

Prevalence of Obesity Among Elderly Participants of a Health Education Service

ORIGINAL

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Abstract

Background: The detection of obesity is relevant when it is considered that there is progressive loss of lean body mass and also when it is increased the proportion of body fat with aging. Metabolic changes and reduced physical activities require increased energy and weight loss, contributing to obesity installation, which exerts implications on health and social life of the elderly person. Before these consequences of obesity and its impact on the elderly people's health, the study aimed to identify the prevalence of obesity among elderly participants of a university extension project.

Method: Exploratory and descriptive study with quantitative approach. The sample is constituted by 96 elderly people of both sexes who were registered in the project.

Result: It appears that the 37 elderly people (38.54%) had some degree of obesity. Obesity classification prevailed 57.63% of non-obese overweight status, while among the obese, 67.57% is in Obesity I.

Conclusion: It is believed that knowing this reality helps medical and nursing actions in promotion of strategies of healthy lifestyles and encouragement, making interaction for personal responsibility in training for self-care and improved quality of life.

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Keywords

Elderly people; Obesity; Health Education.

Introduction

In Brazil, the recent increase in the elderly population due to demographic, epidemiological and nutritional changes has become a major concern in the health field. It is estimated that by 2050, the elderly people will account for 14.2% of the population, which means that there is need to know more about the aging process, its implications and impact on the Brazilian health system [1].

In 2011, the Ministry of Health proposed a Strategic Action Plan for Confronting Chronic Non-communicable Diseases which aims to prepare Brazil to face and stop these diseases by 2022. The strategies involve tackling cardiovascular diseases, neoplastic, chronic respiratory and diabetes which greatly affect the elderly people and which have as modifiable risk factors smoking, alcohol, physical inactivity, inadequate and obesity food, which can be detected early from guidelines and surveillance, information, assessment and monitoring, promoting health and comprehensive care [2].

Physiological, social, psychological and economic changes influence to the decrease in functional capacity and autonomy of the elderly people, resulting in the emergence of nutritional disorders, which can stimulate the increase of body weight [3]. Obesity is a chronic, multifactorial disease, defined as excess of body fat. Early recognition of this abnormality has a close relationship with the lowest mortality rates, the best level of individual satisfaction with their own health, as well as positive perceptions of quality of life. Inadequate nutritional status throughout life may be considered one of the factors that determine not successful longevity [4].

The prevalence of obesity among adults from 2006 to 2012 increased from 11.6% to 17.4%, establishing an annual average of 0.89% in 27 states [5]. According to the latest World Alert Bulletin of the World Health Organization, the world population in developed and developing countries presents significant growth of body mass [6].

As a result of the serious implications for health, it was established Ordinance No. 424/2013, which redefines the guidelines for the organization of prevention and treatment of overweight and obesity as a priority care of Care Network for Health of People with Chronic Diseases through promotion and obesity prevention actions. Considering that obesity is a chronic condition and a risk factor for events such as diabetes, hypertension, cardiovascular, respiratory, circulatory and kidney problems it is necessary nutritional monitoring and anthropometric control aimed at the recovery of healthy weight [6, 7].

Anthropometry is a non-invasive identification technique, low cost, which helps in assessing the size and proportions of the human body that evaluates the weight, height, waist circumference and hip [9]. From the obtaining of weight and height is possible to establish the body mass index - BMI, which is an indicator of overall adiposity, showing good correlation with the percentage of fat and the morbidity and mortality [10].

Anthropometric measurements help to establish diagnoses related to nutritional status (malnutrition, overweight and obesity), the risk assessment of cardiovascular diseases and diabetes mellitus in children, adults, pregnant women and elderly people [6-7].

Regarding the elderly people, obesity detection is shown to be relevant in view that with aging there is progressive loss of lean body mass and increased the proportion of body fat, and also metabolic changes and reduced physical activities that require greater energy loss and weight, contributing to the installation of obesity, which in turn exert implications on health and social life of the elderly people. Before with these consequences of obesity and its impact on the health of the elderly, the study aimed to identify the prevalence of obesity among elderly participants of a university extension project.

Methods

This is an exploratory-descriptive study with a quantitative approach, conducted at Faculdade de Enfermagem e Medicina Nova Esperança (FACENE/FAMENE), specifically in the Project of Extension Healthy Aging: integration education community in health promotion and disease prevention in the elderly population, which serves 100 patients of both sexes, living in areas covered by the educational institution. It works with weekly meetings, on Tuesdays, from 13:30 to 17:30 and has a team of three professors and twelve extension workers, two of the medical school, nine of nursing and an egress of the nursing course.

The sample consisted of 96 elderly men and women who met the inclusion criteria: to be 60 years-old or older and with preserved cognitive ability. Seniors who were absent during the period of data collection and did not agree to participate did not participated in the survey.

Data collection was performed in the first half of 2013, before and after the completion of the activities developed in the project, after reading and signing the Consent and informed to participate in the study, using the questionnaire in the registration of elderly people, which were extracted anthropometric and sociodemographic data focused on the objective of the study. The filling was carried out by the researcher in private atmosphere, being guaranteed the privacy of participants in the study. After answering the instrument, the elderly were weighed and measured on an anthropometric mechanical scale of Micheletti brand, with a maximum capacity of 150Kg and precision of 100g and platform 30x40cm.

BMI was calculated by dividing weight (in kg) by the squared height (in m). To check the weight, respondents were positioned standing, barefoot, their bodies lifted at full extension without shoes and wearing light clothing.

For classification of obesity, we adopted the recommendation established by the Pan American

Health Organization (PAHO): BMI below 18.5 kg/m² = underweight; BMI between 18.6 and 24.9 kg/m² = normal weight; BMI between 25 and <30 kg/m² = overweight; BMI above 30 kg/m² = obesity (WHO, 2012; BRAZIL, 2012).

The data were tabulated and analyzed using descriptive statistics in SPSS 20 software and presented in tables. The study was approved by the Research Ethics Committee of FACENE/FAMENE under Protocol 53/13 and CAAE: 14472013.3.0000.5179, according to the ethical aspects of Resolution No. 466/12 of the National Health Council [11]. Participants were informed about the importance of the study, its objectives and risks, and asked to sign the Free and Informed Consent.

Results

In **Table 1**, it is observed that the average age of the elderly people stood at 68.89 years-old, with a standard deviation of 6.33, similar mean age between obese and non-obese patients. It appears that the 37 elderly people (38.54%) had some degree of obesity. By considering all of the subjects, it is noted that most are married (43.75%) and had the complete elementary school (60.42%).

Table 1. Socio-demographic profile of the elderly investigated in the study, according to the occurrence of obesity- João Pessoa, PB, Brazil, 2013.

Elderly people profile	Weight classification*				Total		0.385417
	Non-obese (n=59)		Obese (n=37)		n=96		
	Freq.	%	Freq.	%	Freq.	%	
Age							
average ± dp	68.98 ± 6.62		68.73 ± 5.94		68.89 ± 6.33		
Age group							
< 65	13	22.03	10	27.0	23	23.96	0.614583
Between 65-70	19	32.20	11	29.7	30	31.25	
>70	27	45.76	16	43.2	43	44.79	

Elderly people profile	Weight classification*				Total		0.385417	
	Non-obese (n=59)		Obese (n=37)		n=96			
	Freq.	%	Freq.	%	Freq.	%		
Sex								
Female	47	79.66	36	97.30	83	86.46	0.614583	
Male	12	20.34	1	2.70	13	13.54		
Marital status								
Single	6	10.17	7	18.92	13	13.54		
Married	30	50.85	12	32.43	42	43.75		
Divorced	3	5.08	3	8.11	6	6.25		
Widowed	20	33.90	15	40.54	35	36.46		
Education								
Illiterate	19	32.20	14	37.84	33	34.38		
Incomplete elementary school	35	59.32	23	62.16	58	60.42		
High school	5	8.47	0	0.00	5	5.21		

*: The non-obese individuals are those with low weight, normal and overweight.

Table 2 shows that the classification of obesity prevailed 57.63% of non-obese overweight status, while among the obese, 67.57% is in obesity class I. In regard to the non-obese, 52.54% reported physical activity and 74.78% practice some kind of leisure and among the obese, these rates were 56.76% and 81.08%. Regarding the use of alcohol and smoking, most non-obese 83.05% denied the use, as the obese people (81.25% and 84.38).

Discussion

In the presence of excessive consumption of fats and carbs in our country exogenous obesity has been growing [12]. Associated with these factors there is the increased consumption of processed products and high in calories that favor this situation, with the reduction or physical inactivity. This reality is also practiced and experienced by the elderly part of the growing population in developing countries, which make them even more susceptible to the onset of chronic diseases [13].

Table 2. Characterization of the elderly according to the occurrence of obesity and lifestyle habits. João Pessoa, PB, Brazil, 2013.

Variables	Non-obese*		Obese		Total	
	n=59		n=37		n=96	
	Freq.	%	Freq.	%	Freq.	%
Obesity classification						
Low weight	3	5.08	-	-	3	3.13
Normal weight	22	37.29	-	-	22	22.92
Overweight	34	57.63	-	-	34	35.42
Obesity Class I	-	-	25	67.57	25	26.04
Obesity Class II	-	-	11	29.73	11	11.46
Obesity Class III	-	-	1	2.70	1	1.04
Practice of physical exercise						
No	28	47.46	16	43.24	44	45.83
Yes	31	52.54	21	56.76	52	54.17
Practice of leisure						
No	15	25.42	7	18.92	22	22.92
Yes	44	74.58	30	81.08	74	77.08
Alcoholic beverages use						
No	49	83.05	29	78.38	78	81.25
Yes	10	16.95	8	21.62	18	18.75
Smoking						
No	49	83.05	32	86.49	81	84.38
Yes	10	16.95	5	13.51	15	15.63

*: The non-obese individuals are those with low weight, normal and overweight.

The results showed a prevalence of 38.5% of obese elderly in the study group, with predominance in females and in people over 70 years-old. This indicator reflects the need to carry out actions that transform the health-disease process from education and health strategies that promote better care in health services to ensure quality of life for this age group. Thus, it is necessary to act in the prevention of diseases in order to better promote the welfare of the population in general and in particular for the most vulnerable groups [14, 15].

Another important factor observed among the elderly participants is the relationship between obesity and widowhood, considering that the largest number of elderly obese among those who were

widowed. Widowhood is considered a condition that influences clinical, psychological and social aspects. Since this situation may present greater susceptibility to the emergence of chronic diseases, social isolation and depression, due to lack of favorable financial conditions and motivation to maintain healthy habits of life [16].

It is worrying to note that more than half of the participants attended only elementary school, which 62.1% (23) of the obese group. It is considered that the low level of education can influence the understanding and compliance with care guidelines, thus compromising the health conditions of the population.

Among the risk factors, systemic arterial hypertension (SAH) contributes to the emergence of cardiac and cerebrovascular complications. The prevalence of hypertension in the world population in 2000 was 25% and the estimate for 2025 is 29%. The prevention and control of this condition requires the implementation of educational strategies that motivate the individual to adhere to pharmacological and non-pharmacological treatment, such as modifications to a lifestyle and healthy eating habits. It is known that the prevalence of obesity has increased worldwide and it is considered a major risk factor for hypertension [17-19].

However, the increase in obesity in the general population is now a public health problem. There is currently a concern for the elderly, due to economic growth, which, combined with a lack of nutrition education and physical inactivity, facilitated by technological progress, have worsened the overweight outbreaks and obesity, reflecting the increased morbidity and mortality from diseases chronic degenerative mainly cardiovascular [20]. The involvement of these conditions, combined with the characteristic disorders of the aging process, can lead to the emergence of functional disabilities in the individual, demanding to search the elderly for health services, requiring constant monitoring [21].

Among the factors that can contribute to weight gain and increased fat in the elderly there are: caloric intake in excess, decline in basal metabolic rate due to decreased muscle mass, decreased physical activity, genetics, hormonal changes and sociocultural factors [4]. As well, the difficulty in identifying the smell and taste of food, what is meant by the physiological changes resulting from old age, like most sedentary lifestyle, and other social behavioral changes [22].

Anthropometric technique as the Body Mass Index (BMI) has been used frequently to assist in the assessment of body fat important to establish the diagnosis of overweight/obesity. When used properly, it allows distinguishing obesity categories, estimating body fat levels and predicting the relative risk for disease, so that the World Health Organization has indicated the analysis of anthropometric parameters for epidemiological surveillance of chronic diseases [23-24].

With regard to obesity control proposals, the majority seems to lead to the practice of physical activity. The main therapeutic step of obesity is an individual's behavior restructuring, in pursuit of a healthy lifestyle. This change, once achieved, also decreases the risk factors associated with obesity [25].

Some studies conducted in Brazil have shown that lifestyle, especially physical inactivity, is strongly associated factors with increased prevalence of non-communicable chronic disease and mortality. As well, sociability and indicators laser practices that influence the quality of life and health status of the elderly, keeping them healthy and independent in their sociocultural context [26]. Thus, it emphasizes the need for changes in lifestyle that promote regular physical activity combined with a balanced diet in childhood [27].

Overall, the prevalence of smoking and alcoholism among the elderly is presented as low, which can lead as a result of disruption of these habits with increasing age or the presence of comorbidi-

ties, which may increase the predisposition to premature deaths of smokers and alcoholics [28].

Conclusion

The study revealed increasing obesity in the elderly women, aged over 70 years-old, which makes them more vulnerable to chronic diseases, and as a factor complicating the understanding of education strategies in health because of low education.

Obesity exposes elderly to various risk factors that suggests the current needs of healthcare professionals and educators engaged in research and extension groups, to grow old without degenerative chronic diseases, increased self-esteem and reduced stress levels, allowing improved control measures in blood pressure and other cardiovascular risk factors such as body weight and a sedentary lifestyle in an attempt to facilitate a quality aging.

It is believed that knowing this helps medical and nursing actions including promotion strategies of healthy lifestyles and encouragement, to interact personal responsibility in training for self-care and improved quality of life.

Health education actions, as extension groups, are needed at graduation in an attempt to train medical and nursing professionals, able to make real solutions to educate and to inform the elderly population of their needs.

As Study limitations to this study there is only one extension group, requiring the development of other because of the importance of the theme.

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