

DIFFERENCES IN FOOTBALL PLAYERS' OF VARIED LEVELS OF COMPETITION IN DIFFERENT BALANCE CAPABILITIES

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Abstract

Ability of balance, balance football players, are very important in maintaining proper function of body position at shooting, duel, drop especially in the prevention of injuries. The aim was to determine differences in the ability of balance, football players of different levels of competition in Bosnia and Herzegovina. The survey was conducted in the 2007/2008 season, included 129 football players, seniors, different levels of competition (5 levels): I-level (National Team), II-level (Premier League), III-level (First League), IV-level (Second League) V-level (Cantonal League). To test the ability of the balance was used Biodex Stability System (Level 4 of the complexity of the test, stability level 4 in the duration of 20 seconds) index of stability. Determining the difference between levels was done T-test for independent samples. The results showed statistically significant differences between the third and fourth level III-level (First League) and level IV (Second League), $p < .05$ in favour of the fourth level, and between other levels there is no statistically significant difference. The survey did not show the expected difference between the levels of competition. It was expected that the differences between levels are in favour of quality competition, which has not happened.

Key words: difference, balance, football, levels of competition

Introduction

From the perspective of structural analysis (Mikić, Talović & Rađo, 2003) state that football is one of the semistructural sports activities in which they were equally represented moving acyclic and cyclic structures. Football contains all forms of natural movements like running, stops, turns, jumps, falls, throws, pushing, taking place at a different intensity, pace and duration, for the purpose of defense and strike action. The number of games that players play in a continually growing season, the number of training sessions a week has increased, and recovery time between training and shorten the game, and all these increase the risk of injury (Marković & Bradić, 2008). Reading "the situation demands of football players and the timely and appropriate responses to them, with movement in space and time, the performance of certain movements and taking a proper position.

Shooting, duel, land, receptions ball dribbling, are just some of the football action which should be the conscious or subconscious level, maintain the equilibrium position, perform the task and avoid injury. This leads to the conclusion of the great importance of the ability of balance or balance in soccer. Balance is the ability to keep the body in the equilibrium position and that the correct movements, against the action of gravity to gravity, which makes it difficult to maintain the equilibrium position of the activities of external stimulus (Malacko & Rađo, 2004). To assume that the equilibrium level of ability in all football players is not the same, which causes the level, quality and requirements of the competition.

This paper attempted to determine ability of balance or equilibrium level football players in the competition, and gain insight into the differences.

Problem and the aim

The quality of football games determined the level of competition or the league, ranking in the competition is taking place, and goals that are set before the football players. To meet the demands of the game of the competition level and goals, the entire football players should reach the status of anthropological model associations requests league level. It is necessary to adapt to, transformed to fit the requirements of the game. The level of quality, tempo and intensity football game depends on the quality and preparedness of the players which is again different and depending on the level of competition. The problem of determining the difference in the ability of balance football players of different levels of competition. Aim of the research is to gain insight into the differences in the abilities of balance football players of different levels of competition and to make the degree of gradation levels of income.

Methods

Sample of examinees and of variables

The study sample of respondents representing 129 football players, senior club and representative level of competition in B&H, which are registered in FA B&H.

The survey was conducted during the season 2007/2008. U research are represented by all levels of competition, five (5) levels: I-level (the National Team U-21), II-level (Premier League), III-level (First League) IV-level (Second League) V-level (Cantonal League). To assess the balance, the balance was used variable MBYS - index of stability. To test the ability of the balance was used Biodex Stability System complexity level 4 test, the stability level 4 in the duration of 20 seconds. Numbered index of stability, lower value is better.

The method of data processing

For the analysis of differences between all groups, representatives from all levels of competition, used a T-test for independent samples. T-test to determine statistical significance of differences arithmetic mean of two samples (Dizdar, 2006). In this paper the T-test used to determine the differences between the five levels of competition.

Results and discussion

During the football action some muscles are responsible for carrying out the movement and the other to maintain balance during the execution of these movements. The ability of balance is important in football, the function of the execution of movement and prevent injuries. Therefore it is important to us football players know the situation when it comes to equilibrium (Sherry, 2002). Table 1 shows the results of T-test, where they compared mean values of I-level competition with the other grade levels. The results show that there was no statistically significant difference between the I - level of competition and other levels.

Table 2 shows the results of T-Test II-level in relation to the III, IV and V-level competition, where again no difference in the ability of balance. Table 3 puts in relation with the level III-IV and V-level competition. Statistically significant difference is seen only between III and IV level in favour IV. Table 4 shows the difference between IV and V levels of competition, where again there is no statistically significant difference. Results T-test for independent samples showed that we generally no statistically significant differences in the ability of balance football players at different levels of competition, except the difference between the third and fourth levels to the benefit of the fourth. The question arises why we have differences and why the differences are not accompanied by the level and quality of the competition. Would be logical that I-level for its quality, the demands of competition, selection and training technology shows the best results and de other levels are sorted by grade behind him. Stimulate systematic proprioception balance training. Proprioception is the ability of the body to convey a sense of joint position, interpreting the information got in the CNS and conscious or subconscious responses to stimulus, to allow proper execution of the movement and maintenance of the body paragraph (Dervišević, 2006). Aware of the movement initiated in the cortex are too slow to prevent injuries in emergency situations, and are supposed to through spinal reflexes may occur more quickly and timely activation of the stabilizer muscles (Ergen, 2007). To assume that the non-systematic selection and inadequate and insufficient application of modern simulation technology proprioceptive training is conditional on all the tested levels of competition, not the existence of differences between levels.

Table 1 - Results of T-test between levels of competition

Results of T-test 1st and 2nd levels of competition

	Mean	Mean			
	G_1:1	G_2:2	t-value	df	p
MBYS	6,117	6,750	-,73158	56	,467

Results of T-test 1st and 3rd levels of competition

	Mean	Mean			
	G_1:1	G_2:3	t-value	df	p
MBYS	6,117	7,271	-1,24706	56	,218

Results of T-test 1st and 4th levels of competition

	Mean	Mean			
	G_1:1	G_2:4	t-value	df	p
MBYS	6,117	5,419	,75681	49	,453

Results of T-test 1st and 5th levels of competition

	Mean	Mean			
	G_1:1	G_2:5	t-value	df	p
MBYS	6,117	6,7095	-,60251	50	,550

Results of T-test 2nd and 3rd levels of competition

	Mean	Mean			
	G_1:2	G_2:3	t-value	df	p
MBYS	6,750	7,271	-,60852	54	,545

Results of T-test 2nd and 4th levels of competition

	Mean	Mean			
	G_1:2	G_2:4	t-value	df	p
MBYS	6,750	5,419	1,63561	47	,109

Results of T-test 2nd and 5th levels of competition

	Mean	Mean			
	G_1:2	G_2:5	t-value	df	p
MBYS	6,750	6,7095	,04523	48	,964

Results of T-test 3rd and 4th levels of competition

	Mean	Mean			
	G_1:3	G_2:4	t-value	df	p
MBYS	7,271	5,419	2,049680	47	,046

Results of T-test 3rd and 5th levels of competition

	Mean	Mean			
	G_1:3	G_2:5	t-value	df	p
MBYS	7,271	6,7095	,57659	48	,567

Results of T-test 4th and 5th levels of competition

	Mean	Mean			
	G_1:4	G_2:5	t-value	df	p
MBYS	5,419	6,7095	-1,38930	41	,172

Conclusion

During the game musician to perform various forms of football acyclic movement. Given the diversity and richness of movement in whole, football is one of the most complex sports games. Football movement require a significant level of capacity balance, proprioceptive quality football action in the function (Schmid, 2002). The results of this study showed that differences capacity balance football players at different levels of competition in B&H, generally not exist. The reasons lie in the selection and training technology is being applied. It is obvious that balance training is targeted at soccer practice represented in the treated sample. Guided by the results of this work, a systematic approach is necessary to balance technology training,

balance and stimulate the quality of the training process of which have multiple effects, which include the prevention of injuries. Proprioception training football players put in balance the unstable situation, which causes receptor activation. Thus, that creates a presumption that the actress when found in an unfavourable position for your wrist, to respond to the function to avoid injury or even execution of movement and settlement football task (Reilly, 2000). Prepare for the demands of football and positions body movement, prevention of injuries, improve football performance and result in the end, the goals that we can make use of technology, training of balance.

Literature

- Alić, H. (2008). *Defining the differences in levels of morphological characteristics, functional and motor abilities of football players at different levels of competition*. [Definiranje razlika nivoa morfoloških karakteristika, funkcionalnih i motoričkih sposobnosti nogometaša različitih nivoa natjecanja. In Bosnian.]. /Master thesis/, Sarajevo: Faculty of Sport and physical education.
- Dizdar, D. (2006). *Kvantitativne metode*. [Quantitative methods. In Croatian.]. Zagreb: Faculty of Kinesiology.
- Dervišević, E., & Hadžić, V. (2006). *Isokinetically measurement and training (lecture)*. Seminar "Prevention in Sport", Sarajevo: Faculty of Sport and physical education.
- Ergen, E. (2007). *Proprioceptive (neuromuscular) training*. Proceedings, NTS 2007.37.
- Gioftsidou, A., Malliou, P., Pafis, G., Beneka, A., Godolias, G., & Maganaris C.N. (2006). The effects of soccer training and timing of balance training on balance ability. *Eur. J of Applied Physiology*, 96(6), 659-664.
- Marković, G., & Bradić, A. (2008). *Nogomet-potpuni kondicijski trening*. [Football - full condition training. In Croatian.]. Zagreb: Association of physical exercise and health.
- Malacko, J., & Rađo, I. (2004). *Tehnologija sporta i sportskog treninga*. [The technology of sports and sports training. In Bosnian.]. Sarajevo: Faculty of sports and physical education.
- Mikić, B., Talović, M., & Rađo, I. (2003). *Trening nogometaša*. [Training football players. In Bosnian.]. Mostar: Teacher Training College.
- Rađo, I., Talović, M., Dogan M., & Bradić, A. (2002). *Trening brzine nogometaša*. [Speed training of football players. In Bosnian.]. Fojnica: Fojnica doo.
- Reilly, T., Bangsbo, J., & Franks, A. (2000). Anthropometric and physical predispositions for elite soccer. *Journal of soccer Science*, 18(9), 669-683.
- Sherry, K., & Anthony, J.H. (2002). *Fitness training for soccer*. Spring City: Reedswain.
- Schmid, S., & Alejo, B. (2002). *Complete Conditioning for Soccer*. Champanig, IL: Human Kinetics.

RAZLIKE KOD NOGOMETAŠA VIŠE RAZINA NATJECANJA U RAZLIČITIM SPOSOBNOSTIMA RAVNOTEŽE

Sažetak

Sposobnost ravnoteže, ravnoteže nogometaša je iznimno važna u očuvanju odgovarajućih funkcija pozicije tijela kod šutiranja, igre u duelima, bacanjima, i to posebno kod prevencije povreda. Cilj je bio utvrđivanje razlika u sposobnosti ravnoteže nogometaša različite razine natjecanja u Bosni i Hercegovini. Istraživanje je provedeno u sezoni 2007/2008 i uključilo je 129 nogometaša seniora različitih (5 razina) razina natjecanja: I-razina (Nacionalni tim), II-razina (Premier liga), III-razina (Prva liga), IV-razina (Druga liga) i V-razina (Kantonalna liga). Za testiranje ravnoteže korišten je Biodex Stability System (četvrte razine kompleksnosti testa, u trajanju od 20 sekundi) indeks stabilnosti. Razlikovanje grupa izvršeno je T-testom za neovisne uzorke. Rezultati su pokazali statistički značajne razlike u ravnoteži između nogometaša Prve lige i nogometaša Druge lige, uz $p < .05$ u korist drugoligaških igrača, dok u ostalim slučajevima nije bilo značajnih razlika. Istraživanje nije donijelo očekivane rezultate u odnosu na razine natjecanja. Očekivano je da će se iskazati razlike u korist natjecatelja kvalitetnijih (viših) razina, što se nije desilo.

Ključne riječi: razlike, ravnoteža, nogomet, razine natjecanja

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