

**30 - LEVEL OF PHYSICAL ACTIVITY OF OLDER OF MOSSORÓ-RN CITY**MARCOS SAULO PATRÍCIO SOUSA<sup>1</sup>KALIANE LOPES OLIVEIRA<sup>2</sup>DANIELE DOS SANTOS BESSA<sup>3</sup>HIDERALDO BEZERRA SANTOS<sup>3</sup>

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**INTRODUCTION**

Aging is a physiological phenomenon and regressive observable in all living beings, which is characterized by loss of physical and psychological capacities over the years due to the influence of variables such as lifestyle, genetics, accumulated damage and psychological changes. This process still remains as one of the most complex to science, despite the efforts being made, especially since the second half of the twentieth century (FREITAS, 2002).

Population aging may occur due to a reduction in the proportion of young population in the total population, without significant changes in the elderly population, which is called aging by the base. The population also can age due to a real increase in the percentage of elderly population, which is called aging at the top. The aging of the base is connected to the drop in fertility levels and relates to the historical context of aging experienced by most developed countries, which is occurring in developing countries currently in the aging process (Moreira, 1997.)

In recent decades, the aging process has increased considerably. This fact is attributed to the increase in life expectancy, declining birth rate and a better control of infectious diseases and chronic degenerative diseases. According to WHO figures, there were 390 million people over 60 years in 1998 and it is estimated that by 2025 this population will be doubled. In many developing countries, especially in Latin America and Asia, is expected to increase 300% in the elderly population, reaching two billion people over 60 years until 2025. In Every ten people one is elderly, for 2050 this ratio will be five to one in developing countries, and from three to one in developed countries.

According to the census in 2000, in Brazil the elderly population was 15 million, and it is estimated that by 2020 the number of people over age 60 will have grown 16 times compared to 1950. According to the Brazilian Institute of Geography and Statistics - IBGE, in the Northeast the elderly population is approximately 3,826,662, which equals 8.4% of the population. In the state of Rio Grande do Norte in the elderly population is approximately 250 thousand, which is equivalent to 9% of the population. Already in Mossoró the elderly population is approximately 16,510 elderly people, which equates to 7% of the population.

Physical inactivity is a risk factor for chronic diseases later more prevalent in the population, according to different authors. Epidemiological data of the population in Finland (Vuori 2001) revealed a prevalence of inactivity is 71%, exceeding the rate of other well known risk factors such as smoking (35%), and excess body weight (37%). Unfortunately, this phenomenon has the same behavior when the prevalence of these factors was analyzed in the Brazilian population (REGO et al., 1990). Physical inactivity is not only a personal risk of illness, has a cost too high for the individual and for society. Data from the Centers for Disease Control and Prevention in Atlanta (CDC) indicate that more than two million deaths annually can be attributed to physical inactivity, according to their impact on the increase of chronic non-communicable diseases (CNCD) as cardiovascular problems, cancer and diabetes, which in 1998 accounted for almost 60% of deaths (71.7 million) in the world; index in 2020 would reach 73% current trends. What is worse is that 77% of these deaths occur in developing countries, where the elderly population is larger. The same sources confirm that the United States alone sedentary lifestyle has contributed with \$ 75 billion in medical costs in 2000, thus showing that its fight deserves priority in the agenda of public health (CDC 2000).

For all that, it becomes increasingly important to determine the activity level of the population, since inactivity causes so many problems, through questionnaires, which are precision instruments, easy to apply and inexpensive. Several surveys have been conducted to determine the level of physical activity in different populations through the use of questionnaires, and the latest proposal and internationally known is the International Physical Activity Questionnaire (IPAQ).

**OBJECTIVE**

To analyze the level of physical activity in older of Mossoró-RN city.

**METHODOLOGY**

The research is descriptive, characterized as a field study. The sample was comprised 75 elderly, 30 male and 35 female, aged between 60 and 87 years, of three quarters of the city, (Bom Jardim, Nova Betânia e Alto de São Manoel).

The questionnaire used to determine the level of physical activity was the version eight of the International Physical Activity Questionnaire (IPAQ), which has been validated in a sample of the population (Matsuda et al, 2001). The version used was the long form, in an interview approach, with reference to last week, with questions regarding the frequency and duration of vigorous physical activity, moderate and walking. To analyze the data from the physical activity level was used the consensus achieved between the CELAFISCS and the Center for Disease Control (CDC) in Atlanta in 2002, considering the frequency and duration, which classifies people into five categories:

1. VERY ACTIVE: one who fulfilled the recommendations of:

a) FORCE: 5 days / wk and 30 minutes per session and / or

b) FORCE: 3 days / wk and 20 minutes per session + MODERATE and / or HIKE: 5 days / wk and 30 minutes per session

2. ACTIVE: one who fulfilled the recommendations of:

a) FORCE: 3 days / wk and 20 minutes per session and / or;

b) MODERATE or HIKE: 5 days / wk and 30 minutes per session, and / or

c) Any summed activity: 5 days / wk and 150 minutes / week (walking + moderate + vigorous).

**3. IRREGULARLY ACTIVE:**

One who performs physical activity, but insufficient to be classified as active as it does not meet the recommendations regarding the frequency or duration. To achieve this rating adds to the frequency and duration of different types of activities (walking + moderate + vigorous). This group was divided into two subgroups according to the fulfillment or not some of the criteria for recommendation.

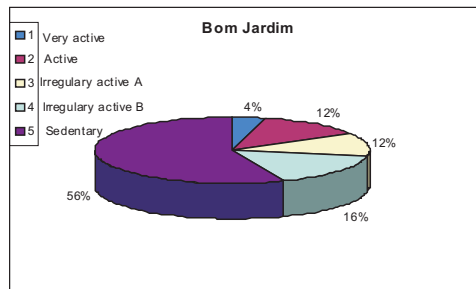
**IRREGULARLY ACTIVE A:** who is at least one of the criteria of the recommendation regarding the frequency or the duration of the activity:

- a) Frequency: 5 days / week or
- b) Length: 150 min / week

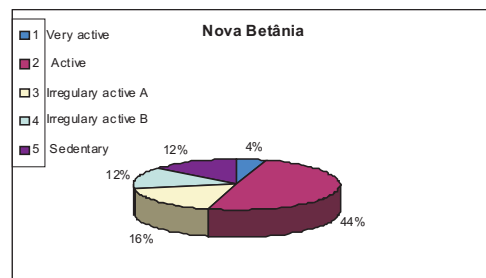
**IRREGULARLY ACTIVE B:** one who has not reached any of the criteria of the recommendation regarding the frequency or the duration.

**4. SEDENTARY:** one who did not perform any physical activity for at least 10 continuous minutes during the week.

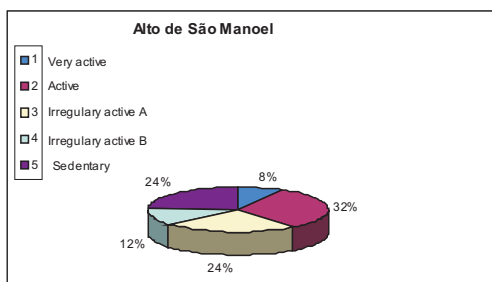
**RESULTS AND DISCUSSION**



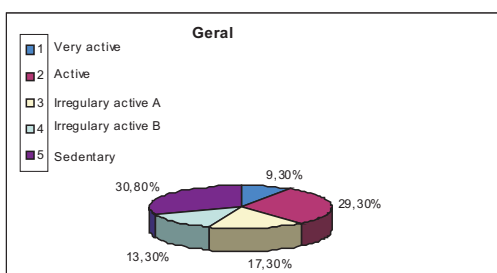
In the Neighborhood Bom Jardim we can observe that most elderly people are sedentary, 56% (aged 14) followed by Irregularly Active B with 16% of the total (4 elderly), Irregularly Active A and Active with 12% of total (3 seniors), and 4% is considered Very Active (1 aged).



In the Neighborhood Nova Betânia we can observe that most elderly people are Active, 44% of the total (11 subjects) followed by Irregularly Active A and Very Active and 16% of the total (4 elderly), the Irregularly Active B and Sedentaries are 12% each of total (3 aged).



In the Neighborhood Alto de São Manoel we can observe that most elderly people are Actives, 32% of the total (8 aged), followed by The Irregularly Active A and sedentary lifestyle, 24% of the total (6 aged), Irregular Active B match 12% of the total (three seniors), and the considered Very Active correspond to 8% of the total (2 aged).



The graph corresponds to all elderly patients estimated in the Neighborhoods. We can observe that the percentages

of elderly people considered Sedentary and Active are close to each other, and the Sedentaries reached a higher percentage, 30.8%. The Actives are 29.3%.

One can observe that among the Neighborhoods surveyed, the one which has a higher percentage of active seniors is the Nova Betânia, and the one considered more sedentary is the Bom Jardim. In all areas women are more active than men, and the greater chronological age, the lower the level of physical activity.

Physical activity questionnaires, as used in this work, are often chosen for studies in populations because they do not interfere in the activity of the interviewee, are practical and easily applied (Kriska & Caspersen, 1997). However, the measurement of physical activity is a complex task. In most population studies the estimates are restricted to leisure physical activity, due to the difficulty in obtaining information related to occupation and work done at home (Caspersen & Mathew, 1997). Despite all difficulties in measuring the low level of physical activity is considered an important risk factor for many chronic diseases (Blair, 1997) and obesity (Hill, 1997). Heini & Weinsier (1997) argue that the modern lifestyle, focused on sedentary lifestyle is crucial in the development of obesity which in turn is associated with several chronic diseases such as diabetes mellitus, artery hypertension and coronary diseases.

The results of a survey diagnosis in São Paulo showed a decline in physical activity with increasing chronological age, a fact previously evidenced by international literature. The prevalence of physical inactivity increased with age, approximately one in five American adults (21%) between 18 and 29 years for almost one in three (33%) adults aged 75 years or older. Men between 18 and 29 years had levels of physical inactivity significantly lower (18%) than older men, while women aged 75 years or older had significantly higher levels of physical inactivity (38%) than younger women (Caspersen, 1997).

### CONCLUSION

The percentage of elderly who are considered to be active or very active is 38.6%. According to these results we can conclude that the level of physical activity showed a similar trend among both sexes with a slight increased involvement in regular physical activity in females. There was a slight increase in sedentary lifestyle with increased chronological age, but mainly a significant decrease in the percentage of very active individuals among older age groups greater and a major percentage of physically active individuals was found in the neighborhood considered the highest purchasing power (Nova Betânia).

Thus, these data show that we still need to establish strategies to promote physical activity to achieve the rest of the population that does not perform physical activity.

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### LEVEL OF PHYSICAL ACTIVITY OF OLDER OF MOSSORÓ-RN CITY

(INTRODUCTION) Aging is a physiological phenomenon and regressive observable in all living beings, which is characterized by loss of physical and psychological capacities over the years due to the influence of variables such as lifestyle, genetics, accumulated damage and psychological changes. This process still remains as one of the most complex to science, despite the efforts being made, especially since the second half of the twentieth century (FREITAS, 2002). Physical inactivity is a risk factor for chronic diseases later more prevalent in the population (VUORI, 2001). For all that, it becomes increasingly important to determine the activity level of the population, since inactivity causes so many problems, through questionnaires, which are precision instruments, easy to apply and inexpensive. (OBJECTIVE) To analyze the level of physical activity in older of Mossoró-RN city. (METHODODOLOGY) The research is descriptive, characterized as a field study. The sample was comprised 75 elderly, 30 male and 35 female, aged between 60 and 87 years, of three quarters of the city. The questionnaire used to determine the level of physical activity was the version eight of the International Physical Activity Questionnaire (IPAQ). (RESULTS) The results showed that, 9.3% are considered very active, 29.3% are actives, 17.3% are irregularly active A, 13.3% are Irregularly Active B and 30.8% are sedentaries. (CONCLUSION) It can be concluded that there is a higher percentage of sedentary elderly among evaluated, but a large part of them still practice some physical activity, whether at home, at work or for leisure.

**KEY-WORDS:** Aged, sedentary, activity physical.

**NIVEAU D'ACTIVITÉ PHYSIQUE EN PERSONNES ÂGÉES DANS LA VIE DE MOSSORÓ-RN**

(INTRODUCTION) le vieillissement est un phénomène physiologique régressive et observables dans tous les êtres vivants, caractérisée par une perte des capacités physiques et psychologiques au cours des années, en raison de l'influence de variables tels comme: Le mode de vie, la génétique, dommages accumulés et altération psychologiques. Ce processus persiste comme l'un des plus complexes de la science, malgré les efforts déployés, en particulier depuis la seconde moitié du XXe siècle (Freitas, 2002). L'inactivité physique est un facteur de risque pour les maladies chroniques non transmissibles plus répandues dans la population (Vuori, 2001). Pour ça, il devient de plus en plus important, pour déterminer le niveau d'activité physique parmi les personnes âgées, au moyen de questionnaires, qui sont des instruments de précision, facile d'appliquer et peu coûteux. (AIM) Pour évaluer le niveau d'activité physique dans la ville de Mossoró-RN. (MÉTHODOLOGIE) La recherche a été descriptive, réalisée avec 75 patients des deux sexes, âgées entre 60 et 87 ans, dans trois quartiers de la ville. Tous ont été soumis au questionnaire international de l'activité physique (IPAQ) version 8, sous sa forme longue, dans une démarche d'entrevue, des questions concernant la fréquence et la durée de l'activité physique vigoureuse, modérée et de la marche. (RÉSULTATS) Les résultats ont montré que parmi les personnes âgées, 9,3% sont considérés comme très actifs, 29,3% sont des actifs, 17,3% sont irrégulièrement actifs A, 13,3% sont irrégulièrement actifs B, et 30,8% sont considérés sédentaires. (CONCLUSION) On peut conclure qu'il ya un pourcentage plus élevé de personnes âgées sédentaires parmi les évalués, mais une grande partie d'entre eux, continuent à pratiquer une activité physique, soit à la maison, au travail ou de loisirs.

**MOTS - CLÉS:** vieillissement, sédentarité, inactivité physique, activité physique.

**NIVEL DE ACTIVIDAD FÍSICA EN LA TERCERA EDAD MOSSORÓ-RN**

(INTRODUCCIÓN) El envejecimiento es un fenómeno fisiológico y regresivo observable en todos los seres vivos, que se caracteriza por la pérdida de capacidad física y psicológica durante los años debido a la influencia del estilo de vida variables tales como, la genética, el daño acumulado y cambios psicológicos. Ese proceso sigue siendo, incluso como uno de los más complejos para la ciencia, a pesar de los esfuerzos realizados, especialmente desde la segunda mitad del siglo XX (Freitas, 2002). La inactividad física es un factor de riesgo para enfermedades crónicas no contagiosas muy prevalente en la población (Vuori, 2001). Por lo tanto, se hace cada vez más importante para determinar el nivel de actividad física en la población de edad avanzada, a través de cuestionarios, que son instrumentos de precisión, fácil de aplicar y de bajo costo. (AIM) para evaluar los niveles de actividad física en los mayores de la ciudad de Mossoró-RN. (METODOLOGÍA) La investigación fue de tipo descriptivo, realizado con 75 pacientes de ambos sexos, con edades comprendidas entre 60 y 87 años, tres barrios de la ciudad. Todos se presentaron a la Internacional de Actividad Física (IPAQ), versión 8 en su forma larga, en un enfoque de la entrevista, con preguntas sobre la frecuencia y La duración de la actividad física vigorosa, moderada y caminar. (RESULTADOS) Los resultados mostraron que entre los mayores, el 9,3% se consideran muy activos, el 29,3% son activos, el 17,3% son irregularmente activos A, 13,3% están irregularmente activos B y Del 30,8% son sedentario considerado. (CONCLUSIÓN) Se puede concluir que existe un mayor porcentaje de personas mayores sedentarias en los evaluados en una gran parte de ellos todavía practican alguna actividad física, ya sea en casa, en el trabajo o por placer.

**PALABRAS - CLAVE:** envejecimiento, el sedentarismo, la actividad física.

**NÍVEL DE ATIVIDADE FÍSICA EM IDOSOS DA CIDADE DE MOSSORÓ-RN**

(INTRODUÇÃO) O envelhecimento é um fenômeno fisiológico e regressivo observável em todos os seres vivos, caracterizado pela perda de capacidades físicas e psicológicas ao longo dos anos, devido à influência de variáveis como estilo de vida, genética, danos acumulados e alterações psicológicas. Esse processo permanece, ainda como um dos pontos mais complexos para a ciência, apesar dos esforços que vêm sendo feitos, especialmente desde a segunda metade do século XX (FREITAS, 2002). O sedentarismo é um fator de risco de doenças crônicas não transmissíveis muito prevalentes na população (VUORI, 2001). Por isso, cada vez mais se torna importante determinar o nível de atividade física da população idosa, através de questionários, que são instrumentos de precisão, de fácil aplicação e de baixo custo. (OBJETIVO) Avaliar o nível de atividade física em idosos da cidade de Mossoró-RN. (METODOLOGIA) A pesquisa foi do tipo descritiva, realizada com 75 idosos de ambos os sexos, com idades compreendidas entre 60 e 87 anos, de três bairros da cidade. Todos foram submetidos ao questionário Internacional de Atividade Física (IPAQ), versão 8 na sua forma longa, em abordagem de entrevista, contendo perguntas em relação à frequência e duração da realização de atividades físicas vigorosas, moderadas e da caminhada. (RESULTADOS) Os resultados mostraram que entre os idosos, 9,3% são considerados Muito Ativo, 29,3% são Ativos, 17,3% são Irregularmente Ativo A, 13,3% são Irregularmente Ativo B e 30,8% são considerados Sedentários. (CONCLUSÃO) Pode-se concluir que há um maior percentual de idosos sedentários entre os avaliados, mas uma grande parte deles ainda pratica alguma atividade física, seja em casa, no trabalho ou por lazer.

**PALAVRAS – CHAVES:** Envelhecimento, Sedentarismo, Atividade Física.