REGRESSION ANALYSIS OF CONNECTION BETWEEN MORPHOLOGICAL, MOTOR AND FUNCTIONAL ABILITIES WITH THE SUCCESS OF PERFORMACE OF TECHNICAL ELEMENTS IN DANCE

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Abstract
This research was conducted on 84 dancers (78 females and 6 males) with the age range from 11 to 16 year old; the sample is the population taken from different dancing clubs in Bosnia and Herzegovina: Gemma (Banja Luka), City Jazz (Banja Luka), Bolero (Banja Luka) and Orion (Pale). The participants were divided in two groups randomly. The experimental group (N = 44, 40 females and 4 males) was formed of 'Gemma' dancing club members and they were used for a three-month experimental program. The control group members (N=40, 38 females and 2 males) were trained by the standard dance program. The primary aim of the research was to investigate significance and relative impact of morphological characteristics, motoric and functional abilities (marked as predictor variables) on the competence shown in a composite dance test which serves to indicate mastery of dance movement structures in dance (marked as a criterion). A regression analysis was used to determine a possible influence of morphological characteristics, motoric and functional abilities on success of technical performance of dance movements. On the basis of the regression analysis results after initial and final measurements, it can be concluded that the proprioceptive training with a jumping rope resulted in positive changes, that is, it was positively correlated to predictors and changes of structures. The conclusion based on the influence of predictors is that the success in dance needs joint participation of all applied variables (morphological characteristics, motoric and functional abilities).

Key words*: regression analysis, dance structures, anthropological dimensions*

Introduction

Dance belongs to a group of polistructural conventional sports. There are numerous researches that confirm the influence of anthropological dimensions on dance in general and sports dance (Oreb,1989; Zagorc, Karpljuk & Friedl, 1999; Kostić, Zagorc & Uzunović, 2004; Lukić & Bijelić, 2006; Uzunović, 2008; Uzunović, Kostić & Miletić, 2009; Vlašić, Oreb, Prlenda & Zagorc, 2011). Proprioception is a complex activity of neuromuscular system which includes transmission of information from peripheral receptors through afferent and efferent neural pathways; this enables body to maintain stability and orientation during static and dynamic activities (Laskowski, Newcomer-Aney & Smith, 1997). Proprioceptive training incites activation of proprioreceptors which ensure optimal reaction of organism in urgent situations which could result in an injury (Jukić, 2003). Proprioception was rarely utilized as an experimental program in dance, even though it is of essential importance for dancers considering that it helps them in injury prevention and improvement of dance technique and performance. Batson (2009) emphasizes the need to verify proprioceptive programs which are specifically designed for dance, while Green-Gilbert & Smith noticed the effects of targeted exercises on dancers' technique, excluding children. In certain researches it was found that the proprioceptive training has influence on: the ability of muscle power (Heitkamp, Horstmann, Mayer, Weller & Dickhuth, 2001), flexibility (Malliou et al., 2004; Yaggie & Campbell, 2006) and jumping ability (Ziegler, Gibson & McBride, 2002; Kovacs, Birmingham, Forwell & Litchfield, 2004). Wolf-Cvitak, Grčić-Zubčević and Dolančić (2002) note that learning of certain movements in polistructural conventional sports can be accelerated by reliance on kinesthetic feeling. Šebić-Zuhrić, Rađo and Bonacin (2007) conclude that proprioceptive training accelerated formation of global controlling structures and enabled local differentiation which resulted in higher range and improved quality of movement. Further, it is concluded that the exercising program in rhythmic gymnastics should include elements of proprioceptive training, as well as a precise definition of different kinds of tasks, number of repetitions depending on the phase of transformation and exercising goals; total amount and content should be programmed in accordance with the characteristics of a particular sport. It is also necessary to work on verification of proprioceptive programs that are specially designed for dance (Batson, 2009). Lukić (2010) found that the implementation of proprioceptive program resulted in positive changes in all analyzed balance tests, in one test of coordination (MAGOSS) and in quality of dance techniques performance. The conclusion proceeding from this is that the content of training programs in sport dance should include elements of proprioceptive training. Srdić (2012) found that proprioceptive training and training with

a jumping rope produced statistically significant differences and quantitative changes (effects) of the treated anthropological places (in the participants of the experimental group as compared to the control group). A jumping rope is used at the beginning of training as a tool for warming up, but also for development of different motoric skills such as speed, coordination, reaction time, explosive power, flexibility, balance, rhythm and kinesthetic and proprioceptive sensibility. Lee (2003) indicates that the use of a jumping rope improves dynamic balance. Concerning motoric and functional abilities Bašić, M. and Bašić D. (2005) emphasize that the jumping rope training influences development of the following: aerobic endurance, anaerobic endurance, speed and reaction time, flexibility, rhythm and balance, explosive power, coordination and kinesthetic and proprioceptive sensibility. Procedural effects of kinesiological treatments could be determined if there is a group of value parameters for evaluation of effects, if the transformational procedure is known and if an appropriate set of analytical procedures to evaluate effects is applied (Bonacin, Bilić & Bonacin, Da., 2008).

Methods

Sample

The research was conducted on the sample of 84 participants – young dancers of both sexes, age between 11 and 16 from the following dance clubs: 'Gemma' from Banja Luka, 'City Jazz' from Banja Luka, 'Bolero' from Banja Luka and 'Orion' from Pale. The participants were divided into two groups randomly: an experimental group (N=44) which underwent an experimental three-month program and a control group which trained by the standard dance program. The participants are competitors registered in the state dance association who also compete on state competitions of Bosnia and Herzegovina or who competed at least 3 months prior to the experimental treatment. The level of competitors is I (international) and A (highest national). A special precaution was taken to include only participants that are from 11 to 16 years old, medically examined, attending regularly the experimental program, registered in the current year as competitors in the state dance association of Bosnia and Herzegovina.

Variables

Variables used to assess morphological characteristics were: variable for assessment of longitudinal dimensions of skeleton (body height – AVISTJ, length of arms- ADUŽRU, length of legs - ADUŽNO, length of feet - ADUŽST), variables for assessment of circular dimensions of skeleton and body mass (circumference of belly - AOBTRB, circumference of upper arm - AOBNAD, circumference of a forearm - AOBPOD, circumference of a thigh - AOBNAT, circumference of a lower leg - AOBPOT, body weight - ATEŽTJ, body mass index - ABMIDX) and variables for assessment of body fat (a skin fold of the upper arm - AKNNAD, a skin fold on the back - AKNLEĐ, a skin fold on the belly - AKNTRB, a skin fold on the lower leg - AKNPOT). Variables used to asses motoric abilities were: variables for assessment of balance (Flamingo balance test - MFLAMI), variables for assessment of segment speed – frequency of movements (hand tapping - MTAPRU, leg tapping - MTAPNO), variables for assessment of explosive power of legs (standing long jump - MFESDM, Sergeant jump test- MFEVIS), variables for assessment of coordination – performance of rhythmical structures (drumming with hands and legs -MBUBRN), variables for assessment of flexibility (lateral change of movement speed to the left side - MLATBL, lateral change of movement speed to the right side - MLATBD). The variable for assessment of success rate of dance technique performance was represented by a composite test - SMKOMT. The variables for assessment of functional abilities were: variables for assessment of respiratory functions (forced expiratory volume - FFEV75, maximum expiratory volume in the first second - FMFEV1, forced vital capacity - FFVCAP, peak expiratory flow - FMAPEF, maximum voluntary ventilation - FMVVNT, time needed to exhale lung capacity - FFETME) and variables for assessment of heart function (frequency of heart in stationary condition - FSRFRM).

Composite test and assessment scale

The measurement of success rate of dance technique performance needed a special composite test to be created; the test was executed with music of different tempo and it contained the following elements: salsa basic walk, chasse to the right side, chasse to the left side, relevé, passe, padebure, right side 360-degree turn with jumping, kick ball change, slide to the right side, slide to the left side and contraction-release action. Success of the execution of dance technique elements (composite test) was evaluated during the regular sports training.

Table 1 *Scale and criteria for evaluation of successfulness of dance technique performance in a composite test*

Grade	Criteria
0	No element was performed correctly or majority of the elements weren't performed correctly, a participant performs elements outside of the required rhythm
1	Several elements weren't performed or they were performed incorrectly, a participant performs elements outside of the required rhythm
2	Elements were performed following the required sequence but with mistakes, a participant didn't follow all requirements of a rhythmical structure
3	Elements were performed correctly and followed the required sequence with smaller mistakes, a participant performed elements with a required rhythm with smaller mistakes
4	Elements were performed correctly and followed the required sequence with only one mistake, a participant performed all elements with a required rhythm, presentation was flawed
5	All elements were performed correctly and followed the required sequence, a participant performed all elements with a required rhythm and dancer's presentation was good

It was performed in sports halls where participants usually train by three independent evaluators who had gotten either referee or trainer license from the dance association. The evaluation grades were derived from a specially created scale and criteria for evaluation of successfulness of dance technique performance. The participants warmed up for 15 minutes before testing. One dance coach was hired for the test demonstration; he showed the participants sequential elements of the test with music. The participants had been allowed to repeat the given elements maximum 3 times before they were tested. The scale and criteria for evaluation of successfulness of dance technique performance in a composite test were shown in Table 1.

The experimental program
The experimental program was implemented in the period between the 1st of September and the 30th of November 2012 (three months), and it consisted of the proprioceptive program (exercises on a balance board and on a trampoline) and the program with a jumping rope. A total of 40 training units were executed. At the beginning of each dance training session, there was a warm-up session lasting 10-15 minutes followed by the experimental program with duration of 15 to 20 minutes.

Duration of specific tasks from the experimental program was ranging from 30 seconds to 2 minutes. The experimental program included 13 training sessions on a balance board, 13 training sessions with a jumping rope, 12 training sessions on a trampoline and 2 training sessions with a balance board and a trampoline combined.

Data analysis
Data analysis in this research will be done with statistical and mathematical procedures and the usage of the program SPSS 14 or STATISTIKA 6. In order to determine the degree of the influence of morphological characteristics, motoric and functional abilities, which were defined as a group of predictor variables, on the success of performance of dance technique elements, regression analysis was used in initial and final measuring.

Results and discussion

The results of the initial measurements of regression analysis of criterion variables SMKOMT, which served to assess the successfulness of performance of dance technique elements, are shown in Table 2. The Table 2 shows that the whole system of predictor is significant in prediction of the criterion (p=0.032), which means that the analysis of relative influence can be undertaken for each predictor on the criterion.

Multiple correlation is very high at the RO = 0.76, which explains correlation of 30 variables from three groups as predictors and the success rate of performance of dance technique elements as a criterion.

The system of predictors explains 57% of common variance of the criterion system (DLT 0.57). The analysis of influence of individual predictor variables on the successfulness in the composite test shows that a very few predictor variables explains the criterion. From the total system of predictor variables, a relative contribution of each predictors in the explanation of influence on the criterion is following: in the morphological group, a skin fold on the lower leg (AKNPOT 7.5%) – variable for assessment of body fat and circumference of a lower leg (AOBPOT 6.5%) – variable for assessment of volume. In the motoric group, Sergeant jump test (MFESVM 12%) – variable for assessment of explosive power, lateral change of movement speed to the left side (MLATBL 9%) – variable for assessment of flexibility and from the functional abilities group, maximum voluntary ventilation (FMVVNT 33%) and forced expiratory volume with the negative result (FFEV75 -0.24), which essentially represents an obstacle in the training procedure. When the results of the initial measurements of the criterion variable SMKOMT regression analysis are examined, it can be concluded that the influence of predictor variables (morphological characteristics, motoric and functional abilities) on the success of performance of dance technique elements is statistically significant at the level of p = 0.032 (Table 3) and that multiple correlation is RO = 0.76, which means that the system of applied predictor variables can explain the criterion variable SMKOMT with 57%. The analysis of individual variables influence on the success rate of performance of dance technique elements showed an insignificant number of predictor variables that proved to have some influence. According to this, a total impact of predictors is such that only their total sum is producing an effect which significantly impacts the test results (SMKOMT) of participants. This piece of information tells us that the joint implementation of all the applied variables (morphological, motoric and functional) is necessary for the success in dance.

The results of the regression analysis of the criterion variables SMKOMT, which evaluate success rate of performance of dance technique elements with its final measurements, is shown in the Table 4. The aforementioned table shows that the whole set of predictor variables is significant in prediction of the criterion variable at the level of p = 0.032 (Table 5), which means that the analysis of the relative influence of each individual predictor on the criterion can be done. A quotient of multiple correlation is equally high as in the initial measuring at R = 0.76, which explains correlation of 30 variables from three groups as predictors and the composite test as the criterion. The total sum of predictors explains 57% of common variance of the criterion system (DTL 0.57). From the analysis of individual variables influence in the predictor system on the success of the composite test can be concluded that there are certain positive changes when the results are compared to the initial measuring.

Table 2 *Regression analysis of criterion variables SMKOMT – initial measurements*

	R	Q(R)	P-R	B	P	S-B	Q(B)	F(B)
AVISTJ	0.11	0.31	0.13	0.56	6.27	0.56	0.67	0.15
ATEŽTJ	0.02	0.85	-0.13	-0.95	-1.94	1.00	0.65	0.03
ABMIDX	-0.01	0.89	0.12	0.85	-1.21	0.97	0.61	-0.02
ADUŽRU	0.12	0.28	0.07	0.10	1.16	0.20	0.64	0.16
ADUŽNO	0.04	0.72	-0.08	-0.15	-0.59	0.27	0.59	0.05
ADUŽST	0.03	0.76	-0.25	-0.30	-0.98	0.16	0.06	0.04
AOBTRB	0.04	0.71	-0.02	-0.05	-0.19	0.27	0.86	0.05
AOBNAD	0.03	0.80	-0.04	-0.10	-0.28	0.40	0.79	0.04
AOBPOD	0.06	0.62	-0.15	-0.39	-2.21	0.35	0.27	0.07
AOBNAT	0.18	0.10	0.19	0.36	6.51	0.26	0.16	0.24
AOBPOT	0.07	0.54	0.13	0.34	2.35	0.35	0.66	0.09
AKNNAD	-0.10	0.64	0.14	0.21	-2.17	0.21	0.31	-0.13
AKNLEĐ	-0.11	0.31	0.11	0.20	-2.32	0.26	0.56	-0.15
AKNTRB	-0.11	0.66	-0.12	-0.25	2.60	0.27	0.63	-0.14
AKNPOT	-0.27	0.01	-0.17	-0.28	7.47	0.22	0.21	-0.35
FFEV75	0.24	0.03	-0.13	-0.98	-23.80	0.11	0.64	0.32
FMFEV1	0.20	0.07	-0.06	-0.30	-5.93	0.67	0.66	0.26
FFVCAP	0.05	0.66	-0.18	-0.35	-1.71	0.26	0.18	0.06
FMAPEF	0.31	0.00	0.08	0.15	4.60	0.25	0.56	0.41
FMVVNT	0.24	0.03	0.15	0.14	33.40	0.12	0.26	0.31
FFETME	-0.06	0.61	0.01	0.01	-0.03	0.13	0.97	-0.08
FSRFRM	-0.04	0.72	0.09	0.07	-0.29	0.12	0.54	-0.05
MFLAMI	-0.15	0.17	-0.09	-0.08	1.13	0.12	0.53	-0.20
MTAPRU	0.21	0.05	-0.19	-0.17	-3.59	0.12	0.17	0.28
MTAPNO	0.35	0.00	0.18	0.17	6.03	0.12	0.17	0.47
MBUBRN	0.27	0.02	0.19	0.17	4.59	0.12	0.16	0.35
MFESDM	0.47	0.00	0.06	0.08	3.84	0.18	0.66	0.63
MFEVIS	0.57	0.00	0.19	0.21	11.87	0.15	0.16	0.76
MLATBL	-0.43	0.00	-0.12	-0.21	8.86	0.23	0.62	-0.56
MLATBD	-0.48	0.00	-0.05	-0.08	3.83	0.24	0.74	-0.63
	DLT	S-DLT	RO	F	DF1	DF2	p	
	0.57	0.65	0.76	2.37	30	53	0.0032	

Table 3 *Variance analysis – initial state*

	Sum of squares	df	Mean squares	f	p
Regression	48.42	30	1.61	2.37	0.003
Residual	36.12	53	0.68		
Total	84.54				

These are the variables which stand out in the explanation of the criterion: form the morphological group, body weight (ATEŽTJ 9.3%) – a variable for assessment of the body mass, circumference of a thigh (AOBNAT 13.0%) – a variable for assessment of the circumference of the body; from the motoric group, drumming with hands and legs (MBUBRN 19.2%), - a variable for assessment of coordination, standing long jump (MFESDM 11.6%) and Sergeant jump test (MFEVIS 7.8%) – a variable for assessment of explosive power of legs, lateral change of the movement speed to the left side (MLATBL -13%) and lateral change of the movement speed to the right (MLATBD 26%); from the group of functional ability, forced expiratory volume (FFEV75 28%) and maximum voluntary ventilation with a negative result (FMVVNT - 31.3%). After examination of the regression analysis results in the final measuring, it can be concluded that there is a significant statistical influence of the total predictor system on the criterion (successfulness of the performance of dance technique elements) and that all applied predictor variables participate in the equation of specification. When compared to initial measuring, in the final measuring the circumference of a thigh (AOBNAT) from the morphological group, drumming of hand and legs (MBUBRN) and lateral change of movement speed to the right (MLATBD) from the motoric group, appear as significant predictors in the explanation of the criterion.

Considering the fact, that the final measuring showed the variable of lateral change of movement speed to the right negative (MLATBL -13%), it can be concluded that the proprioceptive training and training with a jumping rope disrupted the existing symmetry and caused a negative effect. It is probable that the participants from the experimental group were pressured and for them it caused a certain stress.

Table 4 *Regression analysis of the criterion variable SMKOMT - final measurement*

	R	Q(R)	P-R	B	P	S-B	Q(B)	F(B)
AVISTJ	0.18	0.10	-0.02	-0.07	-11.98	0.46	0.88	0.24
ATEŽTJ	0.13	0.25	0.10	0.74	9.31	0.96	0.55	0.17
ABMIDX	0.08	0.52	-0.06	-0.25	-2.01	0.61	0.69	0.11
ADUŽRU	0.18	0.09	-0.02	-0.03	-0.63	0.22	0.87	0.24
ADUŽNO	0.13	0.25	-0.10	-0.20	-2.57	0.29	0.51	0.17
ADUŽST	0.15	0.16	-0.06	-0.08	-1.17	0.18	0.67	0.20
AOBTRB	0.11	0.32	0.05	0.12	1.30	0.35	0.73	0.15
AOBNAD	0.15	0.16	0.18	0.29	4.40	0.21	0.17	0.20
AOBPOD	0.18	0.09	-0.12	-0.24	-4.45	0.28	0.61	0.24
AOBNAT	0.21	0.05	0.28	0.60	12.56	0.29	0.04	0.28
AOBPOT	0.06	0.60	-0.22	-0.50	-2.93	0.30	0.10	0.08
AKNNAD	-0.05	0.63	0.01	0.01	-0.06	0.24	0.96	-0.07
AKNLEĐ	-0.06	0.62	-0.11	-0.19	10.83	0.25	0.56	-0.07
AKNTRB	-0.06	0.58	-0.05	-0.08	0.48	0.23	0.74	-0.08
AKNPOT	-0.15	0.16	0.01	0.01	-0.12	0.17	0.96	-0.20
FFEV75	0.15	0.18	0.22	0.19	27.70	0.12	0.11	0.19
FMFEV1	0.15	0.18	0.00	0.10	1.52	0.12	0.99	0.20
FFVCAP	0.12	0.27	0.01	0.03	0.32	0.35	0.94	0.16
FMAPEF	0.18	0.11	-0.10	-0.17	-3.01	0.23	0.54	0.23
FMVVNT	0.15	0.18	-0.02	-0.21	-31.37	0.12	0.85	0.20
FFETME	-0.11	0.31	0.02	0.02	-0.22	0.16	0.90	-0.15
FSRFRM	0.08	0.54	-0.02	-0.02	-0.13	0.12	0.89	0.11
MFLAMI	-0.22	0.05	-0.05	-0.04	0.81	0.11	0.74	-0.29
MTAPRU	0.38	0.00	-0.18	-0.20	-7.48	0.15	0.19	0.50
MTAPNO	0.30	0.01	0.09	0.08	2.42	0.13	0.54	0.39
MBUBRN	0.41	0.00	0.47	0.47	19.25	0.12	0.00	0.54
MFESDM	0.51	0.00	0.17	0.23	11.56	0.18	0.20	0.67
MFEVIS	0.46	0.00	0.17	0.17	7.86	0.14	0.22	0.61
MLATBL	-0.38	0.00	0.20	0.33	-12.36	0.22	0.14	-0.50
MLATBD	-0.45	0.00	-0.30	-0.58	26.48	0.26	0.03	-0.60
	DLT	S-DLT	RO	F	DF1	DF2	p	
	0.57	0.65	0.76	2.37	30	53	0.0032	

Table 5 *Variance analysis – final state*

	Sum of Squares	df	Mean squares	f	p
Regression	56.50	30	1.88	2.37	**0.0032**
Residual	42.09	53	0.79		
Total	98.59				

The variable, forced expiratory volume (FFEV75), now explains positive criterion and contributes to explanation with 28%. This change can certainly be attributed to a positive influence of proprioceptive training and training with a jumping rope, because the participants have now learned how to breathe properly. Therefore, a conclusion can be drawn that the continuous dance training, proprioceptive training and training with a jumping rope have made a positive effect on normal breathing. The variable, maximum voluntary ventilation (FMVVNT) now stands as an obstacle because from the positive influence in the initial measuring, it turned negative in the final measuring. That means that one cannot breathe in any fashion, but in a manner that a certain activity requires.

Conclusion

The primary goal of this research was to determine significance and influence of morphological characteristics, motoric and functional abilities as predictor variables on the success rate of performance of dance technique elements as the criterion. A regression analysis was used to calculate a possible influence of morphological characteristics, motoric and functional abilities on the assessment of success of realization of dance structures. Judging from the results of the regression analysis in the initial and final measuring, it can be concluded that the influence of proprioceptive training and training with a rope was positive, that is, positive change of predictors and of structure happened. The changes are small, and the greatest influence in the explanation of the criterion in the final state had the following predictors: body mass (body weight ATEŽTJ, 9.3%), body circumferences (circumference of a thigh - AOBNAT, 13.0%), coordination (drumming with hands and legs - MBUBRN, 19.2%), explosive power (standing long jump - MFESDM, 11.6% and Sergeant jump test- MFEVIS, 7.8%), flexibility (lateral change of movement speed to the left - MLATBL, -13.0%) and lateral change of movement speed to the right side - MLATBD, 26.0%) and respiratory functions (forced expiratory volume- FFEV75, 28%) and maximum voluntary ventilation with a negative result - FMVVNT, -31.3%). The aforementioned hanges indicate that the experiment with the group of motoric abilities and morphological characteristics disrupted the existing symmetry and that the participants learned how to breathe properly and that breathing is conditioned by dance movement structures.

On the basis of regression analysis results in the initial and final measuring, it can be concluded that proprioceptive training and training with a rope has a significant synergic effect with regular dance trainings and other forms of dance exercising and that all the applied variables (morphological characteristics, motoric and functional abilities) are needed for success in dance.

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REGRESIJSKA ANALIZA POVEZANOSTI IZMEĐU MORFOLOŠKIH, MOTORIČKIH I FUNKCIONALNIH SPOSOBNOSTI S USPJEHOM U IZVOĐENJU TEHNIČKIH ELEMENATA PLESA

Sažetak

Istraživanje je provedeno na 84 plesača (78 žena i 6 muškaraca) uzrasta 11 do 16 godina, na uzorku stanovnika uzeti iz različitih plesnih klubova u Bosni i Hercegovini: Gemma (Banja Luka), Grad Jazz (Banja Luka), Bolero (Banja Luka) i Orion (Pale). Sudionici su bili podijeljeni po quasi-slučajnom ključu u dvije skupine. Eksperimentalna skupina (N = 44, 40 žena i 4 muškarca) je formirana od 'Gemma' članovi plesnih klubova i s njima je proveden tromjesečni eksperimentalni program. Kontrolna skupina (N = 40, 38 djevojaka i dva muškarca) bili obučavani u standardnom plesnom programu. Primarni cilj istraživanja bio je ispitati značenje i relativni utjecaj morfoloških, motoričkih i funkcionalnih sposobnosti (označene kao prediktorske varijable) na uspješnost izvođenju složenog plesnog testa koji služi za označavanje majstorstva plesnih pokreta i struktura u plesu (kriterij). Regresija je imala za cilj odrediti mogući utjecaj morfoloških, motoričkih i funkcionalnih sposobnosti na uspjeh tehničke izvedbe plesnih pokreta. Na temelju rezultata analize regresije nakon inicijalnog i finalnog mjerenja može se zaključiti da je proprioceptivni trening rezultirao pozitivnim promjenama, koje pozitivno koreliraju s prediktorima i promjene strukture. Zaključak može biti donosen da je za uspjeh u plesu potrebno zajedničko sudjelovanje svih analiziranih svojstava (morfoloških značajki, motoričkih i funkcionalnih sposobnosti).

Ključne riječi*: regresijska analiza, plesne strukture, antropološke dimenzije*

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