PREVALENCE OF FALLS IN ELDERLY PATIENTS WITH HYPERTENSION AND DIABETES

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ABSTRACT

Objective: This study aimed to determine the prevalence of falls among elderly individuals in the community with hypertension and diabetes mellitus. **Methods:** This is a cross-sectional, descriptive, and quantitative study that evaluated economic and sociodemographic aspects, general health, level of frailty, and functional autonomy of elderly people. The sample consisted of 110 elderly individuals (n=110) who met the inclusion criteria and agreed to participate. **Results:** It was found that 38.2% (n=42) of elderly patients with hypertension and diabetes mellitus suffered falls in the last twelve months, and 21.8% (n=24) reported having suffered only one fall in that period. The results also indicate that 36.84% of elderly patients with diabetes mellitus and 50% of elderly patients with hypertension reported falls in the last twelve months, showing a considerable prevalence of these occurrences in this group. **Conclusion:** Although preventive actions have reduced the number of falls, it is important to continue focusing on strategies to further decrease this prevalence and improve the quality of life of the elderly.

Keywords: Elderly health; Hypertension; Diabetes mellitus; Fall accidents.

INTRODUCTION

Aging is a normal and inevitable process, marked by physiological and cognitive changes in the body that limit the functionality of some daily activities performed by elderly individuals. Thus, this factor directly or indirectly influences the daily lives of these individuals, reducing muscle mass and cognitive capacity as they age, which may increase vulnerability to falls (SILVA et al., 2018).

It is well known that elderly individuals are more predisposed to falls, whether due to environmental or physiological factors. A fall is defined as a sudden and involuntary change in body level that can trigger a harmful incident to the victim. One of the factors that contribute to the increased incidence of falls in the elderly is the presence of hypertension and diabetes mellitus (NASCIMENTO; TAVARES, 2016).

Therefore, it is essential to carry out an in-depth analysis of the relationship between hypertension and diabetes mellitus with the incidence of falls in elderly individuals, seeking to investigate links and unknowns that hinder the progress of health professionals and government initiatives regarding prevention and awareness of measures that can be taken to mitigate this event that remains persistent in the lives of elderly individuals (OLIVEIRA et al., 2014).

The incidence of falls in elderly individuals with hypertension and diabetes mellitus represents a significant challenge for maintaining health, since these conditions are among the main risk factors for falls in this population (SOARES et al., 2013). Therefore, this study aims to determine the prevalence of falls among elderly people in the community with hypertension and diabetes mellitus in the municipality of Rio Verde – GO.

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METHODOLOGY

This is a cross-sectional, descriptive, and quantitative analysis that evaluated economic, sociodemographic, and general health aspects, as well as the number of falls in the last twelve months in elderly people from the community with hypertension and diabetes mellitus.

The sample consisted of 110 elderly individuals from the community served by the *Centro de Referência em Hipertensão e Diabetes (CRHD)*, located in Rio Verde – GO, recruited by convenience between March and June 2024. Inclusion criteria were age equal to or greater than 60 years, the presence of at least one disease (hypertension and diabetes mellitus), and the ability to walk independently. Individuals with cognitive, physical, motor, or neurological impairments that compromised the functional tests were excluded.

Data collection was carried out through questionnaires, interviews, tests, observations, clinical evaluations, and medical record analysis. A form divided into four stages was used: identification data, sociodemographic and economic profile, and general health. All questions were asked and filled out by the researcher based on the interviewees' responses.

The occurrence of falls was assessed with the question: *"How many falls have you had in the last 12 months?"*

The study was based on Resolution 466/12 of the *Conselho Nacional de Saúde* (BRASIL, 2012) and was approved by the Ethics and Research Committee of the *Universidade de Rio Verde* on February 20, 2024, under opinion 6.658.796 and CAAE number 77067323.1.1000.5077.

Data were processed and coded in a database using Microsoft Office Excel and Word 2010. Categorical variables were analyzed using absolute and relative frequencies, while continuous variables were evaluated through minimum, mean, and maximum values.

RESULTS AND DISCUSSION

Among the 110 elderly individuals interviewed, 36.4% had hypertension and 51.82% (n=57) had a diagnosis of diabetes mellitus. When asked about the number of falls suffered in the last twelve months: 61.8% (n=68) reported no falls; 21.82% (n=24) reported only one fall; 8.18% (n=9) reported two falls; and 8.18% (n=9) reported three or more falls.

Graph 1. Distribution of elderly individuals in the community with hypertension and diabetes mellitus according to the number of falls in the last twelve months (n=110). Rio Verde, GO, Brasil, 2024.
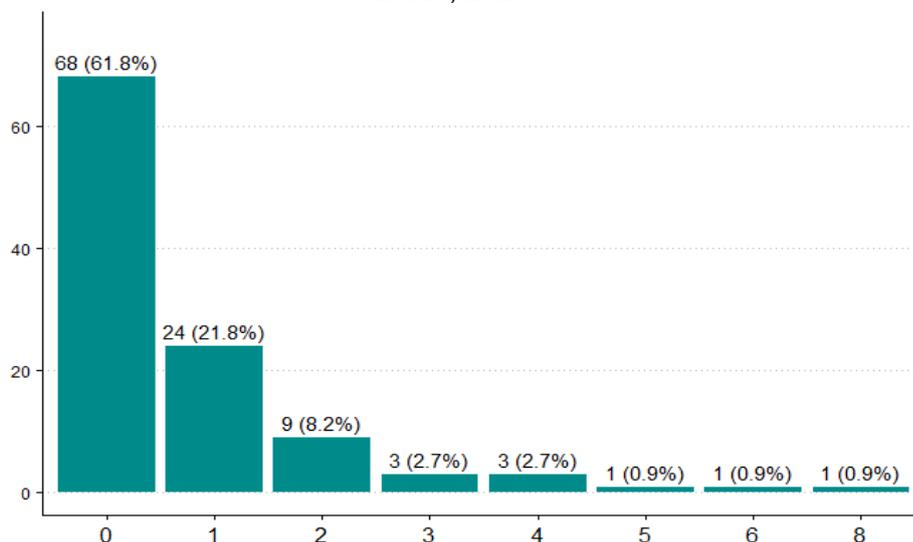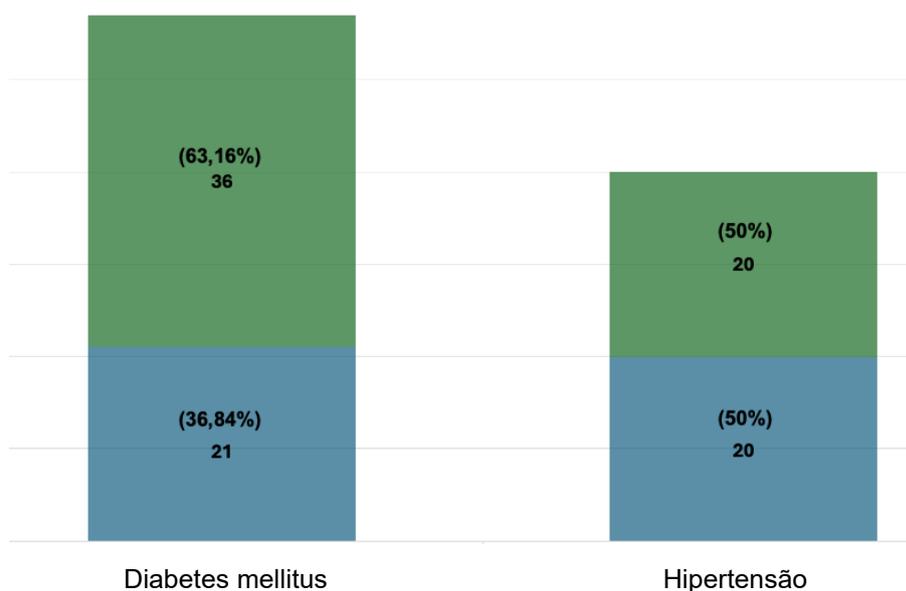

Fonte: os autores

In the study by Taguchi et al. (2022), a self-reported prevalence of falls of 22.7% was identified among 101 elderly individuals with hypertension and diabetes mellitus, which corroborates our study, but with a significantly higher prevalence of 38.2% among 110 elderly individuals.

Furthermore, Souza et al. (2019), during a 2-year follow-up period with 345 elderly individuals, found that 20% presented recurrent falls, 17.1% a single event, and 62.9% no falls, demonstrating a higher prevalence of falls in this study compared to our results.

The results of this study indicate that among the 57 elderly individuals with diabetes mellitus, 36.84% (n=21) reported falls in the last 12 months. Among the 40 elderly individuals with hypertension, 50% (n=20) reported falls in the same period. These results suggest a high prevalence of falls among elderly individuals with these conditions.

Graph 2. Comparison of the number of falls suffered by elderly individuals in the community with diabetes mellitus and hypertension (n=110).Rio Verde, GO, Brasil, 2024.

Fonte: os autores

CONCLUSION

The results of this study indicate a high prevalence of falls among elderly individuals with diabetes mellitus and hypertension in the studied community. Specifically, 51.8% of elderly individuals with diabetes mellitus and 36.4% of those with hypertension reported falls in the last 12 months. These numbers suggest that elderly individuals with hypertension and diabetes mellitus are at greater risk of falls, highlighting the need for special attention and preventive strategies for this population.

These findings reinforce the importance of adequately monitoring and treating these conditions in elderly individuals, not only to control their symptoms but also to reduce the risk of falls and their consequent negative impacts on health and quality of

life. Therefore, it is important that specific interventions and fall prevention programs be developed and implemented to mitigate risks and promote the well-being of the elderly population with hypertension and diabetes mellitus.

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