POSTURAL CONTROL IN MARTIAL ARTS: A COMPARISON BETWEEN TWO METHODOLOGICAL APPROACHES
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INTRODUCTION
Postural control is an important element in some martial arts and a typical test is used to evaluate it. Motor Imagery (MI) and Kunci Breathing Technique (KBT) are two methods to manage the postural control. According to many authors, these methods are related with the heart rate.

AIMS
The aim of this study was to compare Motor Imagery and Kunci Breathing Technique as methods to manage the postural control in a typical martial arts test.

METHODS
Survey involved 3 male and 3 female groups of 5 subjects each. Subjects were tested before and after a specific training period of 6 weeks (Group C = control group, non-trained; Group MI = trained in Motor Imagery, Group KMI = trained in Motor Imagery and Kunci Breathing Technique).

Test protocol: subjects were asked to maintain their body in an unusual position as long as possible lying supine bridging between two chairs supporting their body with heels and head. Time performed and mean heart rate were collected such as fatigue indexes. Data were analysed by Two Way ANOVA (p<0.05).

RESULTS
In the within group comparison, the mean heart rate increased in both male and female MI and KMI, not in the Control groups. An increase of the total time of the kept supine position was found only in the female MI and KMI groups. In the post training comparison, mean heart rate increases were found between male MI and male C, male KMI and male C. Concerning the total time of the kept supine position increases were found between female KMI and female C, between male KMI and male MI, between male KMI and male C.

CONCLUSIONS
Groups trained in Kunci Breathing Technique increased the performance in the time of the maintaining their body in the unusual position and probably the fatigue (as mean heart rate rose). The differences noticed comparing KMI and MI groups could depend on an increased work of the deep postural muscles induced by Kunci Breathing Technique.

REFERENCES

Keywords: Posture, Motor Control, Martial Arts