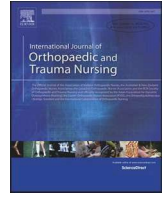
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Nurses' perspective on transitional care for older person with hip fracture: a qualitative study

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ABSTRACT

Background: The aging process, being associated with a decrease in physical functionality, determines an increased risk of falling and, consequently, a greater risk of associated fractures. Among them, hip fracture often causes functional decline and difficulty returning to the state before the fracture.**Objective:** To analyze nurses' perceptions of the transition process of the older person with hip fractures on returning home.**Methods:** A descriptive, exploratory study of a qualitative nature was developed, based on two focus groups (FGs) with semi-structured interviews with nurses providing care to patients with hip fractures undergoing surgical treatment, whose activity takes place in a hospital context and care primary healthcare units, belonging to a Hospital in the central region of Portugal. Systematic data analysis and respective inductive work were carried out, with support from software Meetpulp®.**Results:** The analysis of the two FGs, with 10 participants, outlines the contours of the problem that influences the personal, organizational and political spheres. Professionals recommend solutions to mitigate obstacles to the transition of care, such as: early involvement and better preparation of family members before discharge, offering greater support to caregivers, improving communication between professionals, creating a telephone support line, highlighting the importance networking and streamlining processes.**Conclusion:** Nurses perceive important problems inherent to the transition process of older person with hip fractures, and the resulting impact on family caregivers and health services. The analysis of these aspects can constitute a basis for the reorganization of health services, in search of the best response to these needs.

1. Introduction

Currently, we are witnessing a phenomenon of population ageing, seen on a global scale, with projections indicating that the number of people aged 265 years will double by 2050, consequently increasing the number of people in this age group who use hospitals, with multiple comorbidities, requiring more complex management of the situation (Wilfams et al., 2024). This older population often presents a condition of frailty, characterized by impaired physiological reserves and excessive vulnerability to endogenous and exogenous stressors, constituting a

common geriatric syndrome, which is associated with higher mortality, functional disability (Proietti and Cesari, 2020; Lu et al., 2021), surgical complications, fractures, falls and subsequent falls (Gong et al., 2023).

Associated with frailty, the prevalence of falls among the older person is 26.5 % (Salari et al., 2022), with it being estimated that one in every three people over the age of 65 suffers at least one fall per year (Montero-Odasso et al., 2022). These data are particularly worrying, considering that falls have negative effects on functional independence and quality of life (Montero-Odasso et al., 2022), being associated with an increased risk of disability, morbidity and mortality in this

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population (James et al., 2020; Wu et al., 2021), and equally, because they are associated with an increase in medical expenses, which represents a significant burden on the healthcare system (Lim et al., 2024).

Often resulting from falls, hip fractures in the older person result in changes to their health status, causing greater dependence and disability (Cunha et al., 2021), and difficulty in returning to their pre-fracture functional state (Contro et al., 2019), which is why it is necessary to start the rehabilitation process early, with a view to restoring mobility and independence, bringing it closer to the level before the fracture (Platano et al., 2024). This is particularly worrying considering the existence of a correlation between advanced age and multimorbidity, malnutrition, osteoporosis, sarcopenia and reduced physical activity (Inoue et al., 2020), which constitutes a condition that can impact survival after hip fracture (Gerosa et al., 2024).

The older person with a hip fracture, after surgery, may be discharged home or to a nursing home, or, in more complex cases, receive an additional period of inpatient rehabilitation (Welsh et al., 2024). As the older person are the largest users of health services, in the post-orthopedic surgery period, they have different care needs at the time of discharge, due to reduced independence, reduced mobility and changes in cognitive status, important predictors of postoperative complications. In this context, adequate discharge planning is necessary, with the aim of facilitating the return home, as soon as the clinical condition is stable (Williams et al., 2024).

Transitions of care often result in fragmented care, leading to unmet patient needs and low satisfaction with care (Brooks et al., 2021), which represents challenges at the organizational and policy levels. The increasing trend of reducing hospital admissions to reduce costs precipitates the discharge of these older adults at a very early stage of recovery (Mabire et al., 2018), which represents additional challenges for them, who face discontinuous care delivery with transfers to other care settings (Ko et al., 2021).

In fact, after a hip fracture, the older person receive care in different contexts, with transitions between providers and environments identified as a vulnerable moment, with potentially negative impacts (Cadel et al., 2022). These transitions also constitute a challenging period for older persons with frailty (Hladkiewicz et al., 2023), considering that this condition constitutes a significant predictor of the physical, mental and functional health of the older person (Xu et al., 2022). In this context, considering that hip fractures require relatively long periods for rehabilitation (Yoo et al., 2019), Ko et al. (2023) advocate that effective discharge transition care can supplement recovery. In this sense, the same authors (Ko et al., 2023) developed a discharge transition care program to reduce gaps in continuous care and communication between older adults and health professionals, finding that the discharge transition care program can positively impact quality of life.

Regarding transitions of care, Cadel et al. (2022) explored recommendations made by patients, caregivers, healthcare providers and decision-makers to improve care transitions for older person with hip fractures, identifying three main categories of recommendations related to hospital, community and intersectoral settings. With regard to the hospital context, they recommended consistent, frequent and comprehensive communication between hospital providers and families, as well as and increased staffing levels. Recommendations aimed at the community included the early identification of individuals at risk and the implementation of preventive and educational programmes. Intersectoral recommendations were based on improving communication and care, particularly in primary and community care settings. It is important to emphasize that, within the scope of a health-disease process, the empowerment of the person is important, as a multidimensional process that involves knowledge, decision and action, emphasising the individual's active participation in the decision-making process and the development of strategies to improve their health status (Sousa et al., 2020).

Related to this issue, In Portugal, a recent study involving older person with hip fractures, after returning home, identified functional

limitation, pain control and emotional management as the main difficulties, highlighting needs related to resources/support in activities of daily living (ADLs), training for returning home, and information (Rocha et al., 2024b). However, although several studies have analyzed the problems of older people with hip fractures, there is still a gap in the literature regarding the understanding of the role of nurses in transitions from hospital to home.

Therefore, the present study aims to analyze, based on nurses' statements, their perceptions of the transition process for older persons with hip fractures returning home. This can generate valuable insights to improve continuity of care, reorienting the construction of safer, more effective and sustainable clinical practices.

2. Materials and methods

To respond to the aim of these study, the option was the FGs method, using the protocol defined by Krueger and Casey (2014). The participants were nurses from the orthopedic service, who provide care to patients with hip fractures after orthopedic surgeries, during hospitalization in a Local Health Unit in the central region of Portugal, and by nurses at primary health care context, who later receive these people, after discharge and accompany them at home. The interest in including these professionals is related to the fact that they follow the care journey of these people and can have a different perspective in relation to the transitional care process.

A purposive sampling approach was used and participants were selected based on of the following inclusion criteria: being nurses with five or more years of professional activity carried out in a hospital context or in a primary health care context, associated with providing care to people with hip fractures undergoing surgical treatment, of both sexes and agree to participate in the study. As an exclusion criterion, nurses were defined as not belonging to this specific context and, therefore, not directly involved in the process of caring for patients who had hip fractures or with less than 5 years of experience in caring for these patients (as we consider a short period of experience in providing care to this type of patient). Ten participants were selected.

A semi-structured interview guide was developed to explore participants' perceptions and experiences with care transitions, including barriers and facilitators of ideal transitions, questions related to types of care/support provided to older people with hip fractures, experiences of providing care in hospital, relationships with the family and the team involved in preparation for discharge and transitions of care. Specifically, questions were included such as: What difficulties and needs do you perceive that patients with hip fracture have upon returning home? What strategies do you suggest using to resolve or overcome difficulties? In your opinion, how can nurses help and prepare for returning home during hospitalization to avoid these difficulties? And how do you suggest articulation with community nursing teams? Do you suggest any changes in the organization of care to better meet their needs and those of their families?

Data collection was carried out in November 2024. Participants were divided into two FGs. The first FG included a total of four nurses, three from the hospital context and one from the primary health care context; the second included a total of six nurses, four from the hospital context and two from the primary health care context. The FGs were moderated by the study's main researcher, who also conducted the interviews. A second researcher was present and assumed the role of co-moderator (Krueger and Casey, 2014), managing the recording equipment, controlled the logistical conditions, analyzed the non-verbal communication of the participants, and taking notes. Both the FGs were carried out online, using the Colibri® platform, having been recorded and later transcribed. The results were first coded, with the assignment of categories and subcategories, then storage/retrieval was carried out, with the compilation and comparison of all text excerpts subordinate to the same category and finally the interpretation was carried out, with systematic analysis of the data and respective inductive work (Krueger and

Casey, 2014). This process was supported by Meetpulp® software. The convergence of data from the two FGs confirms the robustness of the emerging categories and subcategories and the absence of new relevant information, reinforcing the evidence of saturation.

The rigor of this study was present from the study design to the different methodological procedures. The same researcher carried out all the interviews and transcribed them, the speeches were transcribed and checked to ensure trustworthiness. Credibility was achieved through validation of the emerging codes by two experts' and then by the research team. Confirmability was guaranteed by presenting the participants' quotations.

To structure this article, we followed the guidelines proposed by the Consolidated Criteria for Reporting Qualitative Research (COREQ) (Tong et al., 2007).

All ethical issues were respected, and for this purpose a request for authorization was made to the Board of Directors of the Health Institution of Central Portugal and the Ethics Committee of the same institution, which issued a favorable opinion and respective authorization.

Free and informed consent was obtained from all participants. The participants were informed that they could, at any time, withdraw from participation.

3. Results

Participants revealed their perceptions about the transition process of older person with hip fractures after hospital discharge, with the main problems identified being the lack of family support and even some lack of responsibility in caring for the older person, the lack of preparation of caregivers and difficulties in continuity of care, highlighting the need for a smooth and safe transition between the hospital and the community.

Suggestions to improve the situation included early involvement and better preparation of family members before discharge, offering greater support to caregivers, improving communication between professionals, creating a telephone support line, highlighting the importance of networking and streamlining processes. The conviction was expressed that many solutions depend on political decisions, highlighting,

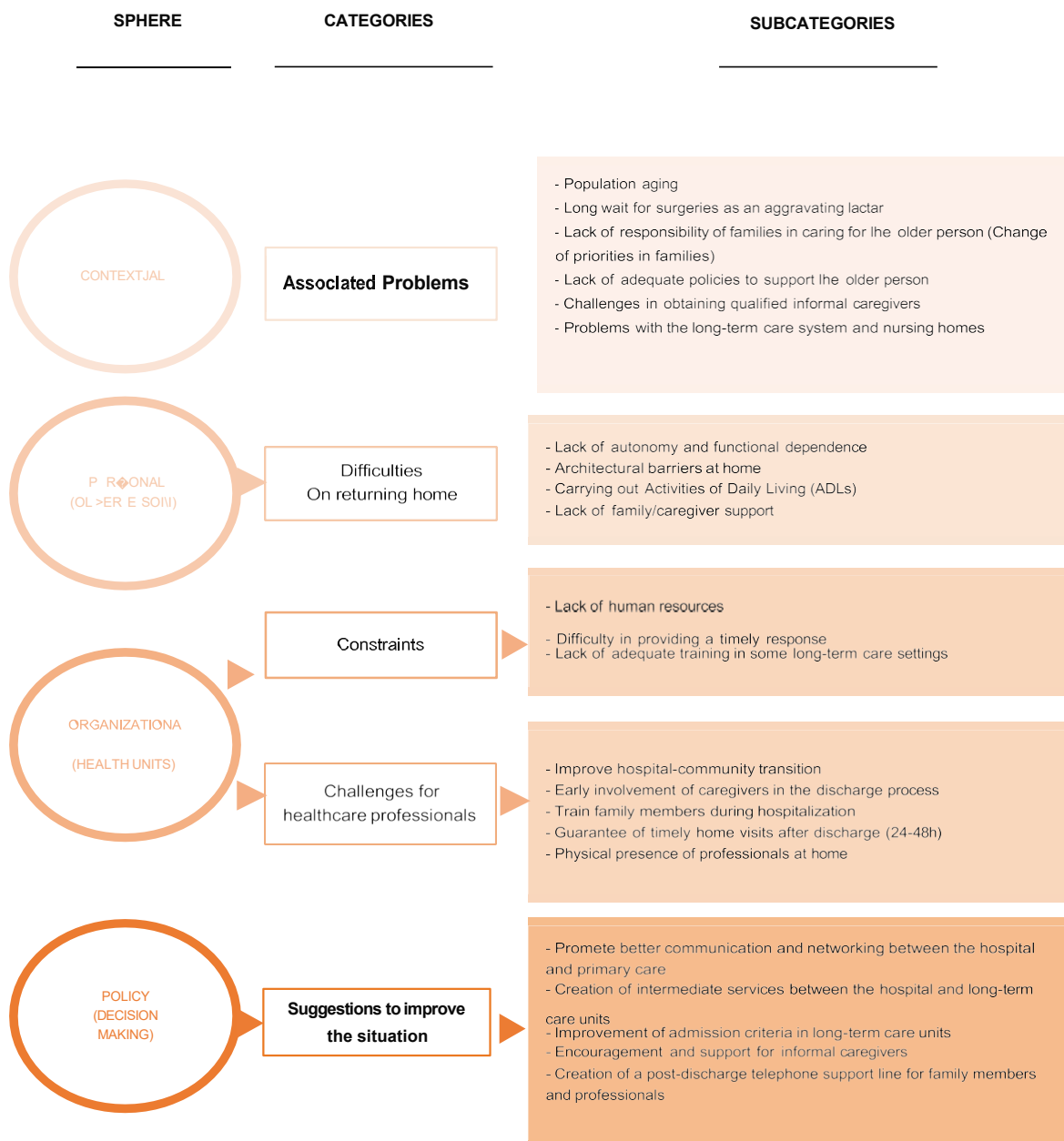


Fig. 1. Systematization of nurses' perception regarding the transition process of older person with hip fractures.

however, the importance of continuing to seek better services and care for patients.

3.1. Participant characteristics

Of the 10 participants, the majority were female (70 %), married (100 %), living in urban areas (90 %), with an average age of 46.1 years. Of these, 7 nurses work in Orthopedics inpatient services and 3 in the context of primary health care, with an average experience of 14.5 years in providing care to patients of this type.

3.2. Categories

From the analysis of the narratives referring to nurses' perception of the transition process of older person with hip fractures, four spheres or dimensions emerge: the *contextual*, related to the problems inherent to population aging and the support provided to older person with hip fractures; the *personal* (older person), related to the difficulties on returning home, inherent to the condition of functional dependence and the presence of architectural barriers at home; the *organizational* (health units), in which the constraints related to the lack of human resources and difficulty in providing a timely response are presented, as well as the challenges that health professionals have to face in the transition process and the *political* (decision-making) presents suggestions are to improve transitional care.

Fig. 1 identifies the spheres in which the categories and sub-categories that emerged in this study are integrated.

3.2.1. Contextual sphere

3.2.1.1. *Categorie I: associated problems.* With regard to the contextual sphere, the participants' narratives revealed their perception regarding the associated Problems, differentiating the following subcategories in the data corpus: Population aging; long waits for surgeries as an aggravating factor; Loss of family responsibility for caring for the older person (Change of priorities in modern families); Lack of adequate policies to support the older person; Challenges in obtaining qualified informal caregivers; Problems with the long-term care system and nursing homes.

The participants' speech was very expressive regarding the type of patients and the constraints associated with the long waiting time for surgery, which constitutes an aggravating situation, as in the case of a person with a fragile condition, this tends to worsen and can be associated with possible complications. Concern was also expressed regarding the condition of dependency associated with the fracture and hospitalization, which generates greater concerns related to returning home. As a result, reference was also made to the need for support and continuity of care for the older person, considering that many caregivers are also advanced in age, conditioning the ability of families to respond appropriately, representing a concern for these professionals, as shown in the following quotes:

"What we notice more and more is that the age group at which people appear at the service is greater ... When they have a fracture they become dependent and many live alone and we see that they have a lot of difficulty ... and that the family is unable to provide support ... Patients enter and become dependent and then there is no solution from the family to return home. There should be an intermediate service just to wait for continued care ... ora family member should be available to stay with the patient, and not wait in the hospital." (P2 of FGI); "Older people ... normally the gait of these patients is already reduced, that is, they are patients who already use a walker, cane or hold on to furniture ... perhaps they already have a history of falls ... At the time they have the fracture, everything changes. Another factor that negatively influences morbidity and capacity is the waiting time for patients to undergo surgery. It is

described in the literature that the window is the first or second day after the fracture. Now, we have patients waiting a week, two weeks, three weeks to have surgery ..." (P 6 of FG2).

From the analysis of the participants' speeches, one of the main associated problems stands out as the degree of dependence and lack of support from family members, related to the lack of availability or willingness of families, as well as the difficulty in responding by institutions that guarantee continuity of care, such as long-term care units, which causes some overload on hospital admission and seizure services.

3.2.2. Personal sphere

3.2.2.1. *Categorie II: difficulties returning home.* With regard to the personal sphere, the Difficulties on returning home category emerged, in which participants revealed their perception regarding the difficulties experienced, identifying the following subcategories: Lack of autonomy and functional dependence; Architectural barriers at home; Carrying out ADLs; Lack of family/caregiver support. Given the functional dependence and loss of autonomy that these people present, the existence of architectural barriers at home was highlighted by participants as an aspect that makes it difficult to return home, which can generate feelings of insecurity. These difficulties are very evident in the participants' statements, as shown in the following statements:

"The biggest difficulty is having back-up support ... and also some architectural barriers that they face at home. There are very few who have independence and are able to return to the community ..." (P4 of FGI); "Patients lose their autonomy and it will be difficult to return home ... we understand this a lot! It is true that we soon realized that it is difficult to reintegrate those patients into the community! In most situations there are support networks and responses in the community, but they are insufficient for the demand ... and we are faced with situations of prolonged hospitalization, with the associated risks. (P2 of GF2); It is very difficult for those who are active to stop working to go and support these patients at home. And who receives these patients, if they are of the same age, is very complicated ... I think they need support. In some situations it gives the feeling that they have some insecurity, although we say that if they have any complications, to seek out health services ... (PS of GF2).

In the interviews, the nurses' experience is reported, expressing the perception of the existence of difficulties in the transition of the older person, largely associated with the lack of autonomy and functional dependence, facing architectural barriers, with the consequent need for support to perform ADLs, which constituted an important source of concern. The lack of family support in the care process is also highlighted.

3.2.3. Organizational sphere

3.2.3.1. *Categorie IV: constraints.* Regarding the organizational sphere, the constraints category emerged, in which the participants' narratives reveal a confrontation with the lack of human resources, difficulty in providing a timely response, as well as a lack of adequate training in some contexts of continued care. The perceptions presented here are related to the inability to provide the best response targeted to people's needs, as would be desirable and necessary, due to the lack of professionals and time available for this.

"We are there (at patient's home) for an hour and a half ... Therefore, to manage the therapeutic regimen, and work at the level of rehabilitation, just in this short time ... the health professionals are unable to give the answer they wanted. We know we needed much more ... to add resources in the community." (P1 of FG2).

From the analysis of the participants' speech, the concern of nurses who face constraints associated with the organization of health services

stands out, namely the Jack of human resources, which prevents them from providing a timely and adequate response to the identified needs.

3.2.3.2. *Categorie IV: challenges for healthcare professionals.* Still related to the organizational sphere, the Challenges for health professionals category emerged, which includes Improving the hospital-community transition. At this level, a change in dynamics is suggested, integrating teachings to the family caregiver as early as possible after surgery.

"Change the dynamics a little, instead of teachings being only scheduled when there is discharge or when families are available. why not integrate them immediately, calmly, as soon as the patient undergoes surgery?.. Therefore, perhaps, the family member or caregiver should be included as soon as the patient undergoes surgery and begins to do lifting and gait training and, according to their ability, be included within their availability."(P4 of FG2)).

The participants' speech clearly indicates challenges that aim to improve the hospital-community transition, namely the change in organizational dynamics, with regard to timely discharge scheduling and articulation with social responses. The early involvement of caregivers in the discharge process, and the training of family members, with skills training, during hospitalization, was another challenge that emerged from the participants' narratives.

"We seek to provide information about all the resources that exist in the community and beyond!..We seek to inform about all the other answers that exist, we ask for the support of all professionals who are associated with the patient's recovery process, we seek to inform everyone the type of technical aids that can facilitate care at home, we seek to instruct and train family members or caregivers." (PS of GF2).

The participants' speech clearly expresses the importance of early involvement of family members in the discharge process as well as their training, complemented with the need to provide information about community resources and responses, in order to help provide care after discharge. These aspects being a major challenge for health professionals.

Aspects such as ensuring timely home visits after discharge (24-48h) and the physical presence of professionals at home, in order to ensure a safer hospital transition process with the necessary supervision, were perceived as a challenge at an organizational level. The need to train teams to provide timely care to patients was highlighted, offering assistance and supervision, ensuring the continuity of the work and training initiated during hospital admission.

"Now, we have to train teams to give people timely responses. The person who is discharged should be visited the next day. For the family to understand: we have help, we have supervision, in this case, because they were already trained during hospitalization ... this is very important, because it made the hospital transition process so that the residence takes place safely and with the necessary supervision. But the primary care teams are very lacking ... The answer should be given, at most, 24 hours after discharge (often it happens 48 or 72 hours after). The ideal would be the day after discharge, to be there at the patient's home ... And reinforce all the training that was done previously"(P1 of FG2).

In the interviews, the perception of nurses is reported regarding the importance of carrying out timely home visits, with the physical presence and supervision of professionals at home, in order to ensure a safer transition process, and transmit confidence in the process.

The participants' narratives revealed perspectives of great challenges for health professionals, in order to improve the response in the transition process of older person with hip fractures, in order to guarantee continuity of care. The physical presence of professionals at home stands out as relevant, generating trust and recognition and simultaneously

allowing a better assessment of the context, thus contributing to avoiding unnecessary recurrences of emergencies.

3.2.4. Political sphere

3.2.4.1. *Categorie III: suggestions to improve the situation.* The rhetoric of the participants unequivocally reflects the expressed need to improve the current situation with regard to political decision-making. Analyzing their speeches, suggestions are outlined, to occur at a political level, aimed at promoting improved communication and networking between the hospital and primary care, the creation of intermediate services between the hospital and continued care units, improving admission criteria in long-term care units, encouraging and supporting informal caregivers and creating a post-discharge telephone support line for family members and professionals.

The new condition of the person who suffered a hip fracture, characterized by some limitations in performing ADL, implies the development of new responses, which emerge from the participants' narratives. Particular emphasis is placed on networking, which would allow faster communication between hospital and community teams, which would benefit the patients.

"We work on separate networks. I think the teams should talk more: the nurse who accompanies the patient during hospitalization and then the family nurse. There is a breakdown in communication. I think the teams should talk more to each other and then the patient would benefit." (P1 of FG2).

In the interviews, nurses, aware of the difficulties in communication between teams, point to the promotion of improved communication and networking, as a suggestion for improvement that translates into benefits for the patient and their continuity of care. The creation of a network of formal caregivers that families could hire, thus ensuring support for care, emerged as a suggestion that could constitute another option in this process.

"One option would be to create an internal continued care unit in the hospital, where we would free up acute beds. In this more post-acute phase, up to six weeks, we could bring the caregiver and start to integrate them. Creating a network of formal caregivers that people can hire could also be an option." (P6 of GF2).

In the interviews, the suggestion emerged to create intermediate services between the hospital and the continued care unit, in which the family caregiver would be progressively integrated into the provision of care. In addition the demand for long-term care could be redirected towards referrals by integrated long-term care teams and the mobilization of community responses to provide more support to families.

"Tightening the inclusion criteria in the continued care network wouldn't be a bad solution ... Nowadays, there is a greater predisposition for referrals to integrated continuous care teams and then also for the mobilization of community responses, day centers, support home care ... In the case of families who have the capacity, the patient must be referred to the ECCI (Integrated Continuous Care Teams) to await continuity of care, as this way families always feel more supported. I think there is also a lack of incentives to have more informal caregivers, because they are not as well paid and people know that this is not attractive. Perhaps if there were other attractions, perhaps there would be more people who wouldn't mind taking care of some family members ... (P1 of FG2).

In the nurses' perception, redefining the criteria for admission to the long-term care network, as well as creating incentives for family caregivers, could contribute to improving the current situation. Furthermore, the creation of a telephone line to assist patients and family members, in order to clarify doubts and provide guidance, would be an important support in this process.

"If there was a telephone line available: patients and families felt supported, they could contact someone who could give them an answer at any time." (P2 from FGI); "We should create a support group, to answer questions: A support line also for family and colleagues." (P3 of GF2).

The participants' statements point to the creation of a support line for family members and colleagues as a suggestion to improve the situation, offering complementarity to the presence of the health professional.

The contours of a problem and the constraints inherent to the transition process of older person with hip fractures after hospital discharge were defined, influencing the personal, organizational and political spheres. In this sense, professionals recommend solutions to improve the situation, which include early involvement and better preparation of family members before discharge, offering greater support to caregivers, Improving communication between professionals, creating a telephone support line, highlighting the importance of networking and streamlining processes.

4. Discussion

This study revealed nurses' perception of transitional care for older person with hip fractures. The participants' narratives clearly and unequivocally outline the contours of a problem of great magnitude, which involves people (the older, frail and vulnerable), families, health professionals and political decision-makers. Its comprehensive analysis, supported by a contextualization of the associated problems, covered the following spheres: personal, organizational and political, highlighting the most relevant aspects to consider in each of them. This is of particular importance considering that transitions are a vulnerable time with potentially negative impacts, and there is still a limited amount of research that guides the improvement of transition experiences in the context of care after a hip fracture, based on the perspectives of those involved in the process (Cadel et al., 2022).

The concern expressed about the problems associated with population aging and the consequent dependence associated with a fracture is clearly evident in the participants' speech. This is in line with the existence of a correlation between falls and hip fractures, in which their association with age-related physical frailty stands out, which means that there is a pressing need for better care aimed at the older person, taking into account global aging trends (Lim et al., 2024).

The study findings revealed nurses' concern about the overload of health services, associated with this clinical condition, observed in this age group, which is corroborated by the literature. Falls injuries are associated with increased medical expenses and healthcare-related costs, representing a considerable burden on the healthcare system (Montero-Odasso et al., 2022; Lim et al., 2024). On the other hand, the older person, because they have had a fracture and have gait changes resulting from the fracture and surgery, have an increased risk of falling again and suffering a new fracture when they return home (Montero-Odasso et al., 2022; Baixinho and Dixe, 2017).

The perception of difficulties in the transition of the older person, associated with the lack of autonomy and functional dependence, and the consequent need for support to carry out ADL, expressed by nurses, meets the difficulties and needs felt and expressed by the person with a fractured hip return home (Rocha et al., 2024b). In this context, it is essential to develop an intervention that focuses on physical training, training in activities of daily living and conventional postoperative rehabilitation with a view to achieving muscle strengthening and safe gait associated with carrying out activities of daily living and, therefore, promote their safety when returning home (Rocha et al., 2024a).

Considering that continued rehabilitation, prolonged after discharge, improves function after hip fracture (Copanitsanou, 2019), contributing to restoring the person's mobility and independence (Platano et al., 2024), it is important to ensure this adequate and timely response. In

this regard, the professionals' perception revealed the lack of human resources, preventing them from providing an adequate response to the identified needs, in line with the results of the study developed by Brooks et al. (2021), which found that care was not adapted to the patient's needs. This may be an issue that deserves reflection and management at the organizational context level.

One of the challenges for healthcare professionals, which emerged in this study, was the need to improve the hospital-community transition, in order to overcome the experience of fragmented care and inadequate discharge planning that older people with hip fractures have to face, which is corroborated by Welsh et al. (2024). In the process of gradual integration of a change that the person is experiencing, the role of nursing in increasing health and well-being is highlighted, clearly being a reflection of its intervention (Sousa et al., 2020). There is a clear need to improve the postoperative transition, with regard to the care of older person with frailty, considering it a priority, alerting, however, to the limited knowledge available, to support significant improvements in care in their transitions (Hladkiewicz et al., 2023).

Early involvement of family caregivers in the discharge process and, consequently, their training during hospitalization has emerged as a challenge for health professionals, to which it is important to provide the best possible response. This concern is in line with one of the results of the study developed by Brooks et al. (2021), when it states that family caregivers were not considered important in patient care. Understanding transition processes and developing therapies that help people regain stability and well-being constitutes a challenge for nurses, which is inherent to the training of family caregivers, particularly with regard to support in activities of daily living, problem solving, decision making, as well as surveillance care (Sousa et al., 2020).

The need to ensure early home visits after discharge, perceived as a challenge for health professionals, fits into a context already described by several authors, stating that the majority of people do not receive rehabilitation or receive very limited rehabilitation, in the 20 days after surgery (Blackburn and Yeowell, 2020; Tyas et al., 2022), which is not a favorable aspect for the person's recovery. Considering that returning home after hospitalization for a hip fracture is a critical moment especially for older people, transitional care requires structured monitoring and supervision by health professionals in order to prevent complications, promote functional recovery, providing guidance on safe mobilization techniques, use of walking aids and adaptation of the environment to prevent falls, providing personalized teaching adjusted to the person's real context. In this context of continuity of care, the presence of nurses offers emotional support and facilitates adaptation to the new condition, ensuring continuity, safety and quality of care, which is crucial for the safe and functional recovery of the older person after a hip fracture.

The participants' narratives reveal the lack of adequate support policies for the older person and problems with the long-term care system and homes. This idea is corroborated by Cadel et al. (2022), when they state that in the context of care transitions, there is an increase in the time of vulnerability for patients and caregivers, with the possibility of less successful transitions, which can result in readmission, decreased patient satisfaction and caregiver health and poor outcomes related to health and well-being.

The promotion of improved communication and networking between the hospital and primary care were highlighted as suggestions to improve the situation. Considering the feeling of misinformation expressed by patients and family members and the need to face barriers to obtain adequate information (Brooks et al., 2021), this may be a strategy to alleviate problems related to the system, positively impacting this transition experience. Better communication and care at an intersectoral level is recommended, highlighting the central role that primary care can play in providing targeted and integrated services to older people with hip fractures (Cadel et al., 2022). The existence of ineffective communication and disjointed systems, in the transition from hospital to home after a hip fracture requires solutions that include

guarantees, collaborative planning and individualization (Welsh et al., 2024). In this context, supported early discharge, aiming to link acute and community care, would allow hospitalized patients to return home and continue receiving the necessary contribution from health professionals (Williams et al., 2024).

The creation of intermediate services between the hospital and continued care units, the need for encouragement and support for informal caregivers, as well as the creation of a post-discharge telephone support line for family members and professionals, emerged from the narratives as suggestions for improvement. In this sense, it is necessary to develop programs focused on supporting patients upon returning home, empowering them with resources and clear communication, ensuring continuity of care, as well as establishing access to home care and virtual support, focusing in functional recovery, with recognition of the invaluable role of informal caregivers (Hladkiewicz et al., 2023). The use of follow-up telephone calls by a nurse can also create a supportive atmosphere, which may contribute to improved quality of life (Ko et al., 2023).

This study provides relevant data for the development and implementation of interventions, offering practical insights for initiatives that aim to improve health outcomes and consequent system sustainability, that link to what Ko et al. (2023) identified as key points for policy and practice: the need for a continuum of care at discharge for people with hip fractures, with nurses as key stakeholders in discharge transition care. However, Montero-Odasso et al. (2022) warn that the application of some recommendations may require modifications and adjustments to respond to specific and resource-poor contexts and, therefore, the needs inherent to the reality of each country.

4.1. Implications for clinical/ practice and research

This study may contribute to guiding the action of nurses and policy makers in order to guarantee a safe transition from hospital to home, based on an improvement in the organization of care, with early involvement and better preparation of family members, greater support for caregivers, with recruitment of community responses and improve communication between professionals. The creation of a telephone support line, the importance of networking and streamlining processes, may be suggestions that could guide the actions of these actors, in the continuous search for better service and assistance for the older person with hip fracture.

Regarding the implications for research, it is suggested that other studies be carried out in other contexts and geographic areas, and that they develop and evaluate transitional care interventions aimed at people with a hip fracture, upon returning home, with a focus on continuity of care and e-health interventions.

4.2. Study limitations

The limitations of this study are related to the number of participants from the same region, that is, the data may have been influenced by the specific context of the organization, which may reduce the diversity of experiences and opinions, given that they share similar contexts and practices. We also recognize that the geographic and institutional concentration of participants may limit the transferability of the results.

We also identified limitations inherent in the use of the online format, related to the reduction of nonverbal cues and potential technical issues. Measures were taken, related to the presence of two researchers, to mitigate these limitations.

5. Conclusion

This study brought together people from the hospital context and the community context, with different perspectives and perceptions about the transition process of older person with hip fracture to return home, bringing contributions to the understanding of the current scenario of

transitional care. Since that hip fractures are a common event among older and frail people, often causing loss of mobility and functional dependence, there is a need for continuity of care in the hospital-home transition.

The results of this study point out as problems associated with transitional care the lack of family support and even some lack of responsibility in caring for the older person, the lack of preparation of caregivers and difficulties in continuing care, highlighting the need for a smooth and safe transition between the hospital and the community.

Participants recommend the following strategies to improve continuity of care and ensure the continuity of the rehabilitation program for the older person with hip fracture: early involvement and better preparation of family members before discharge, offering greater support to caregivers, improving communication between professionals, creating a telephone support line, highlighting the importance of networking and streamlining processes. The conviction was expressed that many solutions depend on political decisions, highlighting, however, the importance of continuing to seek better services and care for patients. Improvement suggestions provide valuable information for developing strategies to optimize the transition process.

The successful implementation of multifactorial interventions for continuity of care and prevention of complications after hospital discharge requires an approach at multiple contextual levels, considering factors inherent to the individual, organizational and political spheres. Understanding these particularities can guide healthcare professionals in implementing more personalized interventions, with the aim of providing the best response to needs and reducing potential complications.

CRedit authorship contribution statement

Paula Rocha: Writing - review & editing, Writing - original draft, Software, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Cristina Lavareda Baixinho:** Writing - review & editing, Writing - original draft, Visualization, Validation, Supervision, Methodology, Investigation, Formal analysis, Conceptualization. **Carlos Albuquerque:** Methodology, Investigation, Conceptualization. **Susana Batista:** Methodology, Investigation, Conceptualization. **Maria Adriana Henriques:** Validation, Supervision, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Conceptualization.

Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Paula Rocha reports financial support was provided by Nursing Research, Innovation and Development Centre of Lisbon (CIDNUR) - Nursing School of Lisbon. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

- Baixinho, C.L., Dixe, M.A., 2017. Team practices in fall prevention in institutionalized elderly people: scale design and validation. *Texto & Contexto - Enfermagem* 26 (3), e2310016. <https://doi.org/10.1590/0104-0702017002310016>.
- Blackburn, J., Yeowell, G., 2020. Patients' perceptions of rehabilitation in the community following hip fracture surgery. A qualitative thematic synthesis. *Physiotherapy* 108, 63-75. <https://doi.org/10.1016/j.physio.2020.02.001>.
- Brooks, L., Stolee, P., Elliott, J., Heckman, G., 2021. Transitional care experiences of patients with hip fracture across different health care settings. *Int. J. Integrated Care* 21 (2), 2. <https://doi.org/10.5334/ijic.4720>.
- Cadel, L., Kuluski, K., Everall, A.C., Guilleher, S.J.T., 2022. Recommendations made by patients, caregivers, providers, and decision-makers to improve transitions in care for older adults with hip fracture: a qualitative study in Ontario, Canada. *BMC Geriatr.* 22 (1), 291. <https://doi.org/10.1186/s12877-022-02943-6>.

- Contro, D., Elli, S., Castaldi, S., Formili, M., Ardoino, I., Caserta, A.V., Panella, L., 2019. Continuity of care for patients with hip fracture after discharge from rehabilitation facility. *Acta Biomed.* : Atenei Parmensis 90 (3), 385--393. <https://doi.org/10.23750/abm.v90i3.8872>.
- Copanitsanou, P., 2019. Community rehabilitation interventions after hip fracture: pragmatic evidence-based practice recommendations. *International journal of orthopaedic and trauma nursing* 35, 100712. <https://doi.org/10.1016/j.ijotn.2019.100712>.
- Cunha, L.F.C.D., Baixinho, C.L., Henriques, M.A., Sousa, L.M.M., Dixe, M.D.A., 2021. Evaluation of the effectiveness of an intervention in a health team to prevent falls in hospitalized elderly people. *Rev. Esc. Enferm. USP* 55, e03695. <https://doi.org/10.1590/S1980-220X2019031403695>.
- Gerosa, A., Ottaviani, S., Tagliafico, L., et al., 2024. Long-term survival in frail older adults sustaining a hip fracture: does the perioperative period really matter? *Journal of Gerontology and Geriatrics* 72, 193-203. <https://doi.org/10.36150/2499-6564-N777>.
- Gong, S., Qian, D., Riazi, S., Chung, F., Englesakis, M., Li, Q., Huszti, E., Wong, J., 2023. Association between the FRAIL scale and postoperative complications in older surgical patients: a systematic review and meta-analysis. *Anesth. Analg.* 136 (2), 251-261. <https://doi.org/10.1213/ANE.0000000000006272>.
- Hladkiewicz, E., Auais, M., Kidd, G., McIsaac, D.I., Miller, J., 2023. "I can't imagine having to do it on your own": a qualitative study on postoperative transitions in care from the perspectives of older adults with frailty. *BMC Geriatr.* 23 (1), 848. <https://doi.org/10.1186/s12877-023-04576-9>.
- Inoue, T., Maeda, K., Nagano, A., Shimizu, A., Ueshima, J., Murotani, K., Sato, K., Tsubaki, A., 2020. Undernutrition, sarcopenia, and frailty in fragility hip fracture: advanced strategies for improving clinical outcomes. *Nutrients* 12 (12), 3743. <https://doi.org/10.3390/nut12123743>.
- James, S.L., Lucchesi, L.R., Bisignano, C., Castle, C.D., Dingels, Z.V., Fox, J.T., Hamilton, E.B., Henry, N.J., Krohn, K.J., Liu, Z., McCracken, D., Nixon, M.R., Roberts, N.L.S., Sylte, D.O., Adsuar, J.C., Arora, A., Briggs, A.M., Collado-Mateo, D., Cooper, C., Dandona, L., et al., 2020. The global burden of falls: global, regional and national estimates of morbidity and mortality from the Global Burden of Disease Study 2017. *Injury prevention. journal of the International Society for Child and Adolescent Injury Prevention* 26 (Suppl. 1), i3-ill. <https://doi.org/10.1136/injuryprev-2019-043286>.
- Ko, Y.J., Lee, J.H., Baek, S.H., 2021. Discharge transition experienced by older Korean women after hip fracture surgery: a qualitative study. *BMC Nurs.* 20, 112. <https://doi.org/10.1186/s12912-021-00637-9>.
- Ko, Y., Hwang, J.M., Baek, S.H., 2023. Discharge transitional care programme for older adults after hip fracture surgery: a quasi-experimental study. *J. Res. Nurs.* : JRN 28 (8), 582-593. <https://doi.org/10.1177/17449871231204499>.
- Krueger, R.A., Casey, M.A., 2014. *Focus Groups: A Practical Guide for Applied Research*, fifth ed. SAGE Publications.
- Lim, S.K., Choi, K., Heo, N.H., Kim, Y., Lim, J.Y., 2024. Characteristics of fragility hip fracture-related falls in the older adults: a systematic review. *J. Nutr. Health Aging* 28 (10), 100357. <https://doi.org/10.1016/j.jnha.2024.100357>.
- Lu, Z., Er, Y., Zhan, Y., Deng, X., Jin, Y., Ye, P., Duan, L., 2021. Association of frailty status with risk of fall among middle-aged and older adults in China: a nationally representative cohort study. *J. Nutr. Health Aging* 25 (8), 985--992. <https://doi.org/10.1007/s12603-021-1655-x>.
- Mabire, C., Dwyer, A., Gamier, A., Pellet, J., 2018. Meta-analysis of the effectiveness of nursing discharge planning interventions for older inpatients discharged home. *J. Adv. Nurs.* 74 (4), 78S--799. <https://doi.org/10.1111/jan.13475>.
- Montero-Odasso, M., van der Velde, N., Martin, F.C., Petrovic, M., Tan, M.P., Ryg, J., Aguilar-Navarro, S., Alexander, N.B., Becker, C., Blain, H., Bourke, R., Cameron, I.D., Camicioli, R., Clemson, L., Close, J., Delbaere, K., Duan, L., Duque, G., Dyer, S.M., Freiberger, E., et al., 2022. World guidelines for falls prevention and management for older adults: a global initiative. *Age Ageing* 51 (9), afac205. <https://doi.org/10.1093/ageing/afac205>.
- Platano, D., Tedeschi, R., Tonini, G., Capone, S., Morri, M., Magli, A.O., Raffa, D., Benedetti, M.G., 2024. Is the continuity of the therapist-patient relationship relevant for the discharge outcome in orthopaedic physical rehabilitation? *Musculoskeletal Surgery*. Advance online publication. <https://doi.org/10.1007/s12306-024-00860-y>.
- Proietti, M., Cesari, M., 2020. Frailty: what is it? *Adv. Exp. Med. Biol.* 1216, 1-7.
- Rocha, P., Baixinho, C.L., Marques, A., Henriques, M.A., 2024a. Safety-promoting interventions for the older person with hip fracture on returning home: a systematic review. *International journal of orthopaedic and trauma nursing* 52, 101063. <https://doi.org/10.1016/j.ijotn.2023.101063>.
- Rocha, P., Baixinho, C.L., Henriques, M.A., 2024b. A qualitative study of older adults: the difficulties and needs of returning home after hip fractures. *International journal of orthopaedic and trauma nursing* 55, 101141. <https://doi.org/10.1016/j.ijotn.2024.101141>.
- Salari, N., Darvishi, N., Ahmadipannah, M., Shohaimi, S., Mohammadi, M., 2022. Global prevalence of falls in the older adults: a comprehensive systematic review and meta-analysis. *J. Orthop. Surg. Res.* 17 (1), 334. <https://doi.org/10.1186/s13018-022-03222-1>.
- Sousa, L., Martins, M.M., Novo, A., 2020. A enfermagem de reabilitação no empoderamento e capacitação da pessoa em processos de transição saúde-doença. *Revista Portuguesa de Enfermagem de Reabilitação* 3 (1), 64-69. <https://doi.org/10.33194/rper.2020.v3.n1.8.5763>.
- Tyas, B., Lukic, J., Harrison, J., Singiseti, K., 2022. A comparative study of hip fracture care and outcomes in major trauma centres versus trauma units. *Injury* 53 (4), 1455--1458. <https://doi.org/10.1016/j.injury.2022.02.018>.
- Tong, A., Sainsbury, P., Craig, J., 2007. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int. J. Qual. Health Care : journal of the International Society for Quality in Health Care* 19 (6), 349-357. <https://doi.org/10.1093/intqhc/mzm042>.
- Welsh, A., Hanson, S., Pfeiffer, K., Khoury, R., Clark, A., Grant, K., Ashford, P.A., Hopewell, S., Logan, P.A., Crotty, M., Costa, M.L., Lamb, S.E., Smith, T.O., HIP HELPER Study Collaborators, 2024. Facilitating the transition from hospital to home after hip fracture surgery: a qualitative study from the HIP HELPER trial. *BMC Geriatr.* 24 (1), 948. <https://doi.org/10.1186/s12877-024-05390-7>.
- Williams, S., O'Riordan, C., Morrissey, A.M., Galvin, R., Griffin, A., 2024. Early supported discharge for older adults admitted to hospital after orthopaedic surgery: a systematic review and meta-analysis. *BMC Geriatr.* 24 (1), 143. <https://doi.org/10.1186/s12877-024-04775-y>.
- Wu, A.-M., Bisignano, C., James, S.L., Abady, G.G., Abbafati, C., Abd-Elsalam, S.M., Abdelalim, A., Abosetugn, A.E., Abu-Gharbieh, E., Adnani, Q.E.S., Afzal, M.S., Ahinkorah, B.O., Al Hamad, Alahdab, F., Alanzi, T.M., Al-Ghaithi, T., Alhassan, R.K., Alipour, V., Aljunid, S.M., Vos, T., 2021. Global, regional, and national burden of bone fractures in 204 countries and territories, 1990--2019: A systematic analysis from the Global Burden of Disease Study 2019. *The Lancet Healthy Longevity* 2 (9). [https://doi.org/10.1016/S2666-7568\(21\)00172-0](https://doi.org/10.1016/S2666-7568(21)00172-0) e580--e592. e580-e592.
- Xu, Q., Ou, X., Li, J., 2022. The risk of falls among the aging population: a systematic review and meta-analysis. *Front. Public Health* 10, 902599. <https://doi.org/10.3389/fpubh.2022.902599>.
- Yoo, J., Lee, J.S., Kim, S., Kim, B.S., Choi, H., Song, D.Y., Kim, W.B., Won, C.W., 2019. Length of hospital stay after hip fracture surgery and 1-year mortality. *Osteoporosis international : a journal established as result of cooperation between the European Foundation for Osteoporosis and the National Osteoporosis Foundation of the USA* 30 (1), 145--153. <https://doi.org/10.1007/s00198-018-4747-7>.