

## Assessment of social support in relation to the risk of falls among elderly

*Avaliação do apoio social em relação ao risco de quedas de idosos em atendimento ambulatorial*  
*Evaluación del apoyo social en relación con el riesgo de caídas en personas mayores que reciben atención ambulatoria*

**Cristiane Regina Soares<sup>1</sup>**

ORCID: 0000-0003-4563-689X

**Meiry Fernanda Pinto Okuno<sup>1</sup>**

ORCID: 0000-0003-4200-1186

<sup>1</sup>Universidade Federal de São Paulo.  
São Paulo, SP, Brasil.

Corresponding author:  
Cristiane Regina Soares  
E-mail: [crissoares31@yahoo.com.br](mailto:crissoares31@yahoo.com.br)

### Abstract

**Objective:** To assess social support in relation to the risk of falls. **Method:** A quantitative and cross-sectional study conducted in an outpatient clinic specializing in elderly care in the city of São Paulo (SP). The sample consisted of 117 elderly individuals, between March and November 2019. The Downton Risk of Falls and Medical Outcomes Study scales were used to measure the data. The Mann-Whitney test was used to assess the risk of falls, with social support considered at a significance level of 5% and a confidence interval of 95%. **Results:** There was a significant correlation between the risk of elderly individuals falling and social support in the affective dimensions ( $p=0.0028$ ) and positive social interaction ( $p=0.0017$ ). A high level of social support perceived by the elderly reduces the risk of falls by 4%. Furthermore, in the affective, emotional/informational dimensions, and positive social interaction, the probability of falls is reduced by 28%. **Conclusion:** In short, these results have relevant implications for nursing practice, since elderly people who are at high risk of falls have a lower perception of social support, thus, it is important to direct actions toward prevention and health promotion for this population.

**Descriptors:** Social support; Fall Accidents; Elderly; Healthy aging.

#### Whats is already known on this?

Social support is important to consider when providing nursing care, as the family and community can be allies in health prevention, treatment, and rehabilitation.

#### What this study adds?

Social support in the material, affective, emotional/informational, and positive social interaction dimensions is important for elderly health care and fall prevention.



**How to cite this article:** Soares CR, Okuno MFP. Assessment of social support in relation to the risk of falls among elderly. Rev. enferm. UFPI. [internet] 2024 [Cited: ano mês abreviado dia];13: e5078. DOI: 10.26694/reufpi.v13i1.5078

### Resumo

**Objetivo:** Avaliar o apoio social em relação aos riscos de quedas. **Método:** Estudo com delineamento quantitativo e transversal, conduzido em um ambulatório especializado em atendimento aos idosos na cidade de São Paulo (SP). A amostra foi composta por 117 idosos, entre março e novembro de 2019. As escalas de Risco de Quedas de Downton e a Medical Outcomes Study foram utilizadas para mensurar os dados. O teste de Mann-Whitney foi utilizado para avaliar o risco de quedas com o apoio social considerado um nível de significância de 5% e um intervalo de confiança de 95%. **Resultados:** Houve uma correlação significativa entre o risco de idosos cair e o apoio social nas dimensões afetivas ( $p=0,0028$ ) e interação social positiva ( $p=0,0017$ ). O alto nível de apoio social percebido pelos idosos reduz em 4% o risco de quedas. Além disso, nas dimensões afetiva, emocional/informacional e a interação social positiva diminuiu em 28% a probabilidade de cair. **Conclusão:** Em suma, estes resultados têm implicações relevantes para a prática da Enfermagem, uma vez que os idosos que apresentam um alto risco de quedas têm menor percepção do apoio social, assim, é importante direcionar as ações para a prevenção e a promoção da saúde para essa população.

**Descritores:** Apoio Social; Acidentes por Quedas; Idoso; Envelhecimento Saudável.

### Resumen

**Objetivo:** Evaluar el apoyo social en relación con el riesgo de caídas. **Método:** Estudio de diseño cuantitativo y transversal, realizado en un ambulatorio especializado en atención a ancianos de la ciudad de São Paulo (SP). La muestra estuvo compuesta por 117 personas mayores, entre marzo y noviembre de 2019. Para medir los datos se utilizaron las escalas de Riesgo de Caídas de Downton y el Estudio de Resultados Médicos. Se utilizó la prueba de Mann-Whitney para evaluar el riesgo de caídas con apoyo social considerando un nivel de significancia del 5% y un intervalo de confianza del 95%. **Resultados:** Hubo una correlación significativa entre el riesgo de caídas de los ancianos y el apoyo social en las dimensiones afectivas ( $p=0,0028$ ) e interacción social positiva ( $p=0,0017$ ). El alto nivel de apoyo social percibido por las personas mayores reduce el riesgo de caídas en un 4%. Además, en las dimensiones afectiva, emocional/informativa y de interacción social positiva, reduce la probabilidad de caídas en un 28%. **Conclusión:** En resumen, estos resultados tienen implicaciones relevantes para la práctica de la Enfermería, dado que los ancianos que con alto riesgo de caídas tienen una menor percepción de apoyo social, por lo que es importante dirigir las acciones hacia la prevención y promoción de la salud de esta población.

**Descritores:** Apoyo social; Accidentes por caídas; Anciano; Envejecimiento saludable.

## INTRODUCTION

Social support can play an important role in maintaining behaviors motivated by health promotion and prevention throughout life. Close and peripheral social ties stimulate active behaviors during the aging process. In addition, social support is indispensable for a healthier life among the elderly, who often face physiological limitations such as frailty or a decline in cognition, since motor or cognitive limitations prioritize care with the support of family members, friends, and caregivers to access health services in the community and help prevent risk situations.<sup>(1)</sup>

In this research, the degree to which interpersonal interactions fulfill certain responsibilities was examined and includes material, affective, emotional, informational, and positive social interactions. An analysis of four social dimensions was carried out to assess the connections between social support perceived by the elderly. The categories considered are: instrumental (which refers to the provision of assistance), informational (related to information, advice, or useful suggestions for solving problems), evaluative (relationships with other people that are useful for self-assessment), and emotional (which involves expressions of empathy, love, trust and concern).<sup>(2-7)</sup>

The literature shows that the social support perceived by the elderly can be a protective and primary factor concerning the risk of falls. It is therefore necessary to start assessing and using screening tools for the risk of falls. The management of factors related to falls, such as the identification and assessment of social support perceived by the elderly to reduce their risk of falling, can be done by simply asking "Have you fallen in the last 12 months". This increases the possibility of tracking older people by 43% between the ages of 65 and 74 and by 67% among those over 85.<sup>(8)</sup>

Every year, 684,000 people die as a result of accidents caused by falls and an estimated 172 million suffer from short- or long-term motor dependencies. Approximately 75% of fatal falls among elderly people aged 70 and over occur in low- and middle-income countries.<sup>(9-13)</sup>

Fall accidents are a growing and little-known public health problem. Among the related factors are an aging population, increased urbanization, and sedentary lifestyles. In addition, there is evidence that many falls are preventable and prevention efforts can be aided by the community, individuals, institutions, health professionals, health, social care, and leisure service providers, governments, Non-Governmental Organizations (NGOs), and international collaborations.<sup>(9)</sup>

The World Health Organization (WHO) has defined a fall as a person's reaction to falling from a lower level or unprepared, such as colliding and sliding from a level or height. In other words, it is the occurrence of a person remaining on the ground, floor, or lower level, following an imbalance. The main

reasons for falls are physiological changes caused by aging, frailty, gender, age, medication use, and morbidities. External factors are perceived as a decrease in the brightness of the environment, a sedentary lifestyle, the use of walking aids, objects in the bedroom or bathroom, and building structures.<sup>(9-13)</sup>

When considering social support, which can be provided by institutions in the community, groups of people, close people, and family members. Older people tend to have a favorable relationship with situations arising from their health treatment. In other words, in order to consider social support as a positive factor, the recipient must consider and experience social support as relevant and necessary for improving their health conditions.<sup>(4-7)</sup> Although, positive social support perceived by the individual has been considered a recovery factor for treatments related to depression, anxiety, and functional disabilities in the elderly. Studies are still needed to investigate the relationship between social support and events related to the risk of falls in the elderly.<sup>(4-7,14)</sup>

The topic's relevance is justified by the fact that social support is considered a protective and predictive factor for the health of the elderly, both in social relationships in the Material, Instrumental, Emotional, and Informational Dimensions, and in Positive Social Interactions, especially in identifying and helping to prevent the risk of falls, frailty, depression, cardiovascular diseases, reducing the risk of all-cause mortality and cardiocerebrovascular mortality, and in the use of medication.<sup>(15-18)</sup> A literature review identified a positive association between the satisfaction of social support in the Emotional, Instrumental, and Functional Dimension and global cognition, acting as a protective factor in reducing cognitive decline. However, some studies have identified that dysfunctional relationships can cause psychosocial stress and that there were negative associations when looking at emotional and affective support from family members.<sup>(19)</sup> The review therefore suggested holding groups to encourage healthy social relationships.<sup>(20)</sup>

Considering that individuals with morbidities take part in group activities that encourage healthy social relationships, the literature indicates that the diagnosis of a chronic non-communicable disease can be negative in terms of maintaining healthy activities. However, when considering functional social support, especially from the family, it was possible to observe the maintenance of healthy behavior concerning the disease. In addition, there were findings that the greater the social support, the better the life expectancy. The importance of the efficient use of psychosocial coping resources in the management of risks related to aging was highlighted.<sup>(21-23)</sup>

Research investigating social support in the area of aging associated with the risk of falls in the elderly implies a protective factor since identifying the social support perceived by the elderly allows actions to be directed toward preventing falls.

This study aimed to evaluate social support concerning the risk of falls among elderly people treated at a specialty outpatient clinic.

## METHODS

This is a quantitative, cross-sectional, and descriptive study, following the guidelines of the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE).<sup>(24)</sup> The research was carried out in a Specialty Medical Outpatient Clinic (SMOC) for the elderly located in the Southeast region of São Paulo (SP), and data was collected between March and November 2019.

The non-probability convenience sample was obtained by correlating the Medical Outcomes Study (MOS-SSS) scale<sup>(25)</sup> to assess social support and the Downton Falls Risk Index (DFRI)<sup>(26)</sup> to identify the risk of falls.

The inclusion criteria were elderly people aged 60 or over, seen at the outpatient clinic, able to understand and respond to the survey instruments, with a Mini-Mental State Examination (MMSE) score of more than 13 points for illiterate people, 18 points for those with more than one year and eight incomplete years of schooling and 26 points for those with eight or more complete years of schooling, and who also used two or more medications a day.

Sociodemographic and clinical data were collected using a form containing categorical and continuous variables, as well as instruments on social support and the risk of falls. The instruments were translated into Portuguese, validated, and authorized for institutional use.

The MOS-SSS scale is an instrument with four dimensions of social support: material, with four questions about who helps you with daily chores or prepares meals in case of illness, with a score ranging from four to 20; affective, assessed by three questions related to demonstrations of affection or making you feel loved, with a score ranging from three to 15; emotional and informational, with eight questions about people who can give advice and support to deal with personal problems, with a score ranging from eight

to 40; and positive social interaction with four questions about leisure activities and doing pleasurable activities, with a score ranging from four to 20. For all the questions, five answers were given: "never", corresponding to one point; "rarely", scoring two points; "sometimes", scoring three points; "almost always", corresponding to four points and "always", being considered five points. The total MOS scale with the four dimensions ranges from 19 to 95 points, and the higher the score, the greater the perception of social support.<sup>(25)</sup>

The validation of the variation of the MOS-SSS scale scores in terms of low, medium, and high occurred in 2018,<sup>(4)</sup> with the levels of perception, in the material category, varying from low (score 0 to 6), medium (score 7 to 13) and high (score equal to or higher than 14); in the Affective Dimension, the level of perception varies from low (score 0 to 4), medium (score 5 to 10) and high (score equal to or higher than 11); in the Emotional and Informational Dimension, the level of perception varies from low (score 0 to 12), medium (score 13 to 28) and high (score equal to or higher than 29); and in the Positive Social Interaction Dimension, the level of perception varies from low (score 0 to 6), medium (score 7 to 13) and high (score equal to or higher than 14).

The DFRI assessed the risk of falls using a five-item scale. The first item is related to previous incidents: if the answer is positive, a point is awarded, if the answer is negative, no points are awarded. The second item assesses the use of medication: if no medication is used, no points are awarded; if tranquilizers/sedatives, diuretics, antihypertensives, antiparkinsonian drugs, or antidepressants are used, one point is awarded for each class of medication. The third item analyzes the presence of sensory deficits (visual and hearing disorders), if there is no deficit, there is no score, and impaired vision and hearing are considered one point.<sup>(26)</sup>

In the fourth item, mental state is assessed using the MMSE test. If the individual is oriented, they do not score; if they are confused, they score one point. In the fifth item, ambulation is checked: if the individual has a normal gait, there is no score; if they use some kind of walking aid, such as a cane or walker, and it is safe, there is no score; if walking is unsafe, with or without the aid of equipment or impossible, there is a score of one point. The scale score ranges from zero to 11, and a score of three or more indicates a high risk of falls.<sup>(26-27)</sup>

The variables age, marital status, gender, employment status, individual and family income, number of drugs used per day, drug classes, and morbidities were described using descriptive statistics using Microsoft Office 2016 Excel® software and analyzed using Statistical Package for the Social Sciences (SPSS) version 19.

The Mann-Whitney test was applied to confirm the correlation between DFRI and MOS-SSS. The set of independent variables was assessed by the simple logistic regression model between the DFRI and MOS-SSS and by the multiple logistic regression model of MOS-SSS in the Positive Social Interaction Dimension in relation to the DFRI. Forward was the method selected for the analysis. The significance level of 5% ( $p \leq 0.05$ ) and the confidence level of 95% were considered in the analysis.

Opinion 3.165.580 in 2019 and CAAE: 03691418.3.0000.5505 were approved after analysis by the Research Ethics Committee of the Federal University of São Paulo (REC-UNIFESP), after authorization from the outpatient clinic and following the guidelines of Resolution 466/12 for conducting research with human beings of the National Health Council (CNS).<sup>(28)</sup> The elderly were informed about the research and agreed to voluntarily sign a Free and Informed Consent Term (FICT). The secrecy and confidentiality of the information was guaranteed.

## RESULTS

The sample of elderly people who took part in the survey was 117. Their ages ranged from 60 to 87, 108 of them were women, 44 were widowed and 39 were married. Schooling ranged from zero to 15 years, 94 of them were retired or pensioners, and had a family income of 1.85 minimum wage. The average number of medications in use was six, so the most commonly used were: 85 elderly people using antihypertensives, 66 participants using statins, 42 of them using oral antidiabetics and insulins, and 53 members of the sample using analgesics.

The majority of the elderly interviewed had a high risk of falls, which corresponds to 93 elderly people. In relation to the scale of social support perceived by the elderly, the total score was 70.87. In the Emotional and Informational Dimension, the average score was 29.61. The higher the score on the scale, the greater the perception of social support (Table 1). The elderly had a perception of social support in the Affective Dimension of 55.6% and the Material Dimension of 64.1% (Table 2).

**Table 1.** The means of the total scores of the perceived social support scale and the Material, Affective, Emotional/Information, and Social Interaction Dimensions of the elderly attended at the SMOC. São Paulo (SP), Brazil, 2019. (n=117)

| MOS-SSS*                                    | Mean  |
|---|-------|
| MOS-SSS (score 19 to 95)                    | 70.87 |
| Material (score 4 to 20)                    | 14.95 |
| Affective (score 3 to 15)                   | 11.97 |
| Emotional/Informational (score 8 to 40)     | 29.61 |
| Positive social interaction (score 4 to 20) | 14.30 |

\* MOS-SSS= Medical Outcomes Study.

**Table 2.** Levels of perception in the Material, Affective, Emotional/Informational, and Positive Social Interaction Dimensions of the elderly attended the SMOC. São Paulo (SP), Brazil, 2019. (n=117)

| MOS-SSS*                           |            |            |  |
|------------------------------------|------------|------------|--|
| Levels of perception               | n          | %          |  |
| <b>Material</b>                    |            |            |  |
| Low (0 to 6)                       | 20         | 17.1       |  |
| Medium (7 to 13)                   | 32         | 27.4       |  |
| High (> or = 14)                   | 65         | 55.6       |  |
| <b>Total</b>                       | <b>117</b> | <b>100</b> |  |
| <b>Affective</b>                   |            |            |  |
| Low (0 to 4)                       | 3          | 2.6        |  |
| Medium (5 to 10)                   | 39         | 33.3       |  |
| High (> or = 11)                   | 75         | 64.1       |  |
| <b>Total</b>                       | <b>117</b> | <b>100</b> |  |
| <b>Emotional/ Informational</b>    |            |            |  |
| Low (0 to 12)                      | 0          | 0          |  |
| Medium (13 to 28)                  | 56         | 47.9       |  |
| High (> or = 29)                   | 61         | 52.1       |  |
| <b>Total</b>                       | <b>117</b> | <b>100</b> |  |
| <b>Positive Social Interaction</b> |            |            |  |
| Low (0 to 6)                       | 3          | 2.6        |  |
| Medium (7 to 13)                   | 55         | 47         |  |
| High (> or = 14)                   | 59         | 50.4       |  |
| <b>Total</b>                       | <b>117</b> | <b>100</b> |  |

\* MOS-SSS = Medical Outcomes Study.

Elderly people with a high risk of falling had lower scores on the Material, Affective, and Positive Social Interaction dimensions of the MOS scale compared to individuals with no risk of falling. There was a significant relationship between the risk of falls and social support in the Affective ( $p=0.0028$ ) and Positive Social Interaction ( $p=0.0017$ ) dimensions (Table 3), i.e. elderly people with social support in the Affective and Positive Social Interaction dimensions have a lower risk of falls.

**Table 3.** Correlation between the risk of falling and social support perceived by the elderly in SMOC. São Paulo (SP), Brazil, 2019. (n=117)

|   | DFRI † (Mean standard deviation) |             | Total       | p-value |
|---|----------------------------------|-------------|-------------|---------|
|   | No                               | Yes         |             |         |
| MOS-SSS* (score 19 to 95)                   | 79 (15.5)                        | 68.8 (17.4) | 70.9 (17.5) | 0.0105  |
| Material (score 4 to 20)                    | 15.2 (5.4)                       | 14.9 (4.6)  | 14.9 (4.8)  | 0.7558  |
| Affective (score 3 to 15)                   | 13.9 (2.6)                       | 11.5 (3.6)  | 11.9 (3.6)  | 0.0028‡ |
| Emotional/ Informational (score 8 to 40)    | 33 (8.6)                         | 28.7 (9.1)  | 29.6 (9.1)  | 0.0451  |
| Positive social interaction (score 4 to 20) | 17 (3.5)                         | 13.6 (4.7)  | 14.3 (4.7)  | 0.0017‡ |

\* MOS-SSS= Medical Outcomes Study; † DFRI = Downton Falls Risk Scale; ‡ Mann-Whitney correlation test  $p \leq 0,05$ .

The social support perceived by the elderly showed that with each point on the MOS-SSS scale, the risk of falls decreased by 4%. In other words, the greater the perceived social support among older people at high risk of falls, the lower the likelihood of falls (Table 4).



For each point on the social support scale in the Affective, Emotional/Informational, and Positive Social Interaction domains, the chances of falling were reduced by 28%, 6%, and 19%, respectively. In other words, among the elderly at high risk of falling who had a better perception of social support in the Affective and Positive Social Interaction Dimensions, the likelihood of falling was considered to be lower (Table 4).

**Table 4.** Simple logistic regression model of social support perceived by the elderly in relation to the risk of falls in SMOC. São Paulo (SP), Brazil, 2019. (n=117)

| Variables   | Estimate | p-value | 95% CI <sup>§</sup> |
|-------------|----------|---------|---------------------|
| MOS-SSS*    | -0.04    | 0.0126  | [0.94; 0.99]        |
| Material    | -0.01    | 0.8032  | [0.9; 1.1]          |
| Affective   | -0.25    | 0.0073  | [0.6; 0.9]          |
| Emotional   | -0.05    | 0.0454  | [0.898; 0.999]      |
| Interaction | -0.18    | 0.0027  | [0.7; 0.9]          |

\* MOS-SSS = Medical Outcomes Study; §CI= Confidence Interval.

Table 5 shows that the domain related to the Positive Social Interaction Dimension best explains the occurrence of a high risk of falls, i.e. the better the Positive Social Interaction Dimension of the elderly, the lower their chances of falling.

**Table 5.** Multiple logistic regression model of social support perceived by older adults in the Positive Social Interaction domain in relation to the risk of falls in SMOC. São Paulo (SP), Brazil, 2019. (n=117)

| MOS-SSS*    | Estimate | p-value | 95% CI <sup>§</sup> |
|-------------|----------|---------|---------------------|
| Constant    | 1.47     | 0.2626  |                     |
| Interaction | -0.18    | 0.0074  | [0.73; 0.95]        |

\* MOS-SSS = Medical Outcomes Study; §CI= Confidence Interval.

## DISCUSSION

The main findings of this study were that elderly people with social support in the Affective ( $p=0.0028$ ) and Positive Social Interaction ( $p=0.0017$ ) dimensions are likely to have a lower risk of falls. Thus, it can be seen that strategies for caring for the health of the elderly, when screening for the risk of falls, are directed at the dimensions of social support with stimulus in the Affective Dimensions, Positive Social Interactions, and those related to the Emotional and Informational area.

The elderly showed a high perception of social support in all five dimensions of the scale. Elderly people at high risk of falls had a less favorable perception of social support compared to those at no risk of falls and had lower indicators of social support in the Affective and Positive Social Interaction dimensions compared to those at no risk of falls. Elderly people at high risk of falling who had a better perception of social support in the Affective and Positive Social Interaction dimensions were less likely to fall. The occurrence of a high risk of falling is related to a decrease in the Positive Social Interaction Dimension.

In this regard, a cross-sectional study carried out in the city of Boston, in the United States (USA), interviewed 430 elderly people in the community and identified a strong correlation between mild cognitive decline and the number of falls in the last year. Participants with low social engagement and mild cognitive decline had a 97% increased risk of falls in the previous year. These results suggested that social engagement may be a protective factor against falls, especially among older people with mild cognitive decline.<sup>(29)</sup>

In line with this research, a cross-sectional study of 100 elderly people carried out in Nigeria, Africa, showed that 75% of the participants had moderate to high concerns about the fear of falling. In the context of social support, a total of 72.2% of the sample were classified as having high social support, especially family support. The study's correlation identified that the greater the fear of falling, the lower the rates of social support and the lower the adherence to physical activity. Fear of falling was positively associated with social support ( $p<0.001$ ), while the age group of the participants was positively related to fear of falling ( $p<0.001$ ) and social support ( $p<0.001$ ).<sup>(5)</sup>

The affective bond is probably positively associated with the risk of falls. Thus, family, friends, and health professionals support carrying out actions that guide and strengthen self-care concerning the prevention and occurrence of falls, in this case including social support. Access to information, positive

social interaction, and affection have a positive impact on assessing the risk of accidents due to falls. However, complying with the recommendations of health professionals is still a challenge for the elderly.<sup>(30)</sup>

The elderly showed a good perception of social support, and the level of support was considered high in all five dimensions of the scale, especially in the Affective and Material categories. Social support is associated with better health performance, the promotion of healthy behaviors, improved functional capacity, and reduced emotional stress. Social support can act as a protective factor against falls and encourage older people to be more aware of the dangers in the environment or ensure that those at risk receive help to complete risky tasks, such as reaching objects suspended out of their reach.<sup>(8,30)</sup>

In addition, a study carried out in Accra, the capital of Ghana, with 923 elderly people with an average age of 68, revealed a positive correlation between walking in the neighborhood and social support ( $p < 0.001$ ). The results indicated that the greater the social support, the greater the indicators of walking fitness, i.e. individuals living in more walkable neighborhoods reported greater social support from members of their social network. Neighborhoods with physical infrastructure, sidewalks, parks, and psychosocial factors, such as tranquility and safety, encourage residents to engage in social activities that provide opportunities for dialogue and understanding of the needs of others. These social events are ways of providing support to the elderly population.<sup>(1)</sup>

Assessment of the risk of falls should be carried out in an objective, targeted, and multidimensional way, taking into account the frequency, characteristics, context, severity, and consequences after the event. Thus, the main signs and symptoms to be considered are dizziness, loss of consciousness, gait or balance disorders, worries about the fear of falling, and limitations in daily activities.<sup>(8,31-33)</sup>

The nursing history makes it possible to identify elderly people at low risk of falling since they have characteristics such as a single non-serious fall and no symptoms of imbalance. It is therefore recommended to carry out primary preventive actions and reassess annually. In elderly people with a moderate risk of falls, who have had one non-serious fall but who have imbalance problems, strength, and balance exercise interventions should be used, as the literature shows that these methods are effective in reducing the risk of falls.<sup>(8,31-33)</sup>

Elderly people at high risk of falls who have one or more of the following characteristics: multiple falls in the last 12 months, known frailty, and impaired functional capacity, such as the inability to stand up unaided for at least an hour and accompanied by suspicion or sudden loss of consciousness, should be assessed by a multidisciplinary falls risk team.<sup>(8,31-33)</sup>

The specific assessment can categorize nursing care for elderly people with a low, moderate, and high probability of falling. In the low-risk category, the literature indicates guidance on fall prevention and physical activity for health. For those at moderate risk, exercises focusing on balance and muscle strengthening are recommended. For those at high risk, personalized and individual interventions are indicated.<sup>(8,31-33)</sup>

The literature points out that the main facilitators for older people to adhere to fall prevention interventions were: good collaboration, support from a team, adequate adjustment of medication, older people receiving adequate guidance for exercise sessions, and having an adequate elderly care program implemented in a structured social network in the community and with the support of friends and family.<sup>(8)</sup>

The WHO has divided interventions into three categories: "primary prevention interventions", which aim to prevent falls, such as bars on windows, handrails on stairs and non-slip floors; "secondary prevention interventions", which aim to minimize the impact of a fall: soft floor surfaces, hip and back protectors, furniture corner covers, exercises to strengthen bones and muscles after a fall; and "tertiary prevention interventions" have as their main aspect managing falls to prevent death, minimizing cognitive or functional limitations and dependencies, and relieving the suffering of those who have had serious injuries caused by falls.<sup>(9)</sup>

With regard to this research, a systematic review of the literature identified the implementation of interventions with an increase in the level of perceived social support and social activation to encourage social interaction among the elderly. These include support groups, friendship programs, phone calls, and volunteering, which have been shown to improve stress, overall quality of life, and mental health. Regular, long-term group programs focused on promoting healthy social relationships were the main activities highlighted in the research. Person-centered interventions, with an empathetic approach to empower and motivate the elderly to recognize their particularities, were also effective, especially when carried out over long periods.<sup>(2, 23, 30)</sup>

The main limitations found were that the study was carried out in a single place of care, only for patients in the public health system, which means that it may not represent other realities. It was also a cross-sectional study, and longitudinal studies with larger samples are needed to monitor the difficulties encountered by the elderly in relation to social support and the risk of falling, as well as to suggest future interventions for clinical practice.

The contribution of this research to the scientific field of Health Sciences consisted of identifying the relevance of social support perceived by the elderly, in the Material, Emotional, Informational, and Positive Social Interaction dimensions, through full participation in community activities, such as support groups and walks, health services provided by multi-professional teams, guidance on preventing the risk of falls and the support of close people and family members who showed trust and concern about preventing falls.

## CONCLUSION

In this study, social support in the Affective, Positive Social Interactions, and Emotional and Informational dimensions showed scientific relevance for lower levels related to the risk of falls. It is therefore important to understand the reasons why older people behave in ways that compromise their risk of falling and contribute to complications in their state of health. Carrying out health education activities with the elderly and their families can stimulate an increase in the search for social support in the community.

The main knowledge gap was to identify intervention and randomized control group studies that encouraged healthy behaviors and to evaluate social support between the groups, verifying the effectiveness of social interaction programs, thus justifying incentives to increase the implementation of programs focused on healthy aging and Positive Social Interactions in the public health system network.

The initial assessment, based on the systematization of nursing care, directs the elderly towards educational activities, with group guidance, physical activities, outdoor walking groups, and multidisciplinary care. The development of care strategies on social support and the risk of falls, with the standardization of actions that direct the care of the elderly with the least social support, can be significant in day-to-day practice. From this perspective, it is important to involve professionals from different areas in the approach to healthy aging.

## CONTRIBUTIONS

Contributed to the conception or design of the study/research: Soares CR, Okuno MFP. Contributed to data collection: Soares CR, Okuno MFP. Contributed to the analysis and/or interpretation of data: Soares CR, Okuno MFP. Contributed to article writing or critical review: Soares CR, Okuno MFP. Final approval of the version to be published: Soares CR, Okuno MFP.

## ACKNOWLEDGMENTS

We extend our gratitude to the Paulista School of Nursing at the Federal University of São Paulo (EPE-Unifesp) and the Southeast Region Elderly Medical Specialty Outpatient Clinic (AME) for their support.

## REFERENCES

1. Asiamah N, Lowry R, Khan HTA, Awuviry-Newton K. Associations between social support provided and walkability among older adults: health self-consciousness as a moderator. *Arch. Gerontol. Geriatr.* 2022;101:104691. DOI: <https://doi.org/10.1016/j.archger.2022.104691>.
2. Manjunath J, Manoj N, Alchalabi T. Interventions against social isolation of older adults: a systematic review of existing literature and interventions. *Geriatrics (Basel)*. 2021;6(3):82. DOI: <https://doi.org/10.3390/geriatrics6030082>.
3. Ribeiro IA, Lima LR, Volpe CRG, Funghetto SS, Rehem TCMSB, Stival MM. Frailty syndrome in the elderly in elderly with chronic diseases in primary care. *Rev. Esc. Enferm. USP*. 2019;53:e03449. DOI: <https://doi.org/10.1590/S1980-220X2018002603449>.



4. Zanini DS, Peixoto EM, Nakano TC. The social support scale (MOS-SSS): standardizing with item references. *Temas Psicol (Online)*. 2018;26(1):387-99. DOI: <http://dx.doi.org/10.9788/TP2018.1-15Pt>.
5. Poblete F, Barticevic N, Sapag JC, Tapia P, Bastías G, Quevedo D, *et al*. Social support, self-rated health, treatment adherence and effectiveness in patients with type II diabetes and hypertension. *Rev. Med. Chil*. 2018;146(10):1135-42. DOI: <https://doi.org/10.4067/S0034-98872018001001135>.
6. Okoye EC, Onwuakagba IU, Akile CC, Okonkwo UP, Akosile CO, Mgbeojedo UG, *et al*. Social support, general self-efficacy, fear of falling, and physical activity among older adults in a middle-income country. *Gerontol. Geriatr. Med*. 2022;8: 23337214221097750. DOI: <https://doi.org/10.1177/23337214221097750>.
7. Jesus DAS, Oliveira NGN, Oliveira NN, Bolina AF, Marchiori GF, Tavares DMDS. Social support among older adults understood through structural equation modeling. *Rev. Bras. Enferm*. 2022;75(Suppl 4):e20220188. DOI: <https://doi.org/10.1590/0034-7167-2022-0188>.
8. Montero-Odasso M, Van der Velde N, Martin FC, Petrovic M, Tan MP, Ryg J, *et al*. World guidelines for falls prevention and management for older adults: a global initiative. *Age Ageing*. 2022;51(9):205. DOI: <https://doi.org/10.1093/ageing/afac205>.
9. World Health Organization. Step safely: strategies for preventing and managing falls across the life-course. Geneva: WHO; 2021. Available from: <https://www.who.int/publications/i/item/978924002191-4>.
10. Xu Q, Ou X, Li J. The risk of falls among the aging population: a systematic review and meta-analysis. *Front. Public. Health*. 2022;17(10):902599. DOI: <https://doi.org/10.3389/fpubh.2022.902599>.
11. Denfeld QE, Turrise S, MacLaughlin EJ, Chang PS, Clair WK, Lewis EF, *et al*. Preventing and managing falls in adults with cardiovascular disease: a scientific statement from the american heart association. *Circ. Cardiovasc. Qual. Outcomes*. 2022;15(6):e000108. DOI: <https://doi.org/10.1161/HCQ.000000000000108>.
12. Meekes WMA, Leemrijse CJ, Korevaar JC, Stanmore EK, Van de Goor LIAM. Implementing falls prevention in primary care: barriers and facilitators. *Clin. Interv. Aging*. 2022;2(17):885-902. DOI: <https://doi.org/10.2147/CIA.S354911>.
13. Bolding DJ, Corman E. Falls in the geriatric patient. *Clin. Geriatr. Med*. 2019;35(1):115-26. DOI: <https://doi.org/10.1016/j.cger.2018.08.010>.
14. Yang F, Jiang Y. Heterogeneous influences of social support on physical and mental health: evidence from China. *Int J Environ Res. Public. Health*. 2020;17:6838. DOI: <https://doi.org/10.3390/ijerph17186838>.
15. Anantapong K, Wiwattanaworaset P, Sriplung H. Association between Social Support and Frailty among Older People with Depressive Disorders. *Clin Gerontol*. 2020;43(4):400-10. DOI: <https://doi.org/10.1080/07317115.2020.1728002>.
16. Freak-Poli1 R, Ryan J, Neumann JT, Tonkin A, Reid CM, Woods RL, *et al*. Social isolation, social support and loneliness as predictors of cardiovascular disease incidence and mortality. *BMC Geriatrics* (2021) 21:711. DOI: <https://doi.org/10.1186/s12877-021-02602-2>.
17. Shen Z, Ding S, Shi S, Zhong Z. Association between social support and medication literacy in older adults with hypertension. *Front Public Health*. 2022;10:987526. DOI: <https://doi.org/10.3389/fpubh.2022.987526>

18. Wang Y, Wang JJ, Zhou HF, Li WY, Liao YX, Xu MY. The protective effect of social support on all-cause and cardio-cerebrovascular mortality among middle-aged and older adults in the US. *Scientific Reports*. 2024;14:4758. DOI: <https://doi.org/10.1038/s41598-024-55012-w>
19. Silva ALS, Ottaviani AC, Orlandi FS, Inouye K, Zazzetta MS, Pavarini SCI, *et al.* Social support perceived by elderly people in social vulnerability according to family functionality: a cross-sectional study. *Rev Esc Enferm USP*. 2023;57:e20220475. DOI: <https://doi.org/10.1590/1980-220X-REEUSP-2022-0475en>.
20. Rutter EC, Tyas SL, Maxwell CJ, Law J, O'Connell ME, Konnert CA, *et al.* Association between functional social support and cognitive function in middle-aged and older adults: a protocol for a systematic review. *BMJ Open*. 2023;10(4):e037301. DOI: <https://doi.org/10.1136/bmjopen-2020-037301>.
21. Qin W. A diagnosis of diabetes and health behavior maintenance in middle-aged and older adults in the United States: The role of self-efficacy and social support. *Prev Med*. 2022; 155: 106958. DOI: <https://doi.org/10.1016/j.ypmed.2022.106958>.
22. Bhatia R, Hirsch C, Arnold AM, Newman AB, Mukamal KJ. Social networks, social support, and life expectancy in older adults: the cardiovascular health study. *Arch Gerontol Geriatr*. 2023;111:104981. DOI: <https://doi.org/10.1016/j.archger.2023.104981>.
23. Pais R, Ruano L, Moreira C, Fraga S, P. Carvalho O, Barros H. Social Support and Cognitive Impairment: Results from a Portuguese 4-Year Prospective Study. *Int J Environ Res Public Health*. 2021;18:8841. DOI: <https://doi.org/10.3390/ijerph18168841>.
24. Von Elm E, Altman DG, Egger M, Pocock SJ, Gotsche PC, Vandenbroucke JP, STROBE Initiative. The strengthening the reporting of observational studies in epidemiology (STROBE) statement: guidelines for reporting observational studies. *J. Clin. Epidemiol*. 2008;61(4):344-9. DOI: <https://doi.org/10.1016/j.jclinepi.2007.11.008>.
25. Griep RH, Chor D, Faerstein E, Werneck GL, Lopes CL. Construct validity of the medical outcomes study's social support scale adapted to portuguese in the pró-saúde study. *Cad. Saúde Pública (online)*. 2005;21(3):703-14. DOI: <https://doi.org/10.1590/S0102-311X2005000300004>.
26. Schiaveto FV. Avaliação do risco de quedas em idosos na comunidade [Dissertação]. Ribeirão Preto (SP): Escola de Enfermagem de Ribeirão Preto, Universidade de São Paulo; 2008. Available from: <https://www.teses.usp.br/teses/disponiveis/22/22132/tde-19122008-153736/publico/FabioVeigaSchiaveto.pdf>.
27. Brucki SMD, Nitrini R, Caramelli P, Bertolucci PHF, Ivan H. Okamoto IH. Suggestions for utilization of the mini-mental state examination in Brazil. *Arq. Neuropsiquiatr*. 2003;61(3B):777-81. DOI: <https://doi.org/10.1590/S0004-282X2003000500014>.
28. Ministério da Saúde (BR). Conselho Nacional de Saúde. Resolução nº 466 de 12 de dezembro de 2012. Regulamenta a pesquisa envolvendo seres humanos. *Diário Oficial da União: República Federativa do Brasil*. 2012. Available from: [http://bvsmms.saude.gov.br/bvs/saudelegis/cns/2013/res0466\\_12\\_12\\_2012.html](http://bvsmms.saude.gov.br/bvs/saudelegis/cns/2013/res0466_12_12_2012.html).
29. Quach LT, Ward RE, Pedersen MM, Leveille SG, Grande L, Gagnon DR, Bean JF. The association between social engagement, mild cognitive impairment, and falls among older primary care patients. *Arch. Phys. Med. Rehabil*. 2019;100(8):1499-505. DOI: <https://doi.org/10.1016/j.apmr.2019.01.020>.
30. Sant'Ana LAJ, D'Elboux MJ. Social support and expectation of elderly care: association with sociodemographic variables, health and functionality. *Saúde Debate*. 2019;43(121):503-19. DOI: <https://doi.org/10.1590/0103-1104201912117>.

31. Silva F, Alvarez AM, Nunes SFL, Silva MEM, Santos SMA. Assessment of risk of falls in people with Parkinson's disease. *Esc. Anna Nery*. 2022;26:e20210131. DOI: <https://doi.org/10.1590/2177-9465-EAN-2021-0131>.
32. Gonçalves ERS, Vendramini ACMG, Vechia ADRD, Azevedo RCS, Reiners AAO. Environmental risk factors, prevalence and consequences of falls in the elderly's home. *Rev. Enferm. UFPI*. 2020;9(1). DOI: <https://doi.org/10.26694/reufpi.v9i0.10458>.
33. Sousa ILPS, Oliveira FMRL, Barbosa KTF, Guimarães KSL, Leal NPR, Madruga KMA. Falls, fear of falling and functional capacity: overview of elderly people enrolled in a family health unit. *REME - Rev Min Enferm*. 2022;26:e-1421. DOI: <https://doi.org/10.35699/2316-9389.2022.38542>.

Conflicts of interest: No  
Submission: 2023/30/11  
Revised: 2024/21/07  
Accepted: 2024/06/09  
Publication: 2024/06/12

Editor in Chief or Scientific: Raylane da Silva Machado  
Associate Editor: Francisca Tereza de Galiza

Authors retain copyright and grant the Revista de Enfermagem da UFPI the right of first publication, with the work simultaneously licensed under the Creative Commons Attribution BY 4.0 License, which allows sharing the work with acknowledgment of authorship and initial publication in this journal.