

SHORT REPORT

Soccer Players of Winner of the Cup of Bosnia and Herzegovina and Kosovo Champion in Season 2016/17 and their Morphological Characteristics

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Abstract

This research aimed to determine the differences among the top soccer players of a club in Bosnia and Herzegovina, FC Siroki Brijeg, and the top soccer players of a club in Kosovo, FC Trepca '89, in the morphological characteristics and body composition. A sample of 37 subjects was divided into two sub-samples. The first sub-sample consisted of 22 players FC Siroki Brijeg, the average age of 24.00 ± 6.22 , the winner of the Cup of Bosnia and Herzegovina in the season 2016/17, while the other sub-sample consisted of 15 players of FC Trepca '89 of the average age of 21.80 ± 3.57 , the champions of the Kosovo Championship in the season 2016/17. Soccer players were tested immediately after the end of the 2016/17 competition season. Morphological characteristics were evaluated using a battery of seven variables: body height, body weight, waist circumference, triceps skinfold, biceps skinfold, skinfold of the back, and abdominal skinfold. The body composition was evaluated using a battery of three variables: body mass index, fat percentage, and muscle mass. The significance of the differences between the players of the top two soccer clubs in the morphological characteristics and variables for assessing body composition was determined using a t-test for independent samples. The t-test results showed a statistically significant difference only in one variable triceps skinfold.

Keywords: Soccer, Morphological Characteristics, Body Composition

Introduction

A soccer game is said to be the most important secondary thing in the world; it gathers huge masses at stadiums and in front of TVs (Gardasevic, Bjelica, & Vasiljevic, 2019; Bjelica, Gardasevic, Masanovic, & Vasiljevic, 2020). It is a highly dynamic and fast team game that, with its richness of movement, belongs to the category of polystructural sports games (Gardasevic, Bjelica, & Corluka, 2018; Bjelica, Popovic, Gardasevic, & Krivokapic, 2016). Soccer is a sport that is characterized by numerous and various complex and dynamic kinesiological activities, which are then characterized by either cyclical (Sermahaj, Popovic, Bjelica, Gardasevic, & Arifi, 2017; Gardasevic, Bjelica, & Vasiljevic, 2017)

or acyclical movement (Gardasevic, Bjelica, & Vasiljevic, 2016; Gardasevic, Bjelica, Milasinovic & Vasiljevic, 2016; Gardasevic, Popovic, & Bjelica, 2016). In sport, top scores can be achieved only under conditions of well-programmed training processes (Gardasevic, Akpinar, Popovic, & Bjelica, 2019; Gardasevic & Bjelica, 2019; Bjelica, Popovic, Tanase, & Gardasevic, 2017; Bojanic, Petkovic, Gardasevic, Muratovic, & Vasiljevic, 2015). Various studies are to be done to establish certain principles and norms for the transformational processes of the anthropological characteristics essential for soccer (Bjelica & Gardasevic, 2018; Bjelica, Popovic, & Gardasevic, 2016a; Bjelica, Popovic, & Gardasevic, 2016b); with morphological characteristics and body composi-

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tion among them as expected (Vasiljevic, Bjelica, & Gardasevic, 2018; Corluca, Bjelica, & Gardasevic, 2018; Vasiljevic, Bjelica, Popovic, & Gardasevic, 2015; Gardasevic, Vasiljevic, Bjelica, & Popovic, 2015). Findings regarding morphological characteristics and body composition are of crucial importance for complex sports such as soccer (Milasinovic, Gardasevic, & Bjelica, 2017; Gardasevic, Rasidagic, Krivokapic, Corluca, & Bjelica, 2017). Research on morphological characteristics and body composition among athletes of different sports indicates that such athletes have their own specific characteristics (Gardasevic, 2019; Gardasevic, 2018; Gardasevic, Masanovic, & Arifi, 2018; Masanovic, Gardasevic, & Arifi, 2018a; Masanovic, Gardasevic, & Arifi, 2018b; Arifi, Sermahaj, Gardasevic, Alaj, & Metaj, 2018; Arifi, Gardasevic, & Masanovic, 2018; Arifi et al., 2017).

Today, soccer is undoubtedly the number one sport in the world in popularity (Gardasevic, Bjelica, Vasiljevic, & Corluca, 2019; Gardasevic, Georgiev & Bjelica, 2012), and the same applies to Bosnia and Herzegovina and Kosovo (Bjelica, Gardasevic, Vasiljevic, Arifi, & Sermahaj, 2019; Gardasevic, Bjelica, Vasiljevic, Arifi, & Sermahaj, 2019).

In the 2016/17 competitive season, FC Siroki Brijeg was the winner of the Cup of Bosnia and Herzegovina, and FC Trepca '89 was the champion of the Kosovo Championship. This research aimed to analyse the differences in some morphological characteristics and body composition among top soccer players of FC Siroki Brijeg and FC Trepca '89.

Methods

A sample of the subjects consists of a total of 37 top-level soc-

cer players, divided into two sub-samples. The first one consists of 22 players of FC Siroki Brijeg, the average age of 24.00 ± 6.22 , and the second one that consists of 15 players of FC Trepca '89 of the average age of 21.80 ± 3.57 .

Morphological research has been carried out with respect to the basic rules and principles related to the selection of measuring instruments and measurement techniques standardized in accordance with the IBP guidelines. For this study, seven morphological measures have been taken (body height, body weight, waist circumference, triceps skinfold, biceps skinfold, skinfold of the back, and abdominal skinfold) and three body composition assessment variables (body mass index, fat percentage, and muscle mass). An anthropometer, calliper, and measuring tape were used for morphological measurements. To evaluate the body composition, Tanita body fat scale - model BC-418MA, was used.

Differences in morphological characteristics and the body composition of the players of these two clubs were determined by using a discriminatory parametric procedure with t-test for small independent samples, with statistical significance of $p < 0.05$.

Results

Based on the obtained values of t-test results, it can be noted that there are statistically significant differences in one variable at $p < 0.05$. It is one morphological measure triceps skinfold. It can be stated that the soccer players of FC Siroki Brijeg have statistically significantly smaller triceps skinfold than the soccer players of FC Trepca '89 (Figure 1). In all other variables, the differences are negligible and not statistically significant.

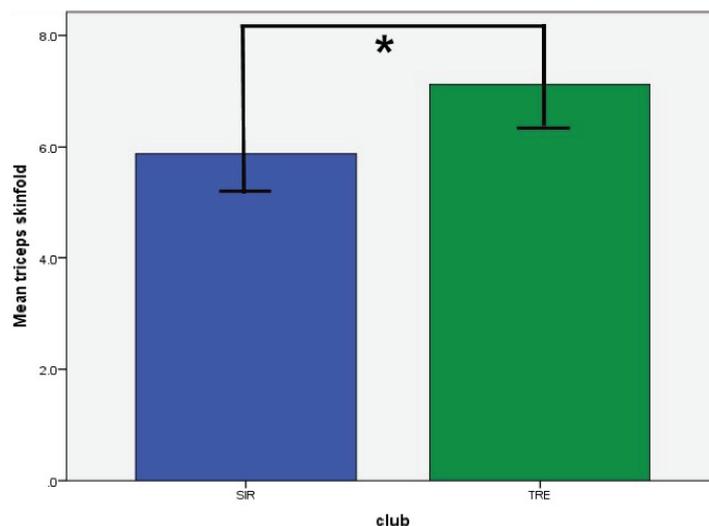


FIGURE 1. Statistically significant differences between soccer players FC Siroki Brijeg (SIR) and FC Trepca '89 (TRE) in one variable triceps skinfold

Discussion

It can be observed that the players of both clubs are of the approximately similar mean values of the variables analysed, which is not surprising because these are the top two clubs in Bosnia and Herzegovina and Kosovo. Gardasevic, Bjelica, and Vasiljevic (2019) found similar results on a sample of soccer players from Montenegro, and Bosnia and Herzegovina (Gardasevic, Bjelica, Vasiljevic, & Corluca, 2020; Bjelica, Gardasevic, Vasiljevic, Jeleškovic, & Covic, 2019) and Kosovo (Gardasevic et al., 2020; Gardasevic, Bjelica, & Vasiljevic, 2020). Very similar anthropometric characteristics of soccer players were obtained, which shows that they have similar characteristics and body composition throughout the region (Gardasevic, & Bjelica, 2020; Gardasevic, Bjelica,

Popovic, Vasiljevic, & Milosevic, 2018; Corluca & Vasiljevic, 2018). The t-test results showed a statistically significant difference only in one variable: triceps skinfold. For other variables, some values are better for players of FC Siroki Brijeg and some for players of FC Trepca '89, although, insignificantly for statistics, which indicates that these players have very similar body composition and anthropometric parameters. The values obtained in this research can be useful for coaches of these clubs for making a comparison of their players with others and formulate their work in a way that enables a reduction of those parameters that are not beneficial and raising those that are to a higher level. That will surely make their soccer players even better and more successful. Furthermore, both clubs should turn to other research studies and

check the functional-motoric status, psychological preparation, and tactical training of their players and analyse whether there is room for their improvement.

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Conflict of Interest

The authors declare that there are no conflicts of interest.

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