

143 - THE PREVALENCE OF SEDENTARINESS AND ITS ASSOCIATION WITH OVERWEIGHT / OBESITY IN ADULTS NURSED BY THE HEALTH FAMILY STRATEGY IN TERESINA/PI.

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INTRODUCTION

A physical activity may be regarded as any bodily activity produced by the skeletal muscles in which the waste of calories is stronger than the rest level. Epidemiological studies have shown a strict relationship between short levels of physical activity and overweight/obesity gain in both developed and developing countries (MENDONÇA, 2004).

The American College of Sports Medicine recommends the practice of moderate intensity physical activity for at least 30 minutes, five times or more a week. The same recommendation is made by the Department of Health of the United Kingdom, which aims at decreasing the incidence rate of morbidity and mortality (DEPARTMENT OF HEALTH, 2004).

Studies carried out by Fonseca point out a positive association between sedentary habits and overweight. Thus, being sedentary for too long leads to overweight and obesity increase in the population.

Sedentariness along with some change in eating habits have changed the morbimortality profile in societies, outstanding overweight and obesity as fundamental diseases. For these reasons, obesity has been named as the "disease of civilization" (MONTEIRO, 1995).

According to the World Health Organization (WHO) 1,6 billion people over 15 years old have overweight and obesity problems, among these 400 millions are obese. Of all the financial funds for health, about 2% to 6% regard obesity (WHO, 2004).

Some authors stress the fact that the difference in the prevalence for obesity in different population groups is due to environmental factors, chiefly dieting and physical activity. These factors interacting with genetic ones are likely to explain the accumulation of body fat on a large scale in the world population (PEREIRA, 2003).

There have been few studies regarding the prevalence for sedentariness associated with overweight and obesity chiefly in individuals nursed by the Family Health Strategy. Studies concerning this topic are encouraged by the public health institutions inasmuch as the awareness of the prevalence is needed so that intervention programs may be reached.

This work aims at checking the prevalence for sedentariness and its association with overweight/obesity in adults nursed by the Family Health Strategy in the district of Piçarreira, Teresina – PI.

METHOD

A descriptive, analytical and prevalence study was carried out at the Community Health Center in the district of Piçarreira on the west side of Teresina with a sample of 299 individuals ranging in age from 20 to 59 years old. To the calculation it was considered a sampling error of 4% and loss of 10% with the confidence level of 95%, considering the population of adults registered by the work teams at the Community Health Center in the district of Piçarreira.

The sample regarded all the individuals who attended the Community Health Center in June 2010. The inclusion criteria were: to attend the Community Center in the district of Piçarreira and range in age from 20 to 59 years old. The handicapped and the pregnant women were not part of the sample. In order to get the data collection the short version of The International Physical Activity was applied, validated in a sample of the Brazilian population (MATSUDO et al, 2001) and a filing card to collect the demographic, socio-economic and anthropometric data.

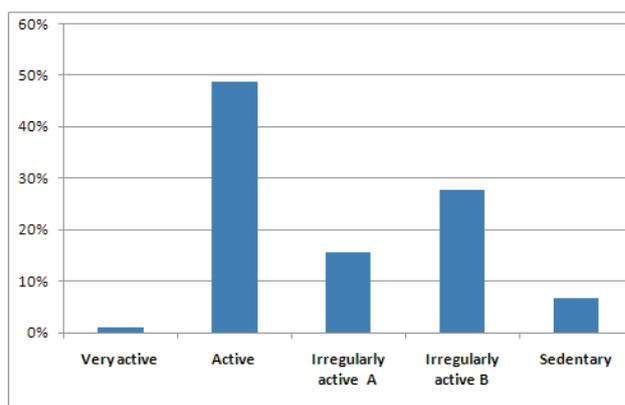
The body mass was measured in a weighing Filizola scale with an accuracy of 100g and the individual who was being measured was wearing clothes as least as possible. The stature was gauged in a metal bar attached to the weighing scale with an accuracy of 0,1cm. All the anthropometric measures and the interviews were carried out by the author of the research after the subjects signed up the informed consent and got aware of the research and its objectives. Ethical rules regarding researches involving human beings were observed, according to the resolution number 196, October 1996, passed by the Health Council. This way, the research that gave rise to this work was evaluated by the Ethics and Research Committee of the NOVAFAPI College and was given the approval under the number 0114. 043.000 -10.

The level of physical activity was evaluated according to the classification proposed by the IPAC which takes into account the criteria of frequency and length of time and classifies people into five categories: very active, active, irregularly active A, irregularly active B and sedentary. Overweight/obesity were evaluated according to the body mass index and classified according to the criteria of The World Health Organization (WHO, 1998). The individual's literacy was categorized according to the literacy level (unfinished junior high school, junior high school degree, unfinished senior high school, senior high school degree, unfinished college degree, and college degree).

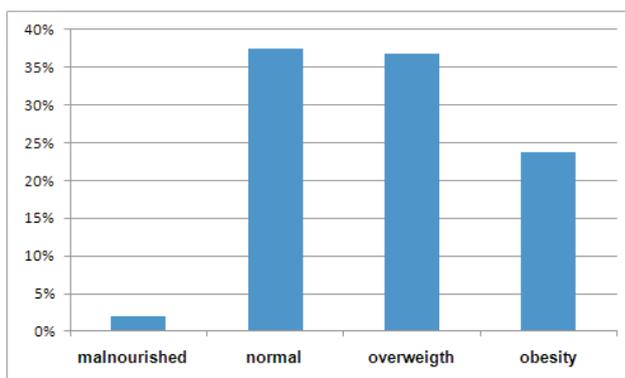
The statistical analyses were carried out through the statistical package STATA, version 9.0. Firstly, a descriptive analysis was done in order to characterize the focused population and then, the descriptive statistics with rate and standard deviation for quantitative variables and distribution of frequencies for categorical variables. To analyze the association between the prevalence of sedentariness with overweight/obesity a chi-square test was used by taking into account the significance level < 0,05% to interpret the data.

RESULTS

Graphic 1. Prevalence of the physical activity level of adults nursed by The Family Health Strategy in the district of Piçarreira in Teresina/PI-2010.



Graphic 2. Prevalence of overweight/obesity in adults nursed by The Family Health Strategy in the district of Piçarreira in Teresina/PI-2010.



In graphic 1 it was observed that according to the classification proposed by The International Physical Activity Questionnaire practically half the sample was considered physically active and just 6.7% was regarded as sedentary.

It was observed in Graphic 2 that according to the criteria proposed by The World Health Organization (WHO, 1998) regarding the body mass index, over 60% of the sample population is overweight or obese and 2% of the subjects are malnourished.

Table 1 The analysis of the association of the physical activity level with genre, the nutritional state, literacy, income and age regarding adults nursed by The Family Health Strategy in the district of Piçarreira in Teresina/PI-2010.

Variables	Physical Activity Level										P-Value***
	Very Active		Active		Irregularly Active A		Regularly Active B		Sedentary		
	N	%	N	%	N	%	N	%	N	%	
Genre											0.005
Male	1	1.9	15	29.4	6	11.7	24	47	5	9.8	
Female	2	0.8	131	52.8	41	16.5	59	23.8	15	6	
State Nutritional**											0.313
Malnourished	0	0	2	33.3	0	0	4	66.7	0	0	
Normal	0	0	58	51.8	15	13.4	30	26.8	9	8	
Overweight	1	0.9	56	50.9	16	14.5	32	29.1	5	4.5	
Obesity	2	2.8	30	42.2	16	22.5	17	23.9	6	8.4	
Literacy											0.891
Illiterate	0	0	8	44.4	3	16.7	6	33.3	1	5.5	
Unfinished Junior School	1	0.7	76	54.7	20	14.4	35	25	7	5.0	
Junior High School degree	1	3.0	11	33.3	7	21.2	12	36.3	2	6.0	
Unfinished Senior High School	0	0	21	50	4	9.5	12	28.5	5	11.9	
Senior High School Degree	1	1.6	27	42.8	12	19	18	28.5	5	7.9	
Unfinished College Degree	0	0	2	100	0	0	0	0	0	0	
College Degree	0	0	1	50	1	50	0	0	0	0	
Income(MW) *											0.507
= 2	2	0.81	121	49.2	42	17.1	66	26.8	15	6.1	
> 2	1	1.9	25	47.2	5	9.4	17	32.1	5	9.4	
Age(Years)											0.221
= 40	3	1.4	107	52.2	31	15.1	50	24.4	14	6.8	
> 40	0	0	39	41.5	16	17	33	35.1	6	6.4	

* Income 2 minimum wages is classified as low income (IBGE); minimum wage(MW) rated as reference = R\$

510,00;

**Analyzed according to the BMI (WHO, 1998);

***Chi-square test (p<0.05).

Based on the data on table 1, there was no remarkable association between the physical activity level and the variables concerning literacy, nutritional state, income and age. There was a significant association just between the physical activity level and genre (p-value 0,005).

DISCUSSION

This work showed that there was no remarkable association between the physical activity level and overweight/obesity in adults nursed by The Family Health Strategy in the district of Piçarreira (p - 0.313). There wasn't any significant association between the physical activity level and literacy (P= 0.891), and income (P= 0.507) and age either (P= 0.221).

There are few studies regarding the association between the physical activity and overweight/obesity in adults, however, Baretta (2005) found out a significant association between a short level of physical activity and overweight/obesity only among men.

As for the association regarding the physical activity level, literacy, income and age, Baretta(2005) and Alves(2010) carried out some studies about it and found out that there is a shorter prevalence of sedentariness among low -income individuals, young grown-ups, and average schooling. This study points out an association between the physical activity level with genre (p- 0.05). Siqueira (2008) and Matsudo et al.(2002) found out a similar result showing that women are more physically active than men.

The prevalence of sedentariness pointed out in this study was 6.7% while the study carried out by VIGITEL M S (2009) showed a 32% prevalence in the city of Recife. Siqueira(2008) made a study with adults who live near by the Community Health Centers in 41 towns in the states of Rio Grande do Sul, Santa Catarina, Alagoas, Pernambuco, Paraíba, Rio Grande do Norte and Piauí, and they found out a sedentariness prevalence of 31,8%, which was higher than the one pointed out in this study. Matsudo et al (2002) also found out a sedentariness prevalence a lot higher than the one highlighted in our study, 46,5%. All the studies mentioned above used the same criteria as this study to classify the individuals as sedentary.

A possible explanation for the short sedentariness prevalence pointed out in this study may be due to the low socio-economic status of the research subjects, which shows that they have either to walk or ride a bicycle, thus, the physical activity level is increased.

As for the individuals' physical activity level regarding genre, women showed a shorter sedentariness prevalence than men (9.8% vs 6%). Siqueira (2008) carried out a study in the Southerner and Northeasterner states, and the study pointed out a sedentariness prevalence of 37.5% among men and 27.2% among women. In São Paulo, Matsudo et al found out a sedentariness prevalence of 9.7% among men and 8% among women. Both researchers observed a higher physical activity level among women than among men.

The studies conducted by Hallal et al.(2003), in Pelotas have not observed any differences concerning the physical activity level in relation to genre. Another study made in Recife has observed a higher physical activity level regarding men who are usually underemployed and these activities require from them too much physical activity (ALVES, 2010).

We are likely to believe that the daily activities and duties performed by women at work or home do not represent a regular practice of physical activity and thus, these activities do not demand a great caloric waste, the women who were subjects in this study are more obese than men, although they are also more active.

Regarding the prevalence for overweight/obesity, this study showed a 36.8% overweight rate and 27.3% concerning obesity. These prevalence rates are higher than the one pointed out by Barbosa et al (2009) in a recent research carried out with 3.214 adults in the state of Alagoas, where the prevalence rate for overweight was 27.9% and for obesity 13.3%.

This study shows that among women the rate regarding overweight was 35.9% and the one regarding obesity was 25.8%. These figures are considered high when they are compared to the ones pointed out by Teichmann (2006) and Barbosa et al.(2009). Teichmann (2006) conducted a study with women ranging in age from 20 to 60 in São Leopoldo-RS, and he found out that the prevalence rate for overweight was 31.7% and 18% for obesity. In a study carried out by Barbosa et al (2009) the prevalence rate for overweight and obesity among women was respectively, 29.1% and 17%.

Thus, the fight to sedentariness may be seen as an important risk factor for non-communicable chronic diseases and it is expected to be a priority through specific policies concentrating the focus attention on health and placing emphasis on the promotion of physical activity concerning health assistance to the adult population as well the national health government policy regarding the focus area of the family health strategy.

It is believed if new health professionals such as physical educators, nutritionists are part of the professional staff, and the creation of Núcleos de Apoio à Saúde da Família (NASF) in Teresina as well as the support the Health Family Strategy staff would be very helpful in providing healthier lifestyles and possibly would change the sedentary behavior of the population.

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THE PREVALENCE OF SEDENTARINESS AND ITS ASSOCIATION WITH OVERWEIGHT / OBESITY IN ADULTS NURSED BY THE HEALTH FAMILY STRATEGY IN TERESINA/PI.

ABSTRACT

Sedentariness is a risk factor for non-communicable chronic diseases, these diseases are responsible for 60% of death rate all over the world. Scientific foreknowledge state that 73% of deaths will happen due to those risk factors. This study aims at analyzing the prevalence of sedentariness and its association with overweight/obesity in adults nursed by the Health Family Strategy. 299 male and female adults ranging in age from 20 to 59 nursed by the Health Family Strategy at the community health center in the district of Piçarra, Teresina-PI were sampled. Their weight and stature were measured and they had to fill in a short version of an IPAC questionnaire (International Physical Activity Questionnaire in order to analyze the level of physical activity. The overweight/obesity was analyzed through the body mass index and classified according to the World Health Organization. The prevalence rate for sedentariness was 6,7%, 36,8% for overweight and 23,7% for obesity. The relationship between the level of physical activity and genre (p-value= 0,0005) was remarkable. Notwithstanding, there was no significant connection between the level of physical activity and overweight/obesity in (p-value= 0.313).

KEY-WORDS: sedentariness, obesity, adult

PRÉVALENCE DE LA SÉDENTARITÉ ET SES RAPPORTS AVEC LE SURPOIDS/OBÉSITÉ DANS DES ADULTES ASSISTÉS PAR LE PROGRAMME DE SANTÉ PUBLIQUE ESTRATÉGIA SAÚDE DA FAMÍLIA, À TERESINA-PI

RÉSUMÉ

La sédentarité est un facteur de risque à des maladies chroniques non-transmissibles, responsables par environ 60% des morts de par le monde. On prévoit en 2020 environ 73% de morts attribuées à ces causes. Cette étude vise à évaluer la prévalence de la sédentarité et son rapport avec l'obésité parmi des adultes assistés par le programme de santé publique Estratègia Saúde da Família. Le groupe a été intégré par 299 adultes, hommes et femmes, âgés entre 20 et 59 ans., parmi ceux assistés par le programme de santé publique ESF, à la poste de santé du quartier Piçarra, à Teresina, au Piauí. A chacun, on a mesuré le poids, la taille et en plus, on a appliqué une version courte de l'IPAQ (International Physical Activity Questionnaire) afin d'évaluer le niveau d'activité physique. Le surpoids/obésité a été évalué au moyen de l'indice de masse corporelle (IMC) et classé conformément à l'Organisation mondiale de la santé (OMS). On a vérifié la prévalence de la sédentarité à 6,7%, 36,8% de surpoids et 23,7% d'obésité. Il y a eu un rapport significatif entre le niveau d'activité physique et le sexe (p-valeur=0,005), sans qu'on n'aie pas cependant vérifié un rapport significatif entre le niveau d'activité physique et le surpoids/obésité (p-valeur=0,313).

MOTS-CLÉ: Sédentarité, obésité, adultes

PREVALENCIA DE SEDENTARISMO Y SU ASOCIACIÓN CON SOBREPESO/OBESIDAD EN ADULTOS ASISTIDOS POR LA ESTRATEGIA SALUD DE LA FAMILIA EN TERESINA-PI

RESUMEN

El sedentarismo es un factor de riesgo para las enfermedades crónicas no transmisibles, las cuales representan la causa del 60% de las muertes en todo el mundo. Para el 2020, la previsión es que el 73% de las muertes sean atribuidas a esos agravios. El objetivo de este estudio ha sido evaluar la prevalencia de sedentarismo y su asociación con sobrepeso/obesidad en adultos asistidos por la Estrategia Salud de la Familia. La muestra ha involucrado a 299 adultos de los sexos masculino y femenino, de entre 20 y 59 años, asistidos por la Estrategia Salud de la Familia en el alcance del puesto de salud de Piçarra, Teresina/PI. Han sido mensurados peso, estatura y aplicado cuestionario IPAQ (International Physical Activity Questionnaire), versión corta, para evaluación del nivel de actividad física. El sobrepeso/obesidad ha sido evaluado por el índice de Masa Corporal (IMC) y clasificado de acuerdo con la Organización Mundial de Salud (OMS). La prevalencia de sedentarismo ha sido del 6,7%, sobrepeso 36,8% y obesidad 23,7%. Ha habido asociación significativa entre el nivel de actividad física y sexo (p-valor=0,005). Sin embargo, no ha sido encontrada asociación significativa entre nivel de actividad física y sobrepeso/obesidad en la (p-valor=0.313).

PALABRAS-CLAVE: Sedentarismo, obesidad, adulto

PREVALÊNCIA DE SEDENTARISMO E SUA ASSOCIAÇÃO COM SOBREPESO/OBESIDADE EM ADULTOS ASSISTIDOS PELA ESTRATÉGIA SAÚDE DA FAMÍLIA EM TERESINA-PI

RESUMO

O sedentarismo é um fator de risco para as doenças crônicas não transmissíveis, as quais representam a causa de 60% das mortes em todo o mundo. Para 2020, a previsão é de que 73% das mortes sejam atribuídas a esses agravos. O objetivo deste estudo foi avaliar a prevalência de sedentarismo e sua associação com sobrepeso/obesidade em adultos assistidos pela

Estratégia Saúde da Família. A amostra envolveu 299 adultos dos sexos masculino e feminino, na faixa etária de 20 a 59 anos, assistidos pela Estratégia Saúde da Família na abrangência do posto de saúde da Piçarreira, Teresina/PI. Foram mensurados peso, estatura e aplicado questionário IPAQ (International Physical Activity Questionnaire), versão curta, para avaliação do nível de atividade física. O sobrepeso/obesidade foi avaliado pelo índice de Massa Corporal (IMC) e classificado de acordo com a Organização Mundial de Saúde (OMS). A prevalência de sedentarismo foi de 6,7%, sobrepeso 36,8% e obesidade 23,7%. Houve associação significativa entre o nível de atividade física e sexo (p -valor=0,005). No entanto, não foi encontrada associação significativa entre nível de atividade física e sobrepeso/obesidade na (p -valor=0,313).

PALAVRAS-CHAVE: Sedentarismo, obesidade, adulto