RELIABILITY AND VALIDITY OF HACETTEPE INTERMITTENT JUMPING TEST  
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Maximal power output during vertical jumping from a force platform or a mat has been studied variedly. But during jumping tests there is not enough data on intermittent type exercise and its effect on athletes jumping performance. The purpose of this study is to examine Reliability and Validity of Hacettepe Intermittent Jumping Test (HIJT) which is thought to be used in order to determine physiological and mechanical changes during maximal intermittent exercise (5*15s maximal exercise and 60s passive recovery between exercises).

Subjects are measured 3 times on separate days to test reliability of HIJT. Subjects performed HIJT on a platform (Bosco Test instrument) and they are told to hold their hands at their waist. During test, through telemeter which is located on their chest, rest heart rate (HR), before and after every bouts is taken. 3 different testing groups joined the reliability study. 2 of these consist of Elite male (n=14) and female volleyball players (n=8). The average of age, height and body weight of subjects are 18.07±1.21y; 20±1.31y; 189.7±3.99cm; 172.7±2.72cm; 74.2±8kg; 64.3±5.6kg respectively and for sport science students (n=12) is 23.9±5.5y; 174.3±1.9cm; 70.6±2.9kg.

The validity study is made at 2 stages. At the first stage subjects are divided into two groups. On the first day while the first group was joining the HIJT the second group was joining a min. Repeated jumping test. While at the second stage groups changed and joined the same tests. Subjects carried out this test on the same platform. But in this test subjects repeated the jumping test for one minute with their maximum effort. At the end of this test the power output values of 0-15, 15-30, 30-45 and 45-60s is determined. Only elite male volleyball players joined this test (n=14). During validity study blood is taken from earlobes of subjects, once at the beginning at the end and on the 3rd, 5th and 8th minutes after the test. The blood samples were analysed for lactic acid by YSI Sport Tester 1500. The analysis of results are actualized by SPSS packed statistic program.

Repeated measurements are examined by MANOVA variance analysis, the observation of source of the difference between two groups, by Hon. Sig. Dif. test, the relationship between measurements at different days by Pear-Product M. Cor. analysis and the control whether values show normal distribution or not, by Col.-Smirnov tests. When the findings at reliability stage of study are examined a statistically meaningful relationship is found among tests of groups on different days (p<0.05). Likely; at the validity stage of the study a statistically meaningful relationship is observed between two tests (p<0.05).

As a result, HIJT has a high reliability (r: 0.92) and validity (r: 0.74) and it can be used both under laboratory conditions and as a field test to evaluate anaerobic fitness.

Keywords: Jumping, Plyometrics, Recovery