

88 - PREVALENCE OF PHYSICAL INACTIVITY, OBESITY AND SMOKING BETWEEN EMPLOYEES OF MUNICIPAL EDUCATION SECRETARIAT IN PONTA GROSSA - PARANA

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INTRODUCTION

Health is a precious commodity, yet many people just trying to maintain or improve their health when disease symptoms are already evident and undertake their daily actions. (Nahas, 2001, p.11)

This characteristic is evident when we analyzed the main causes of mortality and disability worldwide, which according to the Pan American Health Organization (2003, p.7) are chronic-degenerative diseases or non-Transmissible, representing 59% of 56, 5 million deaths a year.

These chronic diseases like hypertension, obesity, diabetes, cancer and cardiovascular disease may reflect changes in lifestyle of people, mainly in relation to dietary habits and physical activity. (Nahas, 2001, p.14)

For the Pan American Health Organization (2003, p.55) the processes of industrialization, urbanization and economic development are triggering these changes in lifestyle of the population.

The human body is designed to be active, as were our ancestors, because of the needs of hunting and fishing for food and protection from predators and inclement weather. However, in modern civilizations new technologies have saved mankind from the most intense physical exercise at work and the few hours of rest and leisure, became hours sitting on the couch, watching television or sitting at a computer. (Nahas, 2001, p.15)

According Lessa (1998, p.146) that reduced physical activity, along with changes in eating habits down a vicious circle between inactivity and obesity.

Second to preliminary data from the National Institute of Nutrition, cited by Guedes (2003, p.29) approximately 32% of the population have rates of overweight and 8% are considered obese.

In Primary Care Booklet No. 12, the data in relation to obesity reported rates of 12.7% women and 8.8% of Brazilian adults obese men, with the highest incidence of the disease in south and southeast. These data demonstrate the importance of obesity as a public health problem in Brazil. (Brazil, 2006, p.18)

One must consider that in addition to excess fat, its distribution throughout the body interferes, and that abdominal fat is the one that represents a greater risk to the health of the individual. (WORLD HEALTH ORGANIZATION apud Brazil, 2006, p.22)

To Guedes (2003, p.37), especially abdominal fat health risk, regardless of age and even the total amount of body fat.

Given the situation presented any studies done in the area are relevant and should prioritize the implementation of mentoring programs and developing new practices to promote changes in lifestyle of people, seeking a reversal of this situation.

For both this study aims to determine the prevalence of physical inactivity, obesity and smoking habits of employees of the Municipal Education Ponta Grossa, through the measurement of anthropometric measurements of body weight, height, waist, abdomen and pelvis, determining the Body Mass Index and the ratio of circumference of waist circumference of the hips of each individual. Besides assessing the level of physical activity and smoking them.

STUDY DESIGN, SAMPLING AND ETHICAL ASPECTS

To establish the levels of overweight and obesity is necessary to measure the body composition of the individual. Body composition can be studied through its components, in two different ways, the first refers to only two components, fat and lean body mass and the other considers the bones, muscles, fat and water, the first way, most used, with an emphasis on relative body fat or body fat percentage. (Nahas, 2001, p.80)

To determine the prevalence of overweight and obese employees are conventionally used to calculate BMI and WHR, considering its applicability and its non-invasive way to collect data, complementing the analysis of waist circumference and its relationship to risk health of individuals.

Similarly whereas a sedentary lifestyle is a characteristic of most individuals with overweight or obesity was also evaluated levels of physical activity among them, besides the smoking rates also pose risks to health.

The present study is characterized as a descriptive study, quantitative cross-sectional.

The population that makes up the work are all employees of the Municipal Education Ponta Grossa, which according to the Human Resources Division of SME in September 2008 totaled 2,225 (two thousand two hundred and twenty five), but working in various locations, ie in 84 (eighty four) Municipal Schools, 36 (thirty six) enrolled in municipal daycare centers and other public spaces for administration and control of education in the city.

For this study only selected employees of SME, stationed at the City Hall building, a total sample of 92 (ninety-two) individuals, however due to some cancellations, holidays or absences from work due to illness, the sample was with 62 (sixty two) individuals, 53 females, aged between 26 and 59, and 09 males, aged between 30 and 62 years.

All study participants were informed about the research objectives and signed a consent form, with the assurance of complete anonymity and confidentiality in relation to individual information, and the results of the research used only for its development. In addition to total freedom to leave the study at any time, as its interest in accordance with the norms of Resolution 196/96 of the National Health Council and the determinations of the Commission on Ethics in Human Research.

All procedures were performed at the City Hall building, with the prior written consent, of the Municipal Secretary of Education. And staff gathered in the Meeting Room of the SME, on October 29, 2008, during the morning, for the explanation of the objectives and methodology of application of research. It is noteworthy that the time given for public attendance at the Town Hall is the afternoon, leaving the mornings only for internal services.

After the explanation the officials concerned to participate in the project, signed a consent form and were instructed how to complete the International Physical Activity Questionnaire - IPAQ short - Version 8, released by the IPAQ CENTER COORDINATOR IN BRAZIL-CELAFISCS - Home Page: www.celafiscs.com.br IPAQ International: www.ipaq.ki.se.

Preliminary information regarding personal data and two questions about the amount and use of tobacco were

included in the questionnaire. After completing this individual, the other questions on physical activity were explained by the evaluator and answered one by one, while all participants, who soon after returned to regular activities, so the waiting time of individual anthropometric data collection.

This collection was performed individually in a room reserved for more, allowing the use of minimum clothing, first with all the male employees and soon after the female. Because of time for data collection was necessary to use the morning of Oct. 30 to complete the assessments.

Height was measured using the stadiometer compact WISO of 02 (two) meters with millimeter resolution, fixed to a wall without a baseboard, with subjects standing erect, feet together and toes, keeping the surfaces of her heels, the pelvis, the shoulder girdle and occipital region in contact with the wall, beyond the head in the Frankfurt plane, according to Alvarez and Pavan (2007, p.39). Three measurements were made in centimeters and adopted the arithmetic mean of them.

For measuring body mass was used bioimpedance scale Tanita - A 080 with a capacity of 150 kg, with the following recommendations to the evaluated: fasting 04 hours before collection, not drinking alcohol 48 hours before and without performing strenuous physical activity for 24 hours before collection, as Benedetti et al (2007, p. 148).

The measurements of the circumference of the abdomen, waist and hip circumferences were taken in centimeters with a metal tape measure, according to the recommendations of Martins and Lopes (2007, p. 58), considering the arithmetic mean of three measurements noted, anatomic landmarks and measurement techniques are described by the authors.

Thus, after the collection of anthropometric data was calculated BMI and WHR of all monitored by means of a spreadsheet. Considering the cutoff points for BMI as normal rates of less than 24.9 kg/m² for overweight between 25 kg/m² and 29.9 kg/m² and obesity above 30 kg/m², according to World Health Organization (1998).

According to Nahas (2001, p. 86) indices WHR greater than 0.95 cm and 0.85 cm for men and women respectively are at increased risk for developing cardiovascular disease.

The Measures of waist circumference were categorized as low risk less than 92 cm for men and less than 80 cm for women, moderate risk values between 92 cm and 102 cm for men and between 81 cm and 87 cm for women, above the high risk 102 cm for men and 88 cm for women, according to WHO (1998).

The statistical data were calculated descriptive statistics (mean, standard deviation, frequencies and amplitudes) using software SPSS (Statistical Package for the Social Sciences) version 10.0.

RESULTS

The sample was divided into two groups according to sex, to determine the statistical differences in the results obtained as a result of it. Regarding the age of respondents, the arithmetic mean of the women stayed in 41 years (\pm 8.6 years) and for men was 38 years (\pm 10.4 years).

According to Figure 1 the levels of smoking are higher among men, surpassing 22%, while women reached 9.4% of smokers

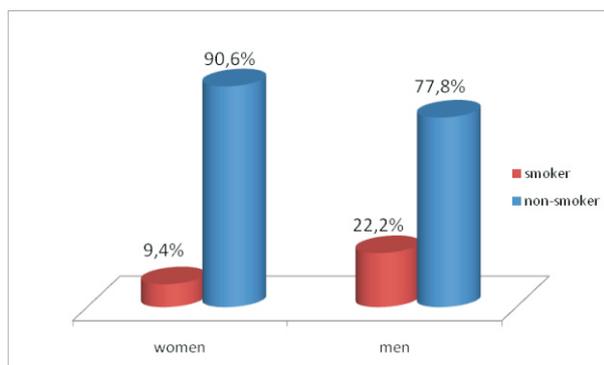


Figure 1: Graph of the percentage of smokers and nonsmokers

The classification results show that BMI 37.7% of women have levels of overweight and obese are 22.6%, totaling 60.3% above the normal level. Meanwhile men have 55.6% of overweight individuals, but none has yet considered obese.

Considering the values for abdominal fat (waist circumference) in both groups and their willingness to cardiovascular diseases, the situation remains more prevalent for women who have risk 84.9%, 54.7% with high risk and 30.2 % of women with moderate risk, however men do not presenting subjects with high risk and only 11.1% are at moderate risk.

The results regarding the level of physical activity show that most individuals of both sexes can be considered moderately physically active women and only three are classified with high levels of physical activity, according to the IPAQ.

Analyzing the results of the WHI show percentage 18.87% risk for women, which represents a number of 10 (ten) employees and 11.11% for men, or only one at risk for cardiovascular disease, according to the WHR.

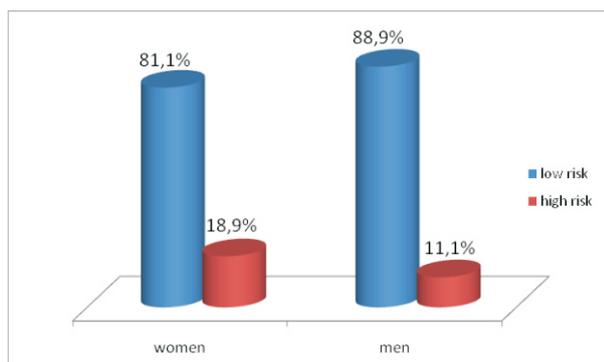


Figure 2: Graph of the percentage of disease risk according to WHR

Considering that a sedentary lifestyle and obesity are potential risk factors for chronic diseases, it becomes vital importance of promoting lifestyle changes in employees' lives, as the indices show a high prevalence of overweight for both men and for women, with values even higher than those found in the study of risk factors in Brazilian capitals of MOURA et al. (2008) and similar to those found by Rezende et al. (2006) on the servers of the State University of Vicosa in Minas Gerais and the study of Souza et al. (2003) in relation to the greater prevalence of obesity among women.

Central obesity according to waist circumference is also more prevalent among women, in line with studies by Nunes Filho et al. (2006) and Rezende et al. (2006).

According to the Pan American Health Organization (2003, p.24), data from developed countries indicate that the costs of physical inactivity are very large. In the United States, for example, medical costs reached \$ 75 billion only in 2000, due to the lack of physical activity.

However, companies that adopt programs to promote physical activity for your employees have extra economic returns, due to lower absenteeism and increased productivity. (Brazil, 2002, p. 254)

In this study, physical activity levels are higher than those presented in the State capitals by Moura et al. (2008) and close to the percentage found by Salles-Costa et al. (2003).

Regarding smoking rates are higher than the rates shown by the study by Moura et al. (2008), only confirming the superiority of males when it comes to the number of smokers.

Corroborating studies also indicate that physical activity can influence the improvement of quality of life, since the vast majority of survey shows moderate levels of physical activity, so close to the sedentary lifestyle, with the deterioration of the physical activities that emphasized the answers are directly related to housework at the expense of leisure activities.

CONCLUSIONS

Thus, given the results found a high prevalence of overweight and obesity, and other risk factors for chronic diseases such as smoking and inactivity, it is relevant to the importance of further research aimed at developing and implementing physical activity programs and correct nutrition and balanced, trying to promote changes in lifestyle of people.

But the studies must take into account differences in relation to sex, because, according to research risk factors differ in prevalence and its contents, furthermore, preferences in the choice of physical activity are different for men and women.

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PREVALENCE OF PHYSICAL INACTIVITY, OBESITY AND SMOKING BETWEEN EMPLOYEES OF MUNICIPAL EDUCATION SECRETARIAT IN PONTA GROSSA - PARANA

ABSTRACT:

The Overweight and obesity are regarded as public health problems in Brazil and worldwide due to its high prevalence and continuous growth. Among the factors contributing to the increase in these indices is the lack of physical activity. This study aims to establish the prevalence of physical inactivity, obesity and smoking habits of employees of the Municipal Secretariat of Education of Ponta Grossa, Parana. Therefore, we collected anthropometric measurements of body weight, height, waist, abdomen and hip, then determining the Body Mass Index and the ratio of the circumference of the waist. To evaluate the levels of physical activity was applied the IPAQ short, and some questions to determine the prevalence of smoking. The results confirm the national trend of overweight and obesity, especially among women, which showed rates of 37.7% overweight and 22.6% were obese, and 84.9% of moderate and high risk for cardiovascular disease, as indexes of abdominal fat. Among men abdominal fat reaches only 11.1% at moderate risk were also not recorded cases of obesity, though levels of overweight reach 55.6%. In relation to smoking was observed rates of 22.2% for men and 9.4% for women. While physical activity has moderate levels for women 90.6% and 66.7% for men, confirming the importance of studies and programs that promote changes in lifestyle of the population to improve quality of life.

KEYWORDS: Overweight. Obesity. Physical Inactivity.

PRÉVALENCE DE L'INACTIVITÉ, L'OBÉSITÉ PHYSIQUE ET LE TABAGISME DANS DES EMPLOYÉS MUNICIPAUX DU SECRÉTARIAT DE L'ENSEIGNEMENT PONTA GROSSA - PARANA

RÉSUMÉ:

Le surpoids et l'obésité sont considérés comme des problèmes de santé publique au Brésil et dans le monde entier en raison de sa prévalence élevée et la croissance continue. Parmi les facteurs qui contribuent à l'augmentation de ces indices est le manque d'activité physique. Cette étude vise à établir la prévalence de l'inactivité, l'obésité physique et les habitudes tabagiques des employés du Secrétariat municipal de l'éducation de Ponta Grossa, Parana. Par conséquent, nous avons recueilli des mesures anthropométriques du poids, taille, l'abdomen et des hanches, puis à déterminer l'indice de masse et le rapport de la circonférence de la taille. Pour évaluer les niveaux d'activité physique a été appliquée l'IPAQ court, et quelques questions afin de déterminer la prévalence du tabagisme. Les résultats confirment la tendance nationale de la surcharge pondérale et l'obésité, surtout chez les femmes, qui ont montré des taux de surpoids de 37,7% et 22,6% étaient obèses, et 84,9% de risque modéré et élevé de maladie cardiovasculaire, comme indices de graisse abdominale. Chez les hommes graisse abdominale atteint seulement 11,1% à risque modéré ont également été recensé aucun cas de l'obésité, bien que les niveaux de la surcharge pondérale atteint 55,6%. En ce qui concerne le tabagisme était taux observés de 22,2% pour les hommes et 9,4% pour les femmes. Bien que l'activité physique a des niveaux modérés pour les femmes 90,6% et 66,7% pour les hommes, ce qui confirme l'importance des études et des programmes qui favorisent les changements de mode de vie de la population pour améliorer la qualité de vie.

MOTS-CLÉS: surpoids. Obésité. L'inactivité physique.

LA PREVALENCIA DE INACTIVIDAD FÍSICA, LA OBESIDAD Y EL TABAQUISMO MUNICIPALES EN LOS EMPLEADOS DE LA SECRETARÍA DE EDUCACIÓN PONTA GROSSA - PARANA

RESUMEN:

El sobrepeso y la obesidad son considerados como problemas de salud pública en Brasil y en todo el mundo debido a su alta prevalencia y el crecimiento continuo. Entre los factores que contribuyen al aumento de estos índices es la falta de actividad física. Este estudio tiene por objeto establecer la prevalencia de inactividad física, la obesidad y los hábitos de fumar de los empleados de la Secretaría Municipal de Educación de Ponta Grossa, Paraná. Por lo tanto, hemos recopilado las medidas antropométricas de peso, talla, cintura, abdomen y cadera, a continuación, determinar el índice de masa corporal y la relación de la circunferencia de la cintura. Para evaluar los niveles de actividad física se aplicó la corta de IPAQ, y algunas preguntas para determinar la prevalencia del hábito de fumar. Los resultados confirman la tendencia nacional de sobrepeso y obesidad, especialmente entre las mujeres, que mostraron tasas de 37,7% sobrepeso y 22,6% eran obesos, y el 84,9% de riesgo moderado y alto de enfermedad cardiovascular, como los índices de grasa abdominal. Entre los hombres la grasa abdominal sólo alcanza el 11,1% riesgo moderado tampoco se registraron casos de obesidad, aunque los niveles de sobrepeso llegar a 55,6%. En relación al hábito de fumar se observan tasas de 22,2% para los hombres y 9,4% para las mujeres. Si bien la actividad física tiene niveles moderados para las mujeres 90,6% y 66,7% para los hombres, lo que confirma la importancia de los estudios y programas que promuevan cambios en el estilo de vida de la población para mejorar la calidad de vida.

PALABRAS CLAVE: Sobrepeso. Obesidad. La inactividad física.

PREVALÊNCIA DE INATIVIDADE FÍSICA, OBESIDADE E TABAGISMO EM FUNCIONÁRIOS DA SECRETARIA MUNICIPAL DA EDUCAÇÃO DE PONTA GROSSA-PARANÁ

RESUMO:

O sobrepeso e a obesidade são considerados problemas de saúde pública no Brasil e no mundo devido a sua alta prevalência e contínuo crescimento. Dentre os fatores que contribuem para o aumento desses índices está a falta de atividade física. Este estudo objetiva estabelecer a prevalência de inatividade física, obesidade e tabagismo dos funcionários da Secretaria Municipal da Educação de Ponta Grossa, Paraná. Para tanto foram coletadas as medidas antropométricas de massa corporal, estatura, circunferência da cintura, do abdome e do quadril, determinando em seguida o Índice de Massa Corporal e a Razão da circunferência da Cintura. Para avaliação dos níveis de atividade física foi aplicado o questionário IPAQ curto, além de algumas questões para determinar a prevalência do tabagismo. Os resultados obtidos confirmam a tendência nacional de sobrepeso e obesidade, principalmente nas mulheres, que apresentaram índices de 37,7% de sobrepeso e 22,6% de obesidade, além de 84,9% de risco moderado e alto para doenças cardiovasculares, conforme os índices de gordura abdominal. Entre os homens a gordura abdominal atinge somente 11,1% com risco moderado, também não foram registrados casos de obesidade, entretanto os níveis de sobrepeso chegam a 55,6%. Em relação ao tabagismo observou-se índices de 22,2% para os homens e 9,4% para as mulheres. Enquanto a atividade física apresenta níveis moderados 90,6% para mulheres e 66,7% para os homens, ratificando a importância de estudos e programas que promovam mudanças no estilo de vida da população para melhoria da qualidade de vida.

PALAVRAS-CHAVE: Sobrepeso. Obesidade. Inatividade Física.