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ASSOCIATION BETWEEN SEX, AGE GROUPS, AND HEALTH CARE AMONG OLDER ADULTS IN BRAZIL

ASSOCIAÇÃO ENTRE SEXO, GRUPOS ETÁRIOS E CUIDADOS COM A SAÚDE DE PESSOAS IDOSAS NO BRASIL

ASOCIACIÓN ENTRE SEXO, GRUPOS ETARIOS Y CUIDADOS DE LA SALUD DE PERSONAS MAYORES EN BRASIL

Emily da Silva Eberhardt[1] ORCID: 0000-0003-2736-5686
Eliane Pinheiro de Morais[1] ORCID: 0000-0003-2736-5686
Jack Roberto Silva Fhon[2] ORCID: 0000-0002-1880-4379
Idiane Rosset[1] ORCID: 0000-0003-3651-652X

[1] Federal University of Rio Grande do Sul, School of Nursing. Porto Alegre, RS, Brazil.
[2] University of São Paulo, School of Nursing. São Paulo, SP, Brazil.

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RESUMO

Objetivo: Analisar a associação entre sexo, grupos etários e cuidados com a saúde de pessoas idosas no Brasil, nos anos de 2013 e 2019. **Método:** Estudo transversal com dados públicos da Pesquisa Nacional de Saúde (PNS), que incluiu 11.177 pessoas de 60 anos ou mais em 2013 e 22.728 em 2019. Para a análise de associação, utilizou-se o Teste Qui-quadrado, segundo o sexo e os grupos etários (60 a 69 anos, 70 a 79 anos e 80 anos ou mais). **Resultados:** O monitoramento da pressão arterial e da glicemia, bem como a consulta médica no último ano, associaram-se ao sexo feminino em ambos os anos. A busca por Unidade Básica de Saúde (UBS) associou-se significativamente ao sexo feminino apenas em 2013. Pessoas idosas de 60 a 69 anos apresentaram maiores percentuais de indicadores de cuidados preventivos, enquanto o atendimento domiciliar de urgência foi mais frequente no grupo etário de 80 anos ou mais. **Conclusão:** O sexo feminino e o grupo etário de 60 a 69 anos apresentaram os maiores percentuais de cuidados com a saúde. Dessa forma, intervenções e políticas públicas que considerem as especificidades dos cuidados com a saúde da população idosa são relevantes.
Descritores: Idoso; Envelhecimento; Saúde do Idoso; Doença Crônica; Atenção à Saúde.

ABSTRACT

Objective: To analyze the association between sex, age groups, and health care among older adults in Brazil in the years 2013 and 2019. **Method:** A cross-sectional study using public data from the National Health Survey (PNS), which included 11,177 people aged 60 years or older in 2013 and 22,728 in 2019. The Chi-square test was used for the association analysis according to sex and age groups (60 to 69 years, 70 to 79 years, and 80 years or older). **Results:** Blood pressure and blood glucose monitoring, as well as medical consultations within the last year, were associated with the female sex in both years. Seeking care at a Basic Health Unit (UBS) was significantly associated with the female sex only in 2013. Older adults aged 60 to 69 years showed higher percentages for preventive care indicators, whereas emergency home care was more frequent in the age group of 80 years or older. **Conclusion:** The female sex and the age group of 60 to 69 years presented the highest percentages of health care. Therefore, interventions and public policies that consider the specificities of health care for the older population are relevant.
Descriptors: Aged; Aging; Health of the Elderly; Chronic Disease; Delivery of Health Care.

RESUMEN

Objetivo: Analizar la asociación entre sexo, grupos etarios y cuidados de la salud de personas mayores en Brasil, en los años 2013 y 2019. **Método:** Estudio transversal con datos públicos de la Encuesta Nacional de Salud (PNS), que incluyó a 11.177 personas de 60 años o más en 2013 y a 22.728 en 2019. Para el análisis de asociación, se utilizó la prueba de Chi-cuadrado, según el sexo y los grupos etarios (60 a 69 años, 70 a 79 años y 80 años o más). **Resultados:** El monitoreo de la presión arterial y de la glucemia, así como la consulta médica en el último año, se asociaron al sexo femenino en ambos años. La búsqueda de la Unidad Básica de Salud (UBS) se asoció significativamente al sexo femenino solo en 2013. Las personas mayores de 60 a 69 años presentaron mayores porcentajes de indicadores de cuidados preventivos, mientras que la atención domiciliaria de urgencia fue más frecuente en el grupo etario de 80 años o más. **Conclusión:** El sexo femenino y el grupo etario de 60 a 69 años presentaron los mayores porcentajes de cuidados de la salud. De esta forma, las intervenciones y políticas públicas que consideren las especificidades de los cuidados de la salud de la población mayor son relevantes.
Descriptores: Anciano; Envejecimiento; Salud del Anciano; Enfermedad Crónica; Atención a la Salud.

Editors:
Rosimere Ferreira Santana (ORCID: 0000-0002-4593-3715)
Geilsa Soraia Cavalcanti Valente (ORCID: 0000-0003-4488-4912)

Publisher:
Escola de Enfermagem Aurora de Afonso Costa – UFF
Rua Dr. Celestino, 74 – Centro, CEP: 24020-091 – Niterói, RJ, Brazil
Journal email: objn.cme@id.uff.br

Corresponding author:
Emily da Silva Eberhardt
E-mail: enfemilyeberhardt@gmail.com

What is already known:

- NCDs represent the main burden of mortality and disability in the country, configuring a major public health problem.
- The control and monitoring of blood pressure and blood glucose to prevent complications, as well as vaccination for the prevention of respiratory diseases, are essential for the health of older adults.
- There is a gap in knowledge related to the representative analysis of health care in the older population, considering their demographic aspects.

What this article adds:

- Female older adults and those in the younger age group presented the highest percentages of health care. The study evidenced significant differences according to sex and age groups, based on a representative analysis of health care in the Brazilian older population.
- The study provides insights to support the development of more effective public policies tailored to the needs of the older population, suggesting that actions to encourage the search for health care are indispensable.

INTRODUCTION

The accelerated population aging process, especially in developing countries like Brazil, associated with the epidemiological transition, has resulted in changes in the country's demographic profile, according to data from the latest 2022 census[1]. In this context, the increase in Non-Communicable Diseases (NCDs) stands out, accounting for about 70% of all deaths worldwide[2].

Additionally, older adults may be more susceptible to health complications due to the process of senescence (reduction of physiological function) or senility (when associated with pathological conditions)[3]. In this context, health care for the older population is of paramount importance. It is conceptualized as a set of actions and behaviors involved in seeking assistance, preventive monitoring, and the utilization of health services[4]. This population is the most affected by NCDs, which are characterized by multiple etiologies, risk factors, a prolonged course, and an association with functional disability[5].

In Brazil, NCDs represent the main burden of premature mortality and disability, and among the most frequent, Systemic Arterial Hypertension (SAH), Diabetes Mellitus (DM), and chronic respiratory diseases stand out, configuring a serious public health problem[5,6]. Thus, health care actions, such as the control and monitoring of blood pressure and blood glucose to prevent the worsening of these conditions, as well as vaccination for the prevention of respiratory diseases, become essential[7-8]. Furthermore, studies point to significant differences between sexes and age groups, with women and oldest-old individuals (80 years or older) showing the highest prevalence of NCDs. This is related to higher life expectancy and, consequently, a greater need for health care[9-10]. Thus, it is essential to consider the specificities of health care for older women, given that sex plays an important role in the aging process[11-12].

The National Health Survey (PNS) constitutes one of the strategies for exploring data regarding the health status of the Brazilian population, enabling the monitoring of the evolution of health indicators and their care, which plays an essential role in the formulation of public policies[13]. Such monitoring enables improvements in the effectiveness of interventions for health promotion and disease prevention, aiming to delay inevitable conditions as much as possible and maintain the best quality of life for the population for the longest period possible[14].

In this context, the present study aligns with Sustainable Development Goal (SDG) 3 of the 2030 Agenda, which aims to ensure healthy lives and promote well-being for all at all ages. Furthermore, it meets the Health Research Priorities Agenda of the Ministry of Health, specifically regarding the topic that recommends the monitoring of non-communicable chronic diseases and the analysis of health indicators for older adults, aiming to support the formulation of more assertive public policies within the scope of the SUS[15].

The gap in knowledge that substantiates this research lies in the scarcity of comparative analyses using population-based national surveys to investigate the search for health care among the older population. Although population aging is widely discussed, knowledge regarding how disparities between sex and age groups relate to the monitoring of health indicators is still limited. In this context, this study may support the planning of nursing interventions aimed at promoting healthy aging and preventing complications arising from NCDs, which requires an equitable approach within the scope of the Unified Health System (SUS). Nurses, especially in Primary Health Care (PHC), act as protagonists in care coordination, making it essential to understand variations in the profile of service utilization to qualify health assistance and management. Given the above, this study is guided by the following research question: How are the associations between sex, age groups, and health care configured among Brazilian older adults in the years 2013 and 2019?

Therefore, this study aims to analyze the association between sex, age groups, and health care among older adults in Brazil in the years 2013 and 2019.

METHOD

Study design

This is a cross-sectional study that used individual data from the 2013 and 2019 National Health Survey (PNS). The PNS is a population-based household survey, representative of Brazil, conducted by the Brazilian Institute of Geography and Statistics (IBGE) in partnership with the Ministry of Health[13,16].

This study followed the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement guidelines.

Population and sample

The study population consisted of Brazilian older adults aged 60 years or older residing in the country in 2013 and

2019. In both the 2013 and 2019 editions, the PNS sample selection was performed through three-stage cluster sampling. In the first stage, the Primary Sampling Units (PSUs) were the census tracts, which were randomly selected. In the second stage, a number of households were randomly selected within each census tract, and, in the third stage, one resident (aged 18 years or older in the 2013 edition and 15 years or older in the 2019 edition) was randomly drawn in each household[13,16].

Expansion factors were calculated by the inverse of the product of the selection probabilities in each stage. The calibration process, including the correction factor for nonresponse, was performed based on population projections for Brazil and the Federation Units (UF), after weighting the databases by the natural expansion factors. To enable the comparison of data between the 2013 and 2019 PNS, IBGE recalibrated the expansion factors used in the 2013 PNS[13].

The sample calculation was based on the formula for estimating proportions in complex sample designs, considering a 95% confidence level and a maximum sampling error of 2%. The PNS exclusion criteria disregarded special census tracts (such as military barracks and long-term care institutions) and households where it was not possible to conduct the interview after three attempts, ensuring the representativeness of the population residing in private households. The calculated sample size for 2013 was approximately 80,000 households, with data collected in 64,348 households[17]. In 2019, the sample calculation was 108,525 households, and information was collected in 94,114 households[13]. In 2013, 60,202 adult residents were interviewed individually, and, in 2019, 279,382 individuals over 15 years of age responded to the individual questionnaire[17]. In the 2013 and 2019 PNS editions, 23,815 and 43,554 older adults aged 60 years or older were interviewed, respectively[13]. The sample for the present study was composed of older adults who participated in each PNS edition and had complete information for the variables of interest, totaling 11,177 individuals in the 2013 PNS and 22,728 in the 2019 PNS.

Data collection

Public domain data were obtained between April and June 2024 from the 2013 and 2019 PNS databases available on the IBGE website (https://www.ibge.gov.br/). The data were organized into an electronic spreadsheet (Excel) according to the variables of interest for subsequent export to the statistical program Statistical Package for Social Sciences (SPSS®) for Windows, version 20.0. In this software, variables were grouped to enable the necessary analyses.

For data collection, the following sociodemographic variables were considered: sex, age, marital status, color or race, highest level of education, and per capita household income. The following health care variables were also considered: receipt of the influenza vaccine within the last year; the last time blood pressure was measured; the last time a blood test was performed to measure blood glucose; the last medical consultation; the health service usually sought in case of illness or need for care; and the occurrence of urgent or emergency care at home within the last year.

Data analysis

Variables were analyzed according to sex (female and male) and age groups (60 to 69 years, 70 to 79 years, and 80 years or older). Statistical analyses were performed using the Statistical Package for Social Sciences (SPSS®) for Windows, version 20.0, utilizing the complex samples module.

Variables were presented using relative frequencies (%) and confidence intervals (CI). The association between sociodemographic and health care variables was verified using Pearson's Chi-square test. Associations were considered statistically significant when $p < 0.05$. Due to the sample complexity, the weighting variables for the primary sampling unit (PSU_PNS), individual weight (V00291), and stratum (V0024) were utilized. The proportions of the variables and their respective 95% CIs were estimated according to the survey year.

Ethical considerations

This study was exempt from evaluation by the Research Ethics Committee since it analyzed public domain data without participant identification, in compliance with the ethical guidelines of Resolution No. 466/12 of the National Health Council (CNS) for research involving human beings.

The PNS project obtained approval from the National Research Ethics Commission (CONEP) under Opinion No. 328,159 (2013 edition) and Opinion No. 3,529,376 (2019 edition). All interviewees were previously consulted, received clarifications, and agreed to participate in the study by signing the Informed Consent Form (ICF). Furthermore, the PNS complies with Resolution No. 196/96 of the CNS, ensuring participants' voluntary participation, anonymity, and the possibility of withdrawal at any time for all participants.

RESULTS

Table 1 details the sociodemographic profile of the studied population. The data reveal a scenario of feminization of aging and a predominance of young-old individuals (60 to 69 years), White, and married, in both analyzed periods. Persistent socioeconomic vulnerability is also observed, evidenced by low education levels, with more than half of the sample having incomplete primary education or no instruction, and by the concentration of per capita household income at levels close to the minimum wage in force at the times of data collection.

Table 2 presents the evolution of health care among older adults in 2013 and 2019. It was observed that 83.2% of the older adults interviewed in 2013 had their blood pressure checked less than six months prior, while in 2019 this percentage increased to 84.2%. The percentage of older adults who had never measured their blood pressure decreased from 0.9% to 0.7% in this period. Regarding blood glucose control, 55.3% and 58.8% of older adults measured it less than six months prior, in 2013 and 2019, respectively. It was evidenced that 5.2% of older adults had never measured their blood glucose in 2013, and, in 2019, this percentage decreased to 2.4%.

Table 1 - Sociodemographic characteristics of Brazilian older adults regarding the years 2013 (n = 11,177) and 2019 (n = 22,728). Porto Alegre, RS, Brazil, 2013 and 2019

Variables	2013 % (95% CI)	2019 % (95% CI)
Sex		
Female	56.4 (54.8-57.9)	56.7 (55.6-57.7)
Male	43.6 (42.1-45.2)	43.3 (42.3-44.4)
Age*	69.7 ± 7.9	70.0 ± 8.0
60–69 years	56.6 (54.9-58.2)	56.3 (55.2-57.4)
70–79 years	29.8 (28.4-31.3)	30.1 (29.2-31.1)
≥80 years	13.3 (12.6-14.7)	13.6 (12.8-14.3)
Marital status		
Married	53.5 (51.9-55.1)	50.7 (49.5-51.8)
Widowed	26.6 (25.3-27.9)	25.1 (24.1-26.0)
Single	12.6 (11.3-13.4)	15.3 (14.5-16.1)
Divorced	7.7 (6.7-8.8)	9.0 (8.5-9.6)
Race/Color		
White	53.8 (52.1-55.4)	50.5 (49.4-51.7)
Brown (Mixed-race)	35.6 (34.0-37.1)	37.4 (36.3-38.5)
Black	9.2 (8.3-10.2)	10.3 (9.6-11.0)
Asian	1.2 (0.9-1.6)	1.3 (1.0-1.6)
Indigenous	0.3 (0.2-0.4)	0.5 (0.4-0.7)
Educational level		
No formal education	22.7 (21.4-24.0)	16.8 (16.0-17.7)
Incomplete elementary education	48.0 (46.3-49.7)	46.5 (45.3-47.6)
Complete elementary education/incomplete high school	8.1 (7.0-9.3)	9.5 (8.7-10.5)
Complete high school/incomplete higher education	11.8 (10.8-13.2)	15.9 (14.8-17.1)
Complete higher education	9.4 (8.2-10.7)	11.3 (10.5-12.1)
Per capita income**	1,466.89 ± 3,799.21	1,929.41 ± 3,129.21

*Mean ± standard deviation. **The Brazilian minimum wage in 2013 was R$ 678.00 and in 2019 it was R$ 998.00.
Secondary data from the National Health Survey (PNS) of 2013 and 2019.
Source: prepared by the authors, 2024.

Table 2 - Health care among Brazilian older adults regarding the years 2013 (n = 11,177) and 2019 (n = 22,728). Porto Alegre, RS, Brazil, 2013 and 2019

Variables	2013 % (95% CI)	2019 % (95% CI)
Last time blood pressure was measured		
Less than 6 months ago	83.2 (82.0-84.3)	84.2 (83.4-85.0)
Between 6 months and less than 1 year ago	8.1 (7.2-9.0)	8.4 (7.9-9.0)
Between 1 year and less than 2 years ago	4.4 (3.8-5.1)	3.7 (3.3-4.1)
Two years ago or more	3.5 (2.9-4.2)	3.0 (2.6-3.6)
Never had blood pressure measured	0.9 (0.7-1.2)	0.7 (0.5-0.9)
Last time blood glucose was measured		
Less than 6 months ago	55.3 (53.7-56.8)	58.8 (57.8-59.8)
Between 6 months and less than 1 year ago	17.2 (16.0-18.5)	18.9 (18.1-19.8)
Between 1 year and less than 2 years ago	10.8 (9.9-11.8)	10.0 (9.4-10.7)
Two years ago or more	11.4 (10.3-12.9)	9.8 (8.9-10.8)
Never had blood glucose measured	5.2 (4.5-5.9)	2.4 (2.1-2.8)
Received influenza vaccination in the previous 12 months	72.6 (71.2-74.0)	71.9 (70.9-72.9)
Last medical consultation		
Within the previous 12 months	84.4 (83.2-85.5)	89.3 (88.6-89.9)
Between 1 year and less than 2 years ago	6.5 (5.8-7.3)	5.4 (4.9-5.8)
Two years ago or more	8.5 (7.3-9.9)	5.1 (4.6-5.8)
Never consulted a physician	0.6 (0.4-0.9)	0.3 (0.2-0.3)
Received urgent or emergency care at home in the previous 12 months	2.8 (2.4-3.4)	3.9 (3.5-4.4)
Usual source of care when healthcare is needed		
Primary Health Care Unit	46.1 (43.9-48.3)	46.8 (45.3-48.3)
Urgent or emergency care services	13.7 (11.3-16.6)	14.1 (12.7-15.8)
Private medical practice	24.9 (23.2-26.7)	28.0 (26.7-29.3)
Other service	15.4 (12.7-18.6)	11.1 (9.6-12.7)

Secondary data from the National Health Survey (PNS) of 2013 and 2019.
Source: prepared by the authors, 2024.

Regarding influenza vaccination in the last year, 72.6% of the interviewed older adults were vaccinated in 2013 and 71.9% in 2019. A considerable number of older adults consulted a physician in the last 12 months, with percentages of 84.4% in 2013 and 89.3% in 2019. An expressive percentage of older adults who sought Basic Health Units (UBS) when they needed health care stands out, being 46.1% in 2013 and 46.8% in 2019.

Table 3 presents the association between older adults' health care and sex in 2013 and 2019. Women showed the highest percentages of health care in the analyzed years. A slight reduction was observed in the percentage of older women who usually sought the UBS when they needed health care, while there was an increase in seeking care among males in the analyzed period.

Variables related to blood pressure checking, blood glucose measurement, and medical consultation showed a statistically significant association with sex in the years 2013 and 2019, with higher proportions in the female sex. The variable regarding the habit of seeking the UBS, in turn, demonstrated a significant association only in 2013, with higher prevalence among the female sex.

Table 3 - Association of health care of Brazilian older adults in relation to sex in 2013 (n = 11,177) and 2019 (n = 22,728). Porto Alegre, RS, Brazil, 2013 and 2019

	2013			2019	
Health care	**Female % (95% CI)**	**Male % (95% CI)**	**p***	**Female % (95% CI)**	**Male % (95% CI)**
Blood pressure measured within the previous 6 months	48.6 (47.1-50.2)	34.6 (33.1-36.1)	<0.001	49.1 (48.0-50.2)	35.1 (34.1-36.1)
Blood glucose measured within the previous 6 months	34.1 (32.7-35.6)	21.2 (19.9-22.6)	<0.001	35.2 (34.1-36.2)	23.6 (22.8-24.5)
Received influenza vaccination in the previous 12 months	41.2 (39.6-42.8)	30.5 (30.0-32.9)	0.569	41.2 (40.1-42.3)	30.8 (29.8-31.7)
Consulted a physician within the previous 12 months	50.0 (48.4-51.5)	34.4 (32.9-36.0)	<0.001	52.3 (51.2-53.4)	37.0 (35.9-38.0)
Received urgent or emergency care at home within the previous 12 months	2.7 (2.2-3.3)	3.0 (2.2-4.1)	0.633	2.3 (1.9-2.6)	1.6 (1.4-1.9)
Usually seeks care at a Primary Health Care Unit when healthcare is needed	26.7 (25.0-28.4)	19.4 (17.9-21.1)	0.043	26.4 (25.2-27.6)	20.4 (19.4-21.5)

Chi-square test. Column "p" refers to the year 2013; for 2019, the p values were, respectively: <0.001; <0.001; 0.093; <0.001; 0.648; 0.421 (in the same order as the rows above).
**The sum of female and male responses equals the total percentage that gave an affirmative answer to the variable in question.
Secondary data from the National Health Survey (PNS) of 2013 and 2019.
Source: prepared by the authors, 2024.

Table 4 presents the association between health care and age groups in 2013 and 2019. It was observed that older adults aged 60 to 69 years presented the highest percentages of health care. The variables significantly associated with age groups in 2013 were urgent and emergency care at home and the habit of seeking the UBS when needing health care. In 2019, all variables presented a statistically significant association.

Table 4 - Association of the proportion of Brazilian older adults who performed health care in relation to age groups in 2013 (n = 11,177) and 2019 (n = 22,728). Porto Alegre, RS, Brazil, 2013 and 2019

	2013 % (95% CI)				2019 % (95% CI)		
Health care	**60–69 years**	**70–79 years**	**80 years or older**	**p***	**60–69 years**	**70–79 years**	**80 years or older**
Had blood pressure measured within the last 6 months	46.7 (45.1-48.3)	25.3 (23.9-26.8)	11.2 (10.2-12.2)	0.596	46.6 (45.5-47.6)	25.8 (24.9-26.7)	11.8 (11.1-12.6)
Had blood glucose measured within the last 6 months	30.2 (28.8-31.7)	17.3 (16.2-18.5)	7.8 (7.0-8.7)	0.214	32.4 (31.4-33.4)	17.9 (17.1-18.7)	8.5 (7.9-9.1)
Received an influenza vaccination within the last 12 months	40.5 (39.0-42.0)	22.3 (21.0-23.7)	9.8 (8.9-10.7)	0.133	39.4 (38.3-40.6)	22.3 (21.5-23.2)	10.2 (9.5-10.9)
Had a medical consultation within the last 12 months	47.3 (45.7-49.0)	25.4 (24.0-26.8)	11.7 (10.8-12.7)	0.134	49.4 (48.3-50.5)	27.3 (26.4-28.3)	12.5 (11.8-13.3)
Received urgent or emergency care at home within the last 12 months	1.9 (1.3-2.6)	3.3 (2.4-4.5)	5.9 (4.2-8.1)	<0.001	1.7 (1.4-2.0)	1.2 (1.0-1.5)	1.0 (0.8-1.3)
Usually seeks care at a Primary Health Care Unit when needing health care	27.2 (25.4-29.0)	13.9 (12.6-15.3)	5.1 (4.4-5.9)	<0.001	26.6 (25.5-27.8)	14.4 (13.5-15.3)	5.8 (5.2-6.4)

*Chi-square test, referring to the year 2013; for 2019, the p values were, in the same order as the rows: <0.001 for all variables.
**The sum of the age groups equals the total percentage that had an affirmative response to the variable in question.
Secondary data from the National Health Survey (PNS) of 2013 and 2019.
Source: prepared by the authors, 2024.

DISCUSSION

This study presents innovative and representative data on the association between health care and the sociodemographic profile of older adults in Brazil across two distinct periods. These findings are foundational for the control and prevention of both acute respiratory diseases and NCDs, according to sex and age group. An advancement in access to and utilization of health services was observed, along with significant disparities between sexes and age cohorts.

Corroborating the literature, women represented more than half of the studied population, which highlights the phenomenon of the feminization of aging[11-12]. Given this demographic trend, it is imperative that policymakers and health professionals develop specific strategies and programs that meet the demands and particularities of older women's health[11]. Furthermore, understanding the epidemiological profile of this population is essential for effective public policy planning[18]. It was found that more than half of the Brazilian older adults belonged to the younger group (60 to 69 years). Thus, it becomes essential to offer adequate health actions to maximize life expectancy with the greatest possible independence and autonomy. Public support strategies directed at both young-old and oldest-old individuals — the latter frequently with moderate levels of dependency — could prolong the period of active and autonomous life[19-20]. The increase in the number of older adults across the surveys reflects population aging resulting from the demographic transition process in the country[21].

A significant change was also observed in the educational profile of the participants between the analyzed periods, characterized by a reduction in the proportion of low education levels and an increase in individuals with complete secondary education. This evolution is decisive, as higher educational attainment correlates with seeking care and a greater appropriation of preventive care[22]. However, for the portion that still exhibits low education, it is necessary to stimulate functional literacy through initiatives such as Youth and Adult Education (EJA). In this way,

education can act as a tool for equity in access to services and the emancipation of the subject, making it essential to consider social and gender disparities. In this context, nurses play a key role in the health literacy of older adults, contributing significantly to the expansion of self-care and therapeutic adherence[23].

Despite the expansion of SUS coverage in Brazil, structural and organizational gaps persist, heavily affecting the most vulnerable groups. International evidence suggests that public policies aimed at active aging must consider the sociocultural and economic specificities of the older population, serving as a basis for interventions that respect the diversity of the Brazilian scenario[24-25].

An increase in seeking most health actions was evidenced in the analyzed years, with an emphasis on blood pressure checking and medical consultations. This increment can be attributed to a convergence of socioeconomic factors, such as increased income and the strengthening of sectoral public policies[6]. However, vertical challenges remain regarding health education and preventive awareness, especially concerning immunizations, active aging, and the expansion of the Health Care Network (RAS)[6,26].

The literature indicates that the search for assistance among older adults results from a multifactorial combination, originating from perceived needs and being limited by the availability of resources[27]. In this regard, it is urgent to make efforts to promote health education and the early search for care, aiming at the prevention, control, and monitoring of NCDs[6,28]. Expanding access impacts not only the quality of life of older adults but also reduces the physical and emotional burden on families, who usually assume solitary support during clinical exacerbations of these chronic conditions[29]. It is imperative to strengthen PHC so that follow-up and active tracing are effective, linking actions to local sociodemographic characteristics, such as gender and age asymmetries[30].

A slight reduction in influenza vaccine coverage within the 12 months preceding data collection was observed. This decline in immunization is concerning and can be associated with vaccine hesitancy and misinformation, phenomena that intensified in the post-pandemic scenario (subsequent to the analyzed period). Studies on COVID-19 vaccination in older adults indicate that, although initial adherence was significant, the maintenance of booster doses faces similar barriers rooted in distrust and fear[31]. The drop in vaccine coverage results in a higher risk of infectious complications, hospitalizations, and mortality from preventable causes, burdening the public health system. Therefore, robust awareness strategies regarding the relevance of booster doses against respiratory viruses in this population are necessary[32].

Among women, the percentage of influenza vaccination remained stable, whereas there was a decline among men. In the analysis by age groups, a reduction was recorded among older adults aged 60 to 69 years and a slight increase among those aged 80 years or older. It is highlighted that the older population is one of the most affected by respiratory conditions, with pneumonia and influenza being frequent causes of death. Interventions by health services are key to mitigating the impact of this public health problem, focusing on awareness about annual immunization[33-34]. The importance of vaccine incentives to achieve healthy aging is emphasized, in addition to the development of more effective vaccines consistent with the immunological particularities of this age group[34].

It was evidenced that a significant portion of older adults used the Primary Healthcare Unit as a reference service. Corroborating this trend, a national investigation highlighted a notable increase in access to and utilization of PHC and urgent or emergency services by Brazilian older adults from 2008 to 2019[35]. Nurses in PHC assume a protagonist role in this scenario; their performance transcends isolated campaigns and encompasses gerontological nursing consultations, frailty screening, and the implementation of longitudinal care plans. These actions ensure systemic follow-up for older adults and promote supported self-care for NCDs[36].

When analyzing the care profile according to sex and age group, it was observed that women and younger older adults presented the highest rates of seeking assistance. This result aligns with a study conducted in China with individuals aged 60 years or older, which demonstrated that these segments were more likely to utilize outpatient health services[27].

Studies show that women tend to manifest greater concern for their own health, leading them to attend health services more regularly[37-39]. In contrast, the literature on men's health reveals that self-care is not a practice culturally associated with the male population[40-41]. The traditional model of masculinity negatively impacts men's health. Among the factors hindering the search for care, the incompatibility between the operating hours of health units and work schedules stands out, alongside the fear of unemployment, since men are still culturally viewed as family providers, even after the age of 60[42].

International research ratifies this pattern of inequality, identifying that older women access preventive services more often, while men present a higher prevalence of hospitalizations and lower adherence to screening and disease prevention[43-44]. Nonetheless, this study identified a trend of increased care-seeking behaviors among men. Such disparities may also reflect the scarcity of comprehensive, large-scale investigations on the subject. It can be inferred, therefore, that there is an ongoing transition in male behavior regarding their own health, although it is still incipient.

Regarding age groups, younger older adults showed a greater search for care, which can be explained by ease of mobility and the early diagnosis of NCDs. On the other hand, oldest-old individuals (80 years or older) exhibit a higher risk of frailty, as described in the literature[45-47]. This group faces barriers to continuous follow-up, such as physical limitations for displacement, cognitive decline, and dependency on a companion, factors that often preclude regular attendance at the health unit[45-47].

Moreover, an increase in urgent or emergency home care was evidenced, reflecting the pressing need for the consolidation of home care services. The performance of nurses in PHC is essential for planning effective home visits and health promotion actions that integrate the intersectionality of gender and age, with a focus on older adults in frail situations[12,48].

Within the scope of PHC, nurses consolidate themselves as protagonist professionals in the coordination of care for older adults. Their clinical practice transcends health education actions and awareness for chronic disease control, encompassing leadership in complex case management and the implementation of evidence-based gerontological nursing consultations[49]. The findings of this study reinforce the need for nursing performance in the early identification of vulnerabilities, especially among the oldest-old and men, utilizing risk stratification tools to guide equitable care planning. Thus, this investigation provides resources for managing interventions that consider gender and age disparities, qualifying therapeutic adherence and support for family caregivers[50].

Among the limitations of the study, the restricted number of care predictor variables is noted, in addition to those inherent to secondary data analysis, such as the impossibility of controlling the collection process, given that self-reported data may introduce information bias. However, the methodological rigor of the National Health Survey confers robustness and representativeness to the results for the Brazilian older population, providing relevant evidence for the improvement of public policies. Future research is needed to evaluate the intersectionality of gender with other social determinants, such as race/color, income, and education, which can exacerbate inequalities in health access.

CONCLUSION

The study fulfilled its objective by demonstrating that the variables of sex and age group present significant associations with health care among older adults. Blood pressure and blood glucose monitoring, as well as medical consultations within the last year, remained associated with the female sex and the 60-to-69-year age group in both analyzed years. The utilization of the UBS as a reference service showed a statistical association with the female sex specifically in the year 2013, whereas urgent home care was associated with older adults aged 80 years or older in both periods.

The results have direct applicability across the dimensions of nursing practice: in clinical care, they direct the active tracing of oldest-old men for preventive and monitoring actions; in management, they guide the reorganization of institutional workflows, emphasizing PHC as the coordinator of care and director of the network to ensure the equitable monitoring of NCDs; in education, they reinforce the need to address gender and age inequities, as well as gerontology, in professional training; and in research, they establish solid foundations for longitudinal and intervention-based investigations.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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AUTHOR CONTRIBUTIONS

Study design: Eberhardt ES, Rosset I.
Data collection: Eberhardt ES, Rosset I.
Data analysis: Eberhardt ES, Morais EP, Fhon JRS, Rosset I.
Data interpretation: Eberhardt ES, Morais EP, Fhon JRS, Rosset I.
All authors are responsible for the textual writing and critical review of the intellectual content, the final version published, and all ethical, legal, and scientific aspects related to the accuracy and integrity of the study.