MOBILITY SKILLS CONDITION IN MACEDONIA AMONG YOUTH IN HIGH SCHOOL

Academic-DHK-Angel Dzhambovski Center for scoliosis - Department of Anthropological kinesiology, Skopje, Macedonia

Associent Prof. Mitrichka Ks. Stardelova - PhD in Medicine, Faculty of Physical Culture, Department of Kinesiology Anthropology, Skopje, Macedonia

D-r.med. Nevenka Panovska Center for scoliosis and physiotherapy in Skopje, Macedonia

M PhD. Selim Alili freelancer cooperators, scoliosis and physiotherapy center, Skopje, Macedonia

MA. Kamilj Elmazi freelancer cooperators, scoliosis and physiotherapy center, Skopje, Macedonia

Abstract - Within this research, the manifestation of the ontogenetic differences degree in some motor manifestations between male and female pupils is investigated, which attend a regular course in physical (Kinesiology) and health education in the secondary education in the Republic of Macedonia related to age. The total male pupils are 320 students, and 280 of female students in 8 colleges from urban and rural areas in the whole territory of our country. These samples are divided into four sub samples of the respondents for each sex separately, which are males: from I-st grade (N = 75), II-nd grade (N = 85), III-rd grade (N = 75) and IV-th grade (N = 65) . For the assessment of the status of the respondents the mobility applied battery of tests based upon EUROFIT children program. From the obtained results the significant differences can be stated from the ontogenesis development between male and female pupils from different chronological age, suggesting a demand for differentiated programs for mobility development and kinesiology and health education.

Keyword - teaching, education, female students, male students, physical kinesiological education, morphological, mobility, differences, ontogenesis EUROFIT.

INTRODUCTION

Due to physical and health education course, the evaluation, regarding and defining of the ontogenetic development level of the motor skills to students, presents one of the basic prerequisites for the implementation of appropriate education contents. Depending on the level of the pupil's development mobility it is required to anticipate and implement the teaching adequate contents that will have the optimal effect. Namely, through the

evaluation of the total condition related to the mobility student status, as well as the functional ability, followed and analyzed by the intellectual and personality characteristics, it is necessary to make an inspection of the possibilities and pupils capacities based on the objective indicators, which are manifested, to be transferred towards differentiated approach in the implementation of the realization of the education itself. An initial step in the analysis of the level of development of the mobility, is enlighten of the certain represents of the balance of the relationship by recording the differences in the ratio by the age of the students. In our present research the degree is defined through the manifestation of differences in some mobility indicators between female and male pupils who attend a regular course in physical and health education in secondary education in the Republic of Macedonia. In other researches we will perform complete analysis of the mobility, functional, intellectual and corrective personality characteristics, to examine the correlation between them.

THE OPERATION METHOD

The total sample consists of 320 male students, and 280 of female students from 8 colleges from urban and rural areas in the

whole territory of our country. These samples are divided into the four sub samples-the respondents for each sex separately. For the evaluation of the mobility status of the respondents, the battery of tests based on EUROFIT children program was applied. For the evaluation of the mobility skills, the balancing tests on the bench, the tapping with hand, deep reach on bench, the jump in length, dynamo measurement by hand, lifting of the body within 30sec. the knuckle endurance, running 20 meters and * 5 meters and more gradually progressive run - 20m, as well as running 20 meters of sprint.

For the determination of the differences in the degree of manifestations in the overall analyzed area the multivariate analysis of variance (MANOVA) are applied, while the single differences in each variable are determined by analysis of variance univariate (ANOVA). In order to define the differences Univariate between pairs of groups of respondents in every age and every single analyzed events, is applied to the testing of these differences by appliance of the LSD (Last differences significant) test, with which actually the level of significance of the differences between each with each group in every single variable is defined.

RESULTS AND DISCUSSION

Based upon the applied multivariate analysis variance, which is determined by the differences in the overall analyzes between the mobility area surveyed by male and female respondents, the significant difference between the groups can be concluded in the level of significance of 0003 and 0005 related to their age. Univariate differences between the groups are significant in each variable mobility single analyzed in the both samples, were registered in all analyzed variables, except the variables in the balance of the bench (MRAM), tapping with hand (MTAP) and the hand shake (MSTIS).

On the basis of the defined univariate differences, it was concluded that with the

pupils of both sex the proportion is evident into the increase in the overall mobility (compared to the observed area) with the chronological age of the students.

	Evaluation	The Level of Importance
Vilkov lambda	.751624	
Pao (33,595)	P 1.837385	.003

Table 1. Multivariate analyzes of variance of the male sub samples.

kals	mram	mtap	mdlp	mskok	mstis	mstom	mzgib	m10*5	mleg	m20m
1	10.15	10.96	50.79	182.68	25.50	19.21	11.91	22.57	36.40	4.08
2	10.66	11.26	47.18	186.15	27.71	19.29	15.70	21.86	38.01	3.88
3	9.97	10.94	48.35	193.71	27.62	20.32	17.50	21.43	37.89	3.87
4	10.77	10.43	44.34	205.52	27.63	22.74	22.20	20.04	43.45	3.70

Table 2. Middle evaluation of the mobility variable of the male sub samples

Mobility variable	Effect	$\Phi(df1,2)$	The Level of Importance
MRAM	7.	.093	.964
MTAP	4.	1.123	.341
MDLP	288.	4.540	.004
MSKOK	3616.	2.997	.032
MSTIS	73.	.680	.565
MSTOM	84.	4.637	.003
MZGIB	716.	3.576	.015
M10*5	40.	5.019	.002
MLEG	286.	5.149	.002
MTR20M	1.	4.790	.003

Table3. Univariant of analyze of variance of the female sub samples.

	Evaluation	The Level of Importance
Vilkov lambda	.63	
Pao P (31.43)	1.83	.005

Table 4. Multivariate analyzes of variance of the female sub samples.

las	mram	mtap	mdlp	mskok	mstis	mstom	mzgib	m10* 5	mleg	m20 m
	10.11	11.46	51.19	152.16	23.20	15.54	8.87	24.57	35.43	4.88
	10.21	11.24	48.14	166.17	23.51	16.43	9.54	23.86	36.64	4.34
	10.01	11.13	49.32	173.11	23.32	18.31	9.94	22.43	37.62	4.20
	10.32	11.17	47.24	184.62	23.81	20.64	10.25	23.04	39.53	3.89

Table 5. Middle evaluation of the mobility variable of the female sub samples

Mobility variable	Effect	F(df1,2)	Importance Level
MRAM	6.	.086	.876
MTAP	7.	1.102	.315
MDLP	300.	4.431	.001
MSKOK	3537.	2.675	.035
MSTIS	71.	.578	.565
MSTOM	79.	4.547	.002
MZGIB	721.	3.486	.019
M10*5	37.	5.631	.001
MLEG	275.	5.026	.003
MTR20M	1.01	4.672	.004

Table 6. Univariable analyses of the variance of the male sub samples

4. CONCLUSION

From the results of applied analysis that defined the differences in each individual morphological and mobility manifestation among male and female respondents, in terms of chronological age, it reveals significant differences between the pupils and students of different chronological age. Defined individual events of separately age, should be taken as the total content of the subject area (physical) kineziological health education in the secondary education. Besides the complete research of ontogenetic development among students in terms of mobility-functional capabilities, the antropometric, intellectual abilities and features are demanded.

For the purpose of the sport it is necessary selection to be done in all above mentioned capabilities without training as early as preschool and early school age would be developed and genetic kinesiology and children's manifest

capabilities that sport is destined and what level will can be trained.

Finally we can conclude that the need for a hour kinezioloshko (physical) health education is needed in the prevention against disease hipokinesis of the civilizational achievements.

Reference

1. Енока. R. M.: "Osnovni kineziologii", Kiev, 2000 (Osnovi na kineziolo{kata teorija-humana kinetika).
2. Winter DA.: Foot trajectory in human gait. Physical Therapy, Vol 72, 1, 1992
3. Блахуш П.: К теории тестирования двигательных способностей. Физкультура и спорт, Москва, 1982
4. Блашковић, М.: Релације морфолошких карактеристика и моторичких способности. Кинезиологија, 1979.
5. Бошковић М.: Анатомија човека. Медицинска књига, Београд-Загреб, 1975.

6. Верхошански Ј.: Развој снаге у спорту (превод са руског), НИПРО Партизан, Београд, 1979.
7. Виски Н.: Факторска структура тјелесне тежине. Кинезиологија, 2, 1972.
8. Гајиќ М.: Основи моторике човека. Факултет физичке културе Универзитета у Новом Саду, ООУР Институт физичке културе, Нови Сад, 1985.
9. Дјамбазовски А.; Кинезиолошка медицина - спортска физиотерапија - медицинска кинезиологија, Скопје 2011.
10. Старделова Д. М.: Теорија на антрополошката кинезиологија, Скопје, 2011.
11. Старделова Џ. М.: Онтогенетскиот развој кај учениците од двата пола од основното и средното образование во Македонија како предикција за селекција во спортот, Мај 2006, Скопје.
12. Топузов И., Е. Кавдански, Д. Вчков, Н. Петрова, Г. Начева, Д. Денчева: Југозападен Универзитет - Благоевград, Катедра кинезитерапија „Антропометрична и функционална характеристика на ученици и студенти“, Физическото възпитание и спортът между два века, Велико Търново, 2000.
13. Топузов И., К. Бојчев, М. Глушкова.: Валеологията в обучението на студентите по физическо възпитание, „Физическото възпитание и спортът между два века“ Велико Търново, 2000.