

## STUDY REGARDING THE CORRELATION BETWEEN SOMATO-FUNCTIONAL INDICES AND PHYSICAL ABILITIES TO 31-40 YEARS OLD WOMEN

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**Keywords:** woman, somatic-functional and physical abilities indices, correlation

**Abstract:** Scientific research has been focused on studying the somatic-functional and physical abilities indices level of development on women aged 31-40 years and the correlations between them. By practicing physical exercise can satisfy not only the driving tasks, but also mental and emotional tensions are largely reduced.

### **Introduction**

Following various studies (Adler, 1991; Dragan I., A. Demeter, 1990; Famose JP, 1976 NA Ionescu, 1988) XXI century woman, due to multiple obligations that are imposed on society that can not be solved in time, they have an activity that leads to monotony.

Most women have a daily work schedule from morning till night, so the next work day begins without having had time to produce complete relaxation of the body and especially the CNS. So it is no wonder that in this age most women forget about their own health. From this point of view it is considered that a healthy man is a great value for our society. Not maintaining the biological laws that require our body movement, not duty to them or to society.

The social environment of women outside the home is largely technical in his time. Advanced resources of information, television development, widespread public transport, decreased personal space travel than the default human movement, things that are so important in his life.

Due to these aspects of life, lack of exercise can lead to very serious situation in terms of human health and longevity.

The solution to these problems lies in finding a balance between technical and natural environment between the requirements of adaptation to daily life and physical and mental free life, at each individual disposal.

It is believed that domestic work is predominantly motor, but it will not satisfy the idea of compensation, balance and recreation, just organized exercises can provide well-balanced support individual lives.

By practicing physical exercise can satisfy both motor activities, but also mental and emotional tensions are largely reduced.

In recent years we can see that physical and mental health of the woman is threatened by various XX-XXI century diseases, evolving from simple exhaustion from the worst effects of depression and life sedentary, headache, back pain, illness cardiovascular disease and obesity. All this combined with smoking, lack of sleep, inadequate nutrition lead to premature aging of the body.

### **Materials and methods**

#### **Purpose**

It consists of knowledge certain correlations between the values of somatic- functional indices and motor ability.

#### **Hypotheses**

This paper started from the following assumptions: if women aged 31-40 years falling within parameters of functional somatic age; whether women aged 31-40 years have a capacity corresponding motor of this age; if there are correlations between physical, functional and motor indices at this age.

#### **Work tasks**

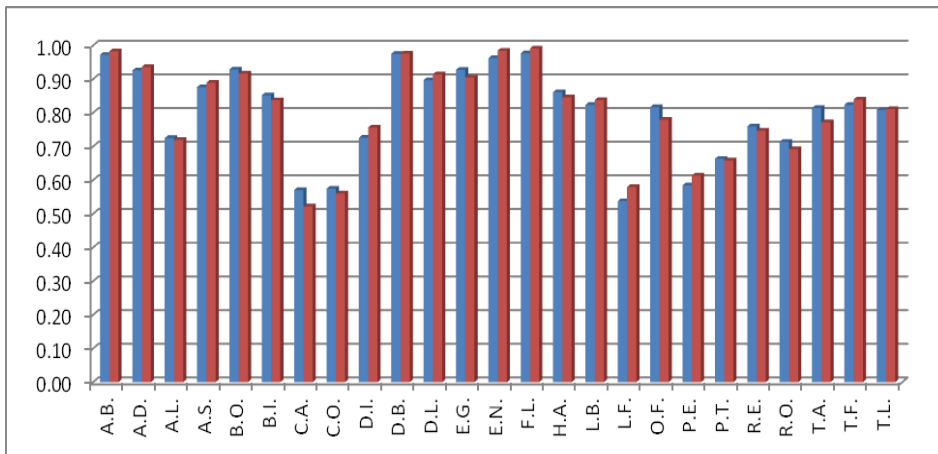
Literature study, constitution of research sample, tests applies, evaluating the somatic-functional and physical abilities indices, somatic-functional and physical abilities indices analysis and interpretation.

Research subjects were the 25 women between 31-40 years of age. The research was conducted in Complex Swimming and Therapy of the Stefan cel Mare University of Suceava, in the period January to June 2013.

**Table 1. Statistical analysis of experimental data and values**

No.	Name and prename	Hight	Weight	Heart rate from lying dorsal 1min	Blood pressure Max.	Blood pressure Min.	Abs 30-	Endurance run 12-	Push ups oblique plan	Correlation to TA	Correlation between H and W
1	A.B.	1.67	82.00	84.00	14.00	8.00	16.00	1.45	4.00	-0.98	0.97
2	A.D.	1.70	78.00	82.00	13.00	7.00	19.00	1.44	7.00	-0.94	0.93
3	A.L.	1.63	69.00	76.00	12.00	6.00	18.00	1.40	12.00	-0.72	0.73
4	A.S.	1.71	79.00	83.00	14.00	8.00	17.00	1.50	8.00	-0.89	0.88
5	B.O.	1.70	71.00	79.00	12.00	7.00	19.00	1.39	7.00	-0.92	0.93
6	B.I.	1.60	76.00	86.00	15.00	8.00	16.00	1.37	8.00	-0.84	0.85
7	C.A.	1.64	79.00	92.00	15.00	8.00	7.00	1.10	6.00	-0.52	0.57
8	C.O.	1.73	75.00	83.00	14.00	8.00	13.00	1.32	11.00	-0.56	0.57
9	D.I.	1.69	71.00	75.00	14.00	7.00	15.00	1.75	10.00	-0.76	0.73
10	D.B.	1.72	84.00	89.00	13.00	8.00	13.00	0.84	3.00	-0.98	0.98
11	D.L.	1.63	74.00	77.00	12.00	6.00	16.00	1.58	7.00	-0.91	0.90
12	E.G.	1.65	69.00	81.00	13.00	6.00	14.00	1.13	5.00	-0.91	0.93
13	E.N.	1.74	89.00	87.00	15.00	8.00	11.00	0.94	3.00	-0.98	0.96
14	F.L.	1.75	94.00	93.00	14.00	7.00	9.00	0.74	2.00	-0.99	0.98
15	H.A.	1.68	75.00	84.00	13.00	7.00	10.00	0.96	5.00	-0.85	0.86
16	L.B.	1.70	84.00	88.00	14.00	8.00	7.00	0.87	4.00	-0.84	0.82
17	L.F.	1.66	79.00	81.00	13.00	7.00	9.00	1.14	8.00	-0.58	0.54
18	O.F.	1.61	74.00	85.00	14.00	9.00	7.00	0.65	4.00	-0.78	0.82
19	P.E.	1.71	88.00	92.00	15.00	8.00	6.00	0.64	5.00	-0.61	0.58
20	P.T.	1.74	81.00	89.00	14.00	7.00	8.00	0.95	6.00	-0.66	0.66
21	R.E.	1.68	74.00	82.00	13.00	7.00	11.00	1.05	7.00	-0.75	0.76
22	R.O.	1.69	76.00	84.00	12.00	7.00	10.00	0.90	7.00	-0.69	0.71
23	T.A.	1.70	68.00	79.00	12.00	7.00	14.00	1.26	8.00	-0.77	0.81
24	T.F.	1.69	77.00	81.00	13.00	7.00	11.00	0.89	6.00	-0.84	0.82
25	T.L.	1.70	71.00	77.00	12.00	6.00	14.00	1.35	8.00	-0.81	0.81

Based on data obtained from the tests described previously was done in table 1 have been assessed on the final two columns:  
 -The correlation between height and weight of the subjects and of cardiovascular parameters (heart rate and blood pressure). These values indicate the quantitative relationship between the two variable vectors. Values close to unity I presume a close relationship between the values of strings of data retrieved as a result of the test[3,5]  
 - The correlation between cardiovascular and paramerii results of motion. An objective interpretation of the values obtained in the tests shall be carried out by comparing calculated results with certain values determined by correlation tables depending on the number of test subjects, type connections and materiality required[4].

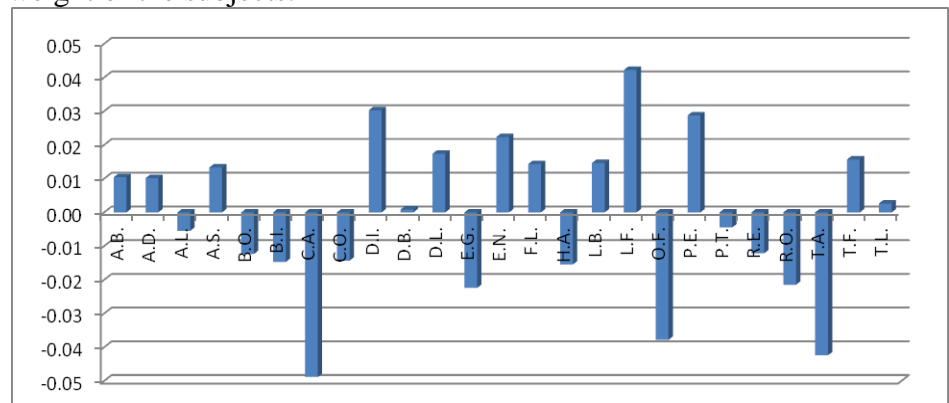


**Figure 1. Representation of the absolute values of the correlation between morphological and functional indices and the motor one, calculated in two different ways**

The graph in Figure 1 shows that over 60% of the subjects had higher correlation index first second so there is a better correlation between morphological cues and clues AB.

The graph in Figure 2 shows the difference between the two correlation coefficients evaluated resulting in an approximation of the two values, with a few exceptions (C.A., L.F., O.F., T.A.), mostly to the advantage of the second index. This indicates the need to improve the

first correlation index, which can be done most simply by changing the weight of the subjects.



**Figure 2. Representation gap between the absolute values of correlation between morphological and functional indices and motor indices**

### Conclusion

- Since there may be correlations of fields with different sizes were evaluated motor indices correlations (abdomen - Running resistance - push-ups) with two sets of morpho-functional indices: height - weight - heart rate, heart rate - blood pressure
- Other correlations between dual fields of the table no. 1 did not lead to interpretable results.
- Although opposite in absolute calculations are found close correlation between the two indices. A coefficient of 1 indicates a perfect positive correlation (change in value of a variable will predict a change in the same direction in the second variable), while a coefficient of -1 indicates a perfect negative correlation (a variation of variable predicts a change in the opposite direction in the second embodiment).
- Out of the 25 subjects, obtained correlation indices raised 68% of subjects achieving remaining weak correlation indices indicating the need to introduce special training programs (eg, CA, CO, LF, PE, PT, RO).
- The graph in Figure 1 shows that over 60% of subjects received higher correlation index of the second so there is a good correlation between morphological and motor indices.

- The graph of Figure 2 shows the difference between the two resulting correlation coefficients rate of the two values as close a few exceptions (AC, LF, OF, TA), most of the advantage of the second index. This indicates the need to improve first correlation index, which can be best achieved simply

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### **STUDIUL PRIVIND CORELAȚIA DINTRE INDICII SOMATO-FUNCȚIONALI ȘI ABILITĂȚILE FIZICE ALE FEMEILOR CU VÂRSTE CUPRINSE ÎNTRE 31-41 DE ANI**

**Cuvinte cheie:** femeie, indici somato-funcționali și motrici, corelație

**Abstract:** Cercetarea științifică a fost axată pe studierea nivelului de dezvoltare a indicilor somato-funcționali și capacității motrice la femeile de vârstă 31-40 ani și a corelațiilor dintre acestea. Prin practicarea exercițiului fizic se pot satisface nu numai activități motrice, dar și tensiunile psihice și emoționale sunt în mare parte reduse.