# The influence of informal caregivers on the rehabilitation of the elderly in the postoperative period of proximal femoral fracture



Influência do cuidador informal na reabilitação do idoso em pósoperatório de fratura de fêmur proximal

Influencia del cuidador informal en la rehabilitación de las personas mayores en postoperatorio de la fractura del fémur proximal

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## **ABSTRACT**

**Objective:** To analyze the influence of informal caregivers on the functional independence of older adults in the postoperative period of proximal femoral fracture due to falls.

**Method:** It is an integrative review of a corpus for analysis that gathered 23 articles, between 2002 and 2012, from databases "Literatura Latino-Americana e do Caribe em Ciências da Saúde" (Latin-American and Caribbean Health Sciences Literature in Health Sciences), Cumulative Index to Nursing and Allied Health Literature, US National Library of Medicine and Scopus.

**Results:** There was a predominance of studies by Chinese authors and nurses. The analysis of the studies evidenced that falls followed by fractures lead to dependence of older adults and, consequently, an overload to caregivers. Moreover, older adults and caregivers showed a need for support in the rehabilitation process.

**Conclusions:** Informal caregivers still need to be included in care planning and to be qualified for such care by health professionals, since they positively influence functional independence in the postoperative period.

**Keywords:** Aged. Accidental falls. Femoral fractures. Caregivers. Postoperative period.

#### RESIIMO

**Objetivo:** Verificar a influência do cuidador informal na independência funcional de idosos no pós-operatório de fratura de fêmur proximal por quedas.

**Método:** Revisão integrativa, cujo corpus de análise reuniu 23 artigos, entre 2002 e 2012, das bases de dados Literatura Latino-Americana e do Caribe em Ciências da Saúde, Scientific Electronic Library Online, Cumulative Index to Nursing and Allied Health Literature, US National Library of Medicine e Scopus.

**Resultados:** Predominaram estudos com autoria de chineses e enfermeiros. A análise dos estudos evidenciou que as quedas seguidas por fraturas promovem a dependência de idosos e, consequentemente, a sobrecarga aos cuidadores, demonstrando o binômio idoso dependente-cuidador necessitar de apoio no processo de reabilitação.

**Conclusões:** Os cuidadores informais ainda precisam ser inseridos no planejamento e capacitados para o cuidado pelos profissionais da saúde, uma vez que influenciam positivamente a independência funcional no pós-operatório.

**Palavras-chave:** Idoso. Acidentes por guedas. Fraturas do fêmur. Cuidadores. Período pós-operatório.

### **RESUMEN**

**Objetivo:** Verificar la influencia del cuidador informal en la independencia funcional de ancianos en postoperatorio de fractura proximal de fémur por caídas.

**Método:** Revisión integradora, cuyo análisis se reunieron 23 artículos, entre 2002 y 2012, en las bases de datos Literatura Latinoamericana y del Caribe en Ciencias de la Salud, Cumulative Index to Nursing and Allied Health Literature, US National Library of Medicine e Scopus.

**Resultados:** Predominaron estudios con autores chinos y enfermeros. El análisis de los estudios evidenció que las caídas que producen fracturas promueven la dependencia de ancianos y, consecuentemente, sobrecarga en los cuidadores, demostrando la dupla anciano dependiente-cuidador necesidad de apoyo en el proceso de rehabilitación.

**Conclusiones:** Los cuidadores informales necesitan inserción en la planificación, además de capacitación para cuidados por parte de profesionales de salud, toda vez que influyen positivamente en la independencia funcional durante el postoperatorio.

**Palabras clave**: Anciano. Accidentes por caídas. Fracturas del fémur. Cuidadores. Periodo posoperatorio.

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## **■INTRODUCTION**

Proximal femoral fractures (PFF) are common in the elderly population<sup>(1-2)</sup> and the incidence of falls increases with aging<sup>(3)</sup>. The risk factors indicated by North American Nursing Diagnosis Association International (NANDA-I) are classified into: environmental (room with furniture and objects/rugs scattered on the floor, poor lighting and slippery floor); cognitive (altered mental status); elderly over 65 years old; physiological (impaired balance, visual impairment, incontinence, difficulty walking, neoplasia and use of some medications<sup>(4)</sup>.

It is estimated that around 5% of hospitalized elderly patients with proximal femoral fractures die during initial hospital stay and one third die in the first year after injury<sup>(1)</sup> Thus, in addition to being undesirable to patients, falls followed by PFF are also expensive for their families and the society<sup>(1-2)</sup>, as they may compromise functional independence, that is, the individual's ability to do something with their own means, requiring a caregiver, either formal or informal. The informal caregiver, usually a family member is not paid for the care delivered and may not have the necessary training to perform the task, unlike the formal caregiver<sup>(5)</sup>.

The role of the caregiver has led to changes in the family dynamics, with increased participation of male individuals and older spouses, including relatives such as nieces/nephews, granddaughters/sons and sisters/brothers<sup>(6)</sup>. This excessive workload imposed to the caregiver may cause functional<sup>(7-8)</sup> and psychological impairment resulting from the daily activities, changes in social life, financial burden, coping with depressive symptoms and cognitive changes<sup>(9)</sup>, dysfunction of roles or interruption of family routine<sup>(7)</sup>.

Given the further population aging, the high incidence of falls among elderly, favoring the occurrence of PFF with the consequent impairment of their functional independence, the number of informal caregivers is expected to increase. So, the following question is posed: — How do informal caregivers influence the process of recovery of the functional independence of these elderly? The justification for this study is that it will allow the recognition of aspects related to informal care that need professional and social investments, to ensure a satisfactory quality of life for elderly and caregivers.

This research is aimed to find scientific articles published in national and international journals, on the influence of informal caregivers on the recovery of functional independence by elderly individuals in the postoperative of proximal femoral fracture (PFF) caused by falls.

### METHOD

Integrative review defined as the instrument for access, identification, analysis and synthesis of the literature on a specific theme that allows the construction of a wide analysis of the topic, including discussions on methods and outcomes of publications<sup>(10)</sup>. This method allows synthesizing previous studies and showing the conclusions of the collected corpus for analysis on a particular phenomenon, and comprises all the studies related to the guiding question used in the search of this literature<sup>(11)</sup>.

The integrative review comprises the following stages: definition of the problem i.e. the object of the review presented as a question or a primary hypothesis; selection of the sample after definition of inclusion criteria; characterization of the studies (the features or information to be collected from the studies are defined by means of clear criteria, guided by an instrument); analysis of outcomes (identifying similarities and conflicts) and presentation and discussion of the findings<sup>(10)</sup>.

The guiding question of the review was based on the strategy Patient, Intervention, Comparison and Outcomes, recognized by the abbreviation PICO<sup>(12)</sup>: P – elderly in the postoperative of proximal femoral fracture (PFF) caused by fall; I – actions of the informal caregiver in the provision of care to the elderly; C – elderly with informal caregiver and elderly without caregiver; O – recovery of functional independence of the elderly. So, the guiding question of the review was: How do informal caregivers influence the recovery of functional independence of elderly in the postoperative of PFF caused by falls?

The selection of the sample was performed in March 2013, through access to the main online databases of healthcare available at the Portal Periódicos da Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Capes (www.capes.gov.br): Literatura Latino-Americana e do Caribe em Ciências da Saúde (LILACS), considered the most important and comprehensive index of scientific and technical literature of Latin America and The Caribbean; Cumulative Index to Nursing and Allied Health Literature (CINAHL), database with more than 3.2 million records since 1937, which provides the full text of more than 700 journals of nursing and health indexed in this database; US National Library of Medicine (PubMed), which includes more than 24 million citations for biomedical literature from MEDLINE, periodicals of life sciences and online books. The citations include links for access to full text of publications of PubMed Central and publisher web sites; Scopus, which contains 55 million records of 21,915 titles of 5,000 editors, considered the largest database of periodicals, books and annals of scientific

events, communicating knowledge produced worldwide in the fields of science, technology, medicine, social sciences, arts and humanities.

In the first database, the controlled descriptors (search terms) were combined with Boolean operators in this research: "idoso" or "envelhecimento" and "cuidadores" and "fraturas do fêmur" or "fraturas do quadril" and in the last three databases: "aged" or "aging" or "older" or "elderly" and "caregivers" and "femoral fractures" or "hip fractures".

For data systematization, the authors developed a collection instrument containing data related to authorship and publications. The inclusion criteria adopted were articles entirely available related to the object of research, without language restriction, originated from national and international journals, indexed in the referred databases from January 2002 to December 2012. The exclusion criteria adopted were articles on the following topics: elderly with mental and/or cognitive impairment; elderly with formal caregivers; elderly residing in Long-Stay Institutions; surgical strategies; instrument validation; pharmacology and arthrosis. Thus, 23 articles were established as the corpus for analysis (Figure 1).

## **RESULTS**

Most of the sample of publications was indexed in *Scopus* (17), followed by CINAHL (10) and in 2010 (6). The corpus for analysis is mostly international (91.30%), pub-

lished in English (86.96%), Portuguese (8.70%) and Spanish (4.35%), and China was the country with the greatest contribution (34.78%), according to Table 1.

Chart 1 contains the name and type of study, the thematic axis of the journal where the article was published and the object of study, as well as the influence of informal caregivers on the functional independence of elderly individuals.

## DISCUSSION

The studies analyzed in this review demonstrated that a fall followed by PFF is a traumatic event because for leading to dependence on a caregiver and the need for a family rearrangement, aimed to the surgical recovery and functional independence of the elderly.

The clinical status of elderly prior PFF may influence the recovery of functional independence<sup>(16,24)</sup>, despite the efforts of families in home care. The factors known to affect post PFF recovery are health status before the fracture, basal functional capacity, emotional status after surgery, cognitive deficits and availability of social support<sup>(16)</sup>. An investigation conducted in Israel showed that functional improvement is influenced by cognitive changes, followed by the nutritional status at admission (assessed by serum albumin measurement), pre-injury functional level and early surgical intervention<sup>(24)</sup>.

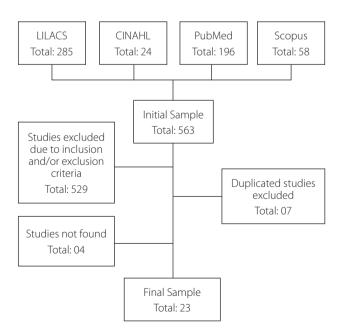


Figure 1 – Flowchart of the composition of the sample

Source: Research data, 2012.

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**Table 1** – Distribution of selected studies according to the country of the publication of the studies. Botucatu/São Paulo/Brazil, 2012

Country of the Publication of the study	n (%)
China	8 (34.78)
USA	6 (26.09)
Australia	2 (8.70)
Brazil	2 (8.70)
Canada	1 (4.35)
Cuba	1 (4.35)
Scotland	1 (4.35)
Israel	1 (4.35)
Singapore	1 (4.35)
Total	23 (100.00)

Source: Research data, 2012.

First author and type of study	Thematic axis of the journal	Object of the study	Influence of informal caregivers on the functional independence of elderly
Eastwood EA <sup>(13)</sup> Quantitative Cohort	gerontology	Association between the characteristics of patients recognized at admission and functional outcomes after six months <sup>(13)</sup> .	Caregivers can assist in mobility, self-care and transfers <sup>(13)</sup> .
Megret Caballero A <sup>(14)</sup> Quantitative Quasi-experimental design	nursing	Educational intervention outcomes for caregivers of elderly <sup>(14)</sup> .	Empower families to provide care may minimize complications <sup>(14)</sup> .
Crotty M <sup>(15)</sup> Quantitative Randomized Clinical Trial	medicine	The effect of early discharge on home rehabilitation compared to conventional hospital rehabilitation <sup>(15)</sup> .	For the patients there was no difference between early discharge and traditional care (hospital). In a 12 month period, the overload experienced by caregivers was reduced with the assistance provided by family caregivers <sup>(15)</sup> .
Lin P-C <sup>(16)</sup> Quantitative Cross- sectional	nursing	The overload of caregivers of elderly with PFF during transition from hospital to home <sup>(16)</sup> .	The physical ability of older patients has gradually improved after hospital discharge and was negatively related to overburdened caregivers <sup>(16)</sup> .
Macleod M <sup>(17)</sup> Qualitative Thematic analysis	interdisciplinary	The role of caregivers in early rehabilitation of elderly patients who suffered PFF <sup>(17)</sup> .	Caregivers provide concrete, practical aid regarding care and psychological support <sup>(17)</sup> .
Jones CA <sup>(18)</sup> Quantitative Cohort	gerontology	The correlation between the responses of patients and their caregivers to health-related quality of life <sup>(18)</sup> .	Caregivers are considered reliable sources of information on the health status of elderly individuals <sup>(18)</sup> .

First author and type of study	Thematic axis of the journal	Object of the study	Influence of informal caregivers on the functional independence of elderly
Lin P-C <sup>(19)</sup> Quantitative cross-sectional	nursing	Care needs of elderly who suffered PFF and the challenges posed by post-discharge care <sup>(19)</sup> .	Caregivers should be inserted in the transition of care to ensure high quality care to elderly at home <sup>(19)</sup> .
Huang H-C <sup>(20)</sup> Quantitative Quasi- experimental design	nursing	The factors associated to adherence to the use of hip protectors <sup>(20)</sup> .	Thanks to the use of hip protectors 12 falls did not cause fractures. The reasons for non-adherence to hip protectors were: lack of familiarity with the device, daily use only, discomfort and lack of support of family caregivers <sup>(20)</sup> .
Shawler C <sup>(21)</sup> Qualitative Grounded Theory	gerontology	Relationship between elderly mother-daughter during and after PFF <sup>(21)</sup> .	Importance of "empowerment" in the management of a health crisis. In the process of empowerment to manage the crises, the dyad expresses the need for courage and remaining upright to protect the person who is sick <sup>(21)</sup> .
Li H-J <sup>(22)</sup> Qualitative Grounded Theory	nursing	The process of <i>coping</i> of Taiwanese families after hospital discharge <sup>(22)</sup> .	Caregivers and elderly individuals made reciprocal adjustments of behaviors, attitudes, expectations (adequate coping styles) to achieve better results in care <sup>(22)</sup> .
Lin P-C <sup>(23)</sup> Quantitative, Cohort	nursing	The factors that have impact on the suffering of caregivers in the process of transition from hospital to home <sup>(23)</sup> .	The predictive factors for overload of caregivers: physical ability of the elderly, self-efficacy and social support <sup>(23)</sup> .
Hershkovitz A <sup>(24)</sup> Quantitative Cross-sectional	rehabilitation	Prognostic factors in acute rehabilitation of elderly who suffered PFF <sup>(24)</sup> .	At the end of the rehabilitation program, two variables were identified as predictive of discharge of elderly: the presence of a caregiver and the cognitive status of the elderly <sup>(24)</sup> .
Kochar J <sup>(25)</sup> Quantitative Cross- sectional	gerontology	Association between depressive symptoms and sleep problems in female caregivers <sup>(25)</sup> .	Depressed caregivers report sleep problems, which may interfere with the quality of care delivered <sup>(25)</sup> .
Martins JJ <sup>(26)</sup> Qualitative, Collective Subject Discourse	nursing	Home care under the perspective of elderly/family members and professional of a family health unit <sup>(26)</sup> .	The professionals must provide guidance on home care, including family caregivers in the process, respecting the autonomy of elderly and cultural family aspects <sup>(26)</sup> .
Min WJ <sup>(27)</sup> Quantitative Cross-sectional	gerontology	The preference for a type of caregiver <sup>(27)</sup> .	Cultural factors that impact the preference for a type of caregiver; Latin elderly prefer family caregivers <sup>(27)</sup> .

First author and type of study	Thematic axis of the journal	Object of the study	Influence of informal caregivers on the functional independence of elderly
Rocha L <sup>(28)</sup> Qualitative Thematic analysis	nursing	Factors that affect the vulnerability of elderly to falls followed by PFF <sup>(28)</sup> .	A caregiver who is aware of the vulnerability of elderly to falls may provide guidance on prevention measures <sup>(28)</sup> .
Taylor NF <sup>(29)</sup> Qualitative Thematic analysis	rehabilitation	Mobility in the residence and in the neighborhood after PFF <sup>(29)</sup> .	Caregivers can help elderly who have difficulty walking <sup>(29)</sup> .
Nahm E-S <sup>(30)</sup> Qualitative Phenomenology	gerontology	Experiences and support needs of caregivers of elderly who suffered PFF <sup>(30)</sup> .	Caregivers indicate the need for formal support to care for elderly at home <sup>(30)</sup> .
Shyu Y-I L <sup>(31)</sup> Quantitative, Cohort	nursing	The trend of health outcomes reported by family caregivers of patients who had PFF and the effects of social support <sup>(31)</sup> .	Elderly whose caregivers reported the need for information were more likely to recover walking ability <sup>(31)</sup> .
Siddiqui MQA <sup>(32)</sup> Quantitative Cohort	medicine	Stress experienced by caregivers of elderly patients who had PFF <sup>(32)</sup> .	Financial problems resulting from health problems are a major stress factor for family caregivers <sup>(32)</sup> .
Louie S W-S <sup>(33)</sup> Quantitative Randomized clinical trial	rehabilitation	The outcomes of a rehabilitation program aimed to empowerment of patients who had PFF <sup>(33)</sup> .	Elderly who participated in the program reported higher rate of adaptation to daily life activities <sup>(33)</sup> .
Shyu Y-I L <sup>(34)</sup> Quantitative Cohort	nursing	The effect of the needs reported by family caregivers on the functional recovery of elderly who had PFF <sup>(34)</sup> .	Caregivers who developed abilities to care for elderly, with worsening in their mental status <sup>(34)</sup> .
Nahm E-S <sup>(35)</sup> Quantitative, Quasi- experimental design	nursing	The importance of an on-line research center for caregivers of patients with PFF <sup>(35)</sup> .	Caregivers with improved knowledge of the care to be provided <sup>(35)</sup> .

**Chart 1** – Data related to authorship, type of study, thematic axis and object of the study of articles selected from 2002 to 2012, from databases LILACS, *PubMed* and *Scopus*, on the influence of informal caregivers on the recovery of functional independence of elderly in the postoperative of PFF caused by falls. Botucatu - São Paulo - Brazil, 2012

Source: Research data, 2012.

Another factor that certainly impacts the recovery of functional independence of elderly is the establishment of a harmonious interdependence relationship. The recovery stage involves different settings and health care actions, and caregivers are involved in the entire process<sup>(30,33)</sup>. In other words, elderly with PFF require long-term care due to disabling complications that generate dependence on the family<sup>(21-22)</sup>, according to the functional needs<sup>(19)</sup>. Typically, care is provided by female family members <sup>(19,21,26)</sup>, and spouses are primary caregivers in most cases<sup>(19,28-29)</sup>.

Daughters<sup>(16,21,23,29)</sup>, daughters-in-law<sup>(22-23)</sup>, siblings<sup>(29)</sup> and children<sup>(23)</sup> are usually cited. However, not all families can properly care for an elderly with PFF<sup>(22)</sup> and cultural factors influence the option for formal caregivers<sup>(27)</sup>

Since PFF is an acute event, the transition of care from hospital to home conducted by health professional deserves attention, as it has a positive impact on the recovery of the functional Independence of elderly. An Australian study compared the effect of early discharge with traditional hospital rehabilitation on elderly who had PFF

and their caregivers and found significant reduction in the suffering of caregivers of patients who received their experts in rehabilitation at home, though with no effect on patients' outcomes in a 12-month period<sup>(15)</sup>.

Moreover, some researchers suggested strategies deemed appropriate to minimize problems and suffering in the coping with a new life condition after the traumatic event of PFF, such as providing guidance on the access to online information made available by research centers<sup>(30)</sup>; suggesting names of institutions with specialized multidisciplinary teams to meet the needs of the binomial family caregiver - dependent elderly<sup>(17,31)</sup>; assessing and stimulating the social perception of caregivers<sup>(16,31)</sup> and assigning the process of care transition to a case manager<sup>(14)</sup>, as well as addressing the psychological factors of the caregiver<sup>(29)</sup>.

There were also recommendations for the training of caregivers in the development of health education programs<sup>(23,32-33)</sup>; care models that encourage the participation of elderly and self-care; hospital discharge plan that includes support groups, social service and health care information<sup>(16-17,19)</sup>; and a project of rehabilitation that includes information to caregivers<sup>(17,19)</sup>.

The sample shows different strategies adopted in different countries to train caregivers and in the transition of hospital care to home care. These actions impact the quality of care and hence the functional independence of patients. However, no consensus was reached on a protocol, and it is recommended that each health service choose the most appropriate models to the needs of the families.

In the USA, an 8-week interactive online program for caregivers of elderly who had PFF was assessed and was found to improve the knowledge of care<sup>(35)</sup>. Information technology favors this type of strategy, but not all caregivers have access to such resources.

In a general hospital in Cuba, members of a health team performed an educational intervention for family members of dependent elderly and found that all of them had poor knowledge on patient care before the intervention; after the intervention, 85.48% showed adequate knowledge on the issue<sup>(14)</sup>. However, a study with caregivers of elderly who suffered fractures indicated that, despite the training provided to the medical and/or nursing team before hospital discharge, difficulties associated to home care persisted<sup>(19,30)</sup>. The explanation for the divergence between these studies is perhaps the fact that, in the acute stage of the disease, most information is provided at discharge, and caregivers do not have the opportunity to clarify any doubts. It is known that many caregivers are informal and not prepared to perform these duties<sup>(26,28,30)</sup>.

Most information provided in educational interventions concern hospital discharge and surgery<sup>(15,21,26,32)</sup> and this is insufficient, considering the context of falls, surgeries and rehabilitation. Also, despite their wish to have direct access to information, for many caregivers the only source of information is their elderly patients<sup>(17-18)</sup>.

A national study on home care showed that the families were satisfied with the visits of the health teams, since they stimulated the recovery of functional dependence of the elderly. Nevertheless, the periodicity of these meetings was considered insufficient<sup>(26)</sup> The focus of these home visits, although inserted in a context that presupposes family care, is only the elderly, since most caregivers reported not having any formal instruction in this type of care and had to deliver it in an empirical way<sup>(26)</sup>.

Therefore, some actions aimed to facilitate walking and contribute to the recovery of the functional independence of elderly are performed. After the event, some families make changes and adaptations in their homes to meet the needs of the patients, the elderly use walkers or canes, some slow their pace of walking and other change their walking style<sup>(22)</sup>. The use of hip protectors was evaluated in a study conducted in Taiwan<sup>(20)</sup>, which identified benefits in the prevention of fractures, but poor adherence due to discomfort and difficulty in wearing them.

Despite the different protocols aimed to the recovery of functional independence in elderly and the inclusion of caregivers, analysis of the studies indicated the challenges associated to the caregiver role. It should be stressed that overburdened caregivers cannot provide ideal care and, thus, fail to stimulate the functional independence of elderly. The corpus of analysis showed that caregivers are overburdened by care activities, work and family responsibilities, which lead many of them to exhaustion<sup>(20,30)</sup>. Besides, financial overload was identified as the main cause of stress, resulting from expenses that exceed the family budget related to medical appointments, private rehabilitation sessions and expenses with transportation<sup>(32)</sup>.

A study that monitored caregivers of elderly with PFF over a 12-month period found that the family members improved in the scores related to performance, including bodily pain, social functioning, limitations to perform the activity due to emotional and physical problems. However, the score for general and mental health status was significantly lower after 12 months than in the first month after hospital discharge of the patients<sup>(34)</sup>. Regarding mental health, caregivers with high levels of depressive symptoms reported more sleep disorders than individuals who do not perform caregiving activities. It is known that sleep problems increase the risk of various adverse

effects, including falls, memory decline, physical and mental stress<sup>(25)</sup> which may have a negative impact on the care provided by caregivers.

The present review detected a significant contribution from Chinese researchers and the nurses that participated in the study. Filial piety, the sense of obligation of adult children to aging parents is a reflection of the traditional Chinese ethics and performs a crucial role in care and family protection, both in the long term and in the transition of care after hospital discharge<sup>(14,22)</sup>, which possibly explains the Chinese contribution to the object of the study.

Finally, one limitation of this review concerns the fact that instruments that allow analysis of the methodological quality of the studies included in the corpus of analysis, such as the Critical Appraisal Skills Program (CASP)<sup>(36)</sup>.

## FINAL CONSIDERATIONS

China has published many studies on the object of this study, and there is little contribution of Spanish and Portuguese speaking countries. The nursing scientific community has been conducting in-depth studies with elderly, caregivers and their families.

Caregivers play a key role on the rehabilitation of elderly who had PFF, in what concerns motivation, training for walking, facilitation of access to health services, among other aspects. However, other factors interfere in this process, namely: old age, health status prior to the fracture, basal functional capacity, nutritional status at hospital admission, post-surgical emotional status, depression, cognitive deficits and support system availability.

Caregivers are considerably overburdened by the difficulties of providing adequate care, financial tension, and conflicts on the relationship with the elderly and poor social support. Participation in decision making, improved access to legal and medical information, possibility of sharing care experiences, presence of a secondary caregiver and increased social support improve the self-efficacy of care, though without significant reduction in caregiver overload.

The estrangement between health team and caregivers, whose role is not recognized by health professionals is another complication. The main source of information of many caregivers is provided by their elderly patients, and thus, care is provided empirically. Finally, the review indicated that caregivers may have a positive impact on post-surgical recovery and functional independence of elderly patients. However, further studies are needed to investigate whether different cultural contexts interfere in the acceptance and development of the caregiver's role

and to compare results obtained with elderly with and without cognitive and psychiatric impairment.

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