

THE INFLUENCE OF GYMNASTIC EXERCISES IN THE QUALITY OF ADULT WOMEN'S LIFE

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Abstract: *The presence of women in all areas of contemporary life is a reality that generates many changes in their lifestyle. In the present study, we aimed to make a comparative analysis in two groups of women. The adults in the first group practice sports activities 2-4 times a week, but have sedentary professions, those in the second group have active professions, with medium to high effort, but do not participate in any sports class, with 3 exceptions. The results obtained show us better values recorded at body indices, and at indices related to health status, sleep quality in women in the second group. Our recommendation for adult women is to adopt a lifestyle with sports activities performed daily, with a medium to high effort to improve their quality of life.*

Key words: *adult women, gymnastic exercises, quality of life*

1. Introduction

Awareness of adult women to participate in various motor activities causes considerable changes in lifestyle, namely maintaining or increasing the effort capacity, work efficiency, health, in a word will influence the quality of their life [6], [14]. It is important that these activities will be performing in an organized and differentiated way, in a cheerful, friendly environment, so we can hope that we will be able to change the attitude and motivation of women adults regarding regular, continuous participation [1], [6], [8].

The human body undergoes many

changes throughout life. The adulthood follows the youth age; in fact it touches the decline of this period, but also touches the beginning of the elderly period [3].

The ability to perform different exercises, muscle fiber quality, endurance of the body, vigour, intellectual capability, health, is different from one period to another. Towards old age they are all declining [10], [5]. Especially people with sedentary work, and which does not involve their body in sustained and difficult activities, very hard endure the effect of an intense effort or exercises and certainly not without getting tired [7].

Repeated efforts, which are performed regularly, require the adapt capacity to the

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body to a higher level, which ultimately leads to an increased level of endurance and performance [4].

Gymnastics class is one of the favourite activities of women adults, due to several factors, of which we mention: exercises can be performed by anyone because they can be simple or complex, analytical, segmentally performed with reduced or multiple influences on the body, it works aerobically, with musical accompaniment [12], [15]. All these bring a lot of advantages in our body functioning, it strengthens the motric capacity, positively influences the health, longevity, capacity of work, psychological, emotional moral-volitional qualities of the participants [3], [4], [13].

"The concept of life quality best responds to the need to consider the whole of the person" and health, diet, sleep quality, recreation, physical activity are components that refer to this concept and usually are evaluated in questionnaires with subjective answers [2].

Extending the active life of the adult women by bringing them to a life regime with more exercises becomes a major objective of the specialists in physical education and sports [1], [9].

2. Objectives

The purpose of this research is to realize a comparative analysis between two categories of adult women: a group who practice gymnastics but they have a sedentary profession and a group who does not practice gymnastics but with a profession that requires active physical work [11].

The objectives of the study are:

- To analyze and compare objectively somatic indices related to height, weight, body mass index, fat mass and total body water
- To analyze and compare subjective indices which refer to some aspects of life quality.

3. Material and Methods

24 female participated in this study:

- 12 adult women aged 44-65, who take part in an gymnastics class 1-2 hours per week, group 1;
- 12 adult women aged 44-59, with a profession that requires active physical work every day, who occasionally do different physical activities, group 2.

The effort of the gymnastics group is an aerobic one, medium - high intensity, with muscles strength and flexibility, but only one or two times per week.

The effort of the second group is medium intensity but is daily and a lasting one.

The objectively somatic indices were measured with Tanita, Body Composition Analyzer equipment, and the data referring to life quality were collected using a questionnaire, directly applied, face to face.

4. Results and Discussions

We made the data analyses of the objective indices of the two groups, measured with Tanita equipment, and the results are:

Table 1
Somatic indices, BMI, Fat mass, Total Body Water and Visceral fat rating at the two groups of adult women

	Statistical function	Age	Height	Weight	BMI	Fat Kg	TBW Kg	Visceral fat rating
G1	Average	53,08	168,33	71,94	25,42	24,42	34,82	6,83
	Max	65,00	180,00	93,10	33,00	39,90	42,10	10,00
	Min	44,00	158,00	54,60	19,10	13,10	29,60	3,00
G2	Average	46,58	162,58	67,16	25,58	20,20	34,80	5,25
	Max	59,00	175,00	80,30	31,80	30,40	39,90	10,00
	Min	34,00	153,00	49,50	19,30	10,80	28,40	1,00

Legend

BMI - Body mass index, standard ratio of weight to height

Fat Kg - amount of fat in body, measured in Kg

TBW Kg – total body water in body, measured in Kg

Visceral fat rating - body fat that is stored in abdominal cavity

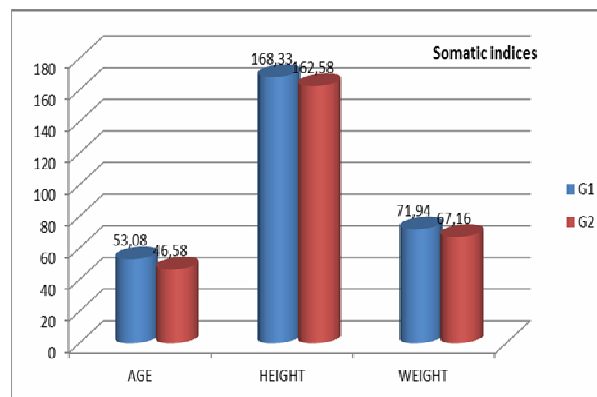


Fig. 1. *Somatic indices at the two groups*

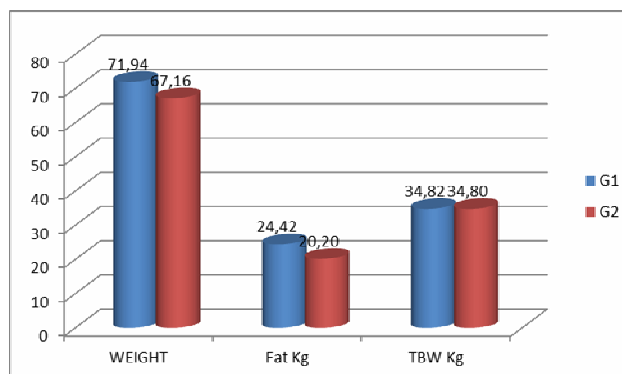


Fig. 2. *Mass indices at the two groups*

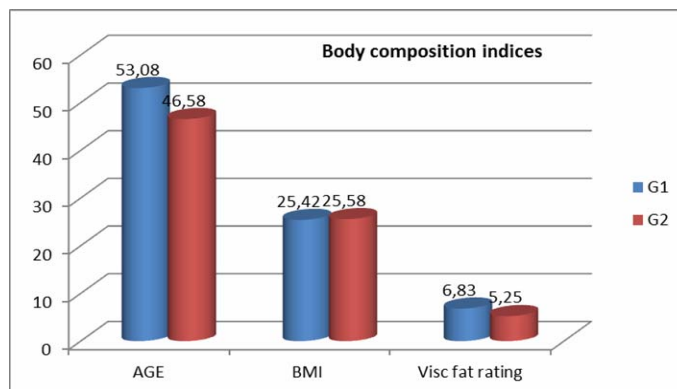


Fig. 3. *Body composition indices and the visceral fat rating at the two groups*

Regarding the objective indices, we can state:

- the age of women from G1 – Figure 1 - is on average 7,5 years older than the women from the G2 group;
- the Height at G1 women's group is on average 5,75 cm higher than the G2 values – Figure 1;
- in all chapters related to weight, G1 has higher average values than G2 except TBW; thus G1 has an increase of 4,78 Kg in total weight – Figure 2 - , 4,24 Kg on average to the amount of fat in body - Figure 2 - and in visceral

fat rating the values are higher on average by 1,58 compared to G2 – Figure 3.

- in terms of BMI – Fig.3 - the mean values are approximately equal, 25,42 in G1 and 25,58 in G2, both groups fall into the category of overweight women, but very little above the normal limit, 0,43 in G1 and 0, 59 to G2.

Table 2

Subjective indices at the two groups of adult women

	Estimate Health	Estimate weight	Estimate fatigue	Restful Sleep	Sports hours / week
G 1	0 VB	0 U	0 N	0 N	0 x 0
	1 B	6 N	2 Rly	0 Rly	5 x 1-2
	2 S	6 Ov	3 R	2 R	6 x 3-4
	7 G	0 Ob	6 So	2 So	1 x 5-6
	2 VG		1 Fr	8 Fr	0 x 7-8
G 2	0 VB	2 U	0 N	0 N	9 x 0
	0 B	7 N	4 Rly	0 Rly	2 x 1-2
	1 S	3 Ov	1 R	0 R	0 x 3-4
	7 G	0 Ob	7 So	1 So	0 x 5-6
	4 VG		0 Fr	11 Fr	1 x 7-8

Table 3

Legend with ratings obtained at the subjective indices

Estim health	Estim weight	Estim fatigue	Restful Sleep
VB very bad	Ov overweight	N never	N never
B Bad	U underweight	Rly rarely	Rly rarely
S satisfy	Ob obese	R rare	R rare
G Good	N normal	So sometimes	So sometimes
VG very good		Fr frequently	Fr frequently

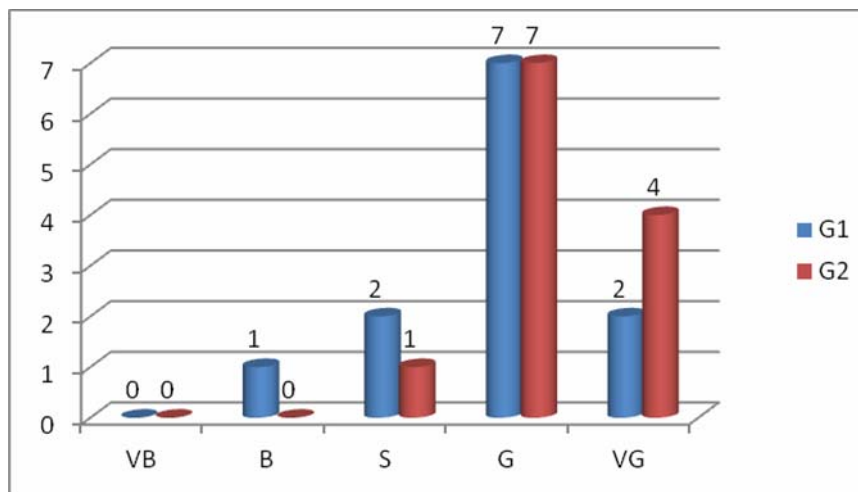


Fig. 4. *Estimate health at the two groups*

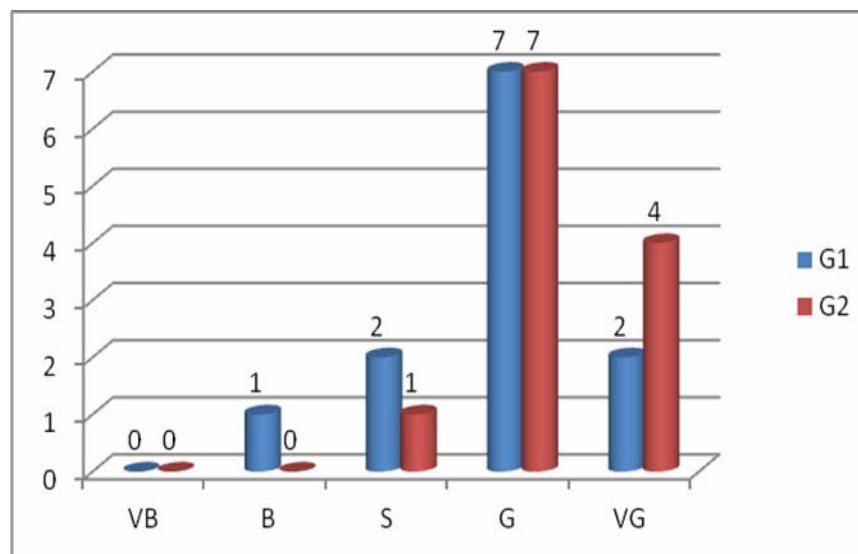


Fig. 5. *Estimate fatigue at the two groups*

The statistics data analyses of the subjective indices of the two groups, collected by the questionnaire showed us that:

- 7 people from both groups say they are in good health, only one person from G1 said she is in bad health. Two women from G1, and one from G2, said they are a Satisfy health, 2 women from G1 and 4 women from G2 say they are in very good health – Fig. 4.
- 6 women in G1 consider that they have a normal weight (N) and 6 consider that they are overweight (Ov). But the BMI score shows that 1 is underweight, 6 are normal weight, 4 are overweight and 1 is obese. Subjective opinions are not exactly in line with reality - Table 2.
- 7 women in G2 consider that they have a normal weight, 2 are considered underweight, correct estimation, and 3 are considered overweight, which is correct. The BMI score tells us that there are only 5 framed at normal weight, and 2 are obese, which no one estimated- Table 2.
- From the point of view of fatigue we can say that the opinions of women in the two groups are relatively close, i.e.; 5 women from both groups rarely feel tired and rare, and 6 and 7 respectively sometimes feel tired, only one in G1 feels frequently tired.
- In terms of sleep quality, we can say that 11 in G2 often have a restful sleep, while in G1 only 8 women say the same thing, two are rare, and 2 sometimes get a good night's rest.
- In terms of sports hours per week, we can say that 11 of the 12 women in G1 practice between 1 - 4 hours / week sports, and one does 5-6 hours / week, namely almost daily.
- 9 women of 12 belonging to the G2 group do not practice one hour of sports per week, two of them practice 1-2 hours, occasionally, and one does 7-8 hours of sports per week, i.e. daily.

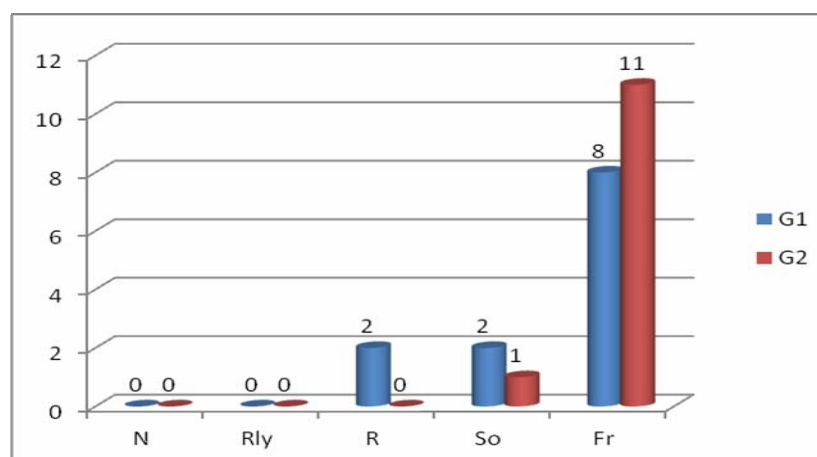


Fig. 6. Restful sleep at the two groups

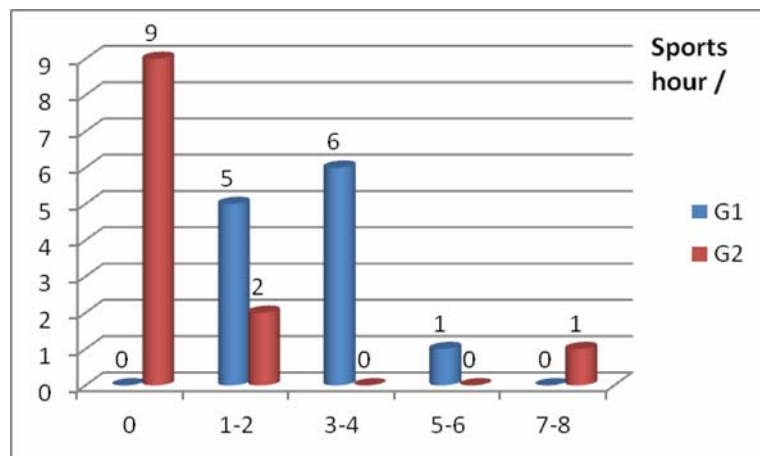


Fig. 7. *Number of sports hours per week*

5. Conclusion

Following the comparative analysis regarding the body mass index of the two groups of women, we reached the following conclusions:

- The values of the statistical data of the objective indices are equivalently equal.
- higher statistical data on Weight can be explained in terms of higher values in group G1 compared to G2 on Height data. We can say that we have about 0.8 Kg total weight at an extra cm in height and 0.74 Kg more body fat at an extra cm in height.
- Body mass indices - BMI - show us that we have approximately equal mean values, so an equal distribution of body weight.
- Statistical data regarding the fat and visceral fat rating are lower in G2 compared to G1.
- The results regarding the subjective perceptions related to the quality of sleep, and the state of health, are better in women from G2, who have better values than those from G1.
- The better results obtained by G2 on

the indices related to body mass - Weight, Body Fat, Visceral fat rating - as well as those related to sleep quality and health, lead us to the general conclusion that it is preferable to perform sports activities with a medium to high effort, but to be performed daily than high to very high effort activities, but performed only 2-4 times / week.

- Because health, sleep quality, BMI, are dimensions contained in the concept of quality of life, and had better values in the G2 group, encourages us to support the importance of gymnastic exercises, for at least 4 hours / week, to increase the quality of life of adult women.

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