

Ratings of perceived exertion and repetition maximum test in elderly women #60

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Physical exertion subjective perception based on Borg scale is commonly used in researches and exercise interventions when the determination of physical effort intensity is important. Borg Scale had been largely used to control aerobic exercise intensity but few studies applied it to control resistance exercise intensity. This study aimed to compare ratings of perceived exertion (RPE) responses and real exertion intensity (based in 1 Repetition Maximum- RM) in elderly women. Thirty-six volunteers (aged 60.2 ± 7.2 years) performed knees flexion and extension movement and after each try were asked to determine their RPE (based on Borg scale CR10). To compare responses an association was made as follow: each point in RPE scale corresponds to 10% of 1 RM (scale 1 = 10%; 2 = 20%, respectively up to scale 10 = 100% of 1 RM). The results showed that in knee extension movement the relation between RPE and % RM were: RPE 6 = 59.9 %; RPE 8 = 77.4 %; RPE 9 = 87.6 %; RPE 10 = 93.7 %. For knee flexion movement the relation between RPE and % RM were: RPE 6 = 56.7 %; RPE 8 = 74.6 %; RPE 9 = 85.1 % and; RPE 10 = 92.3 %. It can be concluded that in this population, Borg scale can be used to control resistance exercise intensity, when training intensity is from low to moderate intensities. However, but in high intensity exertion is overestimated. Moreover, the greater the intensity of real effort less is the precision in the RPE.

Key words: maximum strength; older people; ratings of perceived exertion.