

Personal and Behavioral Determinants of Active Aging

ORIGINAL

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Abstract

Introduction: The aging process is related to the multidimensional changes that converge on the involvement of disability and caring dependency, thus corroborating with the loss of independence in older people. Active aging emerges as a strategy to achieve the quality of life, being permeated and influenced by determinant factors such as personal and behavioral.

Objective: Measure the determinants factors personal and behavioral of active aging among the elderly.

Methods: A descriptive and exploratory study with a quantitative approach, developed with assisted elderly in the Integral Care Center for Elderly Health in the city of João Pessoa, PB, Brazil. The sample consisted by 235 elderly. Data collection was conducted from October to December 2014, through interviews subsidized by a structured instrument covering related information to the proposed objective. Data were analyzed from the quantitative approach using descriptive statistics of unvaried nature for both variables, including frequency measures, from position and dispersion. To do this, was used the Statistical Package for the Social Sciences Computer System - SPSS version 20.0.

Results: It was verified that the majority of the sample were female (68.1%) with a predominance of the age group from 60 to 69 (59.1%). As for the personal determinants was found the hypertension (28.4%), osteoporosis (20.4%) and arthritis (19.2%) as the most prevalent morbidities, in addition to the falls occurrence (41.5%) in the last

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twelve months. A high living satisfaction (44.7%), and leisure activities execution, such as watching television (38.5%), listening to the radio (26.3%) and reading newspapers or magazines (20.5%) was also observed. As regards to the behavioral determinants, it was found that most elderly had never smoked (54%), or consumed alcohol (90.2%), and made use of diet (28.8%) and healthy food (26.7%). However, most did not practice physical exercise (60%) and used one to two drugs per day (38.6%).

Conclusion: It was verified the prevalence of personal and behavioral determinants more frequently among women and young adults, allowing thereby the expanding about active aging, as well as reflection, discussion and planning of actions and cares directed to this population.

Keywords

Nursery; Active Aging; Elderly.

Introduction

Currently, the increase of world population is significant, related to that is observed the elderly population growth phenomenon. In Brazil, this phenomenon is present, as well as in other developing countries, where the speed of socio-demographic and epidemiological transition process occurs in a quite fast and disorganized manner [1]. The study carried out [2] showed that the population aged over 60 years will experience a more intense growth from 2020 until 2040, when its total will reach 52 million people, which will represent about 23.8% of the Brazilian population.

Aging is a natural, dynamic and heterogeneous process, which entails some anatomic and functional changes such as cognitive decline and physical frailty, which may cause difficulties for self-care and prejudice to the autonomy of the elderly [3, 4]. Therefore, the aging population increasingly needs a special attention, based on their different characteristics, in order to reach not only the increase in life expectancy, but above all so that they can live with more quality, as proposed by active aging [5].

Active aging term was adapted, implemented and spread by the World Health Organization [6] around the 90s. Understood as a broader concept than healthy aging, active aging proposes a participatory aging form for a healthy and lasting life [7], in which is linked the individual aspects to the social dynamics in its extensibility. The concept is guided by related to health principles, highlighting the biological, emotional or psychological and social well-being in its multiple interactions between bodily functions and the environmental and social components; and the dynamics of aging as a process that continues throughout the human being life, traversing all fields where the individual is inserted [8].

The active aging concept, is based on the elderly autonomy stimulating and elderly emancipation acquisition through knowledge, from which the individual understands the need to adopt healthy lifestyles so that he can experience an aging form capable of prevent or delay physical, mental and social disabilities, however, it should be noted that besides the personal participation, it is necessary to optimize the social, cultural and policies possibilities

for promoting aging life quality [9]. Active aging has as main objectives: top up the healthy life expectancy in aging; and provide better life quality for all aging people [10].

The World Health Organization [6] defines the determinants of active aging as: cross determinants (gender and culture), economic and social determinants, physical environment, personal, behavioral and health determinants [6,10]. Personal determinants include biological factors, heredity and psychological factors, as internal components; and as external components, the environment in which the individual is inserted, the entertainment or leisure. The human aging causes internal changes, such as: body composition; structure and appearance of the skin; quality and duration of sleep; memory and cognition; gait, body balance and posture; added to psychological factors such as resilience, and confronting the problems that arise throughout life, which favor the emergence of diseases, thereby influencing in obtaining a healthy aging, with higher quality [10]. In particular, diseases are mainly caused by external factors [9, 10].

Life habits or adopted behaviors influence the active aging acquisition, which can be modified according to the interest, motivation, family and social support, and the access to health counseling services in the life quality pursuit [10]. These behavioral determinants factors interfere in the autonomy and fulfillment of life basic and instrumental activities, reducing elderly ability for self-care, making him less productive in working life, what results in a less active aging. Adopting healthy lifestyles, elderly may experience well-being greater sense and personal satisfaction with their health status [11, 12].

In this context, the nurse plays a fundamental role talking about the awareness and mobilizing of the people for the way they are aging, as soon as, throughout life, the way we live plus several decisive factors influence the way that the population ages. Therefore, it is understood that the more participa-

tory person will find it easier to achieve an indeed active aging [13]. There must be multidisciplinary action and health professionals must be properly prepared to provide guidance and healthcare services that prioritize the well-being at every stage of life, even in old age, at which occur biological, psychological and social changes. Thus, the discomforts arising from the aging process decrease, providing suitable conditions for the promotion of active aging [9, 13].

Given the above, considering the aforementioned subject relevance, the interest in research the active aging determinants emerged, particularly in the local context, so that it can serve as an intellectual contribution to support preventive care health and promotion through health indicators verified in this research, with a view to the appreciation of the population aging in a active and healthy way.

This study aimed to measure the personal and behavioral determinants of active aging among seniors attended in the Integral Care Center for Elderly Health in João Pessoa, Paraíba, Brazil.

Methods

This is a descriptive and transversal study, with a quantitative approach, developed with elderly assisted in the Integral Care Center for Elderly Health in João Pessoa, Paraíba.

The sample determination was probabilistic, through the simple sampling technique. For the studied population selection was conducted a survey with the mentioned city service, the amount of elderly registered in the service in question. Then the sample was delimited considering the following formula: $n = Z^2 PQ/d^2$, where n = minimum sample size; Z = reduced variable; P = Finding the studied phenomenon probability; $Q = 1-P$; d = desired accuracy. It adopted $p = 50\%$, because it is a multidimensional evaluation, and the sampling error parameter of 5%.

Both genders were included in this study, aged sixty or older and who were capable of answering the research questions without others help. The study excluded those with serious limitations on speech or hearing that constituted an impediment factor to effective communication during the research. After analysis of these criteria, the final sample was consisted in 235 elderly.

Data collection was conducted from October to December 2014, through interviews subsidized by a structured instrument, covering issues related to the proposed objectives for the study. This instrument comprised two parts or sections, the first part of the instrument included information regarding to morbidity and self-reported symptoms. The second gathered information related to the personal and behavioral determinants evaluation. For this, was used the instrument validated by Vicente [10], which covers issues related to active aging, extracted from the National Active Ageing Policy [6].

The data analysis took place from the quantitative approach through unvaried nature descriptive statistics for both variables, including frequency, position and dispersal measures. To that, was used the computer system Statistical Package for the Social Sciences - SPSS version 20.0, which is adequate to reach the study's objectives and enable the accuracy and generalization of its results.

It is noteworthy that, throughout all research process, especially at the collecting empirical data stage, the ethical aspects that regulate research involving human beings, written in Resolution 466/2012 CNS/MS/BRAZIL, were observed, especially the information secrecy and confidentiality [14]. It is also highlighted that this research project has been approved by the Research Ethics Committee of the Health and Sciences Center in Federal University in Paraíba, under the protocol 0384/14 and CAAE: 33089014.5.0000.5188 from August 21, 2014.

Results

Regarding socio demographic characteristics, from the 235 elderly who participated in the study, 160 (68.1%) were female. Their ages ranged between 60 and 94 years old, an average of 69.6 years old and a predominance of elderly between the ages of 60-69 (59.1%). With regard to marital status, 94 (40.0%) were married, with schooling between four and eight education years (31.9%) and the household income average between 1.1 and 3 minimum wage (85.6%). (Table 1) (Table 2)

Table 1. Personal determinants distribution: self-reported diseases and falling occurrences in the last year. João Pessoa – PB, 2015. (n=235).

Variable	Categories	n	%
Self Reported Diseases	Hypertension	163	28.4
	Osteoporosis	117	20.4
	arthritis	110	19.2
	Diabetes mellitus	74	12.9
	Heart disease	41	7.2
	Dejection	17	3.1
	Incontinence	15	2.6
	Breathing problems	14	2.4
	Cancer	02	0.68
	None	09	1.6
	Memory	06	1.0
	Parkinson	04	0.7
	Cancer	03	0.5
	Total	573	100
Fall in the last year	Yes	99	41.5
	No	136	58.5
	Total	235	100

In relation to the most prevalent morbidities, it was found that hypertension (28.4%), osteoporosis (20.4%) and arthritis (19.2%) were those most frequently reported by the studied population. Also considering the data presented in **Table**

Table 2. Personal Determinants Distribution: Life satisfaction and leisure activity performed by the studied elderly. João Pessoa – PB, 2015. (n=235).

Variable	Categories	n	%
Life Satisfaction	Very satisfied	71	30.2
	Satisfied	105	44.7
	Neither satisfied nor dissatisfied	38	16.2
	Dissatisfied	16	6.8
	Very dissatisfied	05	2.1
	Total	235	100
Leisure Activities*	Television	207	38.5
	Radio	141	26.3
	Newspapers and Magazines	110	20.5
	Handcraft	53	9.9
	Card Games	26	4.8
	Total	537	100

*: More than one response was possible.

1, it is seen that 41.5% of the elderly have experienced at least one episode of falling in the last twelve months.

Evaluating the life satisfaction level, it became clear that 44.7% from the elderly population said to be satisfied. Regarding leisure activities, 38.5% reported watching television, 26.3% listening to radio and 20.5% of the elderly preferred to read newspapers or magazines. (Table 3)

About the behavioral determinants, it was verified that most elderly had never smoked (54%) and does not drink alcoholic beverages (90.2%). However, only 40% practice regular physical activity, usually walking (67.8%) at a frequency of three to four times a week (47.9%) and an average of 30 to 60 minutes (72.4%). About diet, 28.8% consider to have a healthy diet and 26.7% restrict certain types of food.

As presented in Table 4, the regular use of medications was reported by 94.9% from the investigated elderly population. From these, 38.6% used

Table 3. Studied elderly behavioral determinants distribution. João Pessoa – PB, 2015. (n=235)

Variable	Categories	n	%
Cigarette smoking	Never smoke	127	54.0
	Gave up smoke	100	42.6
	Smoke less than 5 cigarette a day	05	2.1
	Smoke a cigarette Pack a day	03	1.3
Alcohol consumption	Don't drink	212	90.2
	Only on social events	17	7.2
	Once a week	05	2.1
	Three times a week	01	0.5
Practicing of exercises	Yes	94	40.0
	No	141	60.0
Kind of exercises	Walking	78	67.8
	Gym	14	12.2
	Aerobic	14	12.2
	Dance	06	5.2
	Cycling	03	2.6
	Frequency	Once or twice a week	19
3 or 4 times a week	45	47.9	
5 for 7 times a week	30	31.9	
Activity length	Less than 30 minutes	16	17.0
	30 to 60 minutes	45	72.4
	More than 60 minutes	10	10.6
About diet	Consider their diet healthy	124	28.8
	Make food restriction	115	26.7
	Recognize the injury of some food	79	18.4
	Was never guided about food	61	14.2
	Guided but not follow the instructions	51	11.9
Total		235	100

Table 4. Elderly behavioral determinants distribution. João Pessoa – PB, 2015. (n=235).

Variable	Categories	n	%
Regular medicines use	Yes	223	94.9
	No	12	5.1
Medicines amount	One to Two medicines	86	38.6
	Three to Four medicines	82	36.8
	Five to Seven medicines	37	16.6
	Eight or more medicines	18	8.1
Dosage	Take the medicines for themselves	142	63.7
	Take the medicines for themselves but usually forget	45	20.2
	Make a daily list helped by others	27	12.1
Medicines	Antihypertensive	159	31.5
	Calcium based	115	22.8
	Hypoglycemic	72	14.3
	Gastric protectors	40	7.9
	Tranquilizers and antidepressants	37	7.3
	Cardio tonic	33	6.5
	Analgesics	22	4.4
	Medicines for thyroid	17	3.4
Bronchodilators	09	1.8	
Total		235	100

one or two drugs a day, highlighting the antihypertensive (31.5%) and calcium-based drugs (22.8%). Most elderly (63.7%) did not need help to follow Activity length the drug prescription.

Discussion

Active aging is defined as the optimization process of opportunities in the health sector, participation and security, in order to promote the life quality among the elderly. The theoretical model is based on health determinants formulation, especially the physical environment, health services, the social,

economic, personal and behavioral determinants [15].

From the personal determinants analysis, there is a gradual change in the population health profile, the prevalence of longevity-related problems, such as chronic non communicable diseases that can weaken the elderly, resulting in greater dependence perform their daily activities [16].

About the self-reported morbidities, was presented hypertension prevalence, followed by osteoporosis and arthritis, morbidities that have an extended period of evolution and carry important functional restrictions. Hypertension is one of the most prevalent health problems among the elderly population, since it is considered a risk factor for cardiovascular diseases development, mainly coronary heart disease, cerebrovascular and heart failure.

Because of the morbidity multi factorial genesis, it is essential to build a line of extended care, instituting the control of their risk factors and adherence to therapeutic proposed, with strict blood pressure control, the change in lifestyle and adherence to the medicine regimen. Therefore, it is necessary to provide a network of services that can support the demands involving the whole society, family and the client to the care production [17].

The prevalence of diseases with osteoarticular manifestations is growing among the elderly population, as evidenced in this study. Despite this, the research conducted with elderly showed a high prevalence of osteoarticular diseases, especially Osteoporosis and Arthrosis, corroborating the occurrence of physical limitations in this population [18].

The steady aging of the population makes essential the investigations concerning the health of elderly people. In this context, it is important to know the incidence of falls in the population, since these are common events and potential risk for death, in addition to decline or loss of functional capacity, fear of suffering further falls and social isolation [19]. The findings of this study corroborate with similar

research, which shows a significant prevalence of falls among the elderly population [19-21].

Cast as personal determinant, the self-rated health is an individual measure of subjective judgment on the physical and mental quality. It is a reliable indicator, because it is directly influenced by conditions such as: medical diagnostics; physiological indicators, such as pain, fatigue, and loss of strength and energy; information obtained by symbolic means and the myths and stereotypes about health in old age [22].

Analyzing the self-rated health in the present study, it showed that most investigated elderly were satisfied with their lives, confirming the results of similar studies [23]. It points out that the high degree of satisfaction with life denotes the decrease of interest in negative emotional experiences, increased emotional stability and the maintenance of high levels of well-being, that protects them from the deleterious effects of stressful events [23].

The most prevalent leisure activities among the elderly were evaluated in this study, highlighting the use of media such as television and radio, corroborating similar research [24]. The limitation of mobility, common to advancing age, may hinder the execution of activities that require more physical capacity, resulting in a greater use of television. Moreover, it was observed the decline of some sensory-perceptual abilities with aging, resulting in visual impairment and consequently the restriction of activities such as reading [24].

Due to the social and occupational roles loss, emerge the free time increase, which is one of the reasons frequently linked to the use of the media, it is to keep them updated, to spend the free time or simple entertainment. In this context, given the commonly observed social isolation, the media are configured as a satisfaction source and an alternative distraction, helping to control or decrease the stress, anxiety and depression [24, 25].

The behavioral aspects are perhaps the most relevant to achieve the active aging, since they can be

changed at any stage of life and those changes may culminate in a significant gain of health [5]. So, referring to the behavioral determinants, was observed an elderly people prevalence who had never smoked and doesn't make use of alcoholic beverages, which resembles to others studies [26] which showed that elderly people who didn't smoke neither drink were more likely to have an active aging compared with those who had the habit of smoking and drinking alcohol.

Among the physiological changes in aging, one of the main affected systems in this process is the breathing, resulting in the pulmonary functional capacity impairment; these changes are strongly influenced by lifestyle, so that those physiological changes when associated to smoking will converge to various diseases emergence and above all, the commitment of cardio respiratory systems [27].

However, during the senescence, there is a tendency to reduce smoking, that is, smoking decreases after aging 60 years old, when compared to young people, and this no tobacco use brings benefits in life quality, providing to this population [27]. In similarly, the prevalence of alcoholism in this age group is significantly less when related to other ages. Nevertheless, excessive consumption and alcohol dependence culminate in numerous problems in physical, mental and social elderly health [28].

As for physical activity in this study, the majority of respondents did not practice physical exercise regularly. Among the activities performed, walking is highlighted, often three to four times a week, with an average of 30 to 60 minutes. Other research [26], which also deals with the subject in question, noted that the practice of physical activity was significantly associated with active ageing, so that, when compared to sedentary elderly, those who performed regular exercise were 1.63 times more likely to age actively.

Although there is growing evidence of the benefits of physical activity, only 14.7% of the Brazilian elderly practice exercises. There are several factors

that may facilitate or impede the practice of physical activities. Among the reasons for accession, the literature highlights: the improvement of health; the pursuit of social life; the acquisition of a healthy lifestyle; the promotion of well-being; decreased stress; and assistance in the recovery of existing lesions. As to the reasons for desistance, it highlights the perception of security, social support and lack of family encouragement for the practice [29]. In this approach, the implementation of such activities is directly associated with the reduction of functional declines [30].

It was also found that the most part of the respondents referred to have a healthy food and to make food restriction, reaffirming the discovering similar research [5]. The eating habits care in senescence include the search for the balance between the aging body imposition and restrictions arising from some diseases. Thus, before the search for active aging, health food becomes one of the pillars that help the elderly to maintain the good health, allowing the different experiences at maturity [31].

With regard to the use of drugs, it prevails seniors who make regular use of drugs; who didn't need help to follow drug prescription; and who used one or two drugs a day, highlighting the antihypertensive drugs. These data corroborate with those of research [5] which evaluated the active aging in the elderly of Santa Catarina. Furthermore, the proper use of medications is associated with increased survival, improvement in quality of life and active ageing [26].

Considering the presented weightings, herein highlights the importance of health professionals, particularly nursing staff, in the management of the behavioral determinants through the healthy habits adoption incentive, such as regular physical activity, adherence to a balanced diet, abstention from tobacco and alcohol, and moderated use of medicines in order to prevent diseases, to improve life quality and to preserve the elderly functional capacity.

Conclusion

The obtained results in this study elucidated the prevalence of personal and behavioral determinants and with greater frequency among women and young adults. As for the personal determinants, morbidities such as hypertension, osteoporosis and arthritis showed up more often, in addition to the high falls occurrence in the last twelve months between the studied elderly. It was also verified a high level of life satisfaction, as the use of leisure activities through media such as television, radio, newspaper or magazine.

As regards to the behavioral determinants, it was found that the majority of the studied population had never smoked nor consumed alcoholic beverages. The physical activity did not prevail among those elderly respondents, however, most of them reported to have a healthy eating and to make food restriction. The regular use of medicines prevailed among the investigated elderly with emphasis to anti-hypertensive.

It is noted that the above discoveries reinforce the knowledge expansion about the personal and behavioral determinants in active aging, allowing reflection, discussion, action planning and assistance turned to this population. It is recommended to carry out further researches addressing the association with other determinants of active aging, to improve the elderly life quality and health care.

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