

ANALYSIS OF CERTAIN INDICATORS OF THE LOAD IN THE PLAY OF GUARD IN TODAY WATER POLO

Abstract

A representative sample of 161 entities (quarters in water polo) has been taken to register the total activity of the guard (back) during the international games of the Adriatic Water Polo League in the season of 2009/10. Various types and quantities of movement have been registered for different intensity, duration and frequency of events both in the horizontal and vertical phases of game. A sample of variables consisting of 21 originally measured and 8 derived variables has been used. For final multivariate analysis 11 variables have been retained. Data processing methods have been brought into accord with the aims of this research, and the basic statistical parameters as well as distributions of all the measured and derived variables have been calculated. Factor analysis under component model has been carried out, whereas the final factor solution has been determined using "Oblimin" rotation. Standard SPSS package has been used for data analysis. The results of this research clearly and definitely show that it is possible to determine the latent sources of variability related to guard (back) movements during a water polo match (number of actions, frequency, levels of load and the amount of movement measured in meters) in vertical as well as in horizontal phase in the game. From a wider choice of variables for measuring guard (back) activity it is possible to extract a sub-group of variables which describe the important target aspects of player load in water polo with satisfactory factor validity. The measuring instrument, constructed as a battery of tests, according to the obtained results, can be recommended for use in measuring of different aspects of load of any water polo player (role), which gives scientifically importance of this work. The practical importance of this work lies in the possibility of direct application of this work's results to practice, planning, programming, player selection and specialization for the guard role in water polo.

Key words: water polo, guard, levels of load, factor analysis
