

## 26 - DESCRIPTIVE ANALYSIS OF THE ELDERLY BMI PARTICIPANTS OF A GROUP OF GYM OF A PRIVATE INSTITUTION OF PORTO ALEGRE.

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### INTRODUCTION

According to Elderly population growth worldwide is needed to study some of the facts that led to this growth. According to Benedetti et al (2008) the aging process, which previously was restricted to developed countries is occurring in developing countries and more quickly. Of these, Brazil is a developing country with rapid population aging over the world, from 7.5% in 1991 to 15% in 2025, becoming the sixth elderly population in the world in absolute terms and in 1950 occupied 16th place (Gray, 1987).

According to IBGE, Porto Alegre has the second largest elderly population in Brazil with 11.8%, second only to Rio de Janeiro (IBGE, 2002).

These factors should be much better quality of life that older people has achieved through numerous methods, including and perhaps one of the most important would be a greater demand for physical exercises widely noticed today, which demonstrably enhances longevity.

It is observed that older people who perform physical activities were more open, emotionally balanced, humorous with positive activities through the facts of life, which contributes to the finding of an identity and a better quality of life (Pellegrinotti, 2008).

It should be included here the difference between Physical Exercise and Physical Activity for very commonly confused with one another. Physical exercise was a planned and systematic structuring a workout so that will contribute to an improvement in physical abilities. Physical activity is commonly defined as any bodily movement produced by skeletal muscles that results in energy expenditure above resting levels (Lima 2002).

A method evaluation to terms results specific about the improvements physical elderly is calculating BMI (Body Mass Index) where by the product of dividing body weight by height squared ( $W / H^2$ ) noted that the weight is appropriate or not the height of the individual. In the elderly, the use of BMI presents difficulties due to the decrease in height, fat accumulation, reduced lean body mass and decrease the amount of water in the body (Bedogni, 2001).

In this context, some studies indicate a worrying picture of changes in body composition in the elderly Brazilians, especially in females. Based on data from the National Health and Nutrition held in 1989, Tavares and Angels (1999) found that overall prevalence of underweight (BMI <18.5) and overweight (BMI  $\geq$  25) were, respectively, 7.8% and 30, 4% and 8.4% in men and 50.2% in women in older age groups.

Cruz et al. (2004) found that the prevalence of obesity in the oldest old living in Rio Grande do Sul was high, showing that 55% of men and 62% of women had a BMI between 25 and 39.9 kg / m<sup>2</sup>.

These changes in anthropometric parameters relate to, among many factors, the decreased level of physical activity with aging. The prevalence of physical inactivity was observed by Matsudo et al. (2002), noting an increase in the level of inactivity of 7.7% to 12.8% with increasing chronological age in the adult population of the state of São Paulo.

Thus the aim of the study was to identify the characteristics of the Elderly BMI participants of a group fitness of a particular institution of Porto Alegre.

### METHODICAL DESIGN

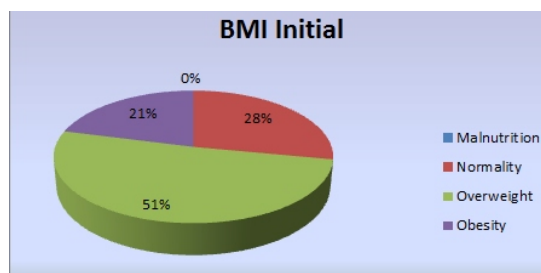
The exercise classes were held 2x per week lasting for 1h. The methodological design of the research was configured in a quantitative paradigm. The composition of the sample through the process was not probabilistic, where the population surveyed consisted of elderly participants in a group fitness of a particular institution of Porto Alegre, the sample comprised n = 47 patients of both sexes, above 60 who agreed to participate voluntarily. The participation of older people in research is consistent with resolution 196/96 (BRAZIL, 1996) of the National Health Council (CNS), using the Term of Consent. The collected data are presented descriptively.

### Instruments:

To determine your body mass index (BMI), were used the results of anthropometric variables, being obtained by dividing body weight by height squared (kg / m<sup>2</sup>) (WHO1995). For the measurement of body weight was used a scale of Filizola, manual calibration, accurate to 100 g up to 150 kg (CELAFISCS 1987). Height was measured using a stadiometer of Filizola coupled on the scale (CELAFISCS 1987).

### RESULTS AND DISCUSSION

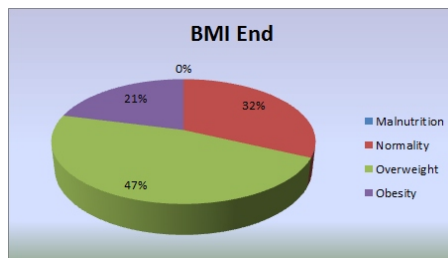
As the analysis of body mass index (BMI) Initial, ie before starting the program, this study showed that 0% of students are normal, but the vast majority, 72%, showed some kind of abnormality, such as overweight (51%) and obese (21%). These results are shown by Graph 1.



## Graph 1: Classification BMI Home

Moulin et al (2006) says that in Brazil, epidemiological studies show that the development of obesity is rising, with 40% of the adult population overweight. The weight loss is routinely recommended for people with overweight, to reverse or prevent these adverse consequences related to obesity. Because it is a chronic illness, requires continuous monitoring and treatment.

Obesity is characterized by excessive accumulation of body fat, caused largely by a chronic imbalance translated by caloric intake greater than the metabolic demand. The diagnosis is accomplished by quantifying the proportion of fat stored in the body in relation to other tissues. Factors such as lifestyle, food habits that favor the hypercaloric diet and hyperlipidemic, besides sedentary lifestyle, are some explanations for this phenomenon. Changes in patterns of physical activity and nutrition are also responsible for this change (SMITH et al., 2008).



## Graph 2: Final Classification BMI

Regarding comparative charts Initial Final 1 and 2, shows that after five months of gymnastics performed 2x per week, BMI indices improved. It was observed that malnutrition continues with 0%, the normal achieved an improvement of 28% to 32% overweight had decreased from 51% to 47% and obesity continued with the same percentage of 21%.

Carmo et al., (2006) conducted a study where there was an average BMI of 40.53 kg/m<sup>2</sup> at first glance, and 39.33 at 6 months of treatment. Most were female, aged between 15 and 64 years. This epidemiological profile confirms recent studies where the age range was between 18 and 64 years and where he noted that women exhibited greater percentage of BMI (15.4%) than men (12.9%) (Carmel et al. 2000).

For obesity, no significant differences were observed between the sexes. This similarity between the observed prevalence rates for males and females can be explained, in part, by using weight and height. Although validity studies indicate a good correlation between the measured weight weight above, the literature has shown that women tend to underestimate their weight. Moreover, an analysis of three large-scale studies conducted in the country (ENDEF, 1975; PNSN, 1989 and PPV, 1997) by gender shows that despite the prevalence of obesity has increased in both sexes (respectively 2.3 %, 4.6% and 7.0% for males and 6.5%, 11.7% and 12.4% for females), the increase was more pronounced among men than among women, especially in the most recent period.

The prevalence of overweight tends to increase with age. In a study conducted in Pelotas (RS), Giant et al. (1997) found a prevalence of obesity fourfold aged 40 years or more, compared with the age group of 20 to 29 years. In this survey, we found that the more mature group (50 or older) showed the highest prevalence of overweight. Very similar to that found in Pelotas (RS), the prevalence of obesity in Porto Alegre was almost 3.8 times higher in the group of 50 years or more, compared with the group of 15 to 24 years. Regarding the association between overweight and socioeconomic status in developed countries, income and educational level were inversely associated with obesity, especially in females (Sobal 1989).

**CONCLUSION**

We can conclude that gymnastics helped decrease the body mass index (BMI). In recent years, obesity has greatly increased in all populations regardless of class or color, is due to genetic, environmental and psychosocial. The elderly are a segment that is growing more today in our population. The fact is that every human being ages in their organic and biological aspect, however not all age at the same rate in the senses psychological, spiritual and human. But for old age to be successful, it is necessary that the physical standards and food are suitable to individual needs at each stage of life. Therefore, we emphasize the importance of promoting health during all stages of life, since aging does not begin at 60, but the result is the accumulation of behaviors produced in the social environment, through the choices that are made throughout the life cycle.

Changes in eating habits are not easy, they require discipline and patience to achieve results. But changes are needed, particularly with respect to adequate food and the adoption of healthy lifestyle habits, such as regular practice of physical activity, since these factors are of great importance and have a strong influence to reach old age in good health.

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#### **DESCRIPTIVE ANALYSIS OF THE ELDERLY BMI PARTICIPANTS OF A GROUP OF GYM OF A PRIVATE INSTITUTION OF PORTO ALEGRE.**

##### **ABSTRACT**

Obesity is a public health problem worldwide, with an aging population began to worry about the appearance of this phenomenon in the elderly population and its consequences. We know that older people practicing regular physical activities tend to reduce body weight and thus its mass index (BMI), is preventing diseases, especially those related to obesity. The gymnastics has gained ground among the elderly. This study aimed to identify the characteristics of BMI of Older participants in a group fitness for a particular institution of Porto Alegre. Gymnastics sessions were held 2x per week lasting 1h, for 5 months. The experimental methodology was characterized by an almost experimental methodology, the kind before and after the study with only one group. Survey participants were in agreement with the resolution 196/96 of the National Health Council The sample consisted of 47 elderly above 60 years. The results showed that older adults improved BMI after the intervention of the gymnastics program. In relation to normal and overweight, both had a decrease of 4%, however malnutrition and obesity 0% 47% continued with the same percentage. From the results it was concluded that the gymnastics program influenced the decrease in BMI of the elderly.

**KEYWORDS:** Elderly, Gymnastics and BMI.

#### **ANALYSE DESCRIPTIVE DES PARTICIPANTS IMC AGEES D'UN GROUPE DE GYM D'UN ÉTABLISSEMENT PRIVÉ DE PORTO ALEGRE.**

##### **RÉSUMÉ**

L'obésité est un problème de santé publique dans le monde entier, avec un vieillissement de la population a commencé à s'inquiéter de l'apparition de ce phénomène dans la population âgée et de ses conséquences. Nous savons que les personnes âgées qui pratiquent régulièrement des activités physiques ont tendance à réduire le poids corporel et donc son indice de masse corporelle (IMC), est la prévention des maladies, en particulier celles liées à l'obésité. La gymnastique a gagné dans un terrain chez les personnes âgées. Cette étude visait à identifier les caractéristiques de l'IMC des participants plus âgés dans un conditionnement physique en groupe pour un établissement donné de Porto Alegre. Séances de gymnastique ont eu lieu 2 fois par semaine 1h durable, pendant 5 mois. La méthodologie expérimentale a été caractérisé par une méthodologie quasi expérimentale, le genre avant et après l'étude d'un seul groupe. Les participants au sondage étaient d'accord avec la résolution 196/96 du Conseil national de la santé L'échantillon se composait de 47 personnes âgées de plus de 60 ans. Les résultats ont montré que les personnes âgées améliorée IMC après l'intervention du programme de gymnastique. Par rapport à la surcharge pondérale et, tous les deux eu une baisse de 4%, mais la malnutrition et de l'obésité 0% 47% s'est poursuivie avec le même pourcentage. D'après les résultats, il a été conclu que le programme de gymnastique influencé la diminution de l'IMC des personnes âgées.

**MOTS-CLÉS:** personnes âgées, de gymnastique et de l'IMC.

#### **ANÁLISIS DESCRIPTIVO DE LOS MAYORES PARTICIPANTES IMC DE UN GRUPO DE GIMNASIA DE UNA INSTITUCIÓN PRIVADA DE PORTO ALEGRE.**

##### **RESUMEN**

La obesidad es un problema de salud pública en todo el mundo, con una población que envejece comenzó a preocuparse por la aparición de este fenómeno en la población de edad avanzada y sus consecuencias. Sabemos que las personas mayores que practican actividades físicas tienden a reducir el peso corporal y por lo tanto su índice de masa corporal (IMC), es la prevención de las enfermedades, especialmente las relacionadas con la obesidad. La gimnasia ha ganado terreno entre los ancianos. Este estudio tuvo como objetivo identificar las características de IMC mayores de los participantes en un grupo aptitud para una determinada institución de Porto Alegre. Gimnasia sesiones se llevaron a cabo 2 veces por semana 1h duración, durante 5 meses. La metodología experimental se caracteriza por una metodología casi experimental, del tipo antes y después del estudio con un solo grupo. Los encuestados estaban de acuerdo con la resolución 196/96 del Consejo Nacional de Salud La muestra estuvo conformada por 47 personas mayores de 60 años. Los resultados mostraron que los adultos mayores mejorado IMC después de la intervención del programa de gimnasia. En relación a lo normal y sobrepeso, ambos tuvieron una disminución del 4%, sin embargo la desnutrición y la obesidad 0% 47% seguía con el mismo porcentaje. De los resultados se concluye que el programa de gimnasia influido en la disminución en el IMC de los ancianos.

**PALABRAS CLAVE:** Adulto mayor, Gimnasia y el IMC.

**ANALISE DESCRITIVA DO IMC DOS IDOSOS PARTICIPANTES DE UM GRUPO DE GINÁSTICA DE UMA INSTITUIÇÃO PARTICULAR DE PORTO ALEGRE.****RESUMO**

A obesidade é um problema de saúde pública mundial e com o envelhecimento da população começamos a nos preocupar com o aparecimento deste fenômeno na população idosa e suas consequências. Sabemos que os idosos praticantes de atividades físicas regular tendem a reduzir o peso corporal e com isso o seu Índice de massa Corporal (IMC), prevenindo-se de doenças, principalmente as ligadas à obesidade. A prática de ginástica tem ganhado espaço entre os idosos. Este estudo teve como objetivo identificar as características do IMC dos Idosos participantes de um grupo de ginástica de uma instituição particular de Porto Alegre. As sessões de Ginástica foram realizadas 2x por semana com duração de 1h, durante 5 meses. O delineamento metodológico caracterizou-se por uma metodologia quase experimental, do tipo de estudo antes e depois com apenas um grupo. Os participantes da pesquisa estiveram de acordo com a resolução 196/96 do Conselho Nacional de Saúde. A amostra foi composta por 47 idosos acima de 60 anos. Os resultados obtidos mostraram que os idosos melhoraram o IMC, após a intervenção do programa de ginástica. Em relação a normalidade e ao sobrepeso, ambos tiveram uma diminuição de 4%, entretanto a desnutrição 0% e a obesidade 47% continuaram com o mesmo percentual. A partir dos resultados concluiu-se que o programa de ginástica influenciou na diminuição do IMC dos idosos.

**PALAVRAS-CHAVE:** Idoso, Ginástica e IMC.