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THE OPPORTUNITY OF PROMOTING THE CONCEPT OF „BODY AUTOPLASTY USING PHYSICAL EXERCISE"

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Abstract

The work promotes a new concept in the context of „Contemporary world problems", which are also the threats to individual health plan by the proliferation of modern world diseases (obesity, heart disease, diabetes, inactivity and nutritional consequences), the concept of „body modelling through physical exercise". World Health Organization statistics show that 17% of the adult population of the world is completely inactive from physical point of view, and a rate of 41% of it is represented by adults who are not moving enough (B.W. Martin, 2006, p. 53-57).

Content, methods, means

Promoting the new concept is done in order to improve quality of life for adults and is a viable alternative to plastic surgery because of the advantages in multiple plans: health, economic, aesthetic, psychological, etc.

The paper proposes to identify and promote the new concept dimensions and its promotion will be done by stimulating psychological resources of the self-consciousness and self-image, in each individual's awareness of the need for body shaping actions to increase the quality of his life, by experimental means.

Debates, conclusions

Body autoplasty is a necessity for nowadays society and it must become a social reality. The concept of body autoplasty should be perceived as an alternative to plastic surgery methods, area that is nowadays an unprecedented development.

Key words: autoplasty, body modelling, plastic surgery.

Introduction

The work promotes a new concept in the context of „Contemporary world problems", which are also the threats to individual health plan by the proliferation of modern world diseases (obesity, heart disease, diabetes, inactivity and nutritional consequences), the concept of „body modelling through physical exercise**"**.

M. Epuran, (2001, p.3.) defines autoplasty as being **„***an action of modelling the self-being – particularly body modelling – using specific activities*". Autoplastic feature comes from the individual motivation, from the intention of achieving harmonious body growth and through this achieving a superior self-image". The term „autoplastic"– represents a „qualification of all reactions or adjustments that aim at modifying one's own body or aim at changing the environment." (P. Popescu-Neveanu, 1978, p. 80). For an individual to decide to shape his body so as to obtain a pleasant appearance there has to be the self-consciousness, self-image of themselves and the individual has to possess the means and methods that lead to achieving this goal.

The process of body shaping represents in fact one of the physical education goals with special physical, intellectual, psychological, aesthetical and social implications. In the process of body modelling (autoplasty) there are involved all systems, devices and functions of the body: shaping muscular profile, proper body attitude, ensuring optimal body weight is achieved by physical exercise and by the contribution of associated factors which exert profound influence on the whole body functions (physiological, mental and behaviour functions)." (P. Fiedler, 1996, p.10).

Goal, theory

The work suggests identifying the dimensions of the concept of „body modelling using physical exercise" and promoting the concept by stimulating psychological resources of self-consciousness and self-image at each individual's level having understood the necessity of body modelling actions that aim at increasing the quality of his life .

Promoting the concept of „body modelling using physical exercise" responds to the human being genetic need of movement, it induces an increase of his life quality and its dimensions are the same independent variables through which one could act in case of a method focused on body re-modelling, maintaining and/or increasing the health state of modern human being, through physical education and sport methods.

Content, methodology

1. Consequences of physical inactivity in the world. World Health Organization statistics show that 17 per cent of the adult population of the world is completely inactive from physical point of view, and a rate of 41 per cent of it is represented by adults who are not moving enough. (B.W., Martin, 2006, p. 53–57). Physical inactivity, sedentarism represents a real danger for individual and WHO estimates that it represents annually the cause of 1.9 million premature deaths all around the world, and approximately 600 000 of these deaths pertain to the Europeans. Obesity correlated with physical inactivitaty and irrational nourishment lead to a proportion of 25 per cent (men) and almost 38 per cent (women) in the European Union.(*3). Romania „tends" to be a European country in this case, because the statistics in 2007 have shown that there are 8 million overweight people from which 4.5 million people are obese.(*4).

Obesity is treated by the authorities in EU and U.S. as a public health problem: there are launched campaigns to inform people about the risks of illness caused by obesity, in Britain appeared special scales that show the calories of a product, there are promoted campaigns to make children stop eating fast-food type of food, and many other actions.

Table nr. 1 I. Q. scale given by WHO

I.Q.VALUE	WEIGHT EATURES
Below 18,5	Minimum weight
18,51-24,99	Normal weight

Erissman Index (E.I.) – is the index through which is expressed body harmony and represents the ratio between height and body thickness: *E.I. = PT - T/2*

Table nr. 2 E.I scale (Bârzu Maria Valentina, 2004, p.21)

QUALIFICATIVE	ERISSMAN INDEX
Insufficient developed	below- 10 cm

Medium values on girls - 3,5cm; on women 4cm.

Thin thorace	-10 cm la 0 cm
Normally developed	0 cm
Well developed	0-8 cm
Very well developed	Over 8 cm

Thoracic elasticity (T.E.) – represents the difference between thoracic perimeter in profound inspiration and thoracic perimeter in forced expiration. This index has to have minimum 6 cm on girls.

2. The opportunity of promoting the concept of body autoplasty using physical exercise in Romania. In Romania, although the population increased at a large scale in what concerns weight in the late two years, there isn't a coherent policy in order to promote social priorities to prevent or treat the effects of physical inactivity.

In order to find out the real fact concerning the health degree expressed at the level of body harmony signs we am initiated an ascertained research, in which the goal group was made of 252 adult subjects with ages between 19-35, students of University from Piteşti city, Faculty of Education Science from Slatina, Râmnicu Vâlcea and Câmpulung cities made of two groups: students with ages between 19-35 and students older than the age of 35.

Subjects were put to some anthropometric measurings through which there were found out the next somatic indicators: size, weight, abdominal perimeter in standing, lying dorsal abdominal perimeter, thoracic perimeter in resting, in deep inspiration, in forced expiration, right-left arm perimeter, right-left leg perimeter, right-left thigh perimeter, right arm fat tissue, back, flank, abdomen, right thigh. On the basis of these indicators there were discovered the body harmony index: *Quetelet Index, Erissman Index (tables 1, 2, 3, 4), thoracic elasticity, abdominal muscle tonicity index.*

Body mass Index – (Q.I), (Quetelet) - predicts potential health risks better than a simple weighing *I.Q. = Weight (kg)/waist^2 (m)*. The discovered values were compared with WHO scale in table 1.

25,00-29,9	overweight
30,00-34,9	Level I obesity
35,00-39,9	Level II obesity
over 40	(morbid) obesity or level III obesity

Index of abdominal muscle tonicity – is written *Ta.* And it is calculated by subtracting the two abdominal perimeters (abdominal perimeter in standing Pa, and abdominal perimeter in supine Pal.). The lower

becomes the difference between the two perimeters, the bigger becomes the tonicity of abdominal muscles. Specialists consider that the normal difference is 1-2 cm. This way it can be appreciated if the subjects have a thin abdominal belt, this with a direct effect in time on lumbar spinal cord, on different functions of abdominal organs and even on breathing function.

Table nr.3 Body harmony index on 19 – 35 group

Mathematical statistic index	Thoracic elasticity	Index of Abdominal muscle Tonicity Ta.	Quetelet Index Q.I.	Erissman Index E.I.
Arihtmetical mean	5.37	1.91	22.62	13.40
Mediane line	50	2	22.5	13.5
Standard digression	1.10	0.54	2.64	9.07
Variability coefficient	20.51	28.76	11.68	67.70

Table nr.4 Body harmony index on group over 35 years old

Mathematical statistic index	Thoracic elasticity	Index of Abdominal muscle tonicityTa	Quetelet Index Q.I.	Erissman Index E.I.
Arihtmetical mean	5.03	1.59	23.10	16.52
Mediane line	5	2	25	16
Standard digression	1.19	0.62	2.68	3.48
Variability coefficient	23.66	39.35	11.63	21.09

After applying measurings on 19-35 group, we conclude that the arithmetical mean of thoracic elasticity is 5.37 cm, is below the normal one (minimum 6cm) what means that subjects have got a weak thoracic elasticity and a poor- developed thorace muscle. The same thing is found on subjects with ages over 35 where the average of thorace elasticity index is 5,03cm. The variability coefficients 20.51 on the first group of subjects and 23.66 on the second group, these values show a weak omogenity of the group.

As concerns ***abdominal muscle tonicity index*** on both groups of subjects, we can see values that are normal and we can conclude that they have a good abdominal belt. Variability coefficient shows us this time, too that both groups have got a poor omogenity and on group with age over 35 we can see that the average is irrelevant (value over 35 per cen of Cv.).

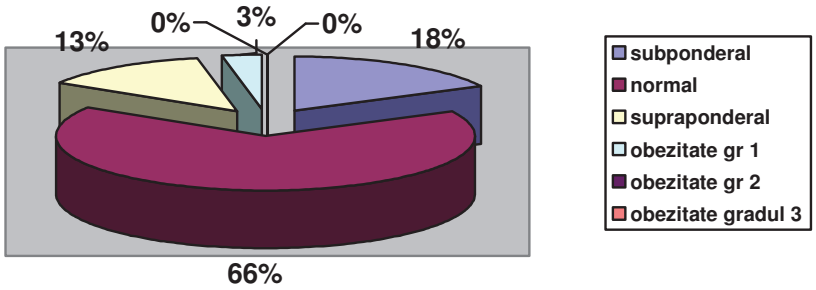

Diagram no. 1. Share of aspects found by calculating Quetelet Index (19-35 years)

Table nr. 5. Results obtained by calculating Quetelet Index (19-35years)

Indicele Quetelet (BMI)	no. subjects	Per cent %
underweight	35	18
normal	133	66
overweight	26	13
Level 1obesity	6	3
Level 2 obesity	0	0
Level 3 obesity	0	0

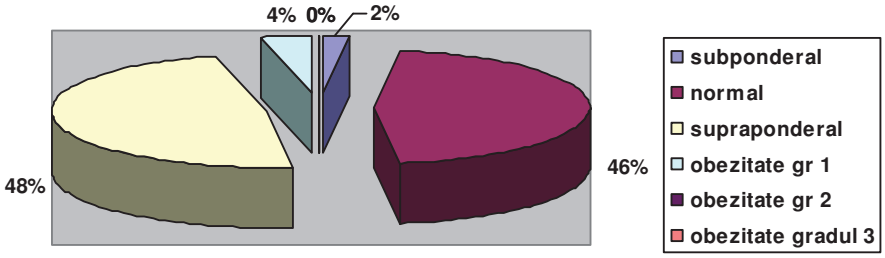

Diagram no. 2. Share of aspects found by calculating Quetelet Index (over 35 years)

Table no. 6. Results obtained by calculating Quetelet Index (over 35 years)

Quetelet index (BMI)	*No. subjects*	*Per cent %*
Underweight	1	2
Normal	24	46
Overweight	25	48
Level 1 obesity	2	4
Level 2obesity	0	0
Level 3 obesity	0	0

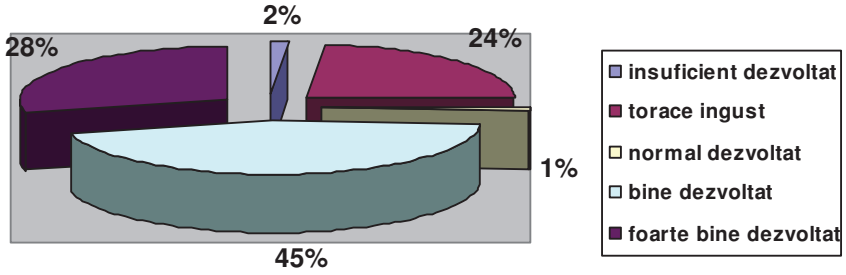

Diagram no. 3. Share of aspects found by calculating Erissman Index (19-35 years)

Table no. 7. Results obtained by calculating Erissman Index (19-35years)

Erissman index	*No. subjects*	*Per cent %*
Insufficient developed	3	2
Thin thorace	47	24
Normally developed	2	1
Well developed	91	45
Very well developed	57	28

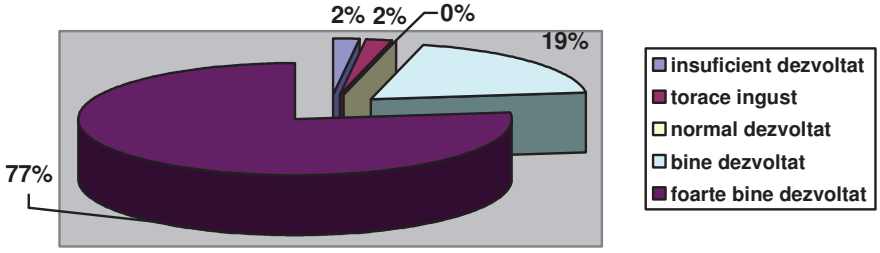

Diagram no. 4. Share of aspects found by calculating Erissman Index (over 35 years)

Table no. 8. Results obtained by calculating Erissman Index (over 35 years)

Erissman Index	No. subjects	Per cent %
Insufficient developed	1	2
Thin thorace	1	2
Normally developed	0	0
Well developed	10	19
Very well developed	40	77

On Quetelet Index we get an average of 22.62 in case of subjects with ages between 19 – 35 and an average of 23.10 in case of subjects with ages over 35. Relating to the evaluating scale we can see that the average of the group is satisfactory. Measurings on age groups show that in case of the subjects with ages between19–35, 66 per cent from them have a normal weight, 18 per cent are underweight, 13 per cent are overweight and 3 per cent have a level I obesity. (diagram no.1). We can say that these are good results comparing the results of subjects with ages over 35 years, where 46 per cent have a normal weight, 2 per cent are underweight, 48 per cent are overweight and 4per cent have level I obesity. (diagram no.2). Values of variability coefficient show that on both groups there is a medium omogenity.

Erissman Index. Results from measurements made an average index of 13.4 in subjects up to 35 years and 16.52 over 35 years, indicating that all subjects are not very good in terms of body harmony and in terms of proportionality of body segments. According to Erissman Index scale, values over 8 cm show the presence of some excessive fat tissues on trunk. On subjects with ages between 19–35 years, 45 per cent are well developed, 2 per cent are insufficiently developed, 24 per cent have a thin thorace, 28 per cent are very well developed. (diagram no.3). On subjects with ages over 35 years, 4 per cent are below the normal level of development (2 per cent are insufficiently developed, 2 per cent have a thin thorace) and 96 per cent are over the normal average; 19 per cent are well developed, 77 per cent are very well developed. (diagram no. 4). The variability coefficient has got the 67.70 value (on subjects up to 35 years) so there is not a omogenity in the group, arithmetical mediane does not reflect the group aspects and on subjects over 35 years Cv value is 21.09 that reflects a weak omogenity.

Discussions, conclusions

Promoting the new concept is made for the purpose of quality of adults life and this is a viable alternative towards plastic surgery, due to multiple advantages concerning: health, economy, aesthetics, psychology, etc (C. Enache, 2009, p.576.).

Life quality is represented by all life aspects of own life and society under influence of impartial, subjective and political factors. In the analysis and measurement of life quality there are identified the next independent variables*: health state, incomes, living and working conditions, family, group and relations between people, education quality, of medical assistance, social protection, access to services for people and to opportunities of a job, perception and conflict administration, trusting in people, in institutions, degree of participation on political and social life*. As concerns life quality, (V. Grigore, 2007, p.42.) Physical Education and Sport specialists say using specific researches that profilactic and curative schemes *optimize health state, help maintaining physical capacity, favourizes obtaining and maintaining physical condition, maintain and/or increase the level of self-trust, facilitate social integrity*, using methods specific to this area, that help to obtain a certain degree of satisfaction concerning life style and wellbeing. Wellbeing is an important indicator of life quality and it is the effectual of all changes, development and decisions made for one's own life, depending on goals, on level of aspiration and reasoning.

Effects of physical exercises on young body were emphasized by three well-bound categories: *morphogenetical, physiological and educational* (A.N. Ionescu, V. Mazilu, 1968, p.152). V. Grigore, (2007, p.8) divides the categories of effect that physical exercise have on health state on four levels: *somatically, functional, psychological and social.* On basis of these considerents we present in table.1 effects of motric activities on human body.

Body autoplasty is a necessity for nowadays societaty and it must become a social reality. Concept of body autoplasty should be perceived as an alternative of plastic surgery methods, under circumstances of the fact that this domain encounters nowadays an unprecedented development.

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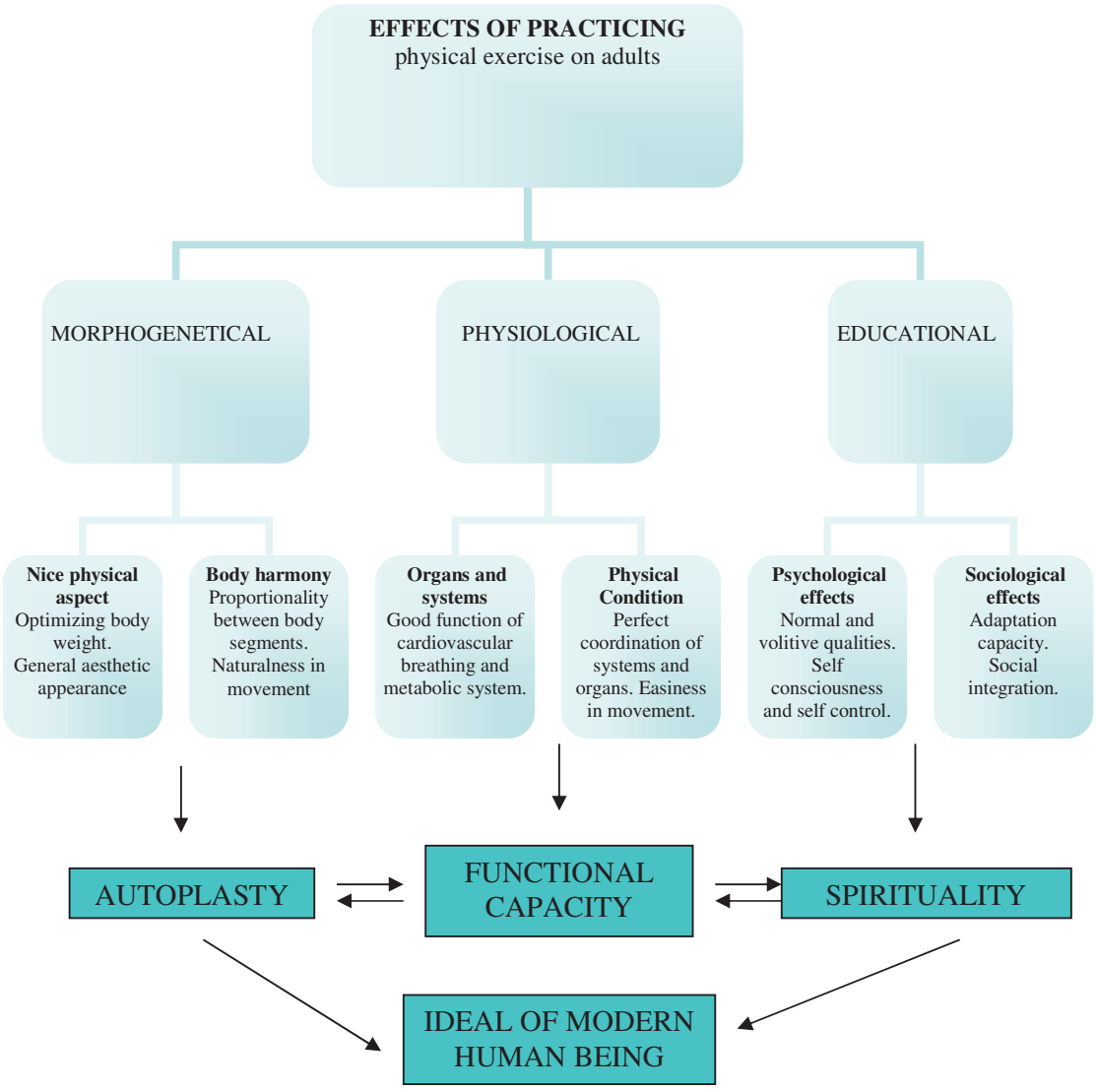

Fig. no. 1. ***Relation between the effects of practicing physical exercises on adults and ideal of modern human being***