NEW STUDY REGARDING THE PHYSICAL ACTIVITY LEVEL AND NUTRITIONAL STATUS OF HEALTHY OLD PEOPLE (60-70 YEARS OLD)

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Abstract

Purpose. The main objectives of this study were to highlight the level of physical activity, nutritional status and the possible needs for intervention among old people in order to promote a successful aging.

Methods. Our study group was represented by 40 healthy people (N = 40), 22 women and 18 men, with different age, from 60 to 70 years old. For assessment we used specific inventory tools considering the age category and also different anthropometric measurements. Thus, we evaluate the level of physical activity using the International Physical Activity Questionnaire (IPAQ) for leisure time activity. Nutritional status was evaluated with an adapted version of Mininutritional Assessment, which offers a view on nutritional habits and anthropometric dimensions. We also used some anthropometric measurements like: height, weight, BMI, waist girth, mid-arm and calf circumference.

Results. From the total number of the study participants, 14 (35 %) didn't achieve a minimum level of 600 MET-minutes/week of free-time physical activities and they were catalogued as sedentary. The rest of the subjects (57, 5 %) had a moderate level of physical activity and respectively (7, 5 %) a high one. Considering the level of physical activity on sex groups, it seems that most of women have a moderate level (59 %), while more men are involved in intense physical activities (11,1 %). There was no case of malnutrition or risk of malnutrition, but in return more than one third of the subjects (35 %) had a high score of BMI and it represents a risk factor for their health. We also observed a positive correlation between the level of physical activity and the nutritional status of healthy old people aged 60 to 70 years.

Conclusions. Maintaining a high level of physical activity can help in reducing the consequences of aging on each person's nutritional status. More than this, the constant practice of different types of physical activity leads to cumulated health benefits and this represents the base of a successful aging.

Key words: Physical activity, nutritional status, healthy old people.

Purpose

Aging is a normal and physiological process which affects people since the day of born and it doesn't have to be an intrinsic obstacle to physical activity. There is still a great number of healthy, aged people who are not aware they can involved in different forms of physical activity as long as they are not extreme or requires excessive hard work.

After the age of 50, the most important benefits of regular physical activity consist mainly in avoiding, minimizing and/or reversing many of the physical, mental and social vulnerability that often go along with advancing age.

Increasing daily physical activity can be of great help in preventing a lot of the negative effects that aging induce on individual's functional ability and health. Also, it was observed that frequently active individuals are less likely to withdraw from society and more likely to actively contribute to social life (M. L. Booth, 2000).

The recommendations of the World Health Organization (WHO) for older people physical activity are at least 30 minutes of physical activity daily. This amount can be distributed over the entire day, so that two or three sessions of 10 or 15 minutes each can offer significant health benefits. This is one of the reasons for older people to be as active as possible in their everyday lives (WHO, 2002).

Despite all the information accumulated which back up the important positive consequences of physical activity, still very few people aged 50 and over achieve even the minimum amount of recommend physical activity. According to some studies, more than one third of those 60 and older are mostly inactive (Y. Schutz, 2001).

Over the time there had been made some adjustments to the health agencies recommendations. The new guidelines promote also the benefits of shorter periods of activity (at least 10 minutes), performed several times a day, taking into account such activities as housework and gardening. Even so, the proportion of those who do not meet at least these requirements remains high.

Physical activity for old adults can take many forms, from walking, swimming, stretching, to dancing, gardening, hiking, cycling or organized exercise sessions.

Nevertheless, there are some significant considerations specific to the older adult group, with respect to physical activity recommendations. The intensity of aerobic activity should be established by taking into account the older adult's aerobic fitness.

Activities that maintain or increase flexibility are also recommended. Older adults at risk of falls are suggested for balance training and older adults that have medical conditions or disabilities that may affect their capacity to be physically active should have first the consent of a doctor.

To be more specific, according to ACSM guidelines, older adults need at least (ACSM, 2000):

- 2 hours and 30 minutes of moderate intensity aerobic activity (brisk walking) every week, and
- muscle strengthening activities on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms), or
- 1 hour and 15 minutes of vigorous intensity aerobic activity (jogging or running) every week and
- muscle strengthening activities on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms), or
- an equivalent mix of moderate and vigorous intensity aerobic activity and
- muscle strengthening activities on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms).

Nutritional status suffers also changes by the time people aged. Undenutrition is known to be common and largely unrecognized in older patients; though, aberrations in indicators of nutritional status may only reflect effects of age and/or functional disability.

Without less importance, quality nutrition may contribute considerably to the health and well being of older individuals, and to their ability to recover from illness.

Considering all this, the main objectives of this study were to highlight the level of physical activity, nutritional status and the possible needs for intervention among old people in order to promote a successful aging.

Method

There are many conditions such as disability, acute and chronic diseases that may interfere with nutritional status in ageing patients and to isolate those we selected healthy old for our study.

All the subjects had baseline assessment that included anthropometric, nutritional status and physical activity assessment.

Our study group was represented by 40 healthy people (N = 40), 22 women and 18 men, with different age, from 60 to 70 years old. Also, we must specify that all the subjects are retired from played work.

The anthropometrics measurements were performed by a single observer using standard methods with intra observer's differences assessed prior to the beginning of the study. We choose to do anthropometric measurements like: height, weight, BMI, waist girth, mid-arm and calf circumference.

A precise measurement of physical activity in a free-living population is complicated and can be time overwhelming both for participants and evaluators.

There are a great number of methods for assessing physical activity and energy consumption, each having its strengths and limitations. All these can be used in a variety of settings ranging from the laboratory to large population-based surveys (R. E. Taylor-Piliae et al, 2005).

Physical activity recall questionnaires typically assess the type, intensity, frequency, and duration of physical activity during the past day, week, month, or year.

We evaluate the level of physical activity using the International Physical Activity Questionnaire (IPAQ) for leisure time activity. The final results of this questionnaire validation suggest that it has acceptable measurements properties for use in many settings and in different languages and are suitable also for cultural adaptations. The short form of this assessment tool is referring only to recreation, sport and leisure-time physical activity in terms of vigorous, moderate or no activity, days per week and hours per day. At the end we can use numeric variables (METs/hour, day or week) or categorical variables (low-, moderate- or high level of physical activity).

Nutritional status was evaluated with an adapted version of Mininutritional Assessment, which offers a view on nutritional habits and anthropometric dimensions.

Results

Our study group had an average of 66 years and all of them reported that they are retired and with no health problem.

From the total number of the study participants, 14 (35%) didn't achieve a minimum level of 600 MET-minutes/week of free-time physical activities and they were catalogued as sedentary. The rest of the subjects (57,5%) had a moderate level of physical activity and respectively (7,5%) a high one.

Considering the level of physical activity on gender groups, it seems that most of women have a moderate level (59 %), while more men are involved in intense physical activities (11,1%). There was no case of malnutrition or risk of malnutrition, but in return more than one third of the subjects (35 %) had a high score of BMI and it represents a risk factor for their health. We also observed a positive correlation between the level of physical activity and the nutritional status of healthy old people aged 60 to 70 years.

From the total number of subjects, 65% met the national recommendations of 150 or more minutes/week of moderate- or higher-intensity activity. Subjects meeting these recommendations reported an average 580 minutes/week of moderate- and higher-intensity activity, while subjects failing to meet this criterion reported only 60 minutes/week ($p<0,01$).

Regarding the type of physical activity, it seems that walking is the activity of choice (68 % of men and women), then bicycling (12 %) and the rest of pecents are distributed between running, exercising or swimming.

Discussion and conclusion

Ageing is accompanied by many changes which may impair food acquisition, digestion, and metabolism.

Health care systems must improve the counter-measures for the ascendant tendency of older people and to maintain their health, functionality and quality of life.

Currently, the average person who exceed the age of 70 suffers from more than three chronic conditions that necessitate regular medical care and medication, which can bring with them disability and other expense.

The number of people over 60 years old is considered to double in the next 20 years. Most of these older persons will then be living in developing countries. Reducing and delaying age-related disability is a crucial public health measure and physical activity can play an important role in inducing and maintaining well-being at all ages.

There is a growing recognition that age-related decrease of all body functions may be prevented or even stopped by regularly engaging in physical activities.

Numerous evidence demonstrates a strong association between aging and nutritional status. In general, physical activity and lean body mass decrease with aging, while body fat, increases.

Maintaining a high level of physical activity can help in reducing the consequences of aging on each person's nutritional status. More than this, the constant practice of different types of physical activity leads to cumulated health benefits and this represents the base of a successful aging.

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