COMPARISON OF FIVE WEEKS PERIODIZED- VERSUS NON PERIODIZED-TRAINING PROGRAMS ON MAXIMAL POWER DEVELOPMENT IN BENCH PRESS
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Periodization is one of the most important concepts in training (Rhea et al, 2003; Baker, 1994). The purpose of this study was to compare the effect of a five weeks periodized and non periodized training program on maximal power development in bench press in physically active subjects. Twenty-two sport sciences students, without previous experience in strength training, were randomly assigned into non periodized training group (NPG) (n=9; 2 females and 7 males; age: mean ± SD = 21.6 ± 1.1 years) or periodized training group (PG) (n=13, 3 females; 10 males; age: mean ± SD = 21.8 ± 1.4 years). The NPG performed 5 sets of 6 repetitions (5 x 6) in bench press exercise, two sessions per week during five weeks. The PG also trained twice per week performing the following sets-repetitions in bench press exercise throughout the training program: 1st week: 5 x 6; 2nd week: 4x5; 3rd week: 5x7; 4th week: 5x8; and 5th week: 4x6. Both groups performed the repetitions with the maximum speed, with the weight corresponding to the maximal power, and with 3-5 minutes rest between sets. An initial testing session using the Ergopower Bosco system (Norway) was performed to obtain the maximal power and the weight corresponding to the maximal power in bench press exercise, which was adjusted with a 2.5wk interval during the training, being also measured again the maximal power. Volume and relative intensity were equal for both groups. The independent samples t-test was applied for tracking down the initial differences between groups. A repeated-measures analysis of variance was performed to examine the findings. The significance level was set at p<.05. No significant differences were observed between groups before the training program. Maximal power was increased (p<.05) after 2.5 training weeks in PG and NPG (15.3% and 24.7%, respectively), without significant differences between groups. However, during following 2.5 weeks a non-significant increase in maximal power 2.9% in PG was observed, while a decrease (10.2%; p<.05) in maximal power occurred in the NPG. PG and NPG increased (p <.05) maximal power after 5 training weeks (18.6% and 11.9%, respectively) without significant differences between groups. In conclusion, both periodized and non periodized training program produced similar improvements in the maximal power in bench press exercise in this population. Nevertheless, the study presents some limitations regarding the length of the training program and the population and should be regarded with caution while applying the results to highly trained populations.

REFERENCES

Keywords: Planning and Periodisation, Sports Training

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