Ss. Cyril and Methodius University in Skopje

Faculty of Physical Education, Sport and Health

2ND INTERNATIONAL SCIENTIFIC CONFERENCE

RESEARCH IN PHYSICAL EDUCATION, SPORT AND HEALTH

CONFERENCE PROCEEDINGS

Skopje, 03-05, June 2016

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CONTENTS

REGRESSION ANALYSIS OF VARIABLES FOR ASSESMENT OF SITUATIONAL-MOTORIC KNOWLEDGE WITH MOTORIC ABILITIES AMONG FEMALE VOLLEYBALL PLAYERS IN REPUBLIC OF MACEDONIA

UDC: 796.325.012.1-055.2(497.7)

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Abstract:

The research is conducted in order to determine the relation and influence of the variables of motoric space (independent variables) on the variables that define personal situational-motoric knowledge (variables as criteria) among female volleyball players in Republic of Macedonia; linear regression analysis applied. There are 8 variables for assessment of motoric abilities which are applied, as well as 4 variables for assessment of situational-motoric knowledge. The achieved results showed that the system of independent variables has statistically significant influence on the following criteria: DPR_4, OPLL.

Key words: *female, volleyball players, motoric abilities*

Introduction

Volleyball is a sport with movements which are performed quickly, on a small place and it requires fast reactions from the players. The elements of volleyball technique, when viewed separately, are complex psych motoric tasks.

Player's efficacy during the game depends on multiple connected factors: motoric abilities (Христов, (2009); Миленкоски, J. (1999) Grgantov, Z., Katić, R. & Janković, V. (2006); Миленкоски Ј. И Османкач Н. (2007))., anthropometric characteristics (Зафировска, А. (2010), situational-motoric knowledge (Strahonja, Janković and Šnajder (1982); Миленкоски (1999); Зафировска (2010), psychological features of the person, Зафировска (2011) etc.

The goal of this study is to define the motoric abilities and situational-motoric knowledge among female volleyball players from the First Volleyball League in Republic of Macedonia for the season 2011/2012.

Methods

The research is conducted on a sample of 107 female volleyball players, members of the teams in the First Volleyball League in the season 2011/2012 in Republic of Macedonia.

The participants are females at the age of 14-25 from several cities: Skopje, Veles, Strumica, Prilep, Krushevo and Tetovo.

This sample of participants is separated in few subsamples regarding the developmental period of life in which they belong: early adolescence (10-14 years), middle adolescence (15-19 years) and late adolescence (20-24 years).

In order to determine the connection and affection of the variables of motoric space on the variables that define the personal situational-motoric knowledge among female volleyball players in Republic of Macedonia, linear regression analysis is applied.

The following variables for assessment of the motoric abilities are applied in this research: 1. Japan test (steps aside) /sec/ (JTSA), 2. Sitting on a ball /sec/ (SOB), 3. Fast running 9-3-6-3-9 meters /sec/ (FR), 4. Fast running backwards 9 meters /sec/ (FRB9), 5. Reachheight at smashing /cm/ (RHS), 6. Reach height at blocking /cm/ (RHB), 7. Throwing medicine ball over the head during jumping /cm/ (TMBOH), 8. Throwing medicine ball from the chest in calm position /cm/ (TMBCCP).

The tests such as Japan test, sitting on a ball and fast running9-3-6-3-9 meters are undertaken from the authors E. i M. Bahman (Bachmann Edi et Martin), the test fast running backwards 9 meters from the author G. Blume (Blume, 1991), and the tests reach height at smashing, reach height at blocking, throwing medicine ball above the head during jumping, throwing medicine ball from the chest in a calm

position and running for 20 meters are taken from the author Milenkoski J. (1999).

In order to determine the situational-motoric knowledge, the following tests are applied: 1. Pass the ball with fingerprints through zone 4 (PBF4)2. Pass the ball with fingerprints throughzone 2 (PBF2), 3.Bump the ball on the left side (BBLS), 4. Bump the ball on the right side (BBRS).

The tests for passing the ball with fingerprints through zone 4 and zone 2, bumping the ball on the left and right side are undertaken from the American authors Bartlet& al. (1991).

Results

The resuts from regression analysis, whereas the variable as criteria is the assessment of situational-motoric knowledge DPR_4 and the independent variables for assessment of the motoric abilities are presented in Table 1. It is evident that the independent system of variables has statistically significant influence on the variable as criteria with (Q(F) = .007), the coefficient of multiple correlation (RO = .436) shows positive statistically important correlation of the independent system with this variable, and the determination coeficient (R2 = .190) shows that the 19% of the variance of the criteria could be explained with the variance of these independent variables. The coeficients of correlation of the independent variables show separate statistically significant correlation only of the variable JAPT (R=-,21) with the criteria one, which further indicates that agility as motoric ability affects the performance of the element passing the ball with fingertips through zone 4, logic and previously confirmed statement in the previous researches due to the fact that without proper resourcefulness, quick movements and in a timely manner placement under the ball it could not be expected positive outcomes in precision of this element.

Table1. Regression analysis of variable PBF4 with variables for assessment of motoric abilities among total sample of participants

	R	Part-R	Beta	T-test	Q
JTSA	-,33	-,21	-,25	-2,16	,03
SOB	-,20	-,04	-,05	-,43	,67
FR	-,24	-,05	-,05	-,51	,61
FRB9	-,24	,01	,01	,08	,94
RHS	,33	,03	,10	,32	,75
RHB	,31	,02	,06	,19	,85
TMBOH	,26	,12	,20	1,16	,25
TMBCCP	,23	-,05	-,08	-,49	,62
RO= .436		R^2= .190		Q(F) = .007	

The results from regression analysis where the criteria is the variable for assessment of situational-motoric knowledge DPR_2 and system of independent variables are those for assessment of motoric abilities, are shown in Table 2. It is evident that the independent system of variables has no statistically significant influence on the variable as criteria with (Q(F) = .209), and the coefficient of multiple correlation (RO = .320).

Table 2. Regression analysis of variable PBF2 with variables for assessment of motoric abilities among total sample of participants

	R	Part-R	Beta	T-test	Q
JAPT	-,08	-,03	-,03	-,26	,80
SEDT	,09	,10	,12	1,03	,31
BTN_9	-,19	-,13	-,14	-1,25	,21
BRTR	-,01	,06	,08	,64	,52
DOFS	,26	,12	,41	1,22	,22
DOFB	,23	-,06	-,19	-,59	,56
IMNG	,11	,03	,06	,30	,76
IMOG	,11	-,03	-,05	-,29	,77
RO = .320		R^2= .102		Q(F) = .209	

Table 3. presents the results from regression analysis where the criteria is the variable for assessment of situational-motoric knowledge OPLL and system of independent variables are those for assessment of motoric abilities. It is noticeable that the independent system of variables has statistically significant influence on the variable as criteria with (Q(F) = .000), the coefficient of multiple correlation (RO = .550) shows positive statistically significant correlation of the independent system of variables with this variable and the determination coefficient (R2 = .302) shows that 30% of the variance of criteria could be explained with the variance of these independent variables. Although, as a system of variables they have statistically significant influence, separately, there is a statistically significant correlation with the criteria one only from the variable BTN_9 with (R=-,37), by which is considered that the players who do not have proper speed in the performance of the movements during volleyball, especially if they are supposed to pass a greater length on the court moving backwards have lower results in the performance of the element bumping the ball on the left side.

Table 3. Regression analysis of variable BBLS with the variables for assessment of motoric abilities among total sample of participants

	R	Part-R	Beta	T-test	Q
JAPT	-,35	-,19	-,20	-1,91	,06
SEDT	-,20	,00	,00	,04	,97
BTN_9	-,47	-,37	-,39	-3,96	,00
BRTR	-,32	-,11	-,12	-1,08	,28
DOFS	,17	-,13	-,38	-1,27	,21
DOFB	,17	,11	,30	1,07	,29
IMNG	,14	,17	,28	1,73	,09
IMOG	,06	-,18	-,27	-1,80	,07
RO = .550		R^2= .302		Q(F) = .000	

Table 4 presents the results from progression analysis where the variable as criteria is the variable for assessment of situational-motoric knowledge OPLD and the system of independent variables are those for assessment of motoric abilities. It is evident that the independent system of variables has no statistically significant influence on the variable as criteria with (Q(F) = .103), and coefficient of multiple correlation (RO = .351) and determination coefficient (R2 = .123).

Table 4. Regression analysis of variable BBRS with variables for assessment of motoric abilities among total sample of participants

	R	Part-R	Beta	T-test	Q
JAPT	-,24	-,07	-,09	-,74	,46
SEDT	-,15	-,02	-,03	-,24	,81
BTN_9	-,30	-,19	-,22	-1,95	,05
BRTR	-,23	-,09	-,12	-,94	,35
DOFS	,15	,04	,12	,35	,73
DOFB	,12	-,02	-,06	-,20	,84
IMNG	,05	-,02	-,03	-,17	,87
IMOG	,05	-,04	-,07	-,43	,67
RO = .351		R^2= .123		Q(F) = .103	

Strong results are also received by Milenkoski. J (1999) in the researches which showed that there is a correlation of the variable BTN9 with the variable OTPR which could be interpreted on a functional level as well, saying that the importance of the relation could arise from general ability for structuring and restructuring of movements (motoric stereotype). Namely, if you consider more precisely the content of the test BTN9 you could gain the impression that the results are more dependent on the abilities of volleyball players to reorganize the well-balanced motoric stereotype running forward running backwards rather than the energetic regulation of the well-organized stereotypes.

The relation between the variables IMNG and OTPR one could said that has population origin i.e. it is

difficult to interpret as a functional correlation Milenkoski. J (1999) .

Regression relations of the variable OTPD in the total space of independent variable among total sample of participants shows completely different structure. Although the relation with the variable IMNG, as well as at previous variables, stays unchanged. Unlike previous example, this variable is affected by significant projections only from the variables of the space of specific motoric abilities. These relations could be interpreted in a population manner, except at variable BTN9 where the interpretation would be functionally directed as in the previous case Milenkoski. J (1999). Researches of motoric space and situational-motoric knowledge

Conclusion

The research is conducted in order to determine the relation and influence of variables in motoric space (independent variables) on the variables that define personal situational-motoric knowledge (variables as criteria) among female volleyball players in Republic of Macedonia, linear regression analysis applied.

The achieved results show that the system of motoric variables has no statistically significant influence on all variables of situational-motoric knowledge, than just on separate variables. The system of independent variables has statistically significant influence on the criteria as follows: DPR_4, OPLL.

The influence of motoric variables in the performance of elements passing the ball with fingerprints through zone 4 and bumping the ball on left side indicate the importance of them in the final result of playing volleyball.

Literature

Bartlet, J., Smith, L., Davis, K. & Pell, J. (1991). *Development of valid Volleyball skills test battery*. The Journal of Physical Education, Recreation and Dance-JOPERD, 62 (2), 19-21.

Grgantov, Z., Katić, R. & Janković, V. (2006). *Morphological Characteristics, Technical and Situation Efficacy of Young Female Volleyball Players.* Coll. Antropol.,Vol. 30 No 1, 86-97.

Зафировска, А. (2010). *Структура на антропометриските карактеристики во зависност од ситуационо-моторното знаење кај одбојкарките од 14-18 годишна возраст во Република Македонија*. Магистерскитруд, Скопје: Факултетзафизичкакултура.

Katić, R., Grgantov, Z. & Jurko, D.(2006).*Motor Structures in Female Volleyball Players Aged 14–17 According to Technique Quality and Performance*. Coll. Anthropol. 30(1), 103–112.

Миленкоски, Ј. (1999). *Релации и разлики на некои когнитивни, специфично-моторички способност, конативни карактеристики и ситуационо-моторичкото знаење кај одбојкарите од плеј-оф и плеј-аут натпреварите на Македонија 1997/98 година.* Докторска дисертација, Скопје: Факултет за физичка култура.

Миленкоски Ј. и Османкач Н. (2007). *Хомогеност морфолшких карактеристика, моторичких и специфично моторичких способности код младих одбојкаша.* Спортски логос, Мостар.

Миленкоски Ј., Христов Г. и Зафировска А. (2009). *Релации помеѓу некои морфолошки карактеристики и моторички способности кај одбојкарките - учеснички на светските првенства 2002, 2006 и Олимписките игри 2004 и 2008 година.* Симпозиум за спорт и физичко воспитување на млади, Виница.

Мисовски А. (2014). Релации и разлики меѓу некои моторички способности, ситуационо-моторичкото знаење и психолошките особини на личноста кај одбојкарките од Првата лига во Р. Македонија. Докторска дисертација, Скопје: Факултет за физичка култура.

Поп-Петровски, В. (1997). *Релации меѓу антропометриските карактеристики, моторичките способности сила и снага и успехот по гимнастика.* Докторска дисертација, Скопје: Факултет за физичка култура.

Stojanović, T., Nešić, G. iKaralić, T. (2008). *Komparativna analiza motoričkih modela odbojkaških pionirskih selekcije Srbije u periodu od 1996 do 2004 godine.*GlasnikAntropološkogdruštvaSrbije, br. 43, 229-237.

Strahonja, A., Janković, V. i Šnajder, V. (1982). *Analiza pouzdanosti i faktorske valjanosti situaciono-motoričkih testova u odbojci.* Kineziologija, 14(5), 161-175.

Христов, Г. (2009). *Структура на специфично-моторните способности кај младите одбојкарки во Р. Македонија од 14-17 годишна возраст*. Магистерски труд, Скопје: Факултет за физичка култура.