30 - PREVALENCE OF BODY FAT DISTRIBUTION AMONG GENRES RELATED TO AGE GROUP AND PRESSURE LEVEL

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INTRODUCTION

Mendonça (2004) says that the prevalence of overweight and obesity as chronic degenerative diseases, are spreading in several countries, which can be considered a global epidemic that causes damage harmful to health: such as hypertension, diabetes, cholesterol, among others (PERSIC , 2012).

The provided fat obesity or overweight can be deposited in a higher incidence in certain body parts. Now the accumulation of abdominal fat is associated with a risk factor for developing coronary heart disease or cardiovascular (McCarthy et al., 2003).

Given the foregoing, and considering that, as the research of Martins et. al., 2011, show that the incidence of body fat in the abdominal or visceral been increasing with advancing age, the general objective of this study is to charaterize the prevalence of body fat distribution between men and women, and specifically relate to their age and blood pressure level.

METHODOLOGY

This study consists of a descriptive research, which includes a survey of normative data and related studies (Thomas and Nelson, 2002).

The article was conducted by collecting data from individuals of a bodybuilding gym in the city of Maringá / PR. Each subject was submitted to a body assessment, as to obtain the data needed for the study that in the case, it is the deposit of fat per body parts. All information collected was kept confidential, as well as the personal data of all subjects who signed a consent form.

To carry out the assessments, were identified anthropometric measurements of weight, height, body circumferences, skinfold thickness of each individual and measured blood pressure. For the weighing was used Bioimpedance Digital Glass Glass 6 FW (max. 150 kg) G-TECH (fiber), and height was detected using metric scale vertical with accuracy of 1 mm. Circumferences were measured with the use of Trena Anthropometric Sanny ® Medical (SN-4010) Starren, the skinfold thickness was identified using the caliper Prime Plus Neo-Prime-Med and blood pressure level measured with the apparatus Geratherm ® Automatic Wristwatch Pulse.

After all the data collected, we use them to estimate the percentage of body fat (% BF) of each subject. For this, we use the protocol and Jackson Pollock (1978), of nine skinfolds (subscapular, triceps, biceps, pectorals, supra iliac, abdomen, thigh, and leg subaxilar), which already indicate where there is the largest accumulation of fat .

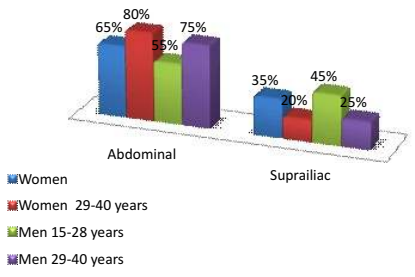
The initial sample of 400 subjects selected randomly. According to Pollock and Wilmore (1993) of these, which were considered obese or overweight, only men and women above 17 and 23% body fat, respectively. Therefore, we obtained a sample of 120 individuals (about 30% of the initial sample). Of these 120 individuals, the majority, ie 80 individuals of both genders, were with the highest accumulation in the abdominal region and supra iliac (about 67% of the sample already selected). Thus, we obtained two groups to be evaluated: group 1 (40 subjects, 20 males and 20 females, aged between 15 and 28 years) and group 2 (40 subjects, 20 men and 20 women, with ages between 29 and 40 years), totaling 80 subjects involved in the study as the final sample

The qualitative and quantitative variables are presented in graph form with values expressed in percentages and / or percentage of prevalence.

RESULTS AND DISCUSSION

The obesity is prevalent in developed countries and is growing every day in underdeveloped countries, and may even cause the individual to death (VILHENA, 2008).

For the present study, we list all skinfolds with acceptable percentage of fat per body part (abdomen, supra iliac, biceps, triceps, chest, axial, leg, calf and subscapular). Noting that 100% of men or women, there was this dysfunction (above the acceptable percentage) in regions or abdominal / supra iliac . Thus We highlight below in Figure 1, which shows the prevalence of fat between men and women in the two most critical regions.



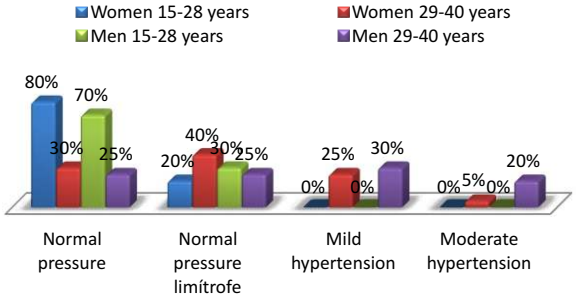
Graph 1. Relationship of gender according to age and region of greater fat accumulation.

Research shows that 65% of women (n = 13) and 55% of men (n = 11) or 35% of women (n = 7) and 45% of men (n = 9) of this study, between 15 and 28 years of age have higher fat accumulation in the abdominal region and supra iliac, respectively.

Addressing the age group 29-40 years, the percentage of fat mass increased from 65% to 80% in women (n = 16) and

55% to 75% in men (n = 15), in the abdominal region. These results according Peixoto et. al. (2006), showing that, with the passing of years, men have higher prevalence / tendency than women in visceral fat accumulation.

In the region supra iliac, curiously fat percentage was down in both men (from 45 to 25%) and in women (from 35 to 20%) according to age (15 to 28 years compared with that of 29-40 years), which corroborates the data Gropper et. al. (2012) and Lubrano et. al. (2012), which assert that the fat in this region increases significantly with advancing age. Anyway, the present study shows that men and women have a greater tendency to accumulate fat in the abdominal region and supra iliac, and may be harmful to health causing dyslipidemias, as cardiovascular disease. Figure 2 (below) shows us this prevalence.



Graph 2. Relationship between gender, age and blood pressure level.

In Graph 2, we see that, according to the advancing age (only in men and women 29-40 years was found in mild to moderate hypertension) and fat percentage increasingly critical (regardless of age) the tendency of developing hypertension in men is higher than women, both in mild hypertension (25 x 30%) and in moderate (5 x 20%). These results support the hypothesis of Lessa (2001), which states that, on average, 25% of male subjects have hypertension.

FINAL REMARKS

Our daily life is competitive and shows often lack the time and carelessness of citizens for their health, leaving of eating properly and perform physical exercises. These factors often can harm your health framework affecting their physical appearance and psychological (FREITAG et. Al, 2012; FREITAG et. Al, 2011).

Therefore, this study achieved its objectives by identifying that the majority of people need a good monitoring of the health professional, such as preventive medicine. It is suggested to comparative studies for active and sedentary individuals with older age.

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PREVALENCE OF BODY FAT DISTRIBUTION AMONG GENRES RELATED TO AGE GROUP AND PRESSURE LEVEL

ABSTRACT

The main objective of this study is to charaterize the prevalence of the which body fat distribution between genders and specifically relate their age and pressure level. The research was conducted through the collection of data from individuals of a bodybuilding gym in the city of Maringá / PR. The final sample obtained (n = 80) was divided into 2 groups: group 1 (40 subjects, 20 males and 20 females, with age between 15 and 28 years) and group 2 (40 subjects, 20 men and 20 women, with age between

29 and 40 years). To the achievement of assessments, were identified the anthropometric measurements, weight, height, body circumferences, skinfold thickness of each individual and the pressure level. The qualitative and quantitative variables are presented in graph form with values expressed in percentages. The study shows that 65% of women (n = 13) and 55% of men (n = 11) or 35% of women (n = 7) and 45% of men (n = 9) of this study, between 15 and 28 years of age have higher fat accumulation in the abdominal region and supra iliac, respectively. Approaching the age group 29-40 years, the percentage of fat mass increased from 65% to 80% in women (n = 16) and 55% to 75% in men (n = 15), in the abdominal region. In the region supra iliac the fat percentage has decreased in both men (from 45 to 25%) and in women (from 35 to 20%) according to age compared. The tendency of developing hypertension is larger in men than in women. This study had achieved its objectives by identifying that many individuals need to be monitored by a professional the area of health as preventive medicine.

KEYWORDS: Body fat distribution, age group and pressure level.

PRÉVALENCE DE LA DISTRIBUTION DE GRAISSE CORPORELLE CHEZ LIÉES AU SEXE ET NIVEAU DE PRESSION AGE

RÉSUMÉ

L'objectif principal de cette étude était de caractériser la prévalence de laquelle la distribution de graisse corporelle entre les sexes et concernent spécifiquement leur âge et leur niveau de pression artérielle. La recherche a été menée par la collecte de données provenant d'individus d'une salle de musculation dans la ville de Maringá/PR. L'échantillon final obtenu (n = 80) a été divisée en 2 groupes: groupe 1 (40 sujets, 20 hommes et 20 femmes, âgés entre 15 et 28 ans) et le groupe 2 (40 sujets, 20 hommes et 20 femmes, âgés entre 29 et 40 ans). Pour mener à bien les évaluations, ont été identifiés les mesures anthropométriques, poids, taille, circonférence du corps, de l'épaisseur du pli cutané de chaque individu et le niveau de pression. Les variables qualitatives et quantitatives sont présentées sous forme de graphique avec des valeurs exprimées en pourcentages. La recherche montre que 65% des femmes (n = 13) et 55% des hommes (n = 11), soit 35% des femmes (n = 7) et 45% des hommes (n = 9) de la présente étude, entre 15 et 28 ans ont une accumulation de graisse plus élevé dans la région abdominale et iliaque supra, respectivement. Approcher le groupe d'âge 29-40 ans, le pourcentage de masse grasse est passée de 65% à 80% chez la femme (n = 16) et 55% à 75% chez l'homme (n = 15), dans la région abdominale. Dans la région au-dessus du pourcentage de graisse iliaque a diminué chez les hommes (de 45 à 25%) et chez les femmes (de 35 à 20%) selon l'âge par rapport. La tendance d'hypertension est plus grande chez les hommes que chez les femmes. Cette étude a atteint ses objectifs en identifiant que de nombreuses personnes ont besoin d'être surveillé par un professionnel de la santé que la médecine préventive.

MOTS-CLÉS: Distribution de la graisse corporelle, l'âge et le niveau de pression artérielle.

PREVALENCIA DE LA DISTRIBUCIÓN DE LA GRASA CORPORAL ENTRE RELATIVOS AL GÉNERO EDAD Y NIVEL DE PRESIÓN ARTERIAL

RESUMEN

El objetivo principal de este estudio fue caracterizar la prevalencia de cual es la distribución de la grasa corporal entre los géneros y se relacionan específicamente con su edad y su nivel de presión arterial. La investigación se llevó a cabo mediante la recopilación de datos de los individuos de un gimnasio de musculación en la ciudad de Maringá / PR. La muestra final obtenida (n = 80) se dividió en 2 grupos: grupo 1 (40 individuos, 20 hombres y 20 mujeres, con edades comprendidas entre los 15 y 28 años) y grupo 2 (40 individuos, 20 hombres y 20 mujeres, con edades comprendidas entre 29 y 40 años). Para llevar a cabo las evaluaciones, se identificaron las medidas antropométricas, peso, talla, circunferencias corporales, pliegues cutáneos de cada individuo y el nivel de presión. Las variables cualitativas y cuantitativas se presentan en forma de gráfico con valores expresados en porcentajes. La investigación muestra que el 65% de las mujeres (n = 13) y 55% de los hombres (n = 11) o 35% de las mujeres (n = 7) y 45% de los hombres (n = 9) de este estudio, entre 15 y 28 años de edad tienen mayor acumulación de grasa en la región abdominal y supra ilíaca, respectivamente. Al acercarse al grupo de edad 29-40 años, el porcentaje de masa guerda aumentó de 65% a 80% en mujeres (n = 16) y 55% a 75% en hombres (n = 15), en la región abdominal. En la región por encima del porcentaje de grasa ilíaca se ha reducido tanto en hombres (de 45 a 25%) y en las mujeres (de 35 a 20%) de acuerdo con la edad en comparación. La tendencia de desarrollar hipertensión es mayor en hombres que en mujeres. Este estudio ha logrado sus objetivos mediante la identificación de que muchas personas deben ser supervisados por un profesional de la salud como medicina preventiva.

PALABRAS CLAVE: distribución de la grasa corporal, edad, presión arterial

PREVALÊNCIA DA DISTRIBUIÇÃO DE GORDURA CORPORAL ENTRE OS GÊNEROS RELACIONADA COM A FAIXA ETÁRIA E O NÍVEL PRESSÓRICO ARTERIAL

RESUMO

O objetivo principal deste estudo é caracterizar qual a prevalência da distribuição de gordura corporal entre os gêneros e, especificamente, relacionar sua faixa etária e nível pressórico. A pesquisa foi realizada através da coleta de dados de indivíduos de uma academia de musculação na cidade de Maringá/PR. A amostra final obtida (n=80) foi dividida em 2 grupos distintos: grupo 1 (40 sujeitos, sendo 20 do gênero masculino e 20 do gênero feminino, com idade entre 15 e 28 anos), e o grupo 2, (40 indivíduos, sendo 20 homens e 20 mulheres, com a faixa etária entre 29 e 40 anos). Para a realização das avaliações, foram identificadas as medidas antropométricas, peso, estatura, circunferências corporais, espessura das dobras cutâneas de cada indivíduo e o nível pressórico. As variáveis qualitativo-quantitativas são apresentadas em forma de gráficos com valores expressos em porcentagem. A pesquisa mostra que 65% das mulheres (n=13) e 55% dos homens (n=11) ou 35% das mulheres (n=7) e 45% dos homens (n=9) deste estudo, entre 15 e 28 anos de idade tem maior acúmulo de gordura na região abdominal e supra ilíaca, respectivamente. Abordando a faixa etária de 29 a 40 anos, a porcentagem da massa gorda cresceu de 65% para 80% nas mulheres (n=16), e de 55% para 75% nos homens (n=15), na região abdominal. Na região supra ilíaca, o percentual de gordura teve uma queda tanto em homens (de 45 para 25%) quanto em mulheres (de 35 para 20%), de acordo com a faixa etária comparada. A tendência de desenvolver hipertensão arterial em homens é maior do que em mulheres. Este estudo teve seus objetivos alcançados ao identificar que, muitos indivíduos necessitam de um acompanhamento de um profissional da área da saúde, como medicina preventiva.

PALAVRAS-CHAVE: Distribuição da gordura corporal, faixa etária e nível pressórico.