147 - "PROGRAM EMAGREÇA FELIZ": PROFILE OF PEOPLE PARTICIPATING, A REALITY IN CRICIÚMA

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INTRODUCTION

Obesity is a syndrome caused by several factors, such as excess caloric intake, spent insufficient energy (exercises, rate of metabolism decreased body), genetic predisposition, amount of leptina reduced in plasma, environmental factors predisposing to weight gain, psychological factors this is characterized by excess of fat above the normal standards for age, sex and height. (WAITZBERG, 2000).

Obesity can have different causes pathophysiological mechanisms with endocrine and metabolic changes and different, it is a syndrome, and expressed multiple causes that are expressed by an excess of body mass accumulated in the form of fat. (DOMINGUES FILHO, 2000).

Today the obesity is considered an epidemic worldwide, presenting significant and alarming numbers. The bodies responsible have a big spending related to obesity, may be minimized through preventive measures (COSTA, 2000).

The lack of physical exercises this consequently linked to obesity and vice versa, therefore, the life physically inactive along with age becomes a risk factor for the gain of weight and the excess body mass ends facing an obstacle to the adoption of a way of life more physically active, thereby generating, the likelihood of morbidity in people with excess weight and lack of physical exercises. (BOUCHARD, 2003).

We also have different ways of classifying the obesity: related to the percentage of fat, and body mass index, for external or internal factors, the format body, and so on. To prevent both the growth and the emergence of new cases of obesity, it is necessary that measures of prevention are tomadas. A prevention is performed through changes in lifestyle, such as food and reeducation inclusion of the practice of physical exercises.

This is the way of physical activity specifies systematic, planned and in order to develop physical fitness, rehabilitate functions developing motor skills or promoting an expense energy to control body weight (NAHAS, 1999).

We know today that one of the best ways for weight loss and for prevention of diseases is the physical exercise, it practiced on a structured and targeted assistance to improve various factors metabolic, psychological, help to reduce the emergence of diseases, such as hypertension, diabetes , heart disease and many others, these are the major diseases and factors found in obese.

The physical exercises to achieve positive results in the treatment of obesity must be made in the proposal for moderation, regularity and happy, so they can integrate with the day-to-day life of all people, and that all activities must be directed toward: inform, motivate, ensure the practice and encourage maintenance (NAHAS, 1999).

The programs of exercises targeting obese should focus efforts physical with predominance of energy through aerobic metabolism, in which the intensity of efforts to fit indices allowing muscle work on an ongoing basis and long term, the exercise will have the task of increasing the spent energy, and use free fatty acids as an energy source for the movement (PITANGA, 2004)

METOLOGY

Patients

The sample was composed of 80 individuals of both sexes, with 90% female, aged between 20 and 63 years (44.6 ± 9.5). Included in this search only those volunteers who had obesity (with body mass index greater than or equal to 30 kg / sqm). The volunteers were recruited through advertisements in the media (newspapers, radio and television) from Criciúma and all volunteers selected, and who were with BMI appropriate for the search, and only included in the study were those who had no contraindications to physical exercise. The consent to the participation of the study was signed by the participants, who were informed of all the procedures, and freedom to discontinue participation at any time of the search.

Methods

All volunteers selected were submitted to anthropometric assessments, body composition, aerobic capacity test, muscular endurance, flexibility, socio-economic profile before join in the project.

1) Assessment anthropometric: The body mass was achieved through a balance of platform Brand Filizola, with maximum load of 150kg and an accuracy of 100g. The balance was measured before each measurement and volunteers were heavy on foot. The stature has been verified with a stadiometer standing, graduated with a tape measure in centimeters and accuracy of 1mm, using a square of plastic for placement on the head of the volunteer.

2) Criteria for the diagnosis of obesity: It used the body mass index (BMI), also known as the Quetelet index, which is considered the simplest method antropométrico, corresponding to the relationship between body mass in kg and the square's stature in meters: body mass (kg) / altura2 (cm).

3) Body composition: To assess the body composition was employed the technique of bioimpedance Biostat 1500. Where to obtain the percentage of fat, fat mass in kg and lean in kg.

4) Muscular Strength: It was done the test of flexion and extension on the ground, that is the maximum number of repetitions complete, without time limit, to a pace of 3 seconds per repetition. And the test of abdominal, which is to complete the number of repetitions performed in the period from 1 minute.

5) Assessment aerobic: It was used to test the 1,600 walk-Rockport, which consists of 1,600 meters in a walking pace individual and constant, with control of their heart rate at the end, and the time taken to complete the journey.

6) Flexibility: It was used for the test-and-Sitting achieve that is to the engine component associated with the flexibility with flexion ahead of hips with both legs.

7) Training aerobic: The program of aerobic training this being developed, and three times a week, for 45 minutes walking or running, depending on the fitness of each individual. The aerobic activities were standardized according to the percentage of maximum heart rate according to Renato Lotufo and Turíbio Leite de Barros, with the following formula 208 - (0.7 x age), using 60% of this.

8) Assessment and nutritional guidance: A nutritional assessment is being conducted by a nutritionist appointed to monitor the implementation of the project. The volunteers held three consultations with the nutritionist (starting at the end of two months and at the end of the third month) in which return the surveys food receiving a dietary guidance.

9) ethical aspects of the work: The whole methodology (of testing protocols and exercise) presented in this study was approved by the Committee of Ethics in Research of the University of the Far South Catarinense (UNESC).

RESULTS

The results are presented as mean ± standard deviation.

Figures for age, body mass, stature, BMI and waist ratio / hip, divided into men and women, are shown in table 1.

Variável	Men	Women
Age (years)	48,5 ± 9,5	44,6 ± 9,5
Stature (cm)	106,0 ± 13,1	92,6 ± 14,8
Body mass (kg)	180 ± 10	160 ± 10
Body Mass Index (kg / sqm)	34,5 ± 3,8	35,6 ± 4,3
Relationship waist / hip	1,0 ± 0,1	0,9 ± 0,1

On the BMI in the cases (men and women) figures are out of the patterns considered normal according to the World Health Organization that are between 18.5 to 24.9 kg / sqm, both men and women have obesity III, this that index is considered a risk factor for very severely increased to health. (SEIDEL, 2000).

The values of the relationship waist / hip compared with the average age of men and women are considered high risk in both cases, the values of low risk in this age group are <0.88 for men and <0.73 for women.

In table 2 are presented the contents of percentage of fat, fat mass in kilograms and lean.

TABLE 2

Variable	Men	Women
Percent Fat (%)	30,7 ± 3,8	42,4 ± 6,6
Fat in kilograms (kg)	32,9 ± 7,6	39,4 ± 9,8
Mass Magra (kg)	73,1 ± 6,5	53,2 ± 10,1

In the case of the percentage of fat men are individuals with the percentage of fat that has a very high risk for diseases and disorders associated with obesity, the average for men is 15% the individual is considered obese with values> 24%. Women are with the values also very high, the average for women is 23%, considered obese> of 32%. (HEYWARD and STOLARCZYK, 1996, apud PETROSKI, 2003).

In table 3 are given the variables Vo2 Max (test of 1,600 meters - Rockport), sit and reach test, flexed-arm and abdominal test.

TABLE 3

Variable	Men	Women
Vo2 máximo (ml/kg/min)	43,2 ± 6,9	57,2 ± 7,1
Sitting - and-reach (cm)	13,5 ± 8,6	18,7 ± 6,4
Flexion-arm (repetitions)	4,3 ± 4,8	12,8 ± 6,4

The Vo2 Max, related to the average of age, women are considered as athletic conditioning, and this indicator> from 37 ml / kg / min. The men had a performance, not as good as the women, more this value is within the range recommended that it is 38 to 44 ml / kg / min. (NAHAS, 2003).

If the test of flexibility (sit-and-reach), the indicators for both men, as for women are considered as a condition of risk. Since the recommended range of 24 to 34 for men and 30 to 37 for women. (NIEMAN, 1999).

To arm flexion of the men achieved an outcome seen as a condition of risk to health, women the contrary are within the range recommended for health. The values are considered suitable for health of <9 for men and <4 for the women. (NAHAS, 2003).

DISCUSSION

It is known that obesity in individuals of any population is a result of a long period of positive energy balance. However, little is known about the factors that lead to obesity. Studies have identified the interaction of genetic and environmental factors, including sociocultural factors, nutrition, smoking, physical activity and ethylism. (SEIDEL, 1997).

Individuals who sought the program to control and reduce body "Slim Happy" are mostly women, obese, with a mean age of 44 years.

Studies prove its effectiveness to increase the burning of fat and decrease in body mass. People who exercise regularly manage to achieve better results in the loss of body mass than those who do not perform any type of physical activity (GRILO, 1994). While the exercise is not skilled in protecting the body's metabolic rate, reduction of rest, caused by the use of a diet low in calories (a common procedure when it seeks to loss of body mass), it is very effective to promote greater burning body fat (HERSON, POOLE, and DONAHOE HEBER, 1987).

This program has sections of aerobic training as set with three sections of a weekly hour's duration, which will be within 15 minutes of stretching first and last 45 minutes of walking or running depending on the fitness of each individual participant in the study, and this duration of three months, taking its beginning in October 2007.

Through this group seeks to conduct several studies related to obesity and find different ways and the most effective ways to reduce body fat and maintenance of lean mass.

All participants will pass by a nutritional guidance and control food. The program is in progress, this also is being conducted another group that practices in training resisted academy of bodybuilding.Since the total across the 110 program participants.

We think that whatever type of exercise used in the treatment of obesity, the intensity of activity should always be growing, since the individual destreinado and / or sedentary is not able to hold a high-intensity activity at the beginning of treatment. The intensity of the exercise is to better primary factor acquisition of results, both of fitness, as aiming loss of body mass. The low adherence to physical training evidenced by adolescents may be related to the type of activity proposed. A training program that is not monotonous, which does not cause boredom and to present goals that can be achieved, as well as obstacles can be overcome, probably get lower rate of abandonment.

REFERENCES

BOUCHARD, Claude. **Atividade Física e Obesidade.** Tradução Dulce Marino. São Paulo: Manole, 2003. Título original: Physical Activity and Obesity.

COSTA, V. R. **Atendimento Gratuito na USP.** Revista Ciência Hoje, v.28 São Paulo. 2000.

DOMINGUES FILHO, Antônio Luiz. **Obesidade & Atividade Física.** São Paulo: Fontoura, 2000.

GRILO, C.M. **Physical activity and obesity**. Biomed Pharmacother 1994

HERSON, L.C., POOLE, D.C., DONAHOE C.P., HEBER D. **Effects of exercise training on resting energy expenditure during caloric restriction**. Am J Clin Nutr. 1987.

NAHAS, Markus Vinicius. **Obesidade, Controle de peso e Atividade Física.** Londrina: Midiograf, 1999. p.84.

NAHAS, Markus Vinicius. **Atividade física, saúde e qualidade de vida:** conceitos e sugestões para um estilo de vida ativo. Ed. 3. Londrina: Midiograf, 2003. p. 278
NIEMAN, D.C. **Exercise testing and prescription:** a healt-related approach. Mountains View, CA: Mayefild Publishig Company.
PETROSKI, Édio Luiz. **Antropometria:** técnicas e padronizações. 2 ed. Porto Alegre: E. L. Petroski, 2003
PITANGA, F. J. G. **Epidemiologia da Atividade Física, Exercício físico e saúde.** São Paulo: editora Phorte, ed.2, 2004.
SEIDEL, J.C. The currente epidemia of obesity. In. C. Bouchard (Ed.). **Physical activity and obesity.** Champaing II. Human Kintecs, 2000. p. 21 30
SEIDEL, J.C., FLEGAL K.M.. **Assessing obesity**: classification and epidemiology. Br Med Bull 1997.
WAITZBERG, D. L. **Nutrição Oral, Enteral e Parenteral na Pratica Clinica.** V.2, ed 3. São Paulo: Atheneu, 2000.
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ABSTRACT

Obesity is defined as an excess of fatty tissue in the body. For epidemiological studies has been accepted the concept of obesity by body mass index (BMI) or "Quetelet index," which relates the weight to height to the square, equal to or greater than 30kg/m2 by the World Health Organization (WHO), independent of sex and age. The objective of this study was to verify the profile of people looking for weight loss programs in the city of Criciúma. The sample was composed of 80 individuals aged between 20 and 63 years of both sexes and the larger BMI 30 kg/m². For recruitment of the population of this study was carried out disclosure, with the help of the press sector of the University of the Far South Catarinense, and other media (Internet, newspapers, radio, television, etc.). The volunteers performed: aerobic capacity test (test of miles); Muscle strength (abdominal and bending of arms); Socio-economic profile; Body composition (weight, stature, body mass index (BMI), ratio of circumference of waist and hip, percentage of fat, fat mass in kilograms and lean in Kg). They participate in a program that will include aerobic exercises (walking) and nutritional guidance. When compared with the standards given for all health indices that were evaluated were considered outside the normal or bad. In conclusion, obesity is a disease difficult to treat and high frequency of cardiovascular risk factors even in young patients.
KEY WORDS: Obesity, Profile and Aerobic

RESUMÉ

L'obésité est définie comme un excès de tissus adipeux dans le corps. Pour les études épidémiologiques a été accepté le concept de l'obésité par l'indice de masse corporelle (IMC) ou indice Quetelet ", qui concerne le poids à la hauteur de la place, égale ou supérieure à 30kg/m2 par l'Organisation mondiale de la santé (OMS), Indépendante du sexe et l'âge. L'objectif de cette étude était de vérifier le profil des personnes à la recherche d'une perte de poids programmes dans la ville de Criciúma. L'échantillon était composé de 80 personnes âgées entre 20 et 63 ans des deux sexes et de l'ensemble de l'IMC de 30 kg / m². Pour le recrutement de la population de cette étude a été réalisée la divulgation, avec l'aide du secteur de la presse, de l'Université de l'Extrême-Orient Catarinense du Sud, et d'autres médias (Internet, les journaux, la radio, la télévision, etc.) Les volontaires réalisées: capacité aérobie (épreuve de kilomètres); La force des muscles (abdominaux et le pliage des armes); Profil socio-économique; La composition corporelle (poids, taille, indice de masse corporelle (IMC), le ratio de la circonférence de la taille et à la hanche, Pourcentage de matière grasse, la masse grasse et maigre en kilogrammes en Kg). Ils participent à un programme qui comprendra des exercices aérobie (marche) et de la nutrition des orientations. En comparaison avec les normes de santé pour tous les indices qui ont été évalués ont été considérés comme à l'extérieur de la normale ou mauvais. En conclusion, l'obésité est une maladie difficile à traiter et la fréquence élevée des facteurs de risque cardiovasculaire, même en jeunes patients.
MOTS CLES: obésité, Profil et Aeróbio

RESUMEN

La obesidad se define como un exceso de tejido adiposo en el cuerpo. Para los estudios epidemiológicos se ha aceptado el concepto de la obesidad por índice de masa corporal (IMC) o "índice de Quetelet", que relaciona el peso para la talla al cuadrado, igual o superior a 30kg/m2 por la Organización Mundial de la Salud (OMS), Independiente del sexo y la edad. El objetivo de este estudio fue verificar el perfil de las personas en busca de programas de pérdida de peso en la ciudad de Criciúma. La muestra estuvo conformada por 80 individuos de edades comprendidas entre los 20 y 63 años de ambos sexos y de la IMC mayor de 30 kg / metros cuadrados. Para el reclutamiento de la población de este estudio se llevó a cabo la divulgación, con la ayuda de la prensa del sector de la Universidad del Extremo Sur Catarinense, y otros medios de comunicación (Internet, prensa, radio, televisión, etc.) Los voluntarios realizaron: prueba de la capacidad aeróbica (prueba de millas); La fuerza muscular (abdominales y flexión de las armas); Perfil socioeconómico; La composición corporal (peso, estatura, índice de masa corporal (IMC), relación de la circunferencia de la cintura y la cadera, Porcentaje de grasa, la masa grasa y magra en kilogramos en (Kg). Ellos participan en un programa que incluya ejercicios aeróbicos (caminar) y la orientación nutricional. Cuando se compara con las normas dadas por todos los índices de salud que fueron evaluados se consideraron fuera del normal o malo. En conclusión, la obesidad es una enfermedad difícil de tratar y de alta frecuencia de factores de riesgo cardiovascular, incluso en pacientes jóvenes.
PALABRAS CLAVE: Obesidad, Perfil y Aerobio

“PROGRAMA EMAGREÇA FELIZ”: PERFIL DAS PESSOAS PARTICIPANTES, UMA REALIDADE DE CRICIÚMA

RESUMO

A obesidade é definida como um excesso de tecido gorduroso no organismo. Para estudos epidemiológicos tem sido aceito o conceito de obesidade pelo índice de massa corporal (IMC) ou "índice de Quetelet", que relaciona o peso com a altura ao quadrado, igual ou maior do que 30kg/m2 pela Organização Mundial de Saúde (OMS), independente do sexo e idade. O objetivo deste estudo foi verificar o perfil das pessoas que procuram programas de emagrecimento na cidade de Criciúma. A amostra foi constituída de 80 indivíduos com idades entre 20 e 63 anos de ambos os sexos e com o IMC maior 30 Kg/m². Para recrutamento da população do presente estudo foi realizada uma divulgação, com auxilio do setor de imprensa da Universidade do Extremo Sul Catarinense, e outros meios de comunicação (internet, jornais, rádios, televisão, entre outros). Os voluntários realizaram: teste de capacidade aeróbia (teste da milha); resistência muscular (abdominal e flexão de braços); perfil sócio-econômico; composição corporal (peso, estatura, índice de massa corporal (IMC), relação entre circunferência de cintura e quadril, porcentual de gordura, gordura em Kg e massa magra em Kg). Estas participarão de um programa que contará com exercícios aeróbios (caminhada) e com orientação nutricional. Quando comparados com os padrões indicados para saúde todos os índices que foram avaliados estavam considerados fora do normal ou ruins. Concluindo, a obesidade é uma doença de difícil tratamento e de elevada freqüência de fatores de risco cardiovascular mesmo em pacientes jovens. PALAVRAS CHAVE: Obesidade, Perfil e Aeróbio.