03 - PHYSICAL ACTIVITY LEVEL RELATING TO HEALTH THE COLLABORATORS UESPI CAMPUS TORQUATO NETO

NATÁLIA BARBOSA RIOS SOUSA;
YÚLA PIRES DA SILVEIRA FONTENELE DE MENESES
UNIVERSIDADE ESTADUAL DO PIAUÍ – UESPI, TERESINA, PIAUÍ, BRASIL
yula@globo.com

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1. INTRODUCTION

To the World Health Organization (WHO), health is "a state of complete physical, mental and social well-being of the human being." This definition includes the concept of health as quality of life and the individual's relationship with their environment (NÓBREGA et al, 1999). Considered healthy attitudes certainly prevent people from disease and be healthy personal hygiene practices, medical care, prevention of accidents and balance between work activities, rest and recreation (FILHO and LOPES, 2001).

In various aspects of human life, it is noted that the exercise has influence on health, mood and social life. According to Dantas (1997), have better quality of life to experience the greatest degree of satisfaction of their needs. Such needs go beyond those considered basic for survival and security, since there are others of equal degree of importance, linked to perception and socialization. The latter two directly linked to quality of life, are fully covered by physical activity (MARTINS, 2000).

The promotion in the good quality of life maturity exceeds, however the boundaries of personal responsibility and should be seen as a socio-cultural character of enterprise, ie a satisfactory old age is not an attribute of the biological, psychological or social individual, but results quality the interaction of people changing, living in a society changes (FEATHERMAM, SMITH, PETERSON, 1990).

According to Nahas (1999), in the current context of contemporary societies active lifestyle, healthy habits and physical activity may increasingly represent decisive factors of quality of life and sense of well-being, understanding that there are multiple stakeholders and determining factors in the population's quality of life, such as job satisfaction, pleasure, family relationships, among others, a combination that characterizes the qualitative levels you live in contemporary man.

Petrella and Wight (2000) found that although the advice on physical exercise is often performed by family doctors, they reported that the short time available and the lack of specific knowledge of certain limited this practice mode.

Physical activity, which according to the World Health Organization means any body movement that requires energy expenditure produced by skeletal muscles, when transformed or not exercise (physical activity planned and structured) to obtain the physical fitness and its relationship to health , it has been the subject of numerous studies (PETRELLA, 2000; PAFFENBAGER, 1994). The quality of life has attracted the attention of Lee and Tanaka (1997) in order to avoid a disaster in the future, especially since the increase in life expectancy raises concerns on the question of functionality versus disability. We all grow old, as some of us have the ability to modify the aging process physiologically through appropriate physical activity and other lifestyle measures (CARVALHO, GUEDES, SILVA, 1996).

In the present scenario , it is visible the relative and absolute growth of chronic diseases (NCDs), mainly from heart disease, diabetes, diseases in the circulatory system, which expressed the alarming and intense change in the health standard of the population (YUSUF et al , 2001; REDDY, 2002).

In 2002, about 70% of spending on health of the Unified Health System (SUS) were with hospital care for people with NCDs in the same year accounted for the largest share of deaths in Brazil, which is already spreading from the 60 (BARRETO et al, 2003).

Physical activity practice incentive programs need to be stimulated by public policies (WILLIAMS & WILKINS, 2000). The act of working out need to be built not only to daily life, but also to popular culture, medical treatment, to family planning and child education. This need is given by different factors: the social factor when it gives the man the right to be physically active group, the economic factor, when it turns out that the cost of individual and collective health fall in physically active populations (SARDINHA and GIL , 2000).

In the quest to offer incentives for quality of life improvement policies and increase the level of physical activity in the workplace, this study has to correlate the level of physical activity with overweight index and the risk of contracting diseases arteriocoronarianas of employees of the campus Torquato Neto - UESPI. And with that establish a reflection on the relationship between these two spheres that surround this universe: Physical Activity and Health.

2. METHODOLOGY

This study was performed through a Cross-sectional descriptive as an experimental approach, assessing the level of physical activity correlated well with the risk of contracting diseases coronary arterio.

The study was conducted at the State University of Piauí (UESPI) located in the area covered by the urban area, North Zone, Pirajá neighborhood Teresina / PI. The sample consisted of 30 civil servants of UESPI aged 20 to 60 years.

For the amount of adults inserted into the predetermined range a survey was conducted along with the Human Resources department of UESPI, the sample was determined by convenience. Before interviewing and any testing all adults signed the consent form Clarified, making clear his position to participate in the study, and later to collect the data through the tests. The exclusion criteria were adults who were in the process of rehabilitation of any neuro-orthopedic chronic disease during data collection.

The level of physical activity was evaluated from the application of a questionnaire of six questions, the IPAQ. This questionnaire was created in the late 90s in order to detect the levels of physical activity. In 2003 he tested the reliability and validity of IPAQ in 12 countries.

For evaluating the health status were assessed BMI (body mass index) and WC (waist circumference). BMI is a parameter used to classify overweight and indices calculated by the formula: (Brazilian Guidelines for Diagnosis and Treatment of Metabolic Syndrome Rev Soc Bras Hipert 2004; 17 (4)) weight / height)

Waist circumference is an indirect indication of the amount of visceral fat, the fat that surrounds the intra-abdominal organs and is associated with an increased risk of atherosclerosis and its consequences, such as acute myocardial infarction and stroke. To measure the waist is due to: pass a tape (SANNY) around the waist at the narrowest point or slightly above the umbilicus (Diagnosis and Treatment of Metabolic Syndrome Rev Soc Bras Hipert 2004; 17 (4)).

Blood pressure and heart rate was observed at rest with the tensiometer BP A100 (MICROLIFE), subjects were

seated and the left arm placed at shoulder height on a table.

The level of physical activity according to the IPAQ is classified (CELAFISCS, 1999):

1. VERY ACTIVE: one that complied with the recommendations of:

a) VIGOROUS: ≥ 5 days / week and ≥ 30 minutes per session or

b) VIGOROUS: ≥ 3 days / week and ≥ 20 minutes per session + MODERATE or WALK: ≥ 5 days / week and ≥ 30 minutes per session.

2. ACTIVE: one that complied with the recommendations of:

a) VIGOROUS: ≥ 3 days / week and ≥ 20 minutes per session; or

b) MODERATE or WALK: ≥ 5 days / week and ≥ 30 minutes per session; or

c) Any activity added: ≥ 5 days / week and ≥ 150 minutes / week (walk + moderate + vigorous).

3. ROUGH ACTIVE: one who performs physical activity, but insufficiently to be classified as active as it does not meet the recommendations regarding the frequency or duration. To accomplish this classification adds to the frequency and duration of different types of activities (walking + moderate + vigorous).

4. SEDENTARY: one who does not carry out any physical activity for at least 10 continuous minutes during the week.

To classify the BMI is used to the table below for classification (NAHAS , 1999) :

Slimness	Below 18,5
Normal Weight	Between 18,6 and 24,9
Overweight	Between 25 and 29,9
Grade 1 obesity	Between 30 and 34,9
Grade 2 obesity	Between 35 and 39,9
Grade 3 obesity	Above 40

But the CC , the results of the relationship should be : up to 88 cm for women and up to 102 cm for men. Results equal to or greater than 88 cm for women and 102 cm for men, indicates high risk for cardiovascular disease. The higher the value , the higher the risk (Brazilian Guidelines for Diagnosis and Treatment of Metabolic Syndrome Rev Soc Bras Hipert 2004; 17 (4).)

Blood pressure classification table (DEL DUCA , NAHAS , 2011):

Category	Systolic Pressure (mmHg)	Diastolic Pressure (mmHg)
Great	<120	<80
Normal	120 – 129	80 – 84
Normal High	130 – 139	85 – 89
Hipertension		
Stage 1 (Mild)	140 – 159	90 – 99
Stage 2 (Moderate)	160 – 179	100 – 109
Stage 3 (Record)	Greater than or equal to 180	Greater than or equal to 110

The project was approved by the Ethics Committee of the Faculty of Medical Sciences (FACIME) , State University of Piauí , in compliance with Resolution CNS 486/12 governing research with human beings. Number : 887255.

Data processing and statistical analysis were performed using the SPSS software, version 18.0. Quantitative variables were presented through descriptive statistics: mean, standard deviation , median, minimum and maximum and qualitative through ratio and confidence interval (95% CI) .

First the Shapiro- Wilk test was used to assess the normality of the quantitative variables. To analyze difference between the two averages was used stundet T test considering a significance level of 95 % (p <0.05) .

All materials needed for the evaluation including questionnaires, tape measure and tensiometro will of the researcher's responsibility.

3. RESULTS

Table I. Sociodemographic profile of employees participating in the survey. Teresina, PI , 2014.

	N	%
Sex		
Male	14	46,7
Female	16	53,3
Band Age		
20-40 years	18	60,0
41-60 years	12	40,0
Average (D.P)	37,8 (11,7)	
Total	**30**	**100,0**

S. D: standard deviation. Source : Direct

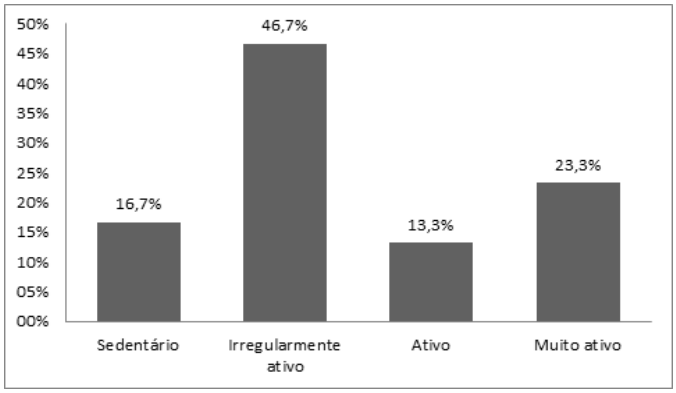


Figure 1. Physical activity level of the employees participating in the survey according to the IPAQ . Teresina, PI , 2014. Source: Direct

Table II. Descriptive data of anthropometric and physiological variables of the employees participating in the survey. Teresina, PI , 2014.

	Average	S.D	Minimum	Median	Maximum
BMI (kg/m²)	24,7	3,3	18,4	24,6	31,2
SBP (mmHg)	122,1	12,4	100,0	121,5	143,0
DBP (mmHg)	76,5	8,2	62,0	75,0	97,0
HR (bpm)	73,3	9,7	52,0	74,0	91,0
WC (cm)	84,7	11,5	64,0	83,0	108,0

BMI : body mass index , SBP : systolic blood pressure , DBP : diastolic blood pressure , HR : heart rate , WC: Waist circumference, SD: standard deviation . Source : Direct

Table III. Nutritional status and blood pressure classification and waist circumference of employees participating in the survey according to the WHO . Teresina, PI , 2014. Source : Direct

	N	%
Nutricional status (BMI kg/m²)		
Eutrophic	16	53,3
Overweight	12	40,0
Obesity	02	6,7
Blood Pressure Classification (mmHg)		
Great	14	46,7
Normal	07	23,3
Normal High	06	20,0
Hypertension stage 1	03	10,0
Classification WC (cm)		
Normal	19	63,3
Above normal	11	36,7
Total	**30**	**100,0**

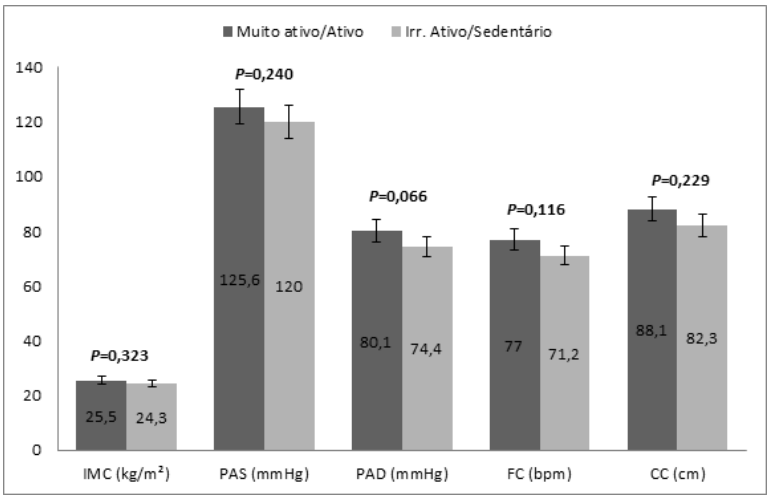


Figure 2. Relationship between the means of anthropometric and physiological variables of the participants of the research staff second level of physical activity. Teresina, PI , 2014 . BMI : body mass index , SBP : systolic blood pressure , DBP : diastolic blood pressure , HR : heart rate , CC: Waist circumference, SD: standard deviation . * T test student Source : Direct

Comparing the anthropometric and physiological variables came to the result that the p value did not show significance there was no significant difference between Very active / active Irregularly active / Sedentary. Possibly due to small sample was observed heterogeneous sample with large deviations of the variables .

4. DISCUSSION

Analyzing the results described above, on the level of physical activity, it was found that the study showed that 46.7% of participants have to be irregularly active, which differs Flores study in 2002 that found that 89.9% of adults They were sufficiently active. However, the authors used the IPAQ in its long version. The short version of the questionnaire seems to overestimate physical inactivity when compared to its long version (HALLAL et al, 2003). Although other studies have shown differences between gender and level of physical activity (DIAS-DA-COSTA et al, 2005; FLORES, 2OO2; BERNSTEIN MS et al, 2001), this difference was not observed in our research as well as in the study of Hallal et al, 2003, in adults from Pelotas.

The prevalence of physical inactivity in adults detected in the study of Smith, et al. 2008 was 31.8% lower than that found in previous studies that used the same instrument. What corroborates this study where the inactivity level was considered low considering the size of the sample.

By analyzing the anthropometric measurements consisted found that BMI was 18.4 and the largest of 31.2, with a mean of 24.7 considering so good levels of body mass in 53.3% of evaluated, and 40% of same overweight. What opposes the study Battisti, et al. 2012, where 34.2% of the individuals have normal and overweight values.

With regard to health status, ascertained that the blood pressure did not differ between sexes for both PAD and for PAS, disagreeing with the results of Guedes & Guedes, 1999 and Gus et al, 1998, in which men had higher blood pressure values.

While the work Battist et al. 2012, 73.7% of the individuals are in a pattern of optimal blood pressure, which is in line with the present study, where 46.7% of respondents also showed that rating. In the same study to examine the WC, the authors found that 55.3% of the individuals had above normal values, which also differs from the present study where 66.3% of the participants of this study had normal values for the classification of WC.

Studies on the prevalence of abdominal obesity, as well as research to verify the adequacy of these cutoff points are scarce in the country (GUEDES et al, 1999; VELASQUEZ-MELENDEZ et al, 2002; MARTINS et al, 2003) demonstrate the need to investigate the balance between sensitivity and specificity of the indicators used in an attempt to identify cut points most appropriate for our population.

In this study, most of the evaluated had to be irregularly active, and 36.7% had higher than normal risk of having some coronary arterio disease. Thus it was possible to observe the importance of the need for initiatives that encourage healthy lifestyles and proper nutrition and regular physical activity.

5. FINAL CONSIDERATIONS

Whereas the activity was attended by people of different ages (young adults to seniors) it was found that the results were in the normal majority, with a small percentage of above normal values. A significant risk of contracting diseases coronary arterio at possible low number of sample and heterogeneity was not found.

It does not have doubts of the direct relationship between a good level of physical activity and health, so through this study we observed the importance of care and health promotion for employees in general and there is a need for initiatives that promote habits healthy living and proper nutrition and regular physical activity.

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Yúla Pires da Silveira Fontenele de Meneses
Rua Wilson Soares, 242, São Cristovão. Cep. 64052310. Teresina – PI

PHYSICAL ACTIVITY LEVEL RELATING TO HEALTH THE COLLABORATORS UESPI CAMPUS TORQUATO NETO

ABSTRACT

The objective of this study was to relate the level of physical activity with the obese and the risk of contracting diseases coronary arterio of employees of the campus Torquato Neto UESPI. We conducted a cross-sectional study that included 30 employees aged 20 and 60, who were not undergoing neuro-orthopedic rehabilitation in the city of Teresina - PI. Using the International Physical Activity Questionnaire (IPAQ) short version evaluated the level of physical activity. Anthropometric assessments was verified BMI, waist circumference and health levels was measured blood pressure and heart rate. Data processing and statistical analysis were performed using the SPSS software, version 18.0. We used descriptive statistics, as well as prevalence ratio (PR) and 95% confidence interval (95% CI) to analyze the level of relationship of physical activity and health. The significance criterion was 5%. Women constituted 53.3% of the study population and men 46.7%. The result was that 46.7% of employees practice activities irregularly compared to health shows that 53.3% are with normal body mass, 46.7% with normal blood pressure and 63.3% with waist circumference normal. Thus concluding that the study showed no significant difference between Very active / active and active Irregularly possibly the sample was small and the heterogeneity have been great. What does not fail to highlight the importance of regular practice of physical activity for the prevention of diseases coronary arterio.

KEYWORDS: Level of physical activity, health, diseases coronary arterio.

PHYSIQUE NIVEAU D'ACTIVITÉ MATIÈRE DE SANTÉ LE CAMPUS DE LA SANTE DES EMPLOYES UESPI TORQUATO NETO

RÉSUMÉ

Le but de cette étude était de relier le niveau d'activité physique avec l'index en surpoids et le risque de contracter des maladies artério coronarienne des employés du campus Torquato Neto UESPI. Nous avons mené une étude transversale qui a inclus 30 employés âgés entre 20 et 60 ans qui ne sont pas en phase de réhabilitation neuro-orthopédique dans la ville de Teresina - PI. Utilisation de l'International Physical Activity Questionnaire (IPAQ) version courte évalué le niveau d'activité physique. Les mesures anthropométriques ont été vérifiées IMC, tour de taille et les niveaux de la santé a été mesuré la pression artérielle et la fréquence cardiaque. Le traitement des données et l'analyse statistique ont été effectuées en utilisant le logiciel SPSS version 18.0. Nous avons utilisé des statistiques descriptives, ainsi que des taux de prévalence (PR) et les intervalles de confiance à 95% (IC à 95%) pour analyser le niveau de relation entre l'activité physique et la santé. Le critère de signification était

de 5%. Les femmes représentaient 53,3% de la population de l'étude et les hommes 46,7%. Le résultat a été que de 46,7% des activités de pratique des employés irrégulièrement, par rapport à la santé montre que 53,3% sont avec la masse corporelle normal, 46,7% ayant une pression artérielle normale et 63,3% avec le tour de taille normal. Ainsi conclure que l'étude n'a montré aucune différence significative entre les Très actif / actif et actif irrégulière éventuellement l'échantillon était petit et hétérogène ont été super. Ce qui ne manque pas de souligner l'importance de la pratique régulière de l'activité physique pour la prévention des maladies artério coronarienne.

MOTS-CLÉS: Niveau d'activité physique, la santé, artério coronarienne maladies.

NIVEL DE ACTIVIDAD DE LAS PERSONAS EN RELACIÓN CON EL CAMPUS DE LA SALUD DEL EMPLEADO UESPI TORQUATO NETO

RESUMEN

El objetivo de este estudio fue relacionar el nivel de actividad física con el índice de sobrepeso y el riesgo de contraer enfermedades arterio coronarianas de empleados del campus Torquato Neto UESPI. Se realizó un estudio transversal que incluyó 30 trabajadores de edades comprendidas entre 20 y 60 años que no fueron sometidos a la rehabilitación neuro-ortopédica en la ciudad de Teresina - PI. Uso de la Actividad Física Cuestionario Internacional (IPAQ) versión corta evaluó el nivel de actividad física. Las mediciones antropométricas se comprobó la presión arterial IMC, se midió la circunferencia de la cintura y los niveles de salud y la frecuencia cardíaca. Procesamiento de datos y análisis estadísticos se realizaron utilizando el software SPSS, versión 18.0. Se utilizó estadística descriptiva, así como razón de prevalencia (RP) y los intervalos de confianza del 95% (IC del 95%) para analizar el nivel de relación entre la actividad física y la salud. El criterio de significancia fue del 5%. Las mujeres constituían el 53,3% de la población estudiada y los hombres el 46,7%. El resultado fue que 46,7% de las actividades de los empleados de práctica irregular, en comparación con la salud muestra que 53,3% son con la masa corporal normal, 46,7% con presión arterial normal y 63,3% con circunferencia de la cintura normal. Por lo tanto la conclusión de que el estudio no mostró diferencias significativas entre Muy activo / activo y activo irregular, posiblemente, la muestra fue pequeño y heterogéneo han sido genial. Lo que no deja de resaltar la importancia de la práctica regular de la actividad física para la prevención de enfermedades arterio coronaria.

PALABRAS CLAVE: Nivel de actividad física, la salud, las enfermedades arterio coronaria.

NÍVEL DE ATIVIDADE FÍSICA RELACIONADA À SAÚDE DE COLABORADORES DA UESPI CAMPUS TORQUATO NETO

RESUMO

O objetivo deste estudo foi relacionar o nível de atividade física com o índice de sobrepeso e o risco de contrair doenças arterio coronarianas de colaboradores da UESPI do campus Torquato Neto. Realizou-se um estudo transversal que compreendeu 30 funcionários com idade entre 20 e 60 anos, que não estivessem passando por reabilitação neuro-ortopédica, na cidade de Teresina – PI. Por meio do Questionário Internacional de Atividade Física (IPAQ) versão curta avaliou-se o nível de atividade física. Nas avaliações antropométricas foi verificado IMC, Circunferência da cintura e em níveis de saúde foi aferida a Pressão arterial e a Freqüência Cardíaca. O processamento de dados e a análise estatística foram realizados através do programa SPSS®, versão 18.0. Utilizou estatística descritiva, como também Razão de Prevalência (RP) com intervalo de confiança de 95% (IC95%) para analisar a relação de nível de atividade física e saúde. O critério de significância foi de 5%. As mulheres constituíram 53,3% da população estudada e os homens 46,7%. O resultado obtido foi que 46,7% dos funcionários praticam atividades irregularmente, comparando com a saúde mostra que 53,3% estão com massa corpórea normal, 46,7% com a pressão arterial normal e 63,3% com a circunferência da cintura normal. Concluindo assim que o estudo não mostrou significância entre Muito ativo/Ativo e Irregularmente ativo, possivelmente a amostra ter sido pequena e a heterogenia ter sido grande. O que não deixa de evidenciar a importância da pratica regular de atividade física para a prevenção das doenças arterio coronarianas.

PALAVRAS-CHAVE: Nível de atividade física, saúde, doenças arterio coronarianas.