

EVALUATION OF FUNCTIONALITY AND PREVALENCE OF FALLS IN OLDER ADULTS DURING SOCIAL ISOLATION

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Abstract: Falls in older adults are an important factor in the loss of independence and quality of life of the older population and are related to a high rate of disability and mortality. The present study aimed to evaluate the functionality and prevalence of falls in older adults during social isolation. We used a convenience sample and due to the context of the coronavirus pandemic, this study was developed through WhatsApp social media, which allows for 250 members per group. Up to 25% of respondents are considered positive in online surveys. The total survey sample had 82 respondents, corresponding to a response rate of 32.8%, considered excellent for digital research. Elderly people were invited to participate in a WhatsApp group whose main purpose is to disseminate messages of interest to this population. The Katz Scale (1963) and a questionnaire to evaluate the health of older adults and falls were used as a research instrument, consisting of 2 parts: socio-demographic data and questions that evaluated falls in older people. The questionnaire was based on studies by Radaelli et al. (2015), and Smith et al. (2017). All data obtained were entered and tabulated in the Excel software and presented using absolute and relative frequency distribution tables. The largest participation was women 75.61%, age group 70 to 79 years 78.05%, only 10.98% were not literate and 32.93% had up to 4 years of study. According to income, the majority were retired (65.85%), 56.10% were married, 82.93% took some medication, and 16.18% took more than 7 medications. Regarding hypertension and diabetes, 62.20% and 29.27% of participants said yes. Difficulties in seeing and hearing were reported by 47.56% and 26.83%. Limitation in walking or climbing stairs was reported by 37.80% of participants, and regarding falls, 57.32% suffered falls and 40.24% had suffered a fracture. 46.34% of these participants practice physical activity.

There was no significant increase in the incidence of falls among older adults during the COVID-19 pandemic, even though they have been spending more time at home. This reflects a firm support network and closer and more intense care for the elderly during this period.

Keywords: Older adults. Fragility. Functionality. Falls.

SUMMARY OF ACTIVITIES PERFORMED

In the first stage of the research, a literature review was carried out with scientific evidence that addressed the study theme. The inclusion criteria were articles written in English, Spanish, and Portuguese, written in the last 10 years, and with the descriptors: elderly, falls, and risk factors

Furthermore, the research was submitted to the Ethics Committee, which, after analysis, approved the study.

In the second stage, a questionnaire was administered, and given the context of the coronavirus pandemic, this study was developed through WhatsApp social media, used to apply 82 questionnaires containing: the Katz Scale (1963) and a questionnaire to assess the health of the older adults and falls, consisting of 2 parts: socio-demographic data and questions that assessed falls in this population.

In the third stage, the data were entered into Excel tables and inserted into a model for descriptive evaluation. The results are presented in absolute and relative frequencies.

Aging is a phase of life that brings physiological changes such as decreased muscle tone and postural instability, leaving older people susceptible to falling. Because of frailty, fractures, injuries, and deaths are common in these events, posing a danger to older people.

Variables	Absolute Frequency (N)	Relative Frequency (%)
AGE	60-79	64 78.05%
	80 and over	18 21.95%
SEX	Feminine	62 75.61%
	Masculine	20 24.39%
SCHOOLING	Not literate	9 10.98%
	Up to 4 years of study	27 32.93%
	From 5 to 8 years old study	20 24.39%
	From 9 to 11 years old study	6 7.32%
	More than 12 years of study	20 24.39%
Professional situation/ income	Dependent on family	5 6.10%
	I don't work and I don't receive a pension	10 12.20%
	I'm retired	54 65.85%
	I'm retired and work	7 8.54%
	I work and I have an income	6 7.32%
Marital status	Married	46 56.10%
	Divorced	8 9.76%
	Single	3 3.66%
	Widowed	25 30.49%
Children	Yes	81 98.78%
	No	1 1.22%
Medications	Yes	68 82.93%
	No	14 17.07%
Number of medications	01 to 03 medications	24 35.29%
	04 to 06 medications	15 22.06%
	7 or more medications	11 16.18%
	Yes, but did not identify	18 26.47%
Hypertension	Yes	51 62.20%
	No	31 37.80%
Diabetes	Yes	24 29.27%
	No	58 70.73%
Do you have difficulty seeing?	Yes	39 47.56%
	No	43 52.44%
Do you have permanent difficulty hearing?	Yes	22 26.83%
	No	60 73.17%
Do you have difficulty walking or climbing stairs?	Yes	31 37.80%
	No	51 62.20%
Have you ever had a fall?	Yes	47 57.32%
	No	35 42.68%
If yes, how long ago?	No reply	17 36.17%
	Less than 1 year	10 21.28%

	Between 1 year and 5 years	14	29.79%
	Over 5 years	6	12.77%
Have you ever had a fracture?	Yes	33	40.24%
	No	49	59.76%
If yes, on what part of the body?	Lower limbs	9	27.27%
	Upper limbs	11	33.33%
	Column	1	3.03%
	Face	1	3.03%
	No answers	11	33.33%
Physical activity	Yes	38	46.34%
	No	44	53.66%
Type of Activity	Aerobic	22	57.89%
	Anaerobic	2	5.26%
	Mixed (Aerobic and Anaerobic)	4	10.53%
	Stretching	1	2.63%
	No answer	9	23.68%

Table 1: Descriptive analysis of independent variables.

Source: Prepared by the authors.

Variables		Absolute frequency (N)	Relative frequency (%)
Bathing	With full help	5	6.10%
	With partial help	5	6.10%
	Without help	72	87.80%
Dressing	With full help	3	3.66%
	With partial help	5	6.10%
	Without help	74	90.24%
Transferring	With full help	3	3.66%
	With partial help	9	10.98%
	Without help	70	85.37%
Toileting	With full help	3	3.66%
	With partial help	5	6.10%
	Without help	74	90.24%
Eating	With full help	2	2.44%
	With partial help	4	4.88%
	Without help	76	92.68%
Variables		Absolute frequency (N)	Relative frequency (%)
Bathing	With full help	5	6.10%
	With partial help	5	6.10%
	Without help	72	87.80%
Dressing	With full help	3	3.66%
	With partial help	5	6.10%
	Without help	74	90.24%
Transferring	With full help	3	3.66%
	With partial help	9	10.98%

	Without help	70	85.37%
Toileting	With full help	3	3.66%
	With partial help	5	6.10%
	Without help	74	90.24%
Eating	With full help	2	2.44%
	With partial help	4	4.88%
	Without help	76	92.68%

Table 2: Descriptive analysis of Katz Index components.

Source: Prepared by the authors.

Therefore, studies must be carried out to identify the factors associated with the risk of falling and encourage the development of effective care and prevention. A large proportion of the older adults participating in this study are hypertensive, a condition that predisposes to postural instability in older adults.

Table 2 lists data from the Katz Index that assesses functionality in older people. The study revealed that 87.80% of participants bathed without help, 90.24% got dressed alone, 85.37% transferred to their physiological needs alone, 90.24% used the bathroom without help, and 92.68% fed themselves without help.

Falls occur due to the total loss of postural balance, often related to sudden insufficiency of neural and osteoarticular mechanisms, involved in maintaining posture (MORGAN; VIRNIG; DUQUE, et al. 2004). The social cost is immeasurable and increases as older adults lose their autonomy, particularly if they require institutional care. Falls are frequent events; however, as they are multifactorial, it is difficult to establish a single risk factor for their occurrence. The results of this research indicate that most older people preserve their functionality, an important condition for aging with quality of life.

A study on the prevalence and factors associated with falls in 2,096 individuals over the age of 65 in several states in Nigeria reported sociodemographic characteristics,

the presence of visual deficits, chronic physical conditions, and the presence of insomnia, and indicated that the biggest risk factors for falls were: female, aged over 80 years, with 7-12 years of schooling and low to medium socioeconomic level (Bekibele, Gureje, 2010).

CONCLUSION

There was no significant increase in the incidence of falls among older adults people during the COVID-19 pandemic, even though they are spending more time at home.

This reflects a firm support network and closer and more intense care for this population during this period.

DIFFICULTIES FOUND

Due to COVID-19, the research had to undergo changes, the questionnaires that would initially be carried out in person were administered remotely.

PARTICIPATION IN SCIENTIFIC EVENTS AND EXTRACURRICULAR ACTIVITIES

Participation in practical internships in the areas of clinical medicine, clinical oncology, general surgery, and urgency and emergency

Participation in an internship at Dr. Mario Gatti Municipal Hospital and Capivari Basic Health Unit

Participation in academic oncology and surgery leagues

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