

RELIABILITY AND FACTOR VALIDITY OF BASKETBALL SHOOTING ACCURACY TESTS

Preliminary communication

Abstract

The aim of the study was to determine reliability and factor validity of six basketball shooting accuracy tests. Fifty five healthy basketball players (age 19.1 ± 3.1 years; body mass 83.4 ± 12.5 kg; height 189.1 ± 8.2 cm; body fat percentage 13.1 ± 4.1) from four Bosnian basketball teams participated in this research. The applied tests have been constructed in order to measure basketball shooting accuracy from three different distances and under different intensity loads. The standard statistical parameters were calculated for each trial of all six basketball shooting tests (arithmetic mean, standard deviation and range). The average intertrial correlation coefficients (AVR), interclass correlation coefficients (ICC) and Cronbach's alpha reliability coefficients (α) were used to determine the between-subject reliability of basketball shooting tests. The within-subject variation for the three tests was determined by calculating the coefficient of variation (CV). In order to determine the factor validity of six basketball shooting tests, an intercorrelation matrix of the six tests was factorized using a principal component factor analysis. Structurally and physiologically more demanding tests performed from longer distances, produced higher variation in the applied tests. The most reliable tests are those that were performed from short distances in physiologically and structurally less demanding conditions. Results showed that all six tests have a similar measurement goal, that is to say basketball shooting accuracy, but they do not measure the same aspects of basketball shooting accuracy. As reliable and valid instruments, the tests can be used in future studies, but also can help coaches to evaluate players' accuracy in more realistic conditions, or to use the tests as training drills for improving basketball accuracy and players' fitness.

Key words: *fatigue protocol, field tests, basketball players*