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The importance of nutrition and physical activity in young people increased quality of life

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***Abstract*—Nutrition is the basis of energy supply in all forms of physical activity. The main goals are maintaining nutritional health and meet the needs in these situations nutritional diet should be balanced, especially for sporting disciplines involving mass and body composition controlled. We studied a total of 78 students between 20-26 years of age, who were divided into two groups. It was found that the students practicing daily exercise and a controlled diet monitored parameters were not recorded big changes compared to the group that made occasional sport and made Amended cardiopulmonary parameters.**

Keywords—nutrition, exercise, quality of life, study.

I. INTRODUCTION

Nutrition is the basis for energy supply in all forms of physical activity. The main goals are maintaining nutritional health and meet the needs in these situations nutritional diet should be balanced, especially for sporting disciplines involving mass and body composition controlled.

An athlete will not be performing poorly nourished due to decreased strength and endurance. Therefore the diet should be an energy and optimum concentration of carbohydrates and other nutrients in order to sustain Exercising. For an athlete due to high energy consumption it is necessary to ensure an intake of nutrients that exceed a concentration suitable for regular exercise.

Energy demand from a person depends on the age, sex, body mass, the sport, the intensity and frequency of exercise. An inadequate intake of energy will lead to chronic fatigue, weight loss and lack of sports performance. Sport activity is recommended for consumption in rich carbohydrates, and foods that contain fiber.

Carbohydrates are important for the storage of muscle glycogen, are considered fuel-intensity exercise program medium to high. There is research that showed the correlation between muscle glycogen levels (especially at the start of the program) and resistance but also in the production of glycogen after exercise and the amount of carbohydrates that a sport receives from the diet.

It is known that involve endurance sports performance based on a diet of carbohydrates. Are there research to support the idea that correlations between glycogen accumulating evidence walker strength and maintaining these amounts during exercise. During workouts, eating carbohydrates can supply 50-60% of total energy.

For endurance athletes supporting evidence necessary daily 500-600 g carbohydrates (70%), which can ensure maximum recovery of reserves gliocogen muscle after intense training [1]-[3]. A quantity of carbohydrates as 40% of energy can cause exhaustion, fatigue by decreasing glycogen stores. Protein is also necessary dependent body mass, type of sport (strength or endurance), exercise intensity, the energy balance of the diet followed.

There are studies showing that the athletes need protein surplus (50-150%) compared to consumption of conventional thought [4]. In the sample resistance protein consumption may contribute 5-10% of energy consumption, and in some cases exceed these values if muscle glycogen reserves are depleted.

Current recommendations are between 1,2-1,4g / kg / day endurance athletes from disciplines and 1,4, 18g / kg / day in the disciplines of strength athletes or athletics-running.

Fats are a source of energy, subject poor use of muscle fiber and dependent on duration and intensity of exercise applied, and the amount of glycogen existing diet. Research in the past decade shows that athletes who have a moderate amount of fat in the diet improved performance records [5]-[9].

Another important nutrient in achieving physical performance is the water. A loss of 1% of body weight can negatively influence concentration, motivation, performance, whereas a loss of 2-3% of body weight cause decreased exercise capacity. Loss of fluid is monitored by weighing athletes before and after exercise, establishing strategies which enable optimum amount of fluid during and after workouts[10]-[11].

II. II MATERIAL AND METHOD

They studied a total of 78 students between 20-26 years of age, who were divided into two groups. The first batch of 40 students constantly doing exercise being registered sports clubs. The second group included 38 students who were occasionally sport. Both groups in the study were taken following parameters: age, gender, origin, BMI, pulse, blood pressure, breathing, diet, quality of life index.

A BMI between 20 and 24.9 kg/m² is considered normal , between 25 and 29.9 kg / m² an index was considered overweight and over 30 kg / m² was considered diagnostic for obesity. The quality of life was investigated using QOLS scale (Quality of Life Scale)

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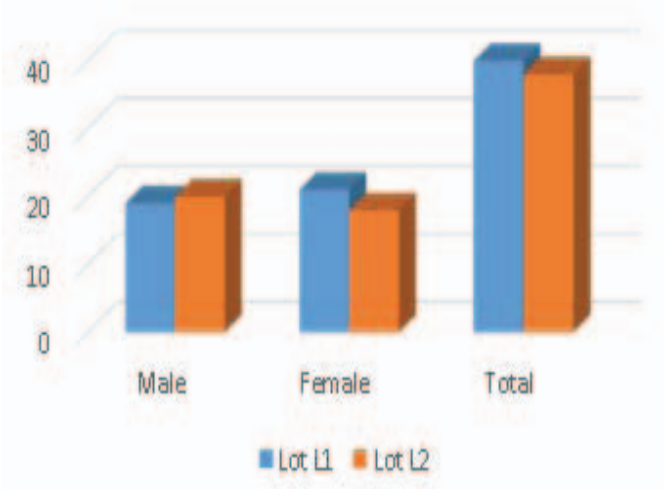

Fig. 1. Distribution -patient study groups by gender

The assessment was done over a period of 20 days, measurements being made in the first and last day (See Table I and Fig 1). They used centimeter taliometer, blood pressure, pulse oximeter, centimeter see that the students practicing daily exercise and a controlled diet followed parameters were no changes have been large compared to the group L2 who presented the modified parameter values cardio- respirators, as a consequence of adaptation to effort.

TABLE I
DISTRIBUTION OF PATIENTS BY GENDER IN THE TWO GROUPS

lot/sex	Male	Female	Total
Lot L1	19	21	40
Lot L2	20	18	38

For 20 days both groups followed the proposed program.

- L1 was made up of 19 boys and 21 girls who practiced handball and volleyball, with daily workouts and a controlled diet in terms of nutrients. The diet contained all the food principles of effort and intensity to the type of execution.

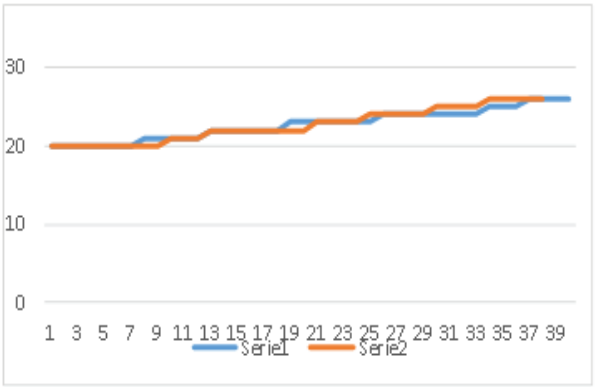

Fig. 2. Distribution -patient study groups by ages

- L2 Lot included 20 boys and 18 girls who went 2 times / week to the gym for moderate activities in terms physically. Diet was chosen by each of those studied.

The main goals are maintaining nutritional health and meet the needs in these situations nutritional diet should be balanced, especially for sporting disciplines involving mass and body composition controlled (See Fig 2).

III. RESULTS

At the end of the program they were physically seen: L1 recorded statistically significant values:

- for the quality of life index, $p < 0.05$ ($p = 0.01$ and $p = 0.03$ L1 to L2 Lot)
- for respiratory rate $p < 0.05$ ($p = 0,01$la L1 and L2 $p = 0.0352$ in group
- BMI, Blood pressure, pulse, respiratory rate, compared with the group L2.

It is important relationship between quality of life and ways of leisure, either through physical exercise or sport through maintenance purposes only. For a student the opportunity to practice a sport (performance or occasionally) is an opportunity, a way of life compared to people of the same age, disadvantaged socially, and that even if they wanted to play sports , I can not do due to material shortages (See Fig 3).

In these conditions, labor relations and social intervention family can influence awareness and education and sport.

Awareness of the importance of preserving the health and value of physical activity organized or otherwise, has implications on quality of life and lifestyle changes.

Practicing physical movement is a need of the human being and his student period can greatly facilitate access for certain types of physical activities (See table II and Fig 4).

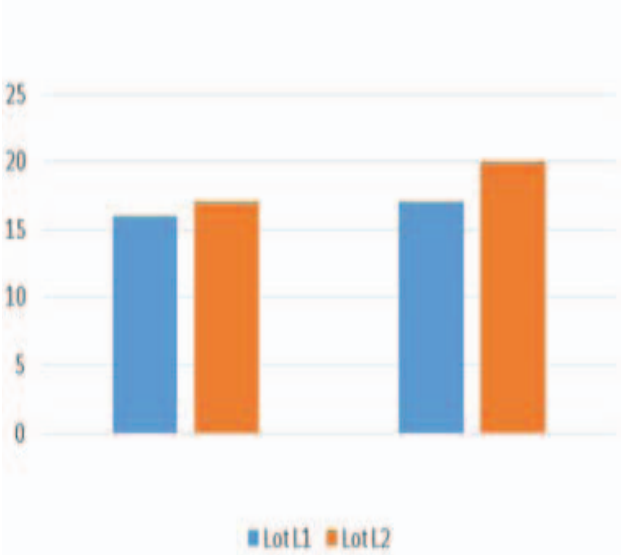

Fig. 3. Statistical results for QOLS Scale in the two study groups (initial median vs. final median , initial STDEV vs. final STDEV)

TABLE II
Statistical QOLS SCALE values in the study groups

	Initial Median	Final Median	Initial STDEV	Final STDEV	t-student Test
Lot L1	16	17	0.784	0.686	0.011076966
Lot L2	17	20	1.266	0.739	0.031979587

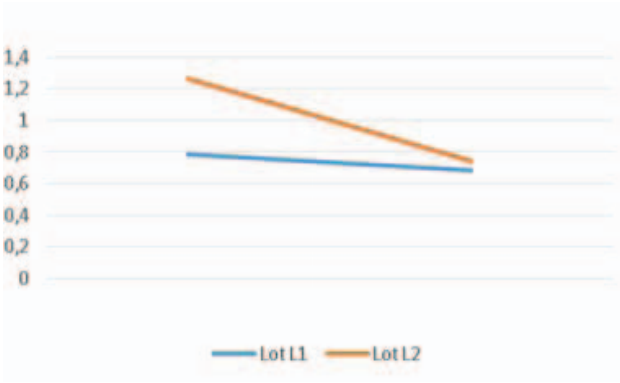

Fig. 4. Statistical results for QOLS Scale in the two study groups (initial STDEV vs. final STDEV)

IV. CONCLUSIONS

We studied a total of 78 students between 20-26 years of age, who were divided into two groups. It was found that the students practicing daily exercise and a controlled diet monitored parameters were not recorded big changes compared to the group that made occasional sport and made Amended cardiopulmonary parameters.

Engaging in group exercise brings greater benefits to applying individual elements type sports. It is found in the age group studied as increased concern for health, that in a context where more and more people avoid shaking from lack of time, money, and leisure understands only fun, etc.

Increasing the proportion of people practicing sport is an indicator for a developed society. On the other hand, in terms of social awareness that a healthy lifestyle with exercise and recreation through sport can have a major impact on health, extending life expectancy and improving mood, eliminating elements stress.

Although an increasing number of studies that quantify the effects of exercise on quality of life, there is a lack of information to define these effects in the medium and long term.

In this study it tried interpretation of the results obtained by calling the concept of ,, Physical activity relationship" with physical activity ", highlight and motivational climate, which is better represented at students who regularly practiced a type of exercise, compared with students who practiced activity occasionally physical.

In the completed questionnaires, students who regularly practiced physical activity mention the positive effects of exercise, compared to students who occasionally practiced physical activity which they considered recreational or therapeutic activity.

On the other hand, physical activity has the function of socialization and education, being more representative of the group who practiced physical exercise regularly, versus the group who practice physical activity only occasionally. More and more studies show the influence of physical activity regularly practiced on the health of the physically and mentally, improve the quality of life of people involved.

Aerobic fitness activity, with the state of competitiveness, can influence wellbeing, reducing anxiety in the short term, and acting over a long period by preventing depression. The condition is practicing regularly, at least twice a week to exercise, a minimum duration of six months.

All the questionnaires revealed by the fact that aerobic exercises and fitness have,, balancing role ": if your workout before applying students present state of anxiety, fear, fatigue, low mood, after hours these states turns into a state of relaxation, mood, motivation daily activities. These findings are consistent with some studies that accentuate the existing model,, balancing "that occurs before and after the exercise program.

For students who regularly practiced physical activity and prepare for competition mattered a lot and participation in competitions involving and results.

Another element was the involvement of the higher education institution specialized in training and the competition for students, which offered safety training status, physical and psychological help, networking and business planning in the medium and long term.

Compared to this lot, the students practicing occasionally represented by physical effort was lacking sense of security, psychological involvement, networking and imp pet design work longer. To this, add the non-participation in competitions involving stagnation in preparation of exercise and regular practice of physical program.

It was found that linked physical activity gain health an important step compared to the competition sphere, namely obtained by practicing health effects of exercise are more important than winning a trophy as a result of physical activity and mental submitted.

These data are consistent with some studies showing the influence of nutrition and a properly designed nutritional program, pre and post competitive in obtaining performance to motivate students to practice the exercise.

ACKNOWLEDGMENT

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To ensure the data protection and privacy of the volunteers of the tests, a detailed data protection concept prepared and approved by the local Ethics committee according to the national data protection guidelines.

This data protection approval is a necessary requirement of the ethics committees.

Data protection concept will include rules to ensure that the organizational and technical principles and tasks to ensure the privacy, confidentiality and security of the personal data of the volunteers. The concept also includes the informed consent of the volunteer. The duty to treat medical records confidentially will be ensured every time.

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