132 - RISK FACTORS FOR CHRONICLE DEGENERATIVE DISEASES IN OFFICIALS OF UNIVERSITY

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INTRODUCTION

The new demands of modern life had brought facilities that have profoundly changed the life habit of the individual in the biological, psychological and social aspects. The mechanization of industries, the technological revolution and the computerization of services have brought good results for the company capital, but the individual become more sedentary (OWEN and BAUMAN, 1992).

Lima (2003) cites a study of Cooper's clinic that shows that the energy expenditure of the current population is around 2500 kcal / day lower than at the beginning of the twentieth century. Moreover, there was a decrease in the practice of involvement with mild and moderate physical activity compared to those of great intensity. The study reported that the current characteristic of the subjects in our society is to be hypoactive, it means spending less than 1,000 kcal / week in addition to our baseline energy expenditure.

Only in the last decade the sedentary life was seen as a risk factor to health by the WHO (World Health Organization), due to high rates raised by its prevalence in the population. Changes in the amount of energy expenditure have brought other risk factors such as obesity, smoking, alcohol consumption and diseases due to psychological stress.

Moraes et al (2000) reported that "the organization form of contemporary societies has been a fertile ground for the development of psychosomatic and biological illnesses." It is therefore extremely important finding solutions in search of quality of life for professionals.

The current social and economic context characterized not only by firms size and complexity of their physical structure but also the knowledge that they developed and maintained, and its brand value in the market. Ducker (2000) calls this new company as "the knowledge society." This new identity favored the internationalization of markets and the pressures for productivity and competitive ability, initiative, knowledge and innovation on people. Are compounded by the increase of the stress due to the amount of information and the search for agility in service delivery, the life habits are suddenly transformed.

It was then realized that the career is over all human activities, extending to the private life of a worker who has his free time and often his family and social live in disadvantage. W can also verify that this environment is conducive to triggering a stress processes among professionals.

Facing the current situations at the workplace, the study aimed to identify among officials of a Private Faculty, what are the main risk factors for developing a heart disease.

METHODOS

We evaluated 48 subjects, 33 females with an average age of 32,17 ± 10,69 and 15 males with an average age of 41,26 ± 14,03 years, officials of the administrative sector. All participantswere aware of the procedures to be used and signed the free and informed consent term.

Evaluations began with a questionnaire to check the life habits of officials face the risk factors.

After the interviewing, took place measurement of heart rate (HR) and systolic blood pressure (SBP) and diastolic (DBP) display with digital frequency of the brand OMRON, the model HEM-714C, with the official sitting with her feet supported on the floor and arms relaxed on the table with the palm facing upward. Following it was conducted the measurements of body mass (CM) and height (ES). It was used a digital scale, brand Tanita with precision 0.05 kg and portable stadiometer, brand Cardiomed precisely 0,01 cm. The Body Composition Index (BMI) was calculated as the ratio between body mass and height squared, in kilograms by the square meter (kg / m²).

To check the index waist-hip (WHR) was measured perimeters waist and hip with tape anthropometric, brand Cardiomed precisely 0,01 cm. For the waist, the ribbon was placed around the waist at the narrowest torso. For the hip, the tape was placed around the glutes, for the most part, with the legs together. (Heyward, 2000 p.31-32). To determine the percentage of fat (% F), was used for scientific bar for skinfolds, brand Cescorf precisely 0.01 mm. Were measured three skinfolds (men: triceps, supra-iliac and abdominal, women subercapular, supra-iliac and proximal thigh). The skinfolds were measured on the right side of the equation evaluated and calculated according to Guedes and Guedes (1991) and Siri (1976) demonstrated in Table 1.

Table 1. The regression equation to estimate body fat percentage

	Regression Equation	Rÿ	Erro de Estimativa
Women	DENS = 1,1665 0,0706 $\log_{10}(X_1)$	0,853	0,0053
Men	DENS = 1,1714 0,0671 $\log_{10}(X_2)$	0,894	0,0057
	%G = (4,95/DENS) 4,50 x 100		
DENS:	Predicted values for body density (g/ml)		
%G	Predicted values for body fat (%)		
X_1:	Sum of thicknesses of skinfolds measures in regions subscapular, supra - iliac and thigh.		
X_2:	Sum of thicknesses of skinfolds measures in regions triceps, supra -iliac and abdominal.		

Fonte: Guedes & Guedes, 1991 e Siri, 1976

For treatment of data was used a descriptive analysis, mean, standard deviation, minimum and maximum values of the variables.

RESULTS AND DISCUSSION

Of the 48 employees evaluated, 33 (68,75%) women had the average age of 32,17 ± 10,69 and 15 (31,25%) men with

41,26 ± 14,03. The population in mostly did not practiced physical activities, of all women interviewed 10 (30%), practiced some kind of physical activity, while 23 (70%) would not none. Of Men only 9 (60%), practiced some kind of physical activity and 6 (40%), did not practiced any. There are several studies that indicate a favorable relation of the practice of physical activity with a reduction of risk factors (WAR et al, (2003), GOMES et al. (2001). We believe that the work place provides an unfavorable environment to stimulate a physical activity.

As for the smoking, of all employees only 3 (6%) of women replied be smokers, while the response was negative for men (0%). This result can be considerable an important ally's health. Cigarette smoking and dyslipidemia comprise more than two thirds of the risk attributable to myocardial infarction according to INTERHEARTH apud Rosina (2006). The effects of smoking and illness or death are only visible after 2 to 3 decades after the start, hindering the prevention campaigns. Moreover, the effect of physical and psychological dependence combined with the social acceptance changes the habit of smoking as normal or even as a status for certain age groups (Alteza and SANCHEZ, 1998; MENDES, 2003).

As for the consumption of alcoholic beverages, only 5 (15%) women responded drink them. Already with men consumption was higher, 7 (47%) officials reported that ingest alcohol, which is a percentage of 57% of the male population. The frequency was higher on weekends. Most officials in theirs family history has a history of chronic degenerative disease, among them were questioned for hypertension, diabetes, obesity and heart disease. In women, 28 (85%) in the family has a history of such risk. In men, 11 (73%) have illnesses related to risk factors. Both women and men for the hypertension was the most cited with 11 (33%) and 6 (40%), respectively. This fact must be taken into account, since the genetic factor is important in the predisposition to load risk factors for both physical and environmental issues.

Romaldini et al (2004) concluded in its study on atherosclerosis in children and adolescents that it is important to identify as early as possible the family history of coronary artery disease to adopt prevention programs. In their study of 109 children 42% had dyslipidemia and family history of premature coronary artery disease.

In tables 2, 3, 4 and 5 are the data collected, with the frequency and percentage of employees who held or not physical activity, the prevalence of cigarette-smoking, consumption of beverages in connection with a family history have a history of chronic degenerative diseases.

Table 2. Practice Physical Activity

	Women		Men	
	n	%	n	%
Yes	10	30%	9	60%
No	23	70%	6	40%
Total	33	100%	15	100%

Table 3. Prevalence of smoking

	Women		Men	
	n	%	n	%
Yes	3	9%	0	0%
No	30	91%	15	100%
Total	33	100%	15	100%

Table 4. Consumption of alcoholic beverages

	Women		Men	
	n	%	n	%
Yes	5	15%	7	47%
No	28	85%	8	53%
Total	33	100%	15	100%

Table 5. Family history of chronic degenerative diseases

	Women		Men	
	n	%	n	%
Hypertension	11	33%	6	40%
Diabetes	4	12%	3	20%
Hypertension and Diabetes	3	9%	2	13%
Hypertension and diabetes and cardiovascular	6	18%	0	0%
Diabetes and obesity	3	9%	0	0%
Do not know	1	3%	0	0%
No	5	15%	4	27%
Total	33	100%	15	100%

Table 6 illustrates the average of the results of the variables: age, systolic and diastolic blood pressure, heart rate, body mass index and fat percentage with minimum, maximum and standard deviation.

Table 6. Values of age, systolic blood pressure (SBP) and diastolic (DBP), heart rate (HR), body mass index (BMI) and fat percentage (% G) of the sample.

Table 6. Values of age, systolic blood pressure (SBP) and diastolic (DBP), heart rate (HR), body mass index (BMI) and fat percentage (% G) of the sample.

		Idade	PAS	PAD	FC	IMC	ICQ	%G
Women	Average	32,75	125,73	77,45	77,34	34,08	0,79	29,99
	Standard Deviation	10,64	16,25	17,58	8,25	50,23	0,06	4,17
	Minimum	16,00	98,00	10,00	62,00	19,15	0,67	20,68
	Maximum	54,00	177,00	111,00	98,00	308,20	0,92	36,85
Men	Average	41,27	141,53	86,53	74,07	27,30	0,91	21,91
	Standard Deviation	14,03	18,75	6,46	12,78	3,49	0,06	3,66
	Minimum	18,00	117,00	77,00	58,00	18,48	0,78	15,43
	Maximum	60,00	193,00	95,00	111,00	34,06	1,01	28,16

In the evaluations, women had a SBP of 126 ± 16mmHg and men had 142 ± 19mmHg. Regarding the PAD, women had an average of 77 ± 18mmHg and men 87 ± 6mmHg. The women came out slightly above the ideal for the SBP and DBP is below, while men showed values of high SBP and DBP in accordance with the proposal by ACMS, (2000). These data suggest that there might be the presence of hypertension in the male population. It is worth emphasizing that most frequently evaluated did not measure their blood pressure, which may delay the trip to a specialist for early treatment. Blood pressure is a variable easily favored by the start of a physical activity and it is recommended especially for hypertensive patients. Heart rate among women had an average of 77 ± 8bpm and men, average of 74 ± 12bpm.

With the stature and body mass calculate the BMI (Body Mass Index). The average BMI among women was 25,51 ± 4,64 kg / meters and men was 27,30 ± 3,79 kg / m². We can check for overweight women and men. The ICQ's average population also showed unfavorable to women, while among men the figure was classified as moderate risk classification in the scale as described by Bray and Gray (1988). The value found for women was 0,79 ± 0,06 and 0,91 ± 0,06 for men. The average percentage of fat found in employees was 29,9 ± 4,17 and the staff was 21,11 ± 3,66. Pollock and Wilmore (1993) showed a table

of references to body fat percentage split in gender and age, according to this, women performed below average and in average for men in the population.

CONCLUSION

We note with the study that officials of the Higher Education Institution have health risks like high blood pressure, waist hip index, body mass index and fat percentage, with values above the ideal considered by the ACSM. The family history of disease related to risk factors also proved to be a negative factor. Only smoking can be considered the factor that would bring less influence in the statistics, since the minority said it smoker.

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RISK FACTORS FOR CHRONICLE DEGENERATIVE DISEASES IN OFFICIALS OF UNIVERSITY

ABSTRACT

The job has been extended to the private life of workers who has a limited time to use in the prevention and health maintenance. Based on that, the objective of the study is to identify among the employees of a private education institution which are the risk factors for the health. We evaluated 48 subjects, 33 females and 15 males, officials of Don Bosco School. A questionnaire was used to check the living habits of officials about the risk factors, measurement of heart rate (HR) and systolic blood pressure (SBP) and diastolic (DBP), measurements of body mass (CM) and height (ES) , Girth waist and hip and a protocol with 3 skinfolds. For the treatment of data was used a descriptive analysis, mean, standard deviation, minimum and maximum values of the variables. The average age was 32.17 ± 10.69 years for women and 41.26 ± 14.03 years for men. The population in mostly did not practice physical activities, 70% of women and 60% of men. Of all the officials only 3, (6%) of women are smokers. As for the consumption of alcohol, the consumption among men was higher, 57% vs. 15% in women. In the female population, 82% male and 73% have a family history with risk diseases, like hypertension, diabetes, obesity and heart disease. Women had SBP of 126 ± 16mmHg and men had 142 ± 19mmHg and DBP of 77 ± 6mmHg ± 18mmHg and 87, respectively. The average heart rate for women was 77 ± 8bpm and for men 74 ± 12bpm. The average BMI among women was 25.51 ± 4.64 kg / meters and for men were 27.30 ± 3.79 kg / m². The value found for ICQ women was 0.79 ± 0.06 and 0.91 ± 0.06 for men. The average percentage of fat in women employees was 29.9 ± 4.17 and 21.11 ± 3.66 for men. With this stud we can verify that officials of the institution have risk factors for health such as blood pressure changed, hips waist index, body mass index and fat percentage below the ideal. The family history of disease related with risk factors also proved to be a negative factor. Only smoking can be considered positive factor, because the minority said to be a smoker.

Keywords: Body Composition, Body mass index, risk factors

ABSTRACT

La activité professionnelle a été étendu à la vie privée du travailleur qu'il a son temps limitée dans la prévention et le maintien de la santé. En face de cela, l'objectif de l'étude est d'identifier parmi les employés d'un établissement d'enseignement privé quel sont les facteurs de risque pour la santé. Nous avons évalué 48 sujets, 33 femmes et 15 hommes, fonctionnaires de l'école Don Bosco. Un Questionnaire a été utilisé pour vérifier les habitudes de vie des fonctionnaires sur les facteurs de risque, la

mesure de la fréquence cardiaque (HR) et la tension artérielle systolique (SBP) et diastolique (DBP), les mesures de masse corporelle (CM) et la hauteur (ES) , Taille et circonférence des hanches et du protocole avec 3 pli cutané. Pour le traitement des données on été utilisé un descriptif analyze, moyenne, écart type, valeurs minimales et maximales des variables. L'âge moyen était 32,17 ± 10,69 ans pour les femmes et 41,26 ± 14,03 ans pour les hommes. La population dans la plupart pas pratiqué des activités physiques, 70% des femmes et 60% des hommes. De tous les fonctionnaires il y a seulement 3, (6%) femmes qui fument. En ce qui concerne la consommation d'alcool, la consommation chez les hommes était plus élevé, 57% vs 15% chez les femmes. Dans la population féminine, 82% et d'hommes 73% ont des antécédents familiaux de maladies considérées de risque, comme l'hypertension, le diabète, l'obésité et des maladies cardiaques. Les femmes ont SBP de 126 ± 16mmHg hommes et 142 ± 19mmHg et DBP de 77 ± 6mmHg ± 18mmHg et 87, respectivement,. La fréquence cardiaque moyenne pour les femmes était de 77 ± 8bpm et de 74 ± 12bpm pour les hommes. La moyenne de l'IMC chez les femmes était 25,51 ± 4,64 kg / m et pour les hommes était de 27,30 ± 3,79 kg / m². La valeur trouvée pour les femmes a été ICQ 0,79 ± 0,06 et 0,91 ± 0,06 pour les hommes. Le pourcentage moyen des employés fammes en matière grasse a été 29,9 ± 4.17 et 21.11 ± 3.66 pour les hommes. On peut vérifier, avec l'étude que les fonctionnaires de l'institution ont des facteurs de risque pour la santé comme l'hypertension changé, les hanches indice de taille, indice de masse corporelle et le pourcentage de matières grasses au-dessous de l'idéal. L'histoire familiale de maladie liée à des facteurs de risque sont également révélées facteur négatif. Seul le tabagisme peut être considéré comme facteur positif, parce que la minorité a dit être fumeur.

Mots-clés: la composition corporelle, indice de masse corporelle, les facteurs de risque

RESUMEN

El trabajo se ha extendido a la vida privada de un trabajador que acaba de tomar su tiempo de uso limitado en la prevención y el mantenimiento de la salud. Frente a esto, el objetivo del estudio es determinar entre los empleados de una institución de enseñanza privada que los factores de riesgo para la salud. Se evaluaron 48 sujetos, 33 mujeres y 15 hombres, los funcionarios de la Escuela Don Bosco. Cuestionario se utilizó para comprobar los hábitos de vida de los funcionarios acerca de los factores de riesgo, la medición de la frecuencia cardiaca (HR) y la presión arterial sistólica (PAS) y diastólica (PAD), las mediciones de masa corporal (MC) y la altura (ES), circunferencia de cintura y cadera y el protocolo con 3 pliegues. Para el tratamiento de los datos se utilizó un análisis descriptivo, media, desviación estándar, valores mínimos y máximos de las variables. La edad media fue de 32,17 ± 10,69 para las mujeres y 41,26 ± 14,03 años para los hombres. La población en su mayoría no practican actividades físicas, el 70% de las mujeres y el 60% de los hombres. De todos los funcionarios sólo 3, (6%) de mujeres fumadoras se responde. En cuanto al consumo de alcohol, el consumo entre los hombres fue mayor, 57% y 15% en las mujeres. En la población femenina, 82% hombres y 73% tienen una historia familiar con enfermedades consideradas de riesgo, como la hipertensión, la diabetes, la obesidad y las enfermedades del corazón. La mujer había 126 ± 16 mmHg y los hombres 142 ± 19 mmHg y PAD de 77 ± 18 mmHg y 87 ± 6 mmHg, respectivamente. El ritmo cardíaco promedio las mujeres fue de 77 ± 8 bpm y de los hombres fue de 74 ± 12 bpm. El promedio de IMC en las mujeres fue de 25,51 ± 4,64 kg/m² y los hombres fue 27,30 ± 3,79 kg/m². El valor encontrado para las mujeres ICQ fue 0,79 0,06 y de los hombres de 0,91 ± 0,06. El porcentaje medio de grasa en las empleadas fue 29,9 4,17 y 21,11 ± 3,66 para los hombres. Podemos comprobar con el estudio que los funcionarios de la institución tiene factores de riesgo para la salud como la presión arterial cambiado, índice cintura cadera, índice de masa corporal y porcentaje de grasa debajo de la ideal. La historia familiar de enfermedades relacionadas con factores de riesgo también ha demostrado ser factor negativo. Sólo el hábito de fumar puede ser considerado factor positivo pues la minoría es de fumador.

Palabras clave: composición corporal, índice de masa corporal, factores de riesgo

FATORES DE RISCO PARA DOENÇAS CRÔNICO DEGENERATIVAS EM FUNCIONÁRIOS DE INSTITUIÇÃO DE ENSINO SUPERIOR.

RESUMO

A atividade profissional vem estendendo-se à vida particular do trabalhador que acaba tendo seu tempo de limitado para prevenção e manutenção as saúde. Frente a isto, o objetivo do estudo é identificar dentre os funcionários de uma instituição particular de ensino quais os fatores de risco para a saúde. Foram avaliados 48 sujeitos, 33 do sexo feminino e 15 do sexo masculino, funcionários da Faculdade Dom Bosco. Utilizou-se questionário para verificar os hábitos de vida dos funcionários quanto aos fatores de risco, aferição da freqüência cardíaca (FC) e pressão arterial sistólica (PAS) e diastólica (PAD), medições de massa corporal (MC) e estatura (ES), perímetros da cintura e do quadril e protocolo com 3 dobras cutâneas. Para tratamento de dados foi utilizou-se análise descritiva com média, desvio padrão, valores mínimos e máximos das variáveis. A idade média foi de 32,17 ± 10,69 anos para mulheres e 41,26 ± 14,03 anos para homens. A população em sua maioria não praticava atividades físicas, 70% das mulheres e 60% dos homens. De todos os funcionários apenas 3, (6%) das mulheres responderam ser tabagistas. Quanto ao consumo de bebidas alcoólicas, nos homens o consumo foi maior, 57% contra 15% nas mulheres. Na população feminina, 82% e na masculina 73% possuem antecedentes familiares com doenças consideradas de risco, como hipertensão, diabetes, obesidade e cardiopatias. As mulheres apresentaram PAS de 126 ± 16mmHg e os homens 142 ± 19mmHg e PAD de 77 ± 18mmHg e 87 ± 6mmHg, respectivamente. A freqüência cardíaca médias das mulheres foi de 77 ± 8bpm e dos homens 74 ± 12bpm. A média do IMC nas mulheres foi de 25,51 ± 4,64Kg/m² e nos homens foi de 27,30 ± 3,79 Kg/m². O valor encontrado para ICQ mulheres foi de 0,79 ± 0,06 e dos homens de 0,91 ± 0,06. A média do percentual de gordura nas funcionárias foi de 29,9 ± 4,17 e 21,11 ± 3,66 para os homens. Podemos verificar com o estudo que os funcionários da instituição possuem fatores riscos para a saúde como pressão arterial alterada, índice cintura quadril, índice de massa corporal e percentual de gordura abaixo do ideal. O histórico familiar de doenças relacionadas com fatores de risco também demonstrou ser fator negativo. Apenas o tabagismo pode ser considerado fator positivo, visto que a minoria declarou ser tabagista.

Palavras-Chaves: Composição Corporal, Índice de massa corporal, fatores de risco.