124 - AUTONOMY AND MORPHOLOGICAL PROFILE OF ELDERLY RELIGIOUS PEOPLE OF JACAREPAGUÁ

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INTRODUCTION

According to World Health Organization (WHO), population aging is occurring worldwide, causing individuals aged 60 years or more to reach the amount of one billion two hundred million people around the world in the year 2025 (WHO , 2001). In Brazil, the elderly population is the fastest growing age group, and is now nearly nineteen million people, with the expectation comprising thirty-two million elderly in 2025 (IBGE, 2008). Census data for 2004 show that the highest concentrations of elderly are presented in South and Southeast regions, respectively, which show the lowest fertility rates in the country (IBGE, 2008).

Aging can be characterized under the biological aspect, by the gradual loss of the body's ability to maintain homeostasis (FARINATI, 2008; TORTORA, GRABOWSKI, 2002). The reduction in capacity results from the physiological influence of a variety of environmental factors coupled with the genotype of each individual, then presenting a particular way in different organisms (RASO, 2007).

From a social standpoint, the elderly suffer from discrimination and determination of stereotypes, a phenomenon called ageism (FARINATI, 2008). Knowing that many physical and emotional factors influence the possibility of making a better quality of life in old age, these discriminatory behavior can psychologically affect the elderly, because these individuals already have reduced their production capacity, a fact most evident in Western capitalist countries, and such attitudes lead them to feel even more worthless ((FARINATI, 2008; XAVIER et al, 2003).

The aging process accompanies various physiological changes related to cardiorespiratory and neuromuscular function and body composition (FARINATI, 2008; TORTORA, GRABOWSKI, 2002). The decline in maximal heart rate, decreased myocardial contractile force and reduced cardiac output associated with the subtraction of the fall of muscle generate maximum oxygen consumption (VO2 max) by about 10% per decade (FARINATI, 2008; TORTORA, GRABOWSKI, 2002; MACARDLE et al, 1999). This decline in VO2 max limits the ability of older people perform normal activities comfortably, causing a process of gradual reduction of the level of physical activity, which leads to increasing reduction of cardiorespiratory fitness and hence the difficulty of carrying out activities of daily living (ADLs) (POWERS, HOWLEY, 2004). The increase in systolic blood pressure, due to loss of extensibility of the arteries, elevated LDL and decreased HDL are also important cardiovascular changes (TORTORA, GRABOWSKI, 2002).

The neuromuscular fitness is impaired to the extent that is less able to force production and power output of approximately 6% per decade of life (FARINATI, 2008; TORTORA, GRABOWSKI, 2002; RASO, 2007; MACARDLE et al, 1999). According to Fleck and Kraemer (2005), the fact is due to decrease in size and number of muscle fibers, is the last cell death or derived by a process of denervation (loss of contact with the muscle fibers of the nervous system). The reduction in the proportion of type II muscle fibers compared to type I, due to loss of high-threshold motoneurons, generate lower anaerobic capacity (FARINATI, 2008; TORTORA, GRABOWSKI, 2002). The loss of muscle mass, called sarcopenia, coupled with the decrease in the number of synaptic contacts and nerve conduction velocity (demyelination) causes slowing of voluntary movements of the elderly (TORTORA, GRABOWSKI, 2002; MACARDLE et al, 1999). Sarcopenia directly involves the individual's ability to effectively carry out activities of daily living (ADLs), and significantly influence basal metabolic rate and maximal oxygen consumption (RASO, 2007; FLECK, KRAEMER, 2005). The practice of strength training slows the process of loss of muscle mass more gradually, while maintaining or improving the ability to perform activities of daily living (ADLs) (RASO, 2007; FLECK, KRAEMER, 2005; MACARDLE et al, 1999; POWERS, HOWLEY, 2004).

The flexibility of the individual also suffers, since the lost muscle tissue is replaced by fibrous connective tissue and fat, and the joint capsule and the muscular fascia become more rigid due to the increased amount of collagen (FARINATI, 2008; MACARDLE et al, 1999). According to Howley and Franks (2007), the loss of flexibility can also be caused by inactivity from aging. With advancing age there is a decrease of individuals' participation in physical activity (MACARDLE et al, 1999). Another factor that contributes to the limitation of movement in the elderly is the lowest production of synovial fluid, damaging the lubrication of the joints (HALL, 2005; FARINATI, 2008).

Body composition is particularly affected by the reduction of lean body mass, resulting in bone loss, muscle and decrease the amount of water, besides the increase in total body fat due to decreased resting metabolic rate (muscle loss) and level of physical activity (FARINATI, 2008). There is also a decline in stature of the elderly, due to dehydration of the intervertebral discs, as well as the increased incidence of pathological kyphosis generated by the weakening of back muscles, the senile osteoporosis and osteoarthritis of the vertebral joints (FARINATI, 2008; HALL, 2005).

Regular physical activity provides significant health benefits, for example, reducing the risk of cardiovascular disease, type II diabetes and osteoporosis, as well as aid in weight control and promoting psychological well-being (OMS, 2010; MACARDLE et al, 1999). Also according to the American College of Sports Medicine (ACSM) and American Heart Association (AHA), regular physical activity reduces the risk of hypertension, obesity, colon cancer and chest, stroke, depression, anxiety and falls ((NELSON et al, 2008). Falls lead the elderly to the physical and emotional injuries that commonly lead to his disability and is the fifth leading cause of death in this population due to complications generated (PEEL et al, 2008).

The new recommendation from ACSM and AHA indicates the regular practice of aerobic exercise, strength, flexibility and balance as a key to healthy aging (NELSON et al, 2008).

The growth of the elderly population in Brazil, especially in the South and Southeast, has brought the need for the development of specialized services for this population (IBGE, 2004; DE ASSIS et al, 2004). Therefore, it must be thoroughly versed in the special needs of this group, so that efficient designs are created that actually promote better quality of life for these patients.

The objective of this study is to correlate age and morphological profile with the autonomy of elderly patrons of the Pastoral of the Third Age of the studied area, in Rio de Janeiro.

MATERIALS AND METHODS

A descriptive, quantitative and qualitative character, sought to profile and morphology of the autonomy of elderly patrons of the Third Pastoral Jacarepaguá (THOMAS E NELSON, 2002). The sample consisted of 36 elderly women, apparently healthy, with a mean age of 72.18 ± 5:37, 1:54 ± 0.06 m height, body mass 66.44 ± 7.7 kg, systolic blood pressure 132.13 ± 13.8 and diastolic blood pressure 77.5 ± 9.77.

The database consisted of anthropometric measurements of height (Estadiometer Sanny Scientific), body mass (Balance Welmy), waist and hip circumferences (Trena flexible metal Sanny) and blood pressure (sphygmomanometer Premium).

For the evaluation of functional autonomy, the participants were submitted to the GDLAM (DANTAS, VALE, 2004), using the tests to get up and walk (C10M), up from a sitting position (LPS) and take the dress and shirt (VTC).

All participants were informed beforehand about the purpose of study and the procedures they would be submitted and signed an informed consent.

Was used for data analysis descriptive statistics, consisting of mean and standard deviation.

RESULTS

The 36 participants had an average WHR of 0.86 + 0.06, classifying the group as the risk of developing a disease just above the boundary between moderate risk and high risk. Performing a classification of the group in relation to degrees of risk, 38.24% were classified at high risk of developing diseases, 29.41% at moderate risk, 23.53% with very high risk and only 8.82% with a degree of low risk for developing diseases. Since when performing the calculation of BMI, we found an average of 28.14 + 3.56, classifying the group of overweight participants, however, 35.29% presented levels of obesity, overweight 44.12% and 20.59% within the normal range. But when seen the percentage of fat, the participants had an average of 23.59 + 4.30, with the group, classified as normal, but 29.41% are classified as fat percentage above normal and 5.88 % below normal. None of the participants was rated with a tendency to obesity.

When realized test them handgrip using a dynamometer obtained mean 13.52 + 4.02 Kgf for left hand and 14.42 + 6.00 Kgf for hand right where most (67.65% for left hand and 76.47% for right hand) ranked himself weak.

In the assessment of flexibility using the Wells Bench found the average was 25.37 + 8.25 cm, classifying them as moderate flexibility, although the 10 participants (29.41%) are classified with average flexibility, other 7 (20.59%) failed testing.

When performing tests of autonomy GDLAN protocol, the participants reached the following results: C10M to an average of 7.17 + 1.51 seconds, which ranked the group as weak for having longer than 7.09 segundos ; LPS in a time of 11.86 + 3.37 seconds and are also classified as weak (> 11.19 sec), VTC and the average obtained was 12.10 + 4.05 seconds, as normal (13 , 13 - 11.62) (Figure 2).

All participants reported performing any physical activity during the week, but only nine participants (26.47%) specified that the activity carried on where these participants, 14.71% attended water aerobics, fitness classes 11.76% located other classes 11.76% 11.76% more stretching and ballroom dancing lessons. Also cited were the weight (2.94%) and race (2.94%).

CONCLUSION AND RECOMMENDATIONS

While performing routine physical activity, the data showed that the group was in a range of risk for cardiovascular disease, as well as metabolic, something already predisposed the same age. Their assessments of functional autonomy also showed difficulties in performing simple movements of the day-to-day, which can lead to a concern, even though something in keeping with the age. Greater attention may be needed for individuals of student age for health promotion and performance of activities of daily habit.

Studies with a larger number of individuals in different regions and social classes are needed for diversity at the national as well as an anthropological analysis of the analyzed group that may elucidate the findings.

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AUTONOMY AND MORPHOLOGICAL PROFILE OF ELDERLY RELIGIOUS PEOPLE OF JACAREPAGUÁ

ABSTRACT

Aging can be characterized by the gradual loss of the body's ability to maintain homeostasis (Farinati, 2008). According to WHO (2001), population aging is occurring worldwide, causing individuals aged 60 years or more to reach the amount of one billion two hundred million people around the world in the year 2025 (WHO, 2001). O processo de envelhecimento acompanha diversas alterações fisiológicas, relativas às funções cardiorrespiratória e neuromuscular e à composição corporal (TORTORA, GRABOWSKI, 2002). Regular physical activity provides health benefits, for example, reducing the risk of cardiovascular disease, type II diabetes and osteoporosis, as well as aid in weight control and promoting psychological well-being (WHO, 2010; MacArdle et al, 1999). The objective of this study is to correlate age and morphological profile with the autonomy of elderly patrons of the Third Age Pastoral Jacarepaguá (RJ). A descriptive, quantitative and qualitative character, sought to profile and morphology of the autonomy of elderly 36. The 36 participants had average WHR 0.86 + 0.06 + 3.56 BMI of 28.14, ranking the group of overweight participants. When performing tests of autonomy GDLAN protocol, the participants reached the following results: C10M to an average of 7.17 + 1.51 seconds; LPS in a time of 11.86 + 3.37 seconds and VTC average obtained was 12.10 + 4.05 seconds. The data showed that the group was in a range of risk for disease and their assessments of functional autonomy demonstrated difficulty in performing simple movements of the day to day. Greater attention may be needed for individuals of student age for health promotion and performance of activities of daily habit.

KEYWORDS: Physical activity, functional autonomy; morphological profile

RÉSUMÉ

Le vieillissement peut être caractérisée par la perte progressive de la capacité du corps à maintenir l'homéostasie (Farinata, 2008. Selon l'OMS (2001), vieillissement de la population est un phénomène mondial, causant des individus âgés de 60 ans ou plus pour atteindre les quantitatifs un milliard deux cents millions de personnes dans le monde entier dans les années 2025 (OMS, 2001). Le processus de vieillissement accompagne divers changements physiologiques liés à la fonction cardiorespiratoire et neuromusculaire et la composition corporelle (Tortora, Grabowski, 2002). L'activité physique régulière procure des avantages de santé, par exemple, réduire le risque de maladies cardiovasculaires, diabète de type II et l'ostéoporose, ainsi que l'aide au contrôle du poids et de promouvoir bien-être psychologique (OMS, 2010; MacArdle et al, , 1999). L'objectif de cette étude est de corréler l'âge et le profil morphologique avec l'autonomie des personnes âgées mécènes du Troisième Âge Pastorale Jacarepaguá (RJ). Un descriptif, caractère quantitatif et qualitatif, a cherché à le profil et la morphologie de l'autonomie des personnes âgées 36. Les 36 participants ont eu en moyenne 0,86 + 0,06 WHR + 3,56 IMC de 28,14, le classement du groupe de participants en surpoids. Lorsque vous effectuez des tests d'autonomie GDLAN protocole, les participants sont parvenus aux résultats suivants: C10M à une moyenne de 7,17 + 1,51 secondes; LPS dans un temps de 11,86 + 3,37 secondes et le VTC moyenne obtenue était 12,10 + 4,05 secondes. Les données ont montré que le groupe était dans une gamme de risques de maladies et de leurs évaluations de l'autonomie fonctionnelle démontré la difficulté à effectuer des mouvements simples du quotidien. Une plus grande attention pourrait être nécessaire pour les individus d'âge des étudiants pour la promotion de la santé et la performance des activités de l'habitude quotidienne.

MOTS-CLÉS: L'activité physique, l'autonomie fonctionnelle; profil morphologique

RESUMEN

Envejecimiento se caracteriza por la pérdida gradual de la capacidad del cuerpo para mantener la homeostasis (Farinati, 2008). Según la OMS (2001), el envejecimiento de la población está ocurriendo en todo el mundo, haciendo que las personas mayores de 60 años o más para llegar a la cantidad de mil doscientos millones de personas en todo el mundo en el año 2025 (OMS, 2001). El proceso de envejecimiento acompaña a diversos cambios fisiológicos relacionados con la función cardiorrespiratoria y neuromuscular y la composición corporal (Tortora, Grabowski, 2002). La actividad física regular proporciona beneficios para la salud, por ejemplo, reduciendo el riesgo de enfermedades cardiovasculares, diabetes tipo II y osteoporosis, así como la ayuda en el control del peso y promover el bienestar psicológico (OMS, 2010; MacArdle et al, 1999). El objetivo de este estudio es correlacionar la edad y el perfil morfológico con la autonomía de los patrones mayores de la Tercera Edad Jacarepaguá Pastoral (RJ). Un carácter descriptivo, cuantitativo y cualitativo, buscó el perfil y la morfología de la autonomía de las personas mayores de 36. Los 36 participantes tuvieron en promedio 0.86 RHO + 0.06 + 3.56 IMC de 28.14, ocupando el grupo de participantes con sobrepeso. Cuando se realicen pruebas de autonomía GDLAN protocolo, los participantes llegaron a los siguientes resultados: C10M a un promedio de 7,17 + 1,51 segundos; LPS en un tiempo de 11.86 + 3.37 segundos y VTC promedio obtenido fue de 12,10 + 4,05 segundos. Los datos mostraron que el grupo estaba en un rango de riesgo de la enfermedad y sus evaluaciones de la autonomía funcional demostrada dificultad para realizar movimientos simples del día a día. Una mayor atención puede ser necesaria para las personas de edad de los estudiantes para la promoción de la salud y el desempeño de las actividades de hábito diario.

PALABRAS CLAVE: La actividad física, la autonomía funcional; perfil morfológico

PERFIL MORFOLÓGICO E AUTONOMIA DE IDOSOS FREQÜENTADORES DA PASTORAL DA TERCEIRA IDADE DE JACAREPAGUÁ

RESUMO

O envelhecimento pode ser caracterizado pela perda gradual da capacidade do organismo de manter a homeostase (FARINATI, 2008). Segundo a OMS (2001), o envelhecimento da população vem ocorrendo em escala mundial, levando os indivíduos com 60 anos ou mais a atingir o quantitativo de um bilhão e duzentos milhões de pessoas em todo o mundo no ano de 2025 (OMS, 2001). O processo de envelhecimento acompanha diversas alterações fisiológicas, relativas às funções cardiorrespiratória e neuromuscular e à composição corporal (TORTORA, GRABOWSKI, 2002). A atividade física regular proporciona benefícios sobre a saúde como, por exemplo, redução do risco de doenças cardiovasculares, diabetes tipo II e osteoporose, além do auxílio no controle de peso e promoção de bem-estar psicológico (OMS, 2010; MACARDLE et al, 1999). O objetivo do presente estudo é correlacionar a idade e o perfil morfológico com a autonomia de idosos freqüentadores da Pastoral da Terceira Idade de Jacarepaguá (RJ). A pesquisa descritiva, de caráter quantitativo e qualitativo, buscou traçar o perfil da autonomia e morfologia de 36 idosas. As 36 participantes tinham RCQ médio de 0,86 + 0,06, IMC de 28,14 + 3,56, classificando o grupo de participantes com sobrepeso. Ao se realizar os testes de autonomia do protocolo GDLAN, as participantes alcançaram os seguintes resultados: para o C10m uma média de 7,17 + 1,51 segundos,; no LPS um tempo de 11,86 + 3,37 segundos; e no VTC a média obtida foi de 12,10 + 4,05 segundos. Os dados demonstraram que o grupo se encontrava em uma faixa de risco para desenvolvimento de doença e suas avaliações de autonomia funcional demonstraram dificuldades para realizar simples movimentos do dia-a-dia. Uma maior atenção talvez seja necessária aos indivíduos da faixa etária estudada para promoção de saúde e melhor desempenho de suas atividades de hábito diário.

PALAVRAS-CHAVE: Atividade física; autonomia funcional; perfil morfológico