

Evaluation of the internal training load in fitness activities: Preliminary results

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Ratings of perceived exertion (RPE) and session-RPE methods are widely used as estimate of exercise intensity and to quantify training load in sport activities. However, no information is available in fitness activities although people are often engaged in high intensity physical activities and monitoring individual responses to the training stimulus could provide important feedback on the adaptation to training. Therefore, the purpose of this study was to verify the use of session-RPE using Edwards' summated heart rate (HR)-zone method as a criterion measure (Herman et al., 2006). After giving their informed consent of participations, 20 volunteers (M=5; F=15; mean age: 21±10 years) practicing regular group-based fitness activities (i.e., 3 weekly sessions of Fit-boxe), participated in the study. Heart rate during the fitness lessons and CR-10 Borg's scale 30 minutes after the end of the exercise session were recorded. Edwards' HR method was determined by expressing the HR recordings as percentages of the athlete's theoretical maximal HR (220-age), multiplying by a specific factor the accumulated time (minutes) in 5 HR zones (50–60% of HRmax=1; 60–70% of HRmax=2; 70–80% of HRmax=3; 80–90% of HRmax=4; 90–100% of HRmax=5), and summing the scores. Session-RPE was calculated multiplying RPE value by the training duration (minutes). RPE recorded 30 minutes after the end of the lesson was 6.1±1.4 points. High and significant correlation ($r = 0.72$; 95% CI = 0.41-0.88; $p = 0.0006$) emerged between Edwards' HR (145.5±32.6 AU) and the session-RPE (247.7±71.6 AU) methods. Results from this preliminary study show that session-RPE can be a useful and inexpensive tool to quantify internal training load in fitness activities, and instructors could use this instrument to monitor their clients, especially when considering the high inter-individual variability of group-based fitness activities.

References

- [1] Herman et al. (2006) Validity and reliability of the session RPE method for monitoring exercise training Intensity. *S Afr J Sports Med* 18: 14-17.

Key words

Training load, RPE session, fitness.