

Health self-care practices among community older adults with morbidity

Práticas de autocuidado em saúde entre pessoas idosas com morbidade da comunidade

Prácticas de autocuidado en salud entre ancianos con morbilidad comunitaria

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ABSTRACT

Objectives: to describe sociodemographic and health characteristics of older adults with morbidity, identify self-care practices and verify the association of sociodemographic variables with those related to health and self-care practices. **Methods:** a quantitative, analytical and cross-sectional household survey, developed in the urban area in the countryside of Minas Gerais, from 2017 to 2018. A total of 796 older adults were assessed using validated instruments, such as Geriatric Depression Scale: short form, Brazilian Questionnaire for Instrumental and Multidimensional Assessment, International Physical Activity Questionnaire, Instrument for Assessing Attitude Towards Taking Medications. Multiple logistic regression ($p < 0.05$) was used. **Results:** negative self-perceived health was associated with low income and education. As for self-care in health, being physically active associated with the age group 60-79 years and higher education. **Conclusions:** sociodemographic variables such as sex, age group, income, education, marital status, housing arrangement were related to health status and self-care practice.

Descriptors: Aged; Self Care; Geriatric Nursing; Nursing Theory; Health Promotion.

RESUMO

Objetivos: descrever as características sociodemográficas e de saúde dos idosos com morbidade, identificar as práticas de autocuidado e verificar a associação das variáveis sociodemográficas com as relacionadas à saúde e às práticas de autocuidado. **Métodos:** inquérito domiciliar quantitativo, analítico e transversal, desenvolvido na zona urbana no interior de Minas Gerais, de 2017 a 2018. Avaliados 796 idosos por instrumentos validados, como Escala de Depressão Geriátrica abreviada, Questionário Brasileiro de Avaliação Funcional e Multidimensional, Questionário Internacional de Atividade Física, Instrumento de Avaliação da Atitude Frente à Tomada de Remédios. Utilizou-se regressão logística múltipla ($p < 0,05$). **Resultados:** a autopercepção de saúde negativa associou-se às baixas renda e escolaridade. Quanto ao autocuidado em saúde, ser ativo fisicamente associou-se à faixa etária 60-79 anos e à maior escolaridade. **Conclusões:** as variáveis sociodemográficas, como sexo, faixa etária, renda, escolaridade, estado conjugal, arranjo de moradia, relacionaram-se à condição de saúde e à prática de autocuidado.

Descritores: Idoso; Autocuidado; Enfermagem Geriátrica; Teorias de Enfermagem; Promoção da Saúde.

RESUMEN

Objetivos: describir las características sociodemográficas y de salud de los ancianos con morbilidad, identificar las prácticas de autocuidado y verificar la asociación de las variables sociodemográficas con las relacionadas con la salud y las prácticas de autocuidado. **Métodos:** encuesta domiciliar cuantitativa, analítica y transversal, desarrollada en el área urbana del interior de Minas Gerais, de 2017 a 2018. Un total de 796 ancianos fueron evaluados utilizando instrumentos validados, como la Escala de Depresión Geriátrica abreviada, el Cuestionario Brasileño de Evaluación Funcional y Multidimensional, el Cuestionario Internacional de Actividad Física, el Instrumento de Evaluación de la Actitud hacia la Toma de Medicamentos. Se utilizó regresión logística múltiple ($p < 0,05$). **Resultados:** la autopercepción negativa de la salud se asoció con baja renta y escolaridad. En cuanto al autocuidado en salud, la actividad física se asoció con el grupo de edad 60-79 años y estudios superiores. **Conclusiones:** las variables sociodemográficas, como sexo, grupo etario, renta, escolaridad, estado civil, arreglo de vivienda, se relacionaron con el estado de salud y la práctica de autocuidado.

Descritores: Anciano; Autocuidado; Enfermería Geriátrica; Teoría de Enfermería; Promoción de la Salud.

INTRODUCTION

The process of aging and, consequently, old age have been notoriety since the beginning of civilization. The Brazilian demographic transition has been occurring rapidly with regard to developed countries. This phenomenon challenges established powers, demanding new knowledge, reorienting the economy and pointing to the reorganization of meanings and directions of ethical, scientific, political and social planning and decisions⁽¹⁻²⁾.

In the context of health, chronic diseases and their complications in older adults have worried professionals. Thus, it is considered that one of the tools for coping is self-care, because it is an action that promotes health, well-being and healthy aging⁽³⁾. Self-care is defined as "the practice of activities initiated and performed by individuals for their own benefit, for the maintenance of life, health and well-being"⁽⁴⁾. It is noteworthy that, when effectively executed, it contributes to the human structure integrity and to a person's functioning and development⁽⁴⁾.

In the present research, we used Orem's self-care theory framework⁽⁴⁾, considering the guiding question: what are the characteristics of older adults that are related to self-care practice in health? This theory can be expanded to several individuals and groups, favoring a nursing practice pertinent to self-care needs. Moreover, it is the central concept for developing health promoting actions and prevention and/or complications of diseases⁽⁵⁾.

The theory includes three categories of self-care requirements or requirements, such as universal, developmental, and health deviation. Self-care requirements are actions focused on its provision⁽⁴⁾. The focus of this investigation was on the health deviation requirement, due to the interest in understanding possible gaps in the self-care of older adults with some morbidity, related to health and sociodemographic variables. The requirements for health deviation occur when individuals in pathological state need to adapt to this situation. Such a measure is required in conditions of illness, injury or disease, or may be a consequence of medical measures necessary to diagnose and conform to condition⁽⁴⁾.

In the national and international scientific literature, there is little research that associates self-care with varied health practices in community older adults. The studies found related the theme to some chronic noncommunicable disease (NCD)⁽⁶⁾ as diabetes mellitus⁽⁷⁻⁹⁾ and hypertension⁽¹⁰⁾. It is also noteworthy the knowledge gap in research that focuses on self-care in health based on nursing theories. Thus, this study studied the self-care practiced by community older adults, in a multifactorial way, subsidized by Orem's self-care theory.

The results may support the proposition of actions by both the multidisciplinary team and those specific to nursing, for assessing and approaching older adults in primary care. Moreover, it can contribute with responses to social demands and health intervention in the training of health professionals, in addition to expanding discussions on the subject. It is also considered that knowledge of data about a particular region enables the debate of issues related to public policies, citizenship and social rights.

OBJECTIVES

To describe sociodemographic and health characteristics of older adults with morbidity, identify self-care practices and verify

the association of sociodemographic variables with those related to health and self-care practices.

METHODS

Ethical aspects

The project was approved by the Research Ethics Committee with Human Beings of the *Universidade Federal do Triângulo Mineiro* (UFTM), in 2017, in accordance with Ordinance 466/12 of the Brazilian National Health Council. Only after the consent from the older adults and signature of the said form, the interview⁽¹¹⁾ was conducted.

Study design, place and period

This is a quantitative, household survey, analytical and cross-sectional study, developed in the urban area of Uberaba, countryside of Minas Gerais, from May 2017 to June 2018, guided by the EQUATOR network Strengthening the Reporting of Observational Studies in Epidemiology (STROBE).

Population and sample; inclusion and exclusion criteria

The study population consisted of older adults from a city in the countryside of Minas Gerais. To calculate the sample size, physical activity level was used as an outcome, assessed through the International Physical Activity Questionnaire (IPAQ)⁽¹²⁾. The calculation was performed using PASS (Power Analysis and Sample Size), version 13, and considered the 48.3% prevalence of older adults classified as active⁽¹³⁾, 3.5% accuracy and 95% confidence interval for a finite population of 36,703 older adults, reaching a minimum sample of 767 subjects. Considering a 20% sampling loss, the maximum number of interview attempts was 959.

Older adults 60 years of age or older, having at least one chronic disease and living in the urban area were included. Institutionalized older adults, with communication problems such as deafness, not corrected by devices and severe speech disorders, with cognitive decline without an informant to answer Functional Activities Questionnaire (PFEFFER) and those with a final score \geq six points, were excluded⁽¹⁴⁾. Thus, the sample consisted of 796 older adults.

Study protocol

To identify the older adults to be interviewed, multistage cluster sampling was used. In the first stage, the arbitrary selection of 50.0% of the census sectors in the city was considered through systematic sampling. In the second stage, the number of older adults to be interviewed according to the sample calculation was divided by the number of census tracts selected (202 sectors) so that a similar amount was obtained within each census sector (4 older adults per sector).

For the beginning of collection, the streets of each census tract were numbered and typed in Statistical Package for the Social Sciences (SPSS[®]), version 17.0. Then, within each census sector, the first household was randomly selected and the others, from household to household, in a standardized way, until the sample of that sector was saturating.

Before starting the interview, a cognitive assessment was performed with older adults through the Mini Mental State Examination (MMSE), translated and validated for Brazil⁽¹⁵⁾. The MMSE score ranges from 0 to 30 points, considering the cut-off points: ≤ 13 for illiterates; ≤ 18 for median education (ages one to eight); and ≤ 26 for high education (over eight years)⁽¹⁵⁾.

When older adults showed cognitive decline in the MMSE assessment, the companion/informant who knew how to provide information about older adults was asked to participate, to which PFEFFER⁽¹⁴⁾ was applied. It is a scale of 11 questions applied to the companion or caregiver of older adults discussing their ability to perform certain functions. The answers follow a pattern: able (0); never did, but could do now (0); with some difficulty, but does (1); never did and would have difficulty now (1); needs help (2); not able (3). The maximum score is equal to 33 points. The application of PFEFFER indicates the most severe presence of cognitive decline when the score is equal to or higher than six points and, in this case, the interview with the companion/informant⁽¹⁴⁾ is closed. The interview was closed for older adults who presented cognitive decline in the MMSE and had no companion/informant.

Sociodemographic and economic variables were: sex (female, male); age group (60 |-| 69 years, 70 |-| 79 years, 80 years or more); individual monthly income, in minimum wage (≤ 1 , > 1); education, in years of study (0 |-| 4, 5 or more); marital status (without a partner, with a partner); housing arrangement (live alone or with a partner). They were assessed by instrument elaborated and widely used by UFTM's Collective Health Research Group.

The Geriatric Depression Scale: short form (GDS-15), validated for Brazil, was used to measure health-related variables⁽¹⁶⁾. The scale can range from zero (absence of depressive symptoms) to fifteen points (maximum score of depressive symptoms), being the cut-off point ≥ 5 to determine the presence of depressive symptoms in older adults⁽¹⁶⁾. Number of self-reported morbidities (1 |-| 4, 5 or more), personal history (yes, no) and self-perceived health (negative, positive) were obtained through the items contemplated in the Brazilian Functional and Multidimensional Assessment Questionnaire (BOMFAQ – *Questionário Brasileiro de Avaliação Funcional e Multidimensional*)⁽¹⁷⁾ that assesses activities of daily living (ADL) and instrumental activities of daily living (IADL). This questionnaire has the ability to assess the participant when performing their daily tasks, such as lying down and getting out of bed, eating, combing their hair, dressing, going up and down stairs, among others, the greater the number of difficulties, the greater the individuals' commitment⁽¹⁷⁾.

Self-care in health variables were assessed by the IPAQ adapted to older adults⁽¹²⁾. It integrates questions related to physical activities performed in a usual week, with vigorous, moderate and light intensity, with a minimum duration of 10 continuous minutes, distributed in five domains: work; transport; domestic activity; leisure/recreation activity; and sitting time. It considered active those who fired 150 minutes or more of weekly physical activity, and inactive, from zero to 149 minutes⁽¹⁸⁾. Consultations, routine and preventive tests were obtained through questions developed by the research group: have you had a routine consultation in the last year? If so, with which professional (s)? Have you had a preventive test in the last year? If so, which one (s)? And specific ones for older adults, such as Pap smear and mammography, as well as for older

adults, with a prostate examination. Medication compliance was verified by the Instrument for Assessing Attitude Towards Taking Medications (IAAFTR - *Instrumento de Avaliação da Atitude Frente à Tomada de Remédios*)⁽¹⁹⁾. It consists of ten structured questions and their score ranging from 0 to 10. Scores less than or equal to seven refer to negative attitude, and higher, to positive attitude⁽¹⁹⁾.

Ten interviewers with previous experience in data collection were selected, who were trained on how to fill in and apply the instruments and how to approach older adults. The interviewers noted the complications in the field worksheet. Systematic meetings were held between researchers and interviewers for training, follow-up and guidance. The interviews carried out were handed over to the supervisors, who carried out the reviews. When necessary, they were returned to the interviewer to supplement the information. After this step, data were double entered, in the electronic database, in Excel[®]. Consistency was verified between the two databases, and corrections were made with the original interview, if necessary. For analysis, the data were imported into SPSS[®], version 17.0.

The variables referring to self-care practices in health were: physical activity level (active, inactive); routine consultation (yes, no); preventive tests (yes, no); for women, cytopathological examination (yes, no) and mammography (yes, no); for men, prostate exam (yes, no); routine tests such as blood count and urine (yes, no); attitude towards taking medication (positive, negative).

Analysis of results, and statistics

Data were subjected to descriptive analysis through distribution of absolute frequencies and percentages for categorical variables, and mean and standard deviation for numerical variables, according to data normality, performed using the Kolmogorov-Smirnov test.

To verify the association between sociodemographic and economic variables with those related to health and self-care practices, a preliminary bivariate analysis was performed, using the chi-square test. Those that met the established criterion ($p \leq 0.10$) were introduced into the multiple logistic regression model, with variables related to health and self-care practices as the main outcome ($p \leq 0.05$).

RESULTS

A total of 796 older adults were investigated, most of whom were female (67.1%), aged between 70 |-| 79 years (42.3%), with individual monthly income (56.4%) ≤ 1 minimum wage, with 0 |-| 4 years of study (67.2%), marital status, no partner (58.2%) and living with someone (82.7%).

Regarding the health-related variables, older adults predominated without indicative of the presence of depressive symptoms (80.9%), with five or more morbidities (68.5%), of which the most prevalent were vision problems (70%), hypertension (68.5%), back problems (52.1%) and poor circulation (47.6%). It was found that 84.3% reported morbidities in family history and 54.6% self-perceived negative health (Table 1).

Regarding the variables of self-care in health, the highest percentage of older adults were classified as physically active (66.1%), had routine consultations (88.8%) and preventive tests

(64.8%), with the highest percentage for old women (67.6%), in addition to having a positive attitude towards taking medication (76.8%). Among the older adults, most did not undergo cytopathological examination (59.3%), but underwent mammography (51.6%) and routine tests (93.4%). Among older adults, prostate (65.9%) and routine (98.2%) (Table 2) tests prevailed.

Table 1 - Frequency distribution of variables related to older adults' health, Uberaba, Minas Gerais, Brazil, 2018

Variables	n	%
Indication of presence of depressive symptoms		
Yes	152	19.1
No	644	80.9
Number of self-reported morbidities		
1 - 4	251	31.5
5 and more	545	68.5
Morbidities in family history		
Yes	671	84.3
No	107	13.4
Ignored	18	2.3
Self-perceived health		
Negative	435	54.6
Positive	361	45.4

Table 2 - Frequency distribution of variables related to self-care in health, Uberaba, Minas Gerais, Brazil, 2018

Variables	n	%
Physical activity level		
Active	526	66.1
Inactive	270	33.9
Routine consultation		
Yes	707	88.8
No	89	11.2
Preventive tests (general)		
Yes	516	64.8
No	280	35.2
Attitude towards taking medications		
Negative	170	23.2
Positive	563	76.8
Preventive tests (sex)		
Female	349	67.6
Male	167	32.4
Female		
Cytopathological examination		
Yes	142	40.7
No	207	59.3
Mammography examination		
Yes	180	51.6
No	169	48.4
Routine tests (e.g., blood count, urine)		
Yes	326	93.4
No	23	6.6
Male		
Prostate examination		
Yes	110	65.9
No	57	34.1
Routine tests (e.g., blood count, urine)		
Yes	164	98.2
No	3	1.8

It is noteworthy that most older adults used medications (92.8%) and had positive attitudes, such as taking the medications

with them when traveling (96.9%) and providing a new medication box before ending (95.4%). As for the negative attitude, it prevailed to stop taking any medication in recent days (19.9%).

In the bivariate analysis, those related to health that met the established criterion ($p < 0.10$) and were submitted to the multiple logistic regression model were for the absence of indicative of the presence of depressive symptoms: sex ($p = 0.001$), education ($p = 0.008$) and marital status ($p < 0.001$); self-perceived health: sex ($p = 0.021$), income ($p < 0.001$), education ($p < 0.001$), and marital status ($p = 0.021$); number of self-reported morbidities: sex ($p < 0.001$), age group ($p = 0.081$), income ($p = 0.037$), education ($p = 0.017$), and marital status ($p = 0.064$); presence of morbidities in personal history: sex ($p = 0.006$), age group ($p = 0.006$), and education ($p = 0.014$).

The variables related to self-care practices in older adults' health, who met the established criteria ($p < 0.10$) and were submitted to the multiple logistic regression model were the level of physical activity: age group ($p < 0.001$), education ($p = 0.001$); performance of preventive tests: age group ($p = 0.029$), income ($p = 0.071$), education ($p = 0.002$) and marital status ($p = 0.015$); and attitude towards taking medication: education ($p = 0.068$).

Table 3 - Multiple logistic regression of sociodemographic variables related to health and self-care practices in health, Uberaba, Minas Gerais, Brazil, 2018

Variables	RCP*	(CI)**	p***
Health-related			
Indication of presence of depressive symptoms			
Sex	1.57	(1.05-2.33)	0.026
Education	1.50	(1.03-2.19)	0.034
Marital status	1.81	(1.25-2.62)	0.002
Self-perceived health			
Sex	1.16	(0.84-1.60)	0.368
Income	1.50	(1.11-2.03)	0.008
Education	1.50	(1.10-2.05)	0.010
Marital status	1.30	(0.96-1.76)	0.092
Number of self-reported morbidities			
Sex	3.75	(2.65-5.31)	<0.001
Age group	1.46	(1.00-2.15)	0.051
Income	1.05	(0.75-1.47)	0.766
Education	1.45	(1.03-2.04)	0.035
Marital status	1.10	(0.78-1.56)	0.585
Presence of morbidities in personal history			
Sex	1.88	(1.23-2.86)	0.003
Age group	1.83	(1.12-2.99)	0.016
Education	1.78	(1.13-2.80)	0.013
Self-care practices in health			
Physical activity level			
Age group	2.54	(1.79-3.60)	<0.001
Education	1.64	(1.17-2.29)	0.004
Preventive tests			
Age group	1.33	(0.93-1.91)	0.114
Income	1.24	(0.91-1.69)	0.170
Education	1.49	(1.06-2.08)	0.020
Marital status	1.33	(0.98-1.81)	0.071
Attitude towards taking medications			
Education	1.43	(0.97-2.09)	0.069

*RCP - Odds Ratio; **CI - confidence interval; p < 0.05.

It was found that, for health-related variables, the absence of indicative of the presence of depressive symptoms was associated with male sex ($p = 0.026$), education of 5 years and over ($p = 0.034$) and marital status with a partner ($p = 0.002$). Negative self-perceived health was associated with ≤ 1 minimum wage

verified that regular physical activity influences positive self-perceived health and the lower rates of depression⁽⁴³⁾, in addition to the active seek more health services⁽²⁸⁾ and favor early diagnosis.

Study limitations

Morbidities were self-reported by older adults and may be undersized.

Contributions to nursing, health, and public policies

The present study analyzed self-care practices in health among older adults with morbidity based on Orem's self-care theory. The results add knowledge to the theme, provide subsidies for planning and nursing care, for professional training and help in carrying out future research that will be able to analyze the direct and indirect relationships that involve self-care practice among older adults. Thus, it contributes to nursing care improvement, having as strategy the systematization of nursing care in an individualized way, the active search for older adults, identifying gaps and finding solutions, health education with the team and community, reinforcing knowledge about senescence and senility and encouraging the ability to rescue the autonomy and individuality of these older adults.

CONCLUSIONS

Older adults, aged between 70 -| 79 years old, low income and education and with no partner, prevailed. As for the health-related variables, the absence of an indication of the presence of depressive symptoms was associated with being male, having a higher education and having a partner. Negative self-perceived health was associated with low income and education. As for self-care in health, being physically active associated with the age group 60 -| 79 years and higher education. Preventive tests were also associated with higher education.

Sociodemographic variables such as sex, age group, income, education, marital status, housing arrangement, were related to health status and self-care practice among older adults, highlighting those that are subject to modification and that can be worked on through public policies with the aim of improving older adults' life and health.

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