46 - PHYSICAL ACTIVITY AND NUTRITION AS A MAJOR FACTOR IN CONTROL OF BODY COMPOSITION

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INTRODUCTION

Physical activity and nutrition are topics being discussed constantly in all media, with relevant importance because they are directly associated with health. One need only tap into the television to hear things like "come to the gym to get in shape" or "know the food of longevity". With this in mind, this research points to the importance of physical activity and nutrition as major factors in controlling body composition.

Taking into account these factors, the objective of this research is to clarify important issues addressed by several authors, related to physical activity and nutrition, overweight and requirements for the control of body composition in normal limits. With this work we have in order to deepen their knowledge in this area of research and answer some questions such as: physical activity actually influences the body composition of an individual? What kind of power this person? People who do not practice physical activity can also track your body composition?

Given the above, although there is much literature in the field of physical activity, nutrition and body composition, there is need to develop scientific research seeking more debate on the subject, in order to support future research to clarify and explain factors intrinsic to the subject in question.

NUTRITION, PHYSICAL ACTIVITY AND BODY COMPOSITION: A NECESSARY DEBATE.

Currently, the society in which we live, grows increasingly sedentary lifestyle, and this is due to several factors such as appliances that reduce our efforts at home and at work, motorized transport and recreational activities that are becoming more sedentary, as cinema, theater, video games, etc.. (Gentil, 2010). In this perspective, if we make an analogy to earlier times, where man, played to survive several activities that consume a lot of energy to hunt, run, swim, climb trees, and from starting, there was much food shortages, for man primitive need to walk miles for food or spoon, today we know that the reality is very different since the industrial revolution and the globalization life has become easier and sedentary lifestyle has acquired alarming numbers.

Given this situation, the definition of physical activity in the Caspersen et al. apud Guiselini (2004) presents itself as any bodily movement produced by skeletal muscles and therefore voluntary, resulting in an energy expenditure greater than resting levels, has an important role in the maintenance of body composition, which for Corbin et al apud Guiselini (2004) is the relative percentage of muscle, fat, bone and other tissues from which the body is composed.

Thus, body composition is also influenced by diet and it plays a key role in the acquisition and maintenance of a functioning organism. With this assumption, we can say that nutrition has a direct influence on health, it may be beneficial or harmful, it will depend on the quality of the diet, the daily amount, form of intake, etc. According to Hickson and Wolinsky (2002, p. 02) nutrition can be understood as:

the sum of the processes of ingestion and conversion of food substances into nutrients that can be used to maintain organ function. These processes involve nutrients that can be used in energy (carbohydrates, lipids and proteins) for the construction and repair of tissues (proteins, lipids and minerals), construction and maintenance of the skeletal system (calcium, phosphorus and protein) and to regulate physiology of the body (vitamins, minerals, lipids, proteins and water).

To get the body composition of an individual, it is necessary to apply a physical evaluation and currently there are protocols that allow us to run it. These protocols have a role to assist the assessor to obtain results on the condition evaluated as a percentage of fat, metabolic rate, circles, among others. The protocols are constantly challenged and updated to become more accurate, because for Rash apud Son (2003, p. 26) "Assessment is a process that allows us to objectively or subjectively, comparing criteria and determine the evolution of a person or group in a time line, its advances and setbacks. "

Knowing this, we can affirm the importance of physical activity accompanied by nutrition, maintenance of body composition of the individual. The type of physical activity, intensity, duration and frequency with which one practices also influence the process of reducing and maintaining the percentage of fat, but also to strengthen the muscle, in view of the research cited by Gentle (2010) performed by Glowacki et al, (2004) and Smutok et al, (1993), which reported superiority of aerobic exercise, as other research cited by Broeder et al, (1997), Lee et al, (1992) and Goldberg et al, (1994) argue anaerobic exercise due to the significant increase in muscle mass, and reduced levels of fat due to the increase in resting metabolism.

In this context, to reinforce the theory that it is not possible to maintain a normal body composition, with only one form of physical activity, or that this is not accompanied by a balanced diet, use the thought of Guedes and Guedes (2003, p. 124), which tells us that *programs for weight control that promise results without the involvement of low-calorie diets or increase physical activity should certainly be ineffective in the medium and long term as well as putting at risk the functioning of the body.*

Through knowledge of much of the population about the importance of physical activity and nutrition to health, culture, the body has grown considerably, this can be found on investments in facilities, academies, development and qualification of dietary supplements aimed at professionals this audience. However, that concern the population in relation to nutrition and physical activity often is not related to health but aesthetics, this prioritization of aesthetics leads to a neglect of health, leading people to develop diseases such as anorexia, vigorexia well and chronic muscle injuries caused by excessive exercise in search of a perfect body (GUISELINI, 2004). In contrast, sedentary lifestyles cause various diseases, which in most cases are related to obesity. Thus, "the excess fat and body weight is a serious medical condition that reduces life expectancy and threatens its quality" (Guedes, Guedes, 2003, p. 30). Among various diseases caused by obesity, we can mention some like type II diabetes, hypertension, high cholesterol, pulmonary dysfunction, among others, and the excess weight in fat causes overloading of the spine and joints, leading to deviations, inflammation and injury the same.

MATERIALS AND METHODS

The study was based on qualitative research conducted through a literature review of renowned authors to speak about the issue at hand, as Paul Gentil (2010), Guiselini Mauro (2004), Guedes and Guedes (2003) seeking to perform an analysis of data and correlate them with those obtained through a field survey of a quantitative, aiming through the statistical method referenced by Lakatos and Marconi (2007), investigate the relationship between body composition and physical activity level and diet quality.

The data obtained in field research were collected in the Regional Public Hospital in the municipality of Altamira Trans / PA. The choice of hospital was in the interest of the situation of the body composition of individuals who work in healthcare. To get the information initially apply a form consisting of 15 questions, 12 open and 03 closed, validated by the Center for Continuing Education (NEP) of the Hospital, then perform tests with the physical assessments of the same employees, who were chosen according to the interest of collaboration in contributing to the study. The forms and physical assessments were applied on 30 September and 3 October 2011, in shifts morning, afternoon and evening, with 77 employees, 30 were male (38.97%) and 47 females (61.03%), aged between 20 and 48 years.

To obtain the percentage of fat of the subjects used the protocol of Jackson and Pollock (1978) of 7 skinfold (triceps, chest, mid axillary, sub scapular, supra-Iliac, abdominal, thigh). In this research, we also applied the rate of fat distribution relationship between the perimeters of the abdomen and hip (IRAQ) proposed by Bjomntorp (1986). The above methods are found in the work of the Son (2003). The materials used in this study were 02 clinical caliper, 01 digital scales, measuring tapes 02, 01 Estadiometer, 02 pens, 77 forms, 02 scientific calculators, notebooks for notes 02, 01 computer.

RESULTS AND DISCUSSION

In this research we found a high level of physical inactivity as between the hospital staff, as only 35.07% of respondents reported performing regular physical activity, while 64.93% said they did not do any exercise. Through this information we can attest to the data found in Kind (2010) referenced in the literature. Asked why not exercise got the following responses: lack of interest (15.30%), lack of time (29.58%), lack of time coupled with the lack of interest (36%), a disease that prevents you from practice (6%). It may be noted that the majority of respondents justified the sedentary lifestyle because we do not have time for regular physical activity, because the work they subtract most of their time and consume a great deal of energy, causing illness.

Among practitioners, we see that football, walking and fitness activities are preferably to be practiced with 33.33%, 25.92% and 22.22% respectively. The objectives in the same exercise are: aesthetic (18.51%), health and leisure, both with 40.74% of the total. The weekly frequency of the practitioners is mainly one and three days a week, with 29.62% and 33.33% respectively. Respondents were also questioned about whether or not accompanied by a professional physical education in their practices, 22.22% answered yes and 77.78% reported that they have no professional supervision. The preference of the respondents are related to different goals, people seeking leisure practice usually some kind of sport like football, as hikers and fitness goals has focused on the aesthetics and health. Given this information we can hardly assume that these people will have significant results by exercising in a disorderly fashion, exercising infrequently and still without professional supervision.

When asked about their eating, which included: 14.28% had consulted a nutritionist and 85.72% have never had this professional assessment by this result justifies the fact of having a poorly balanced diet, therefore, asked the number of meals eaten each day we get: two 6.49%, 19.48% three, four 42.85%, 15.58% five, six and eight 1.29% 14.28% performed at home (29, 88%), work (9.09%), restaurants and snack bars (2.59%) or both (58.44%).

Front of the above, one can observe that most employees are fed at home and at work, this fact might show a better quality of food in relation to the same, but the lunch break is short so that prefer foods how to prepare quick, fried foods, canned foods and snapshots.

We know that overwork can cause the disease, before it became a very important question about the respondents who have diseases, we found: 2.59% hypertension, diabetes 1.29%, 5.19% spinal problems vertebral (deviations, hernias, inflammation), joint problems 3.89%, 2.59% cardiopulmonary conditions, other diseases 16.88% and 67.53% reported not having any disease.

Through the physical assessment tests, collect the fat percentage of assessed, just with Iraq, which is the index used to assess the risk of an individual to acquire some kind of disease of localized fat in the abdominal region, this ratio for men to be equal to or less than 0.95, and 0.80 for women. We found that 45.45% have some risk of acquiring diseases such as hypertension, diabetes-mellitus, arrhythmias, etc.. while 54.55% have no risk.

To make the classification of the percentage of fat, had based Willmore cited Pollock and Son (2003). Among all the public evaluated, only 9.09% were excellent with fat percentage, 22.07% obtained the percentage classified as good, 3.89% were above average, as were 20.87% on average, 14 28% were rated below average, with the same 14.28% were classified as bad a percentage, and 15.58% were in very bad percentage. Regarding the fat percentage of practicing physical activities, we find that 11.11% are at an optimal level, 33.33% good, 7.40% above average, average 14.81%, 11.11% below average, 18.51% bad, very bad, and 3.70%. Among non athletes will realize the following values: Excellent: 8% Good: 16% above average: 10%, mean: 16% below average: 16%, poor: 14% and very poor: 20% .

We can see that practitioners assessed in regular physical activity have a relatively high percentage of fat, yet the results are lower than those who do not. The figures show that employees, while exercising, do not achieve significant results by several factors, for example, have little professional guidance, cannot sustain a feed healthy and balanced, they work infrequently, among others. All these factors have been referenced in bibliographical study being evidenced in the work of Guedes and Guedes (2003), in relation to weight control programs that promise results without the involvement of low-calorie diets and exercise.

Even considering these factors, we find that levels of body fat percentage are lower in people who practice physical exercise than sedentary. Given this reinforce the theory that if these people while exercising, tracking had nutritionists and fitness trainers, who prepare workouts and diets to follow, probably would get more significant results, as well as those found in studies by Glowacki et al (2004) and Lee et al (1992), cited by Gentle (2010).

CONCLUSION

Through this research we found a considerable level of individuals with high fat percentage, such evidence is justified by the high degree of inactivity, not to mention the large number of people who are at risk of contracting diseases related to localized fat in the abdominal region, that is, need to implement an exercise program for that audience, working in a public health center, but who for various reasons do not give enough attention to their own health.

It was also found that employees are aware of the risk that excess fat can cause health, yet the vast majority of the

public respondent does not give due importance to food and physical exercise and justify it to fatigue and lack of time when in fact what is lacking is an even better organization at the time these people so that they can enjoy a program of regular physical activity and follow a balanced diet.

We found evidence of data obtained through field research with the literature, because a sedentary lifestyle leads many individuals to acquire an outside body composition of healthy controls and that exercise combined with good nutrition directly influences the body composition of an individual and these should be incorporated into the routine of all who wish to have a good quality of life.

It is a necessary dietary reeducation of the research participants and encourage a practice of physical activities, thus improving the health of these people, fighting the sedentary lifestyle and changing that reality.

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PHYSICAL ACTIVITY AND NUTRITION AS A MAJOR FACTOR IN CONTROL OF BODY COMPOSITION

ABSTRACT

Physical activity and nutrition have been addressed in the media with relevant importance because they are directly associated with health. The objective of this research is to clarify important factors related to physical activity and nutrition requirements as prevalent in the control of body composition. This study was based on a quantitative and qualitative research, through the statistical method in order to verify the relationship between body composition and physical activity level and diet quality. Data from the field study were collected in Regional Public Hospital in the municipality of Altamira Trans / PA. We found a high level of physical inactivity as between the hospital staff, as only 35.07% practice regular physical activity, while 64.93% do not. We found evidence from the survey data field with the literature, because a sedentary lifestyle leads many individuals to acquire an outside body composition of ideal standards, and exercise combined with good nutrition directly influence the body composition of an individual.

KEYWORDS: Physical Activity, Nutrition and Body Composition.

L'ACTIVITÉ PHYSIQUE ET LA NUTRITION COMME UN FACTEUR IMPORTANT DANS LE CONTRÔLE DE LA COMPOSITION CORPORELLE

RÉSUMÉ

L'activité physique et la nutrition ont été abordées dans les médias avec l'importance pertinents parce qu'ils sont directement liés à la santé. L'objectif de cette recherche est de clarifier les facteurs importants liés à l'activité physique et les besoins nutritionnels aussi répandue dans le contrôle de la composition corporelle. Cette étude a été basée sur une recherche quantitative et qualitative, à travers la méthode statistique afin de vérifier la relation entre la composition corporelle et du niveau d'activité physique et qualité de l'alimentation. Les données de l'étude sur le terrain ont été recueillies dans les hôpitaux publics régionaux dans la municipalité d'Altamira Trans / PA. Nous avons trouvé un niveau élevé d'inactivité physique entre le personnel de l'hôpital, puisque seulement 35,07% de pratique régulière d'activités physiques, tandis que 64,93% n'en ont pas. Nous avons trouvé des preuves à partir du champ de données d'enquête avec la littérature, parce que la sédentarité entraîne de nombreuses personnes d'acquérir une composition corporelle en dehors des normes idéales et l'exercice combiné à une bonne nutrition influence directe sur la composition corporelle d'un individu.

MOTS-CLÉS: physique activité, nutrition et composition du corps.

LA ACTIVIDAD FÍSICA Y LA NUTRICIÓN COMO UN FACTOR IMPORTANTE EN EL CONTROL DE LA COMPOSICIÓN CORPORAL

RESUMEN

La actividad física y la nutrición se han abordado en los medios de comunicación de importancia relevante, ya que están directamente relacionados con la salud. El objetivo de esta investigación es esclarecer los factores importantes relacionados con la actividad física y los requisitos de nutrición tan frecuente en el control de la composición corporal. Este

estudio se basó en una investigación cuantitativa y cualitativa, a través del método estadístico con el fin de verificar la relación entre la composición corporal y nivel de actividad física y calidad de la dieta. Los datos del estudio de campo se recogieron en el Hospital Regional del público en el municipio de Altamira Trans / PA. Hemos encontrado un alto nivel de inactividad física entre el personal del hospital, como la práctica sólo 35,07% la actividad física regular, mientras que 64,93% no lo hacen. No se encontraron pruebas de campo de datos de la encuesta con la literatura, ya que el sedentarismo lleva a muchas personas a adquirir una composición corporal fuera de los estándares ideales, y el ejercicio combinado con una buena alimentación influye directamente en la composición corporal de un individuo.

PALABRAS CLAVE: Actividad Física, Nutrición y composición del cuerpo.

ATIVIDADE FÍSICA E NUTRIÇÃO COMO FATORES PREPONDERANTES NO CONTROLE DA COMPOSIÇÃO CORPORAL

RESUMO

A atividade física e alimentação vêm sendo abordados nos meios de comunicação com relevante importância, pois estão associados diretamente com a saúde. O objetivo desta pesquisa é esclarecer fatores importantes relacionados à atividade física e nutrição, como requisitos preponderantes no controle da composição corporal. Este estudo teve como base uma pesquisa quanti-qualitativa, visando através do método estatístico, verificar a relação entre a composição corporal e o nível de atividade física e qualidade da alimentação. Os dados obtidos no estudo de campo foram coletados no Hospital Regional Público da Transamazônica no município de Altamira/PA. Verificamos um grande nível de sedentarismo entres os funcionários do hospital, pois apenas 35,07% praticam atividades físicas regularmente, enquanto 64,93% não praticam. Constatamos evidências entre os dados da pesquisa campo com a bibliográfica, pois, o sedentarismo leva muitos indivíduos a adquirirem uma composição corporal fora dos padrões ideais, e os exercícios físicos aliados a uma boa alimentação influenciam diretamente na composição corporal de um individuo.

PALAVRAS CHAVE: Atividade física, nutrição e composição corporal.