 15 (Table 2)” should have read “One study 3 scored 8; three 1,7,8 scored 7; one scored 6 4, and two 2 scored 5 on the scale, thus classifying the articles as “moderate quality” according to the classification used in the review and meta-analysis study by Machado et al 15 (Table 2)”.

In the Results sub-section entitled “Effects of elastic resistance training and conventional resistance training on muscular strength”, the sentence “The results of the meta-analysis for the upper and lower limbs, respectively, showed that there is no superiority between training performed with elastic resistance and training with weight machines and/or free weights on strength gain (Upper limbs: SMD = -0.11, 95% CI -0.40, 0.19; p = 0.48; Lower limbs: SMD = 0.09; 95% CI -0.18, 0.35; p = 0.52) (Figs 2 and 3)” should have read “The results of the meta-analysis for the upper and lower limbs, respectively, showed that there is no superiority between training performed with elastic resistance and training with weight machines and/or free weights on strength gain (Lower limbs: SMD = -0.11, 95% CI -0.40, 0.19; p = 0.48; Upper limbs: SMD = 0.09; 95% CI -0.18, 0.35; p = 0.52) (Figs 2 and 3)”.

In the Discussion section, the sentence which read “The findings are in accordance with systematic reviews with meta-analysis that demonstrated positive effects on muscular strength gain from the use of elastic resistance when compared with a control group in the elderly 16 and individuals with osteoarthritis 17 and fibromyalgia 18” should...
have read “The findings are in accordance with systematic reviews with meta-analysis that demonstrated positive effects on muscular strength gain from the use of elastic resistance when compared with a control group in the elderly 16. Other studies reviewed all types of resistance training, including elastic resistance in specific populations, which included individuals with osteoarthritis and fibromyalgia, and found positive outcomes on this method 17,18”.

The authors would like to thank Dr Phil Page (Baton Rouge, Louisiana, USA) for highlighting the errors.