





# Interventions to promote older adult functionality in the hospital-to-home transition: an integrative review


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## Abstract

**Objective:** To identify interventions in the literature that assist in promoting functionality in older adults during the hospital-to-home transition. **Method:** Integrative literature review with searches conducted between October and November 2022, in the following databases: MEDLINE, Lilacs, IBECs, BDENF, WoS, SCOPUS, CINAHL, and PEDro, using the MeSH terms: Aged, Transitional Care, and Functional Status, in any language, without temporal restriction, employing boolean operators OR and AND. **Result:** A total of 2,123 papers were identified, with nine meeting the inclusion criteria, resulting in four categories: Health education; Active involvement of older adults and family caregivers; Multidisciplinary team involvement; Follow-up care post-hospital discharge. **Conclusion:** The continuity of care post-hospital discharge through interventions aimed at maintaining and restoring functionality is a strategy that strengthens the autonomy and independence of older adults.

**Keywords:** Transitional Care. Older Adult. Health Education. Functional Status.

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## INTRODUCTION

The older adult during and after hospitalization, especially for long periods and due to various reasons, may experience impairments in physical function, including decreased strength and muscle mass, reduced aerobic capacity, and other deficits, which hinder the performance of Activities of Daily Living (ADLs), resulting in loss of functional independence and autonomy<sup>1</sup>. These impairments commonly persist after discharge, representing a poor prognosis for functional recovery<sup>2</sup>.

Functionality, according to the International Classification of Functioning, Disability, and Health (ICF), refers to bodily functions, activities, and social participation<sup>3</sup>, considered by the World Health Organization (WHO) as a third health indicator for rehabilitation<sup>4</sup>.

Furthermore, continuing to monitor older adults during hospitalization and after discharge is important for better adaptation at home<sup>5</sup>. Recognizing this scenario, the WHO released in 2016 a framework for integrated and person-centered health services, emphasizing the need to optimize health systems and their linkages, particularly during care transitions<sup>6</sup>.

In this context, the theory of transitions developed by Dr. Afaf Ibrahim Meleis supports individuals in transitional situations to experience the changes that the new health condition brings, anticipating and identifying strategies for better coping or not with situations that influence adaptation after discharge at home<sup>7</sup>.

Although the promotion of functionality is widely addressed in the literature related to geriatrics and gerontology, there is still a gap, especially in Brazil, in studies that address the functionality of older adults as the main objective during the hospital-to-home transition, and regarding a consensus on how functionality should be assessed and addressed in this context.

Studies on this topic can guide healthcare services and their teams for better management/planning of hospital discharge, with interventions that promote functionality, and also contribute to

scientific productions and better assistance in the field of geriatrics and gerontology. Thus, the objective of this study was to identify interventions in the literature that assist in promoting functionality in older adults during the hospital-to-home transition.

## METHOD

Integrative literature review, conducted following five phases<sup>8</sup>. The protocol was registered in the Open Science Framework (OSF) repository under the number 10.17605/OSF.IO/6DP9A.

The guiding question was formulated based on the PICo strategy, which represents P: older adult; I: interventions that assist in promoting functionality; Co: hospital-to-home transition, as follows: What interventions assist in promoting functionality in older adults during the hospital-to-home transition?

The following databases were utilized: Medical Literature Analysis and Retrieval System Online (MEDLINE), Cochrane Library, Latin American and Caribbean Literature on Health Sciences (Lilacs), Spanish Bibliographic Index in Health Sciences (IBECS), Brazilian Nursing Database (BDENF), Web of Science (WoS), SciVerseScopus (SCOPUS), Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Physiotherapy Evidence Database (PEDro). MEDLINE was accessed via PubMed. For LILACS, IBECS, and BDENF, the Virtual Health Library (VHL) website was used. For Cochrane Library, Web of Science, SCOPUS, and CINAHL, access was through the Portal of Periodicals of the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) via login in the Federated Academic Community (CAFe) of the Universidade Federal da Bahia. The search on PEDro was conducted through the database's own website.

The searches took place between October 29 and November 26, 2022. Controlled vocabulary from the Medical Subject Headings (MeSH), as well as uncontrolled vocabulary (entry terms, synonyms, and keywords), were used. The MeSH terms *Aged*, *Transitional Care*, and *Functional Status* were combined with boolean operators "OR" and "AND", as presented in Chart 1.

**Chart 1.** Database Search Strategies. Salvador, BA, 2023.

Database	Search Strategy
MEDLINE via PubMed	(((((("Aged"[Mesh]) OR (Elderly)) OR (Older)) OR (Senior*)) OR (Elder*)) OR (Geriatric*)) AND (((((((("Functional Status"[Mesh]) OR (Status, Functional)) OR (Functional Independence)) OR (Independence, Functional)) OR (Functional Dependence)) OR (Functional Disability)) OR (Functional Ability)) OR (Functional Capacity))) AND ((((((("Transitional Care"[Mesh]) OR (Care*, Transitional)) OR (Transitional Cares)) OR (Transition Care*)) OR (Home Transition*)) OR (Transition*, Home))
LILACS, BDENF, IBECs via BVS	((mh:(aged)) OR (elderly) OR (older) OR (senior*) OR (elder*) OR (geriatric*)) AND ((mh:(functional status) OR (status, functional) OR (functional independence) OR (functional dependence) OR (functional disability) OR (functional ability) OR (functional capacity)) AND ((mh:(transitional care) OR (care*, transitional) OR (transitional cares) OR (transition care*) OR (home transition*) OR (transition* home))
Web of Science	((TS=(Aged)) OR ALL=(Elderly OR Older OR Senior* OR Elder* OR Geriatric*)) AND ((TS=("Functional Status")) OR TS=("Status, Functional" OR "Functional Independence" OR "Independence, Functional" OR "Functional Dependence" OR "Functional Disability" OR "Functional Ability" OR "Functional Capacity")) AND ((TS=("Transitional Care")) OR ALL=("Care*, Transitional" OR "Transitional Cares" OR "Transition Care*" OR "Home Transition*" OR "Transition*, Home"))
SCOPUS	TITLE-ABS-KEY((Aged OR Elderly OR Older OR Senior* OR Elder* OR Geriatric*) AND ("Functional Status" OR "Status, Functional" OR "Functional Independence" OR "Independence, Functional" OR "Functional Dependence" OR "Functional Disability" OR "Functional Ability" OR "Functional Capacity") AND ("Transitional Care" OR "Care*, Transitional" OR "Transitional Cares" OR "Transition Care*" OR "Home Transition*" OR "Transition*, Home"))
CINAHL	(MH Aged OR Aged OR Elderly OR Older OR Senior* OR Elder* OR Geriatric* ) AND ( MH "Functional Status" OR "Functional Status" OR "Status, Functional" OR "Functional Independence" OR "Independence, Functional" OR "Functional Dependence" OR "Functional Disability" OR "Functional Ability" OR "Functional Capacity" ) AND ( MH "Transitional Care" OR "Transitional Care" OR "Care*, Transitional" OR "Transitional Cares" OR "Transition Care*" OR "Home Transition*" OR "Transition*, Home" )
Cochrane	(Aged OR Elderly OR Older OR Senior* OR Elder* OR Geriatric*):ti,ab,kw AND ("Functional Status" OR "Status, Functional" OR "Functional Independence" OR "Independence, Functional" OR "Functional Dependence" OR "Functional Disability" OR "Functional Ability" OR "Functional Capacity"):ti,ab,kw AND ("Transitional Care" OR "Care, Transitional" OR "Cares, Transitional" OR "Transitional Cares" OR "Transition Care*" OR "Home Transition*" OR "Transition, Home" OR "Transitions, Home"):ti,ab,kw
PEDro	Transition* Care* AND Gerontology

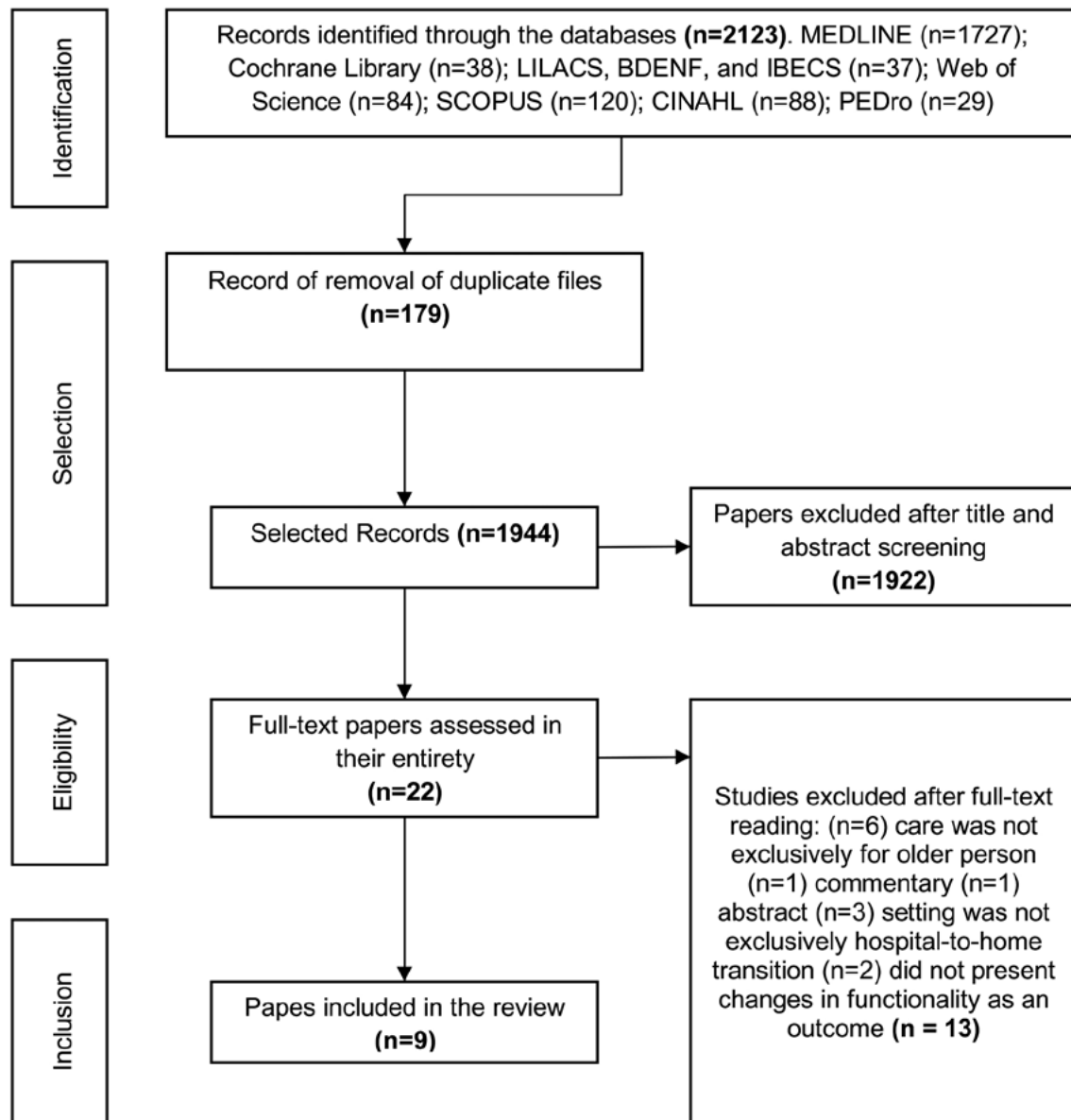
Source: Authors.

The inclusion criteria were as follows: original papers published in any language, at any time, that addressed the research question, indicating as an outcome change in functionality during the hospital-to-home transition. Duplicate papers were excluded.

The search strategy identified 2,123 papers. Subsequently, Rayyan, a web application that assists in screening through a semi-automated process, was utilized<sup>9</sup>. After duplicate papers were detected, 179 papers were excluded, leaving 1,944 for title and abstract screening. This stage was conducted by two independent researchers, in a blinded manner,

resulting in the exclusion of 1,922 papers that did not address the theme. Eligibility criteria were applied, and justifications for exclusion were recorded in Rayyan. Seven discrepancies arose, which were resolved through discussion, leading to the inclusion of the respective papers.

The 22 eligible papers were read in their entirety, with nine papers that addressed the research question comprising the final sample (Figure 1). This search adhered to the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)<sup>10</sup>.



**Figure 1.** Flowchart of the intersections and search results, based on PRISMA. Salvador, BA, 2023.

**Source:** Authors.

The data extracted from the papers were organized into a database in Microsoft Word.

The Level of Evidence of the studies was classified into six levels, according to the metrics proposed by Melnyk and Fineout-Overholt<sup>11</sup> (2015): **level I:** meta-analyses and randomized controlled trials; **level II:** experimental studies; **level III:** quasi-experimental researches; **level IV:** descriptive studies, non-experimental, or qualitative; **level**

**V:** case reports or experience; **level VI:** expert consensus and opinions.

Content Analysis was employed, guided by the phases: pre-analysis, material exploration, and result treatment for the formation of categories<sup>12</sup>. The results were analyzed in light of Meleis' Theory of Transitions, grounded in the changes prompted by the health-illness process and the necessary adaptations to experience the transitions<sup>7</sup>.

## DATA AVAILABILITY

The entire dataset supporting the findings of this study is available upon request to the corresponding author [Renata Farias Amorim].

## RESULTS

Nine studies are included in this review. The general characteristics of these studies can be found in **Chart 2**. Four studies were conducted in Asia, three in North America, one in Oceania, and one in Eurasia, with publication periods ranging from 2004 to 2022, with 2019 having the highest number of publications (three).

Regarding the profile of participants in the studies, four addressed patients with heart disease<sup>13,15,19,20</sup>, two focused on orthopedic patients<sup>18,21</sup>, one on neurological patients<sup>17</sup>, and two did not specify reasons for admission<sup>14,16</sup>. As for the design, one study used mixed methods, while eight employed quantitative methods. Five studies attained Level I evidence, one had Level II evidence, and three had Level III evidence.

Based on the collected material, four categories were formed for analysis and discussion: health education, active involvement of older individuals and family caregivers, multidisciplinary team involvement, and post-discharge follow-up (Chart 3).

**Chart 2.** Characteristics of the papers included in the review regarding authors/year, country, design/level of evidence/participants, objective, interventions, and main results related to the research question. Salvador, BA, 2023.

Authors Year Country Language	Design/ Level of Evidence/ Participants	Objective	Interventions	Main Results
Naylor et al, 2004 <sup>13</sup> United States English	Randomized Controlled Trial Level of Evidence: I Participants: n = 239	Examining the effect of a three-month transitional care intervention, led by advanced practice nurses, for older adults hospitalized with heart failure on time to first readmission or death, total rehospitalizations, readmissions due to heart failure and comorbidities, quality of life, functional status, patient satisfaction, and healthcare costs.	CG: Routine care for the admitting hospital, including a site-specific protocol for heart failure. IG: Hospital and home visits conducted by advanced practice nurses from hospital admission up to three months post-discharge.	There was no statistically significant difference between the groups, although better functionality was observed in the IG.
Courtney et al, 2012 <sup>14</sup> Australia English	Randomized Controlled Trial Level of Evidence: I Participants: n = 128	Assessing the effectiveness of a multifaceted transitional care intervention for older adults, comprising in-hospital and at-home exercises, on functional status and independence in ADLs.	CG: Routine care, discharge planning, follow-up, and rehabilitation counseling. IG: In addition to routine care, during hospitalization, received an individualized exercise program to improve balance, muscle strength, and flexibility; maintenance of health promotion behaviors; home visits and follow-up phone calls for up to 24 weeks post-discharge.	Improvement in functional capacity, independence in ADLs, and walking ability was observed in the IG compared to the CG.

to be continued

Continuation of Chart 2

Authors Year Country Language	Design/ Level of Evidence/ Participants	Objective	Interventions	Main Results
Xueyu et al, 2017 <sup>15</sup> China English	Randomized Controlled Trial Level of Evidence: I Participants: n = 83	Investigating the effect of an exercise protocol initiated during hospitalization on health-related quality of life, physical function, and cardiac function in older adults with Chronic Heart Failure during the transitional period.	CG: TC program including an individualized discharge plan, guidance on managing CHF, and 7 follow-up calls over 3 months. IG: TC program and a physical training protocol during hospitalization, consisting of 5 to 10 minutes of warm-up, followed by walking and 5 to 10 minutes of relaxation exercises. Post- discharge follow-up followed the same method and duration as CG.	Significant improvement in functional capacity was observed in the IG compared to the CG during the 12- week follow-up.
Carvalho et al, 2019 <sup>16</sup> Canada English	Prospective Comparative Pilot Study of Before and After Type Level of Evidence: III Participants: n = 29	Developing a decision tree for prescribing an individualized and unsupervised home- based PA program for older adults post-hospital discharge; investigating feasibility, acceptability, and effectiveness on physical function and mobility.	Decision tree consisting of: physical assessment and identification of mobility profile; 1 or 2 training sessions of PA programs during hospitalization; logbook with recommendations on safe exercise practice and a weekly calendar for recording home sessions; weekly phone calls to address any questions. The intervention lasted for 12 weeks.	The use of a decision tree to support exercise prescription appears to be effective in improving physical function and mobility in patients discharged from geriatric units.
Geng et al, 2019 <sup>17</sup> China English	Randomized Controlled Trial Level of Evidence: II Participants: n = 60	Assessing the impact of transition care, based on the Integrated Behavioral Model, on health behaviors and clinical outcomes related to cerebrovascular accident in older adults post- discharge.	CG: Routine health education before discharge and telephone follow-up one week after discharge. IG: TC divided into two stages: health education before discharge through informational booklet; weekly home visits and telephone follow-up, between 1 and 3 months post-discharge, by nurses and other healthcare professionals.	TC intervention demonstrated gains in performing ADLs.

to be continued

Continuation of Chart 2

Authors Year Country Language	Design/ Level of Evidence/ Participants	Objective	Interventions	Main Results
Ko et al, 2019 <sup>18</sup> South Korea English	Quasi- Experimental Study Level of Evidence: III Participants: n = 37	Assessing the effects of an individualized transitional care program based on a transitional theory to reduce functional decline in older adults undergoing hip arthroplasty for hip fracture.	CG: Routine postoperative care and health education before discharge. EG: In addition to the same care as CG, received a program consisting of nursing therapeutics, such as assessment, education, supportive environment through transition theory. Included exercise prescription. Conducted 6 times in 2 weeks, during hospitalization.	The CG and EG were significantly different in ADL scores between pre-fracture and post-intervention. The EG showed better scores. The intervention results were beneficial for functional mobility, with shorter times recorded in the TUG test.
Kitzman et al, 2021 <sup>19</sup> United States English	Randomized Controlled Trial Level of Evidence: I Participants: n = 349	Evaluating the effectiveness of REHAB-HF in physical function and reduction of readmission rates for older adults hospitalized for decompensated acute heart failure.	CG: Routine care, phone call every 2 weeks, and visits at 1 month and 3 months post-discharge. IG: In addition to routine care, a rehabilitation program focused on domains of physical function (strength, balance, mobility, and endurance), which progressed through predefined functional levels. It comprised three phases: hospital-based, outpatient, and independent maintenance at home with telephone follow-up. The intervention lasted for 6 months.	The program resulted in significantly greater improvement in physical function in the IG compared to the CG.
Coskun, Duygulu, 2022 <sup>20</sup> Turkey English	Randomized Controlled Trial Level of Evidence: I Participants: n = 66	Assessing the effectiveness of the Transitional Care Model on functional autonomy, quality of life, readmission rates, and rehospitalization of older adults undergoing open-heart surgery.	CG: Routine healthcare practices. IG: Care based on the "Clinical Pathway for Open Heart Surgery" and a protocol consisting of 4 stages: health status assessment and provision of pre- and post-operative care during hospitalization (training), case analysis and care process planning (using the OMAHA system), post-operative evaluation and definition of additional care, home visits within 24 hours, on the 2 <sup>nd</sup> , 6 <sup>th</sup> , and 9 <sup>th</sup> weeks post-discharge.	The care provided within the protocol significantly improved levels of functional autonomy in the IG compared to the CG.

to be continued

Continuation of Chart 2

Authors Year Country Language	Design/ Level of Evidence/ Participants	Objective	Interventions	Main Results
Yang et al, 2022 <sup>21</sup> China English	Quasi- Experimental Study Level of Evidence: III Participants: n = 160	Investigating the effects of transitional care programs on the health of older adults with discharge and osteoporotic vertebral compression fractures.	CG: Health education before discharge and telephone follow-up after discharge. IG: Routine care and TC programs that included informational, instrumental, and emotional support. Intervention initiated before discharge and at 1, 2, 3, and 6 months post-discharge via telephone contact.	TC programs significantly improved independence in performing ADLs.

PA: Physical Activity; CG: Control Group; IG: Intervention Group; EG: Experimental Group; TC: Transition Care; REHAB-HF: Rehabilitation Therapy in Older Acute Heart Failure Patients; ADL: Activities of Daily Living; TUG: Timed Up and Go; CHF: Chronic Heart Failure.

Source: Authors.

**Chart 3.** Characteristics of the papers included in the review regarding thematic categories: Health education, active involvement of older individuals and family caregivers, multidisciplinary team involvement, and post-discharge follow-up. Salvador, BA, 2023.

Authors Year	Thematic Categories			
	Health Education	Active involvement of older individuals and family caregivers	Multidisciplinary team involvement (*)	Post-hospital discharge follow-up
Naylor et al, 2004 <sup>13</sup>	a) Guidance on managing symptoms and therapy for HF and common comorbidities; b) Provision of audio recordings of educational activities.	a) Objectives aligned with the needs and preferences of the older person and/or caregivers.	a) Professionals involved: nurses, pharmacist, nutritionist, social worker, physiotherapist, cardiologist.	a) At least 8 home visits; b) Availability of telephone support. Duration: 3 months.
Courtney et al, 2012 <sup>14</sup>	a) Exercise program training; b) Guidance on strategies for maintaining healthy behaviors.	NA	NA	a) One home visit; b) 9 telephone calls. Duration: 6 months.
Xueyu et al, 2017 <sup>15</sup>	a) Guidance on managing symptoms and therapeutic approaches for HF (oral and written instruction); b) Exercise program training.	a) Requesting participants to document adherence to the protocol (exercise diary).	a) Professionals involved: nurses, physicians, pharmacists, and nutritionists.	a) 7 telephone calls. Duration: 3 months.
Carvalho et al, 2019 <sup>16</sup>	a) Exercise program training (use of booklet).	a) Requesting participants to document adherence to the protocol (monthly calendar).	a) Professionals involved: nurses, kinesiologists, physiotherapists, geriatric physicians, general practitioners.	a) Weekly telephone calls. Duration: 3 months.

to be continued



Continuation of Chart 3

Authors Year	Thematic Categories			
	Health Education	Active involvement of older individuals and family caregivers	Multidisciplinary team involvement (*)	Post-hospital discharge follow-up
Geng et al, 2019 <sup>17</sup>	a) Guidance on CVA management and behavioral changes for health promotion (use of booklet); b) Caregiver training on exercises and equipment usage to be performed post-discharge.	a) Objectives aligned with the needs and preferences of the older person and/or caregivers; b) Requesting caregivers to record executed healthy behaviors (diary).	a) Professionals involved: nurses, neurologist physician, rehabilitation counselor, and psychologist.	a) Weekly home visits; b) Weekly telephone calls. Duration: 3 months.
Ko et al, 2019 <sup>18</sup>	a) Guidance on pain and infection control, fall prevention, and improvement of ADLs (use of booklet); b) Demonstration of exercises after THA.	a) Objectives aligned with the needs and preferences of the older person and/or caregivers and individualized interventions.	NA	NA
Kitzman et al, 2021 <sup>19</sup>	NA	NA	NA	a) 3 months of outpatient sessions and 3 months of home sessions supported by telephone calls. Duration: 6 months.
Coskun, Duygulu, 2022 <sup>20</sup>	a) Pre- and post-operative patient training.	a) Designating a family caregiver as a member of the transition team, actively participating in the processes.	a) Professionals involved: physician, nurses, physiotherapist, nutritionist, caregiver/family member.	a) 4 home visits; b) Telephone available. Duration: 9 weeks.
Yang et al, 2022 <sup>21</sup>	a) Guidance on home self-care, rehabilitation nursing, ADLs, fall prevention, diet, and complications for patients with OVCF (use of manual).	NA	NA	a) Weekly or as-needed phone calls; b) Biweekly video calls; c) Communication via messaging app. Duration: 6 months.

\*Including at least three health disciplines. HF: Heart Failure; NA: Not Applicable; CVA: Cerebrovascular Accident; ADLs: Activities of Daily Living; THA: Total Hip Arthroplasty; OVCF: Osteoporotic Vertebral Compression Fractures.

Source: Authors.

## DISCUSSION

In this review, a lack of primary studies in Brazil on the subject was observed, despite the emphasis given to functional status by the National Policy on Older Adult Health (PNSPI - Política Nacional de Saúde da Pessoa Idosa), where functionality is guided by the promotion of health actions and healthy aging<sup>22</sup>. This gap raises concerns, especially considering the constant increase in hospitalizations

in this age group in the country, accounting for approximately one-third of all admissions in 2022<sup>23</sup>.

The disconnection of services provided by the Brazilian healthcare system, especially between primary care and tertiary care<sup>24</sup>, may present a barrier to the implementation of transitional care. Conversely, at the global level, there are mixed models, such as in the United States, which include subacute and post-acute care facilities, and specialized nursing facilities;

in Australia and Canada, with the implementation of Transitional Care Programs<sup>25</sup>.

Patient follow-up in this review ranged from two weeks to six months, with a predominance of three months in 44% of the studies<sup>13,15-17</sup>. However, the absence of a consensus regarding the ideal duration of intervention during care transition was highlighted, indicating the need for further research to formulate protocols, as the hospitalization process leads to functional decline due to the association of factors such as physiological changes of aging, illness, and hospital routines<sup>26</sup>. These factors result in mobility disorders, increased risk of falls, and impaired autonomy in performing activities of daily living<sup>27,28</sup>.

In this review, studies indicated clinically-originated hospitalizations<sup>13-17,19</sup>, involving individuals with cardiac problems. In this context, heart failure is the primary cause of hospitalizations in older individuals, being associated with impairments in physical function, leading to multiple admissions<sup>29</sup>. One study implemented a transition program, yielding no significant results in physical function<sup>13</sup>, while two others focused on physical exercises such as walking, demonstrating functional improvements<sup>15,19</sup>. Although a set of self-care actions positively impacts functionality and other health outcomes, personalized and progressive physical exercise enhances physical function in cardiac patients within the transition context<sup>29</sup>.

Among the interventions used in the studies to promote functionality, highlighted were health information-based trainings and active participation of older adults and caregivers along with a multidisciplinary team in decision-making for self-health management<sup>30-32</sup>. Health education was utilized in 89% of the studies<sup>13-18,20,21</sup>, aiming at empowering the population with knowledge on health-related topics, thus increasing people's autonomy in their own care<sup>33</sup>.

Adaptations are promoted through knowledge, development of strategies, and skills via individual psychosocial resources and competencies. However, to achieve this, it is necessary to actively involve participants in the care process, as well as in decision-making. By engaging individuals in their self-care, it

is possible to promote awareness and, consequently, engagement, important elements for a healthy transition as outlined by Meleis<sup>7</sup>.

Active participant involvement was observed in 66% of the studies<sup>13,15-18,20</sup>. This occurs when the care plan is aligned with the preferences, values, and goals of older adults and their family caregivers<sup>34-35</sup>. Authors have shown that transition care models directly involving individuals in their care have reduced hospital readmissions and caregiver stress<sup>30,36,37</sup>. Furthermore, during the process, the multidisciplinary team should pay attention to caregivers, as their burden and accumulation of responsibilities add to the challenges of establishing a good relationship with the team and, consequently, a successful transition<sup>37,38</sup>.

According to Meleis<sup>7</sup>, transformations resulting from the new health condition generate conceptions, thoughts, coping mechanisms, roles, and response patterns to the new situation, known as adaptations. Thus, individuals in care transition feel the need to be supported by a professional to clarify their doubts<sup>39</sup>.

The majority of studies in this review utilized a multidisciplinary team approach<sup>13,15-17,20</sup>. The implementation of multidisciplinary in healthcare involves sharing knowledge, enhancing actions, and commitment to users<sup>33</sup>. However, the nurse was the most cited healthcare professional<sup>13-18,20,21</sup>. Their role as coordinator of care transition is highlighted in a large part of the national and international scientific literature<sup>35,39,40</sup>, although authors point out the capacity of other professional categories to assume this coordination<sup>35</sup>, such as physiotherapists and kinesiologists in a study where the intervention was based on physical training<sup>19</sup>.

Post-discharge follow-up occurred in the majority of studies<sup>12-17,19-21</sup>. Authors claim that this prevents the interruption of care when transitioning between environments<sup>34,39</sup>, and interventions initiated before discharge, continuing afterward, are more effective in reducing hospital readmissions<sup>40</sup>. However, one study did not conduct follow-up after discharge<sup>18</sup>, basing the intervention solely on planning and preparation for returning home. In this study, involving older adults undergoing hip arthroplasty, the intervention

took place during hospitalization, with assessments following the theory of transitions<sup>7</sup> at pre- and post-surgery moments. The intervention group showed reduced functional decline, improved scores for Activities of Daily Living (ADLs) and walking speed, as well as decreased fear of falling.

During post-discharge follow-up, the studies included in this review utilized home assessments to suggest interventions for improving the environment, adapting it, and reducing architectural barriers. Thus, home visits were conducted in five studies<sup>13,14, 17,19,20</sup>. Home assessment, whether through photography or in-person visits, helps the multidisciplinary team identify barriers and facilitators for transition<sup>40</sup>, aiding in the creation of strategies and coping mechanisms, preventing situations, and empowering potentialities for a new reorganization of the social and family context. According to Meleis<sup>7</sup>, preparation of the environment and necessary economic aspects act as facilitators for transition.

As a follow-up strategy, telephone calls were utilized by the majority of studies<sup>13-17,19-21</sup>. Phone calls assist in effective transition, addressing gaps in care and residual doubts, and have proven effective in other studies<sup>41,42</sup>. However, authors suggest between two to three calls after returning home, as a single call was insufficient to promote adherence to the discharge plan<sup>41</sup>.

Regarding physical rehabilitation protocols, interventions with exercises and/or walking<sup>14,15,16,19</sup> as the main component achieved positive results in functionality, although a systematic review observed few consistent changes in physical health or independent functioning of participants<sup>43</sup>.

The scientific literature<sup>2,25,28,29,37,38,40</sup> alerts to the need to observe, prevent, and intervene in functional deficits for transitions between care settings. Older adults and caregivers require support from professionals, social networks, and healthcare to experience favorable outcomes with continued interventions in the home environment aimed at improving functional capacity when possible. Research needs to advance in transition models that include feasible physical interventions to guide

healthcare professionals and support older adults and caregivers.

This review was limited by the lack of national scientific production during this period, which hindered the visualization of the Brazilian reality on the subject.

## CONCLUSION

Among the interventions that assist in promoting the functionality of older adults during the hospital-to-home transition, actions based on monitoring and follow-up after hospital discharge, active involvement of older adults and family caregivers, and the multidisciplinary team, health education, and interventions based on exercise programs and walking stand out.

The study revealed that for promoting functionality in hospital-to-home transition care, it is necessary to build a discharge plan directed towards physical function to prevent and/or mitigate functional impairment, as actions for promoting physical function are often given low priority in clinical practice.

Therefore, the review highlights the need for further research, particularly in Brazil, addressing transition care interventions more definitively, aiming to maintain and restore the functionality of older adults after hospitalization.

## AUTHORSHIP

- Renata Farias Amorim: conception, design, analysis and interpretation of data; drafting of the paper; approval of the version to be published; and being responsible for all aspects of the work, ensuring that issues related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.
- Larissa Chaves Pedreira: drafting of the paper and its critical review; approval of the version to be published.

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- Nildete Pereira Gomes: drafting of the paper and its critical review; approval of the version to be published.
- Rute Santos Sampaio: data interpretation; drafting of the paper.
- Anita Gabriele de Jesus Damasceno: analysis and interpretation of data; drafting of the paper.

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