Research article

Health and self-care profile of older people: a descriptive study in nursing homes, in northern Portugal

Maria Manuela Pereira Machado
Associate Professor University of Minho School of Nursing, Portugal

Margarida Vieira
Institute of Health Sciences, Catholic University, Portugal

Sofia Almeida
Institute of Health Sciences, Catholic University, Portugal

ABSTRACT

Introduction: An aging population is one of the main problems of the twenty-first century. According to Backman & Hentinen, the older people self-care is fundamentally looking after their health. The self-care prerequisites of older people are their personality, their health experience, the attitude towards others, the aging process and expectations about the future, according to which proposed four types of self-care: responsible, formally guided, independent and abandoned.

Objectives: This study aimed to describe the habits and lifestyles of older people living in nursing homes in the northern region of Portugal, its relationship to health, satisfaction and with the offer of each nursing home; Identify the self-care style of residents and characterize the clusters.

Methods: We conducted a cross-sectional, descriptive and correlational study, with a representative sample, district proportional. The inclusion criteria were: without alterations of consciousness or mental status or cognitive impairment. Data were collected by the principal investigator, between September 2013 and October 2014, using a form designed for this study.

Results: The age of the sample, 388 older persons, living in nursing homes, with capacity to decide about their habits / lifestyles, varies between 65 and 100, with an average age of 82 years. Most are female, widowed and with low education.

With regard to habits, they make overall diet, four daily meals; take general bath 3 times a week; wash their hands 3 times a day and their teeth once a day. Have exercise habits and television is the main pastime. They don't have nap habits, sleep about seven hours by night and take sleeping medication.

We use cluster analysis as clustering method to identify groups of individuals and obtained a grouping into three clusters: the cluster 1 are the seniors with a responsible self-care profile, a positive attitude towards life, satisfied with life but with little high expectations; cluster 2 the seniors with a self-care profile formally guided a positive attitude and satisfied with life, but with low expectations; and cluster 3 seniors with an abandoned self-care profile, a little positive attitude, low expectations and low life satisfaction.

Conclusions: The resident's habits and lifestyles are influenced by the characteristics and offer of each nursing home and influence their health. Self-care profiles are related to the entry into the nursing home and the health condition of older people: those with a responsible self-care profile enter the nursing home later, by choice, have fewer chronic diseases and less commitment of bodily processes. The earlier identification of older people's self-care profiles in community, may allow nurses to promote the healthier life styles and anticipate more sustainable and better suited solutions, to older people's needs.

Keywords: Self-care profile; older persons; nursing homes

Introduction

Population aging is one of the main problems of Europe for the XXI century. With increasing life expectancy and declining birth rates, which have been happening it is expected that in 2050, in Portugal, 3 in 10 people will have 65 or more years.[1-3]

This phenomenon has economic, social and health consequences, for the individual, for his family and for the community.

The WHO launched the proposal of active and healthy aging as a way for older people to stay autonomous and able to suffice themselves in their natural living environment, albeit with little support. However the reality is that there are a considerable number of older people in situations of dependency which in the absence or lack of financial resources and support, such as family members, need professional support.[4,5]

In Portugal, in spite of the growing supply of social responses, such as day centers, home support services and most recently the night centers, aimed at keeping older people in their homes, avoiding institutionalization, about 82,000 people live in nursing homes. About 70% of nursing home residents are over 80 and of these, 47% have 85 or more years.[5,6]

According to Backman & Hentinen self-care of older people living in the community is almost looking after their health, including disease management and daily living activities.[7,8] The seniors self-care prerequisites are their personality, their health experience, the attitude towards life, the aging process and expectations about the future, supporting the authors suggested, four types of self-care profiles: responsible, formally guided, independent and abandoned.

Older people with a responsible self-care take responsibility for their activities of daily living and health care, they seek to remain active as much time as possible, have confidence in the

future and believe that they will get support when they need it, by entering a previously selected nursing home. Older people with a formally guided self-care style, follow the guidance of professionals without questioning, accept that gradually will need help to carry out its activities and although wish to remain at home, understand that someday will have to go to a nursing home. Older people with an independent self-care style want to stay at home forever, do not accept aging and deny the future, not thinking about him. Their life project does not pass through a nursing home. Older people with an abandoned self-care style often have impaired vision, hearing, mobility, or memory changes, and feel like giving up. They do not care about themselves and let others take care of them, becoming dependent. Are bitter and sad, have a negative attitude towards aging and fear of the future. In this case the family option may involve the institutionalization and they will not object. [9,10]

Achieved the greatest longevity we are all very likely to enter a nursing home, where it is expected that will be guaranteed the opportunity to be active and responsible for the self-care activities that are still able to perform, being helped or replaced in those that are unable to maintain, with respect for our individuality.[11,12]

The nursing home must ensure an environment consistent with a healthy aging in relation to regular physical exercise, leisure activities, food, hygiene, sleep and rest, health surveillance and management of therapeutic regimen, among others.

Aim

This study aimed to: describe the lifestyles of older people living in nursing homes in the northern region of Portugal; identify its relationship with health, satisfaction and the characteristics or offer of each nursing home; Identify the self-care styles; and characterize the clusters according to the self-care profile.

Methods

We conducted a larger transversal, descriptive and correlational study, with a representative sample of the population (1131 seniors living in 12 nursing homes) and proportional by district.[13,14] Sample size calculated with the "Sample size calculator" of Raosoft $_R$, considering an error margin of 3% and a confidence interval of 95%.

Data were collected in the period between September 2013 and October 2014 using a form built for this purpose.[15] Data related to the seniors were collected directly to the own, and data relating to the institution were collected by observation and with the nursing home technical director, by the principal investigator, after informed consent of nursing homes, and seniors.

To study the lifestyles and self-care profiles were selected the elderly with capacity to decide on them: 388 older people without changes in level of consciousness, without altered mental status and without cognitive impairment according to Glasgow Coma Scale and the Minimental State Examination. Satisfaction, attitude towards life and expectations about the future were evaluated with a Likert scale with 5 points.

On data analysis the continuous variables were described by mean, standard deviation, minimum and maximum. The categorical variables were described by absolute and relative frequency (%). A comparison of proportions was performed using the chi-square test or Fisher's exact test where appropriate. The mean comparison between two groups we used the Student's t test for independent samples. Correlation analysis of continuous variables was performed using Pearson's coefficient. The cluster analysis with the method of "two-step" cluster was used as the clustering method to identify groups of individuals. Statistical tests were performed bilaterally considering a 5% significance level. The statistical analysis was performed in software, Statistical Software for Social Sciences, SPSS version 22.0.[16,17]

The study was approved by the ethics committee of the Portuguese Catholic University.

Results

Participants were 388 seniors with ability to decide about their lifestyles, which agreed to participate, living in 12 nursing homes who also agreed to join the study.

Most are female, 67.5%, aged from 65 to 100 years, with an average age of 82 years. Mainly are little educated: 57.5% have the 1st cycle of basic education, 26.5% are illiterate and approximately 16% have the 2nd cycle of basic education or more. Half are widows, 28% single, and 17% married. Almost all, 95%, maintain connection with the family. Almost 35% exits the nursing home, daily and 20% at least once a week. 38% receive visits weekly, and 19%, several times per week. The admission age in the nursing home varies between 48 and 97 years with an average age of 76. The mean time of stay in the nursing home is 6 years.

Alimentary habits, relationship with health, satisfaction and the offer of nursing homes

Most seniors, 98.5% are independent in feeding; 74% have no special diet; the number of meals varies from 1 to 7, with an average of 4 meals/day; 95, 6% usually drink water, and 47.7% drink wine at least one meal, usually at lunch; 71.1% eats foods beyond those provided by the nursing home and 85.6% are satisfied with their alimentary habits and the food provided by the nursing home (Table 1).

Almost half nursing homes have a nutritionist. We observed significant associations between the existence of nutritionist and: the satisfaction with the food, $X_2(1) = 7.60$, p = 0.006; food intake beyond those provided by the nursing home, $X_2(1) = 5.85$, p = 0.016; and usual diet, $X_2(1) = 4.92$, p = 0.027. The percentage of seniors satisfied with food is higher in nursing homes without nutritionist (89.3% vs 79.2%). The proportion of older people who eats foods besides those provided by the nursing home is 75.4% in nursing homes without nutritionist and 63.9% in the ones with a nutritionist. The proportion of older people doing general diet is higher in nursing homes with nutritionist, 90.3%, than in nursing homes without nutritionist, 82%.

We observed significant associations between the number of meals provided by the nursing home and: food intake beyond the supplied, $X_2(1) = 14.19$, p <0.001; and the usual diet, X_2

Table 1: Eating habits.

		n	%
	General	330	85,1%
Usual diet	Cooked and grilled	58	14,9%
	Others	0	0,0%
	Normal	307	79,1%
	Soft	66	17,0%
Consistency	Pasty	10	2,6%
	Liquid	2	0,5%
	Normal with meat/fish pasty	3	0,8%
Drinks usualy water		371	95,6%
Drinks usualy wine		185	47,7%
Drinks water during the day		335	86,3%
Eat foods beyond those provided		276	71,1%

(1) = 7.50, p = 0.006. In nursing homes that provide four meals a day, the percentage of older people who eats foods beyond those provided, 82.7%, is higher than on nursing homes that provide 5 meals a day, 64.7%. The percentage of seniors doing general diet is higher in nursing homes that provide 5 meals a day, 88.8%, compared to nursing homes that provide 4 meals, 78.4%.

The presence of nutritionist is positively related to the number of meals of each senior and negatively with the number of meals provided by the nursing home, p <0.01. In nursing homes with a nutritionist the seniors make more meals a day but the number of meals provided by the nursing home is lower.

Personal hygiene, relationship to health, satisfaction and the offer of nursing homes

Most, 56%, are independent to take care of personal hygiene, 24% need help from people and 21% take general bath with assistance and partial bath alone.

On average, seniors take general bath 3 times, partial bath 5 times, wash the hair twice, shave 4 times, put makeup once, and put deodorant or perfume and moisturizing cream twice a week; wash their hands 3 times a day, the teeth once a day; go to the hairdresser and take care of the fingernails and toenails once a month.

There is a positive correlation between the frequency of general bath, the nursing home offer of frequency of general bath and the satisfaction with care; and a negative correlation between the frequency of general bath and the bodily processes commitment (0.01). Older people who take general bath more frequently are more satisfied with the care and have fewer commitments of bodily processes.

Elimination habits, relationship to health, satisfaction and the offer of nursing homes

The majority, 89.4%, are independent in self-care using the toilet. About 25% reported constipation; the number of stools is an average of 5 per week. Nearly 40% have some form of incontinence, and 1.5% has a urinary catheter. About 8.5% wear disposable diaper always, 8% uses only overnight, 7% uses disposable underwear and 17% uses sanitary napkin.

There is a significant positive correlation between general satisfaction and satisfaction with the elimination, r_{pb} = 0.28, p <0.001. The seniors satisfied with the elimination, have higher general satisfaction.

Exercise and leisure habits, relationship to health, satisfaction and the offer of nursing homes

Most seniors have exercise habits, on average 4 times a week. The more frequent type of exercise are the gym classes, followed by walking, then others like swimming, cycling or dancing with, and water aerobics.

The main hobby is television. Nearly 40% have other activities such as coral corner or gardening, 33% reported reading, 26% walking, 23.5% perform manual works, 17.5% prefer board or card games and 12% listen to music; 8.2%, reported having no leisure activities.

There is a significant positive correlation between the offer of leisure activities and the level of dependency on self-care and negative between the offer of leisure activities and the bodily processes commitment (0.01). In nursing homes where the supply of leisure activities is higher, the seniors are more independent in self-care and have less bodily processes commitment.

There is a significant negative association between chronic diseases and exercise habits (0.01). Seniors with chronic diseases have no exercise habits.

Sleep and rest habits, relationship to health, satisfaction and the offer of nursing homes

The seniors lie down around 21 hours and wake up by 7.30 hours, sleeping an average of seven hours per night. The majority, 62.0%, has no nap habits and takes medication to sleep. Almost all, 93%, reported feeling rested after sleep.

There is a positive, significant correlation between the sleeping hours and the usual time to get up, feeling rested after sleep, and satisfaction with sleep/rest (0.01). Older people, who sleep more hours, get up later, feel rested after sleeping and are satisfied with sleep/rest. There is a significant positive correlation between taking medication to sleep and chronic diseases (0.01). Seniors with chronic diseases take more sleeping medication.

Table 2: Exercise and leisure habits.

	n	**%**
Exercise habits	237	61,2%
walk	120	50,6%
Gym	142	59,9%
water aerobics	5	2,1%
Other exercice types	20	8,4%
Leisure habits	356	91,8%
Card/board games	63	17,5%
Handicrafts	85	23,5%
Television	227	62,9%
Walking out	95	26,3%
Reading	120	33,2%
Music	43	11,9%
Other leisure activities	141	39,1%

There is a significant negative correlation between sleeping problems and the sleeping hours, and the usual bedtime (0.01). Older people with sleep disorders sleep less hours and lie down earlier.

Consumption of substances habits

The substance consumption is very low, 4.6%. Alcohol and tobacco are the substances used in equal percentages, 2.6%.

Health surveillance and therapeutic regimen management

About half of the seniors, 52%, do health monitoring exclusively at the nursing home. The vast majority, 88%, never go to the dentist, or only in emergency situations. Almost all, 92% refer adhere to treatment recommendations. Almost all, 99% have chronic illnesses and take medication daily; 86% has relevant medical history, such as stroke, orthopedic or heart surgery. The majority, 70%, needs help to manage the therapeutic regimen and 30% are independent. The drug regimen is in general complex: each old person takes on average seven different drugs, 3 times per day and 4 drugs each time.

Self-care profile of older people living in nursing homes

Considering the self-care profiles proposed by Backman & Hentinen and the variables, satisfaction with life, attitude towards life and future expectations, defining characteristics of seniors self-care, we used the method "two step cluster» and obtained a grouping of three clusters with 150, 124 and 114 older persons, respectively.[7,8] In cluster 1 are the seniors with a responsible self-care profile: with a positive attitude towards life, satisfied with life and have some high expectations. In cluster 2 are seniors with a formally guided self-care profile: also have a positive attitude to living, low expectations, because they are already in the nursing home, but satisfied with life, because they knew that would need to enter the nursing home. In cluster 3 are older people with an abandoned self-care style: an attitude towards life little positive, low expectations and less satisfied with life*(*Board 1)**.

Discussion

This study described the lifestyles of older people living in nursing homes and their relations with health, satisfaction and the characteristics and offer of each nursing home, in order to plan and provide adjusted and sustainable care in nursing homes. Studies with home-dwelling elderly people, indicate the presence of characteristics of different types of self-care, being however possible to identify characteristics associated mainly to a self-care responsible profile or all described profiles. In our study, the only realized in nursing homes, we identified characteristics associated with three of the styles described by authors.[7-11]

Characterization of older people living in nursing homes according to the self-care profile

The seniors of cluster 1, with a responsible self-care profile, entered the nursing home mainly for personal decision, are the most independent in self-care, those with fewer bodily processes commitments, fewer chronic illnesses, are less depressed and have better cognitive performance. The seniors of cluster 2, with

Board 1: Summary of the main differences between the three clusters.

Variables	*Cluster 1: Seniors with responsible self-care*	*Cluster 2: Seniors with formally guided self-care*	*Cluster 3: Seniors with abandoned self-care*
Age	82(6,3)	83,3(7,0)	81(6,2)
Nursing home admission age	79,5 (7,8)	77,6(7,8)	75(7,3)
Nursing home admission cause	Personal decision (57,3%)	Critical event (46%) Personal decision (45%)	Critical event (46,5%)
Dependence in self-care	3,7 (0,4)	3,55(0,5)	3,59(0,4)
Bodily processes commitment	1,06 (0,08)	1,11(0,1)	1,10(0,1)
Chronic diseases	15,18 (1,32)	15,21 (1,44)	15,53(1,39)
Surveillance consultations	Sim (53,3%)	Não (55,6%)	Não (56,1%)
Frequency of consultations	2,45(2,2)	2,89(2,3)	1,80(1,0)
Global satisfaction	28,4 (3,5)	25,8(3,4)	24,9 (3,6)
Depression (DGS-15)	3,49 (0,93)	4,07 (1,66)	5,68 (1,91)
Cognitive performance (MMSE)	23,93 (3,5)	22,8(3,4)	23,4(3,5)
Health concerns	Little or nothing worried (59, 4%)	Little or nothing worried (53, 2%) Concerned or very concerned (45, 2%)	Concerned or very concerned (55, 3%)

a formally guided self-care profile, entered the nursing home, by personal decision and occurrence of critical event, in similar percentages, are the most dependent on self-care, have more commitments of bodily processes and chronic diseases than the cluster 1. They have the worst cognitive performance. The seniors of cluster 3, with abandoned self-care profile, entered the nursing home mostly by occurrence of a critical event, are less dependent than the cluster 2 but more dependent than the cluster 1, have similar bodily processes commitments those of the cluster 2, are those with more chronic diseases. Cognitive performance is superior to that of the cluster 2 and lower than the cluster 1. [7,18-22]

Conclusion

Habits / lifestyles of older people living in nursing homes are variable and influenced by features and offer of each nursing home, and in turn influence the health of older people. The health and welfare of older people varies depending on their self-care profile, as noted in the study of Hoy et al, were self-care emerges as a health resort for the seniors. [20,21] Identification of seniors self-care profile, while still living in the community may allow nurses to promote more healthier self-care profiles favorable to active aging, and plan nursing care anticipating more sustainable and appropriate responses to the seniors needs.[22]

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ADDRESS FOR CORRESPONDENCE

Maria Manuela Pereira Machado, Associate Professor University of Minho School of Nursing 3rd Floor - Building. General Library Campus of Gualtar Braga, 4710-057 Portugal, Tel: +351934251515; home: +351253312097, e-mail: mmachado@ese.uminho.pt