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PREDICTIVE VALUE OF SOME ANTHROPOMETRIC CHARACTERISTICS ON THE SPECIFIC MOTOR TEST MAE GERI IN MACEDONIAN MEMBERS OF THE KARATE TEAM

Introduction

The determination of the relationship of anthropometric characteristics on the success of the performance of specific motor test "maegeri" in both sub examples (juniors and seniors), members of Macedonia's karate team, is important for karate sport as well as for further investigations. On this way is establishing the connection of anthropometric characteristics on the success of the performance of specific motor test "maegeri." These findings are of great importance for every sport and even for karate and karateists, especially in determining the impact of predictive variables on specific anthropometric motor criterion variable "maegeri." So the research is focused in that context

Methods of work

The example consists respondents, top karateists male juniors (N = 15) and male seniors (N = 15), who are involved in the wider selection of Macedonian karate team and they have actively exercise at least 5 years and have won at least one of the I- to III-place in battle - kumite at the state competition in their categories. Selected respondents for the survey were grouped into two separate groups (juniors and seniors). The respondents were selected by the selectors of junior and senior national team of Macedonia.

On the participants were applied 17 anthropometric tests:

1. For assessment the longitudinal dimensional of the skeleton:

Height of the body (AVNT), length of arm (ADNR), length of leg (ADNN), length of foot (ADNS) hand span (ARNS).

2. For assessment of transversal dimensional of the skeleton:

-Diameter of the hand wrist (ADRZ), knee diameter (ADNK) diameter of the elbow (ADNL), ankle diameter (ADNSZ).

3. For assessment of volume and mass of the body (circular dimensional):

Body weight (ATNT), volume of the thorax (AGK), volume of the upper knee (AONK), volume of upper arm (AONL).

4. For assessment of subcutaneous adipose tissue:

Skin-fold of the stomach (AKNM), skin fold on the back (AKNG), skin fold of the upper arm (AKNN), skin fold of sub knee (AKNPK).

Processed data of the measurement have been done with the basic statistical parameters, and to establish the connection between anthropometric characteristics on

the success of the performance of specific motor test "maegeri" was applied regressive analysis.

Results

In the interest of space results from the basic descriptive analysis between juniors, seniors - along we would not comment.

Table 1. Basic statistical parameters of anthropometric space for juniors and seniors

	Mean	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis
AVNT	176,47	161,00	186,00	5,89	-,36	,08
ADNR	75,66	68,60	89,00	3,85	1,14	3,85
ADNN	102,50	87,00	111,00	6,01	-,90	,48
ADNS	28,39	21,10	30,00	2,99	-,42	,37
ARNS	21,65	18,00	25,00	1,59	,46	,65
ADRZ	6,24	4,70	9,90	1,23	1,67	3,73
ADNK	10,74	8,90	12,50	1,22	,02	-1,60
ADNL	7,38	6,10	9,90	,86	,67	,90
ADNSZ	7,44	6,10	8,70	,85	-,14	-1,67
ATNT	74,97	52,00	93,00	9,77	-,25	-,27
AOGK	84,97	57,00	99,00	9,05	-1,13	2,37
AONK	48,43	35,00	56,00	4,45	-,65	1,65
AONL	26,03	21,00	32,00	2,92	-,07	-,40
AKNM	14,06	8,20	24,80	4,53	,79	-,16
AKNG	12,08	7,20	24,00	3,77	1,83	3,76
AKNN	13,13	7,00	23,60	3,87	,75	,40
AKNPK	9,73	5,40	18,40	3,16	,79	,49

Tabela 2

Regression Summary for Dependent Variable: MAE GERI, R= .689

R²= .475 Adjusted R²= -.26824 F(17,12)=.63919 p<.80593Std.Error of estimate: 2.8898

N=30 (juniors and seniors)

	BETA	Std.Err. of BETA	B	Std.Err. of BETA	t(12)	p-level
Intercept			46.6	39.5		.26
AVNT	-1.00	.80	-.43	.35	-1.24	.23
ADNR	-.07	.42	-.04	.28	-.16	.86
ADNN	.72	.56	.30	.24	1.28	.22
ADNS	-.32	.43	-.35	.48	-.73	.47
ARNS	.33	.41	.53	.67	.80	.43
ADRZ	.60	.62	1.26	1.30	.96	.35

ADNK	-.87	.83	-1.83	1.73	-1.05	.31
ADNL	-.54	.69	-1.43	1.83	-.77	.45
ADNSZ	.61	.72	1.85	2.18	.85	.41
ATNT	.81	.89	.21	.23	.90	.38
AOGK	.02	.37	.00	.10	.07	.94
AONK	.11	.46	.06	.25	.24	.81
AONL	.20	.39	.16	.33	.50	.62
AKNM	.36	.47	.20	.26	.76	.46
AKNG	-.26	.47	-.18	.31	-.57	.57
AKNN	-.35	.55	-.22	.35	-.64	.52
AKNPK	-.30	.37	-.24	.29	-.81	.42

In Table 2 is shown regressive analysis of the variable "maegeri" from karateists juniors and seniors – along. According to results it can be noted that the coefficient of multiple correlation with a value of .69, participate in the explanation of variability of the common variance with 48% . The relationship between criterion variable and the system of applied predictive variables is not statistically significant at the level of $r = 0.05$.

Conclusions

Considering of the elements in some way they diminish the possibility of generalization, such as small number of respondents (30) , the absence of the motor-basic, specific, functional, psychological and sociological indicators, however, from this research we can draw the following conclusions:

The applied research and the obtained results served to review the relationship of anthropometric characteristics on the success of the performance of specific motor test "maegeri" in the both sub examples (juniors and seniors - along), members of Macedonia's karate team.

Although in some previous studies this association is confirmed, still our opinion is that in our case the high interconnectivity of predictive system of variables on the one hand gives high values of multiple correlation, on the other hand shows statistically insignificant partial influence of each variable separately.

In the future we should find variables with low statistically and insignificant interconnection as predictive system that would affect on the criterion.

This once again confirms the complexity of the specific karate techniques where with only a complex approach and inclusion of valid predictive variables would cover the entire area of anthropological respondents.

Dictionary

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Karate and other martial sports are a complex whole, which includes a multitude of punches, blocks, avoidances, attitudes and movements.

To overcome those elements and the karateist to be led to considerable perfectionism, it is necessary to develop a good anthropological status, to develop satisfactory conative traits and cognitive abilities, and meet certain health and social aspects. After realizing those conditions, it is necessary to bring the athlete in the ideal fitness, technical, tactical and psychological level, thus creates ideal conditions and could be superb, or to achieve great results.

In this sense, as a special research interest appears the need for finding an "ideal" battery of tests that will be possible to predict important anthropological dimensions and capabilities to assess performance in karate

The aim is to establish some connection between the anthropometric characteristics based on the specific motor test in mae geri for the members of Macedonia's karate team

The study is performed on a sample of 30 respondents (N = 15) juniors and (N = 15) seniors many years respondents of Macedonian Karate team. The male juniors are aged from 16 to 17 years and the seniors over 18 years. On the sample were measured 17 anthropometric tests as predictor system of variables, and a specific motor test "Maegeri", which is used as the criterion variable.