

50 - THE PROFILE OF PERCENTILE OF FAT OF THE STUDENTS OF AN ACADEMY OF THE ZONE WEST OF THE RIO DE JANEIRO

MURILO FERREIRA MAXIMO
GIANNINA DO ESPÍRITO-SANTO
UCL; UGF - Rio de Janeiro - RJ - Brasil
murilorj25@yahoo.com.br

1 INTRODUCTION

According to the World Health Organization (WHO) obesity is considered a disease characterized by excessive accumulation of body fat, causing damage to health. Despite the WHO definition of obesity as a disease to take even becomes questionable due to the general concept of disease require the existence of a group of signs and symptoms and functional change in a universal, and that obesity is a risk factor for other diseases as coronary heart disease (DCC), cerebrovascular accident (CVA), osteoarthritis, breast cancer, prostate and colon cancer and metabolic disorders such as dyslipidemia, hypertension, insulin resistance, glucose intolerance, change in the system of coagulation, among others (ANJOS, 2006).

According to a report of WHO (2002), the chronic non-transmissible diseases (type 2 diabetes, cancer and heart disease) are responsible for approximately 60% of global mortality and 47% of the burden of disease and those numbers are expected to increase 73% and 60%, respectively, by the year 2020. (op. cit., p. 29)

According to Meirelles (2004) the energy balance is determined partly by consumption and by the expenditure of energy, which when imbalance may lead to an excessive accumulation or reduction of energy stored as body fat. Obesity is the most common result of the imbalance between intake and energy expenditure.

WHO's 2005 data show that 58% of Type 2 diabetes, 21% of ischemic heart disease and 8 to 42% of some types of cancer could be attributed to an excessive amount of body mass index (BMI), or BMI can be a parameter for prevention of these diseases. (ANJOS, 2006)

The data from the Brazilian Ministry of Health in 2005 shows some indicators such as very high mortality due to cerebrovascular diseases (27.3%) and cancer (13.4%). According to these data was estimated to Brazil to spend U.S. \$ 1.5 billion a year in hospitalizations, medical consultations and medicine for the treatment of overweight and bodily related diseases. A recent survey conducted by the Ministry of Health (2006), shows that in Rio de Janeiro has the highest concentration of people with overweight, and many women with men and with the second place to Brazilian territory (ANJOS, 2006).

To better understand the energy expenditure (GE) is composed of the daily basal metabolic rate (BMR) responsible for maintaining the functioning of the functions of the body (from 50 to 70%), approximately 10% used in the absorption of food and rest for the physical activity. (op. cit.)

For the GE daily it is necessary to verify the energy spent on BMR and physical activity. Due to financial matters is not feasible to check the levels of BMR, then we estimate that a value of BMR for well know how much of energy in physical activity would be necessary to have a negative BE (ANJOS, 2006).

The relationship between physical activity and health is justified by many evidences that appropriate levels of physical fitness, maintained throughout their lives through regular exercise, have beneficial effects in the function of organs in general, and as a consequence prolonging the life and with life quality (TOSCANO, 2001).

We can point the Academy of Gymnastics as a center with the potential for demand in primary health service, with its possible expansion to other levels of prevention. These are centers of physical activities where it provides a service evaluation, prescription and guidance of physical exercise, under direct supervision of physical education professionals. Would then have heart conditions that contribute to the health of people who demand their services? (op. cit.)

The academies of gymnastics are not yet completely changed for the change in physical exercises focused on aesthetic factors for a paradigm of health education, that is, physical activity as a means of prevention of non communicable diseases. Satisfaction with the body is important for self-esteem, however, that satisfaction should be seen as a consequence of the process engine and not as end in itself. (op. cit.)

Physical education is well in evidence in the health conscious because of the new vision of society on AF, where fans in all ages and all ways, seek better understand your own body, the risks they run, the mechanisms for the development of a healthy life.

Quality of life and health are related to physical fitness, when we believe in improving health in comes the idea that it is necessary to stop the hand by a sedentary life active (op. Cit.)

There are some techniques for checking the body composition, some as sophisticated and expensive, other simpler and better to use because of its value. One of these assessments is the Body Mass Index (BMI), calculated by dividing the body weight by height squared. (ANJOS, 2006).

Brazil has achieved through some anthropometric surveys based on research of some organs make a comparison with the data collected and so the nutritional monitoring of the population. These data indicate a reduction in the prevalence of low birth weight (BMI <18.5 kg / m squared) with values of 2003 to reach half of those observed in the 1970s. In the same period the prevalence of overweight and obesity doubled tripled in men.

Almost all the cases of obesity is a framework of prolonged energy balance (BE) positive (also called exogenous obesity) and not of changes or endocrinopathy hormone (known as endogenous obesity). (op. cit., p. 41).

1.1 Prevention and Control

As the prevalence of overweight and obesity is increasing alarmingly, WHO developed a Global Strategy on Diet, Physical Activity and Health The strategy includes the lifestyle that leads to a more healthy diet and physical activity capable of maintaining the energy balance of the population. (ANJOS, 2006)

The prevention of obesity is through maintenance of energy balance at a level of size and body composition healthy, but the problem is how to operationalize take effect. In obese individuals already is a necessary energy deficit, ie BE negative to be consumed the energy reserves stored in fat tissue. In this case, the individuals concerned with the body mass start a program to reduce weight and achieve your goal, but do not keep this composition in a given period of time, regained the lost pounds. With the successive repetition of this cycle has caused a psychological and financial stress too big. (op. cit.)

According Anjos (2006, p. 85).

[...] With the increase in the prevalence of overweight / obesity in children and adolescents, it is crucial to plan specific measures of action for those segments of the population. The suggestions involve the development of sophisticated marketing

messages, reducing the time spent watching television, increasing physical activity and promote breastfeeding.

From the context presented in this article aims to determine the profile of the fat percentage of students in a neighborhood of Jacarepaguá of the academy, the western area of Rio de Janeiro.

2 METHODOLOGY

It is a descriptive study of survey (survey), which according Gil (2006, p. 44) "the polls of this type has as its main objective the description of the characteristics of a given population or phenomenon or establishment of relationship between variables."

Make up the population of the study all students of the academy, without exception stratified into age groups of 20 to 60 years who underwent evaluation for starting the program of physical activity in 2006. Data were collected in a neighborhood of the academy Jacarepaguá, West Zone of Rio de Janeiro.

For data collection was used to check a balance Filizola body weight and skinfolds mark to determine the Lange skinfold (DC).

For data collection the assessment was marked on a time and the individual receiving instructions for the day of the event (Exhibit A). For this study we build on the measures relating to body composition.

The skinfolds were measured with the skinfolds the sum of folds Triceps, subscapular, chest, supra-iliac, abdominal, thigh and calf, but were used only referring to the folds Pollock 3DC (POLLOCK; Wilmore, 1993), both male, as female.

3 REVIEW AND DISCUSSION OF DATA

To make up the thematic analysis was carried out primarily to an initial categorization by sex of informants. From this moment, tried to categorize itself, where the frequencies were set by age and body composition of the samples for flute profiles of the ideas associated with diseases hypokinetic.

3.1 Characterization of Subjects of Study

To ensure the anonymity of informants, we chose to use alphabetic codes to designate them. They were divided by gender, age and anthropometric profile, with the letter "M" representing the female and "M" the masculine. In determining the ideal body composition for men and women was followed by a table adapted from Wilmore & Pollock (1993).

Sex	N	Average age	Average of body mass (kg)	Average height (m)	Average of %G
M (F)	93	33,7	62,0	1,6	28,3
SD (F)	-----	9 , 8	0,1	0 , 0 5	6 , 6
M (M)	54	32,5	80,8	1,8	19,5
SD (M)	-----	9 , 3	1 6 , 3	0 , 0 7	7 , 5

Table 1: Sample characteristics

According to Powers and Howley (2000) are ranked by the percentage overweight between 25 and 31.9% of fat (% G) for women and between 20 and 24.9% G for men. Already, obesity rates over 32% G & G 25%, respectively.

According to the average general found women are classified as overweight and men within the normal range.

3.1.1 Age range 20 to 29 years (39 women and 22 men)

Table 2 presents the distribution of G% of women, ahead of the data described can identify that 5% of the students have their body fat percentage "Very Good". Regarding the percentage considered "Very Weak" represents 49% of the sample. This fact may be associated with the characteristic of the academy because, as the main focus has to dance, a public meeting this differential, which provides a more inclusive by adding several generations of a family.

The predominant% G, and "very poor", is alarming, since the age, a fact that sets line with the presented by Guedes (1998), where a close association between some metabolic complications and higher accumulation of fat in the abdominal region independent of age and total fat and excessive amount of body fat, which may increase the prevalence of diabetes, contribute to the emergence of hyperlipidemia, compromising the metabolism of lipoproteins and impede the maintenance of blood pressure at satisfactory levels.

It is still under 2, the results for men, in whom we can identify a difference in relation to data female, have seen that there is much greater margin of men in their G% considered normal in accordance with the table attached (POLLOCK; WILMORE, 1993).

With this F% within the levels considered normal can consider that for this age group there is a large possibility of not rise any chronic-degenerative disease non-transferable, but stresses the necessity of a national program of health education in which stimulates the preventive approach that seeks to maintain a low% G, is encouraging the practice of adoption of physical activity and healthy eating habits (MARTINS *et al.*, 2001).

	WOMEN	MEN
VERY GOOD	5	36
GOOD	13	18
REGULAR	15	9
WEAK	18	14
VERY WEAK	49	23

Table 2: Distribution of the profile of G% aged between 20 and 29 years

3.1.2 Age range of 30 to 39 years (31 women and 22 men)

Table 3 found a high prevalence of women with G% considered "very weak" where 55% are above the values considered normal for their age. Analysis of these data shows that the higher the age of the population tend to be larger the values of% G, it means that over time people decrease your metabolism, providing increased energy reserves causing this excessive accumulation of fat (McARDLE, 1998).

	WOMEN	MEN
VERY GOOD	0	5
GOOD	0	23
REGULAR	16	18
WEAK	29	23
VERY WEAK	55	31

Table 3: Distribution of the profile of G% in the age group between 30 and 39 years

In relation to the results of men can be noted (Table 3) a balance higher levels of fat, but only 5% of samples are considered within the "good" but in contrast with its 31% G is high and fall in high-risk group that shows percentage "very weak". Thus, can more easily develop some kind of hypokinetic disease. Dulcietre *et al.* (1986) and Higgins *et al.* (1988) show the pattern of distribution of body fat as the most important risk factor for the terms of morbidity and mortality than the obesity itself.

3.1.3 Age range of 40 to 49 years (14 women and 6 men)

The characteristics of women in the group, presented in Table 4 show that there is a higher frequency of sex with% G "weak" and "very poor" (85.71%), whereas the age group alone, is already taken as a risk, the fact of having a high percentage of the sample classified as overweight and obesity, characterized alarming figures (POLLOCK; WILMORE, 1993; LEE, 2007).

Also in Table 4 where are the men, we noted that 49% of that strip show% G "good" and 33% of the group from "weak" and "very poor". In this case we can say that even the percentage of overweight and obesity are presented below by women, the findings are alarming (op. cit.).

	WOMEN	MEN
VERY GOOD	0	0
GOOD	0	49
REGULAR	14	17
WEAK	57	17
VERY WEAK	29	17

Table 4: Distribution of the profile of G% in the age group between 40 and 49 years

3.1.4 Age range of 50 to 59 years (9 women and 4 men)

The distribution of the female sample showed enough diversification, as can be seen in Figure 7, the findings as "very poor" correspond to 22.2%, which are smaller found in men (25%), which is thinking about the relationship between overweight and obesity, these differences are even greater, with women holding 22.2% and the same men jumping to 75%.

	WOMEN	MEN
VERY GOOD	39	0
GOOD	11	25
REGULAR	33	0
WEAK	0	50
VERY WEAK	22	25

Table 5: Distribution of the profile of G% aged between 50 and 59 years

CONCLUSION

The study results show that there is a prevalence of overweight in both the average female general, as for each age group. Among men it does not occur on average, but when treated by age there is the impact, although not predominant, are numbers that can not be neglected.

According to the studies of Lee (2007), Khol (2007), Hallal *et al.* (2006) and Haskell (2007), obesity has been identified as a major worldwide public health problem, so it is of fundamental importance that there are public policies that encourage appropriate nutrition and regular physical activity in order to minimize the action on the health of populations.

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Rua 24 de Maio, 797 Sampaio Cep: 20950-091

Tel: (21) 32894768

murilorj25@yahoo.com.br

posgraduacao@celsolisboa.edu.br

THE PROFILE OF PERCENTILE OF FAT OF THE STUDENTS OF AN ACADEMY OF THE ZONE WEST OF THE RIO DE JANEIRO

ABSTRACT

The objective of the study was to verify the profile of the students' of an academy of the Neighborhood of Jacarepaguá percentile of fat, Zone West of Rio de Janeiro. The research was based on Lee (2007), Khol (2007), Hallal et al. (2006), Pollock and Wilmore (1993), Haskell et. al. (2007), among others. The used methodology was descriptive of rising (survey). they Compose the population of the study 158 individuals and the sample belonged to 147 students that accomplished evaluation to begin the program of physical activity in the year of 2006. According to Powers and Howley (2000) they are classified by overweight the percentile ones among 25 and 31,9% of Fat (%G) for women and between 20 and 24,9%G for men. Already the obesity values above 32%G and 25%G, respectively. In agreement with the general averages found the women so much, they are classified inside as overweight and the men of the normality pattern. The results of the study demonstrate that there is an incidence of so much overweight in relation to the feminine general average, as in relation to each age group. In the masculine sample that doesn't happen in the general average, however when treated by age group there is the incidence, although it is not predominant, they are numbers that cannot be despised. The obesity has been pointed as one of the principal problems of world Public Health, therefore it is of fundamental importance that you/they exist public politics that motivate an appropriate feeding and the practice of physical activity to regulate, in order to minimize the action in the health of the populations.

Keywords: Overweight. Obesity. Percentile of fat. Public Health.

LA PROPORCIÓN DE MATIÈRES GRASSES PROFIL DES ÉTUDIANTS D'UNE ACADÉMIE DE LA ZONE OUEST DE RIO DE JANEIRO

RÉSUMÉ

L'étude visait à vérifier le profil de la matière grasse pourcentage d'élèves dans un collège du district de Jacarepaguá, Zone Ouest de Rio de Janeiro. Le cadre théorique est basé sur Lee (2007), Kohl (2007), Hallal et al. (2006), Pollock et Wilmore (1993), et Haskell. al. (2007), entre autres. La méthodologie a été descriptif de l'enquête (enquête). Composent la population de 158 sujets d'études et de l'échantillon de 147 étudiants qui ont subi une évaluation de départ pour le programme de l'activité physique en 2006. Selon les puissances et Howley (2000) sont classés selon le pourcentage de surcharge pondérale entre 25 et 31,9% de matières grasses (% G) pour les femmes et entre 20% et 24,9 G pour les hommes. Déjà, les taux d'obésité plus de 32% G & G 25%, respectivement. Selon la moyenne générale des femmes trouvées sont classées comme présentant une surcharge pondérale et les hommes dans la plage normale. Les résultats de l'étude montrent qu'il existe une prévalence de la surcharge pondérale à la fois dans la moyenne générale des femmes, comme pour chaque groupe d'âge. Parmi les hommes il ne se produit pas sur la moyenne, mais lorsqu'ils sont traités en fonction de l'âge, il est l'impact, bien qu'il ne soit pas prédominante, sont des nombres qui ne peuvent pas être négligés. L'obésité a été identifiée comme l'un des principaux dans le monde entier problème de santé publique, il est d'une importance fondamentale qu'il existe des politiques publiques qui encouragent une alimentation appropriée et une activité physique régulière afin de réduire au minimum les effets sur la santé des populations.

Mots clés: surpoids. L'obésité. Pour cent de matières grasses. La santé publique.

LA PROPORCIÓN DE GRASA PERFIL DE LOS ESTUDIANTES DE UNA ACADEMIA DE LA ZONA OESTE DE RÍO DE JANEIRO

RESUMEN

El estudio tuvo como objetivo verificar el perfil del porcentaje de grasa de los estudiantes en una escuela del barrio de Jacarepaguá, zona oeste de Río de Janeiro. El marco teórico se basa en Lee (2007), Khol (2007), Hallal et al. (2006), Pollock y Wilmore (1993), Haskell et. al. (2007), entre otros. La metodología fue descriptiva de la encuesta (la encuesta). Componen la población de 158 sujetos de estudio y la muestra de 147 estudiantes que se sometieron a evaluación para iniciar el programa de actividad física en 2006. De acuerdo a las facultades y Howley (2000) se clasifican por el porcentaje de sobrepeso entre el 25 y el 31,9% de grasa (% G) para las mujeres y entre el 20 y el 24,9% G de los hombres. Ya, las tasas de obesidad más del 32% G & G del 25%, respectivamente. De acuerdo a la media general las mujeres se encuentran clasificadas como con sobrepeso y los hombres dentro de los límites normales. Los resultados del estudio muestran que existe una prevalencia de sobrepeso en las mujeres el promedio general, como para cada grupo de edad. Entre los hombres que no se produce, en promedio, pero cuando son tratados por edad es el impacto, aunque no predominante, son números que no puede pasarse por alto. La obesidad ha sido identificada como una de las principales en todo el mundo problema de salud pública, por lo que es de fundamental importancia que hay políticas públicas que fomenten la adecuada nutrición y actividad física regular con el fin de reducir al mínimo el efecto sobre la salud de las poblaciones.

Palabras clave: Sobrepeso. La obesidad. Por ciento de grasa. Salud Pública.

O PERFIL DE PERCENTUAL DE GORDURA DOS ALUNOS DE UMA ACADEMIA DA ZONA OESTE DO RIO DE JANEIRO

RESUMO

O objetivo do estudo foi verificar o perfil de percentual de gordura dos alunos de uma academia do Bairro de Jacarepaguá, Zona Oeste do Rio de Janeiro. O referencial teórico foi baseado em Lee (2007), Khol (2007), Hallal et al. (2006), Pollock e Wilmore (1993), Haskell et. al. (2007), entre outros. A metodologia utilizada foi descritiva de levantamento (survey). Compõem a população do estudo 158 indivíduos e a amostra foi de 147 alunos que realizaram avaliação para iniciar o programa de atividade física no ano de 2006. Segundo Powers e Howley (2000) são classificados por sobrepeso os percentuais entre 25 e 31,9% de Gordura (%G) para mulheres e entre 20 e 24,9%G para homens. Já a obesidade valores acima de 32%G e 25%G, respectivamente. De acordo com as médias gerais encontradas as mulheres, estão classificadas como sobrepeso e os homens dentro do padrão de normalidade. Os resultados do estudo demonstram que há uma prevalência de sobrepeso tanto em relação à média geral feminina, quanto em relação a cada faixa etária. Na amostra masculina isso não ocorre na média geral, entretanto quando tratado por faixa etária há a incidência, embora não seja predominante, são números que não podem ser desprezados. A obesidade tem sido apontada como um dos principais problemas de Saúde Pública mundial, portanto é de fundamental importância que existam políticas públicas que incentivem uma alimentação adequada e a prática de atividade física regular, a fim de minimizar a ação na saúde das populações.

Palavras-chave: Sobrepeso. Obesidade. Percentual de gordura. Saúde Pública.