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Transition strategies for hospital discharge used by nurses: integrative review

Estratégias de transição para alta hospitalar utilizadas por enfermeiros: revisão integrativa

Estrategias de transición para el alta hospitalaria utilizadas por los enfermeros: revisión integradora

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Abstract: Objective: to identify strategies for the transition of care at hospital discharge, used by nurses to strengthen the continuity of care, available in the scientific literature. **Method:** integrative review of the literature, which included complete studies, based on the strategies "care transition" OR "Continuity of Patient Care" OR "care continuity" AND nurse for the databases VHL, PubMed, SCOPUS and WoS and "care transition" OR "care continuity" AND nurse for CINAHL , published in English, Spanish or Portuguese, between 2016 and 2020, which answered the review question. **Results:** 23 articles were selected, and the strategies for transition from care to hospital discharge used by nurses to strengthen care were health education, drug reconciliation, telemonitoring, discharge planning, counter-referral and home visit. **Conclusion:** nurses are responsible for developing interconnected transition strategies to strengthen care, developing diversified actions that qualify attention.

Descriptors: Nursing; Care Transition; Continuity of Patient; Patient Discharge; Strategies

Resumo: Objetivo: identificar estratégias de transição do cuidado na alta hospitalar, utilizadas por enfermeiros para o fortalecimento da continuidade do cuidado, disponíveis na literatura científica. **Método**: revisão integrativa da literatura, que incluiu estudos completos, tendo como referência as estratégias "*care transition" OR "Continuity of Patient Care" OR "care continuity" AND nurse* para as bases de dados BVS, PubMed, SCOPUS e WoS e *"care transition" OR "care continuity" AND nurse* para CINAHL, publicados em inglês, espanhol ou português, entre 2016 e 2020, que responderam à questão de revisão. **Resultados**: foram selecionados 23 artigos, e as estratégias de transição do cuidado para a alta hospitalar usadas por enfermeiros para o fortalecimento do cuidado foram educação em saúde, reconciliação medicamentosa, telemonitoramento, planejamento da alta, contrarreferência e visita domiciliar. **Conclusão**: o enfermeiro é responsável pelo

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desenvolvimento de estratégias de transição interconectadas para o fortalecimento do cuidado, desenvolvendo ações diversificadas que qualificam a atenção.
Descritores: Enfermagem; Cuidado Transicional; Continuidade da Assistência ao Paciente; Alta do Paciente; Estratégias

Resumen: **Objetivo: i**dentificar estrategias para la transición de la atención al alta hospitalaria, utilizadas por los enfermeros para fortalecer la continuidad de la atención, disponibles en la literatura científica. **Método:** revisión integradora de la literatura, que incluyó estudios completos, basados en las estrategias "*care transition" OR "Continuity of Patient Care" OR "care continuity" AND "nurse"* para las bases de datos BVS, PubMed, SCOPUS y WoS y *"care transition" OR "care continuity" AND "nurse"* para CINAHL, publicada en inglés, español o portugués, entre 2016 y 2020, que respondió a la pregunta de la revisión. **Resultados:** se seleccionaron 23 artículos, y las estrategias para la transición de la atención al alta hospitalaria utilizadas por los enfermeros para fortalecer la atención fueron la educación para la salud, la conciliación de medicamentos, la telemonitorización, la planificación del alta, la contrarreferencia y la visita domiciliaria. **Conclusión:** los enfermeros son responsables de desarrollar estrategias de transición interconectadas para fortalecer el cuidado, desarrollando acciones diversificadas que califiquen la atención.
Descriptores: Enfermería; Cuidado de Transición; Continuidad de la Atención al Paciente; Alta del Paciente; Estrategias

Introduction

The continuity of health care is considered essential to comprehensive care to the user of the health system, because it refers to the attribute of Primary Care, which ensures the provision of the necessary care over time, that is, longitudinality.[1] The continuity of care provided by the integration of various dimensions, such as physical, psychological and economic, provides improvements in the user and health services relationship.[1-3]

The system user experiences several moments of tension during his/her journey in a health care network, requiring actions aimed at ensuring the coordination and continuity of care,[4] related to the its transition. However, when poorly sized, it is related to serious adverse effects such as medication errors, delays in care, duplication of treatment, reduced treatment, worsening in quality of life, avoidable readmissions, inadequate use of services and increased cost of health.[4-5] In the post-hospital discharge period, the user may present greater vulnerability and risk of clinical deterioration.[6]

The search for continuity of care, guaranteed by the safe transition of care and quality, is highlighted in several countries, especially in the United States of America (USA) and in European

countries, being initially driven to reduce costs with avoidable readmissions,[5] being commonly associated with improved quality of care and life of users. In this context, nurses have been the professional involved in the processes of transition of care because they have the capacity to identify critical points of the process, plan discharge, involvement in rehabilitation, health education and articulation in the health care network,[4,7] strengthening the continuity of care after hospital discharge.

In Brazil, researchers have been developing studies and testing strategies to strengthen the continuity of care in the hospital setting and transition to primary care, especially in the last decade.[4,7-8] However, greater efforts are still needed to identify, develop and implement transition-strengthening strategies that allow continuity of care, especially in the scenario of hospital discharge in the Unified Health System (SUS in Portuguese).

Thus, the presentation of detailed and updated analysis of care transition strategies, which involve nurses on hospital discharge and return home, may be relevant to increase knowledge about the continuity of care and stimulate its strengthening. This paper may contribute to evidence-based practice and nurses' decision-making. The aim of the study is to identify the strategies for the transition from care to hospital discharge, used by nurses to strengthen the continuity of care, available in the scientific literature.

Method

This is a literature integrative review, elaborated and structured from a protocol composed of the following steps: (1) definition of the review question; (2) sampling and selection; (3) representation of the characteristics of the captured material; (4) analysis of the selected sample; (5) interpretation of the results; and (6) final presentation.[9]

In Step 1, the review question was defined: what strategies for the transition from care to hospital discharge are used by nurses to strengthen the continuity of care available in the scientific

literature? The strategy PICO, acronym for Patient (P), Intervention (I), Comparison (C) and "Outcome" (O) was used. The PICO strategy can be used for questioning of various natures, arising from the clinic, from the management of human and material resources, from the search for instruments for symptom assessment, among others.[7] Thus, were defined P - nurses, I - transition strategies, C - do not apply and O - continuity of care were considered.

In step 2, the definition of the search strategy was obtained, initiated with the choice of databases Virtual Health Library (VHL), Cumulative Index to Nursing and Allied Health Literature (CINAHL), U. S. National Library of Medicine (PubMed), SCOPUS and Web of Science (WoS) by two researchers, independently. This definition was followed by the definition of sampling and selection, defined by the collection clipping regarding the search filters in the databases and period.

Controlled descriptors obtained from the Descriptors in Health Science (DeCS) were selected - nurses, transitional care, continuity of patient care; and at The Medical Subject Headings (MeSH), the descriptors nurse, care transition, care continuity and continuity of patient were selected. These descriptors were combined with Boolean connectors and represented the search strategies "care transition" OR "Continuity of Patient Care" OR "care continuity" AND nurse, for the VHL, PubMed, SCOPUS and WoS databases; and "care transition" OR "care continuity" AND nurse for CINAHL. The recovered studies were exported to the Endnote Web® reference manager, with sorting in folders for each database, with subsequent identification and removal of duplicates. Data collection occurred in August 2020.

Complete inclusion criteria were included, in English, Portuguese or Spanish, published between January 2016 and August 2020, which presented in the title or abstract the strategies used by nurses to strengthen the continuity of care among health services. Exclusion criteria were review articles.

The strategies applied allowed the recovery of 2,246 articles in the databases, with subsequent removal of 489 per duplicate, remaining 1,757 for evaluation of titles and abstracts. The application of

the inclusion criteria resulted in the removal of 1,629 articles, leaving 128 that were read in full. For these, the exclusion criteria were applied with the final selection of 23 articles for the corpus of integrative review analysis, as can be verified in the flowchart (Figure 1).

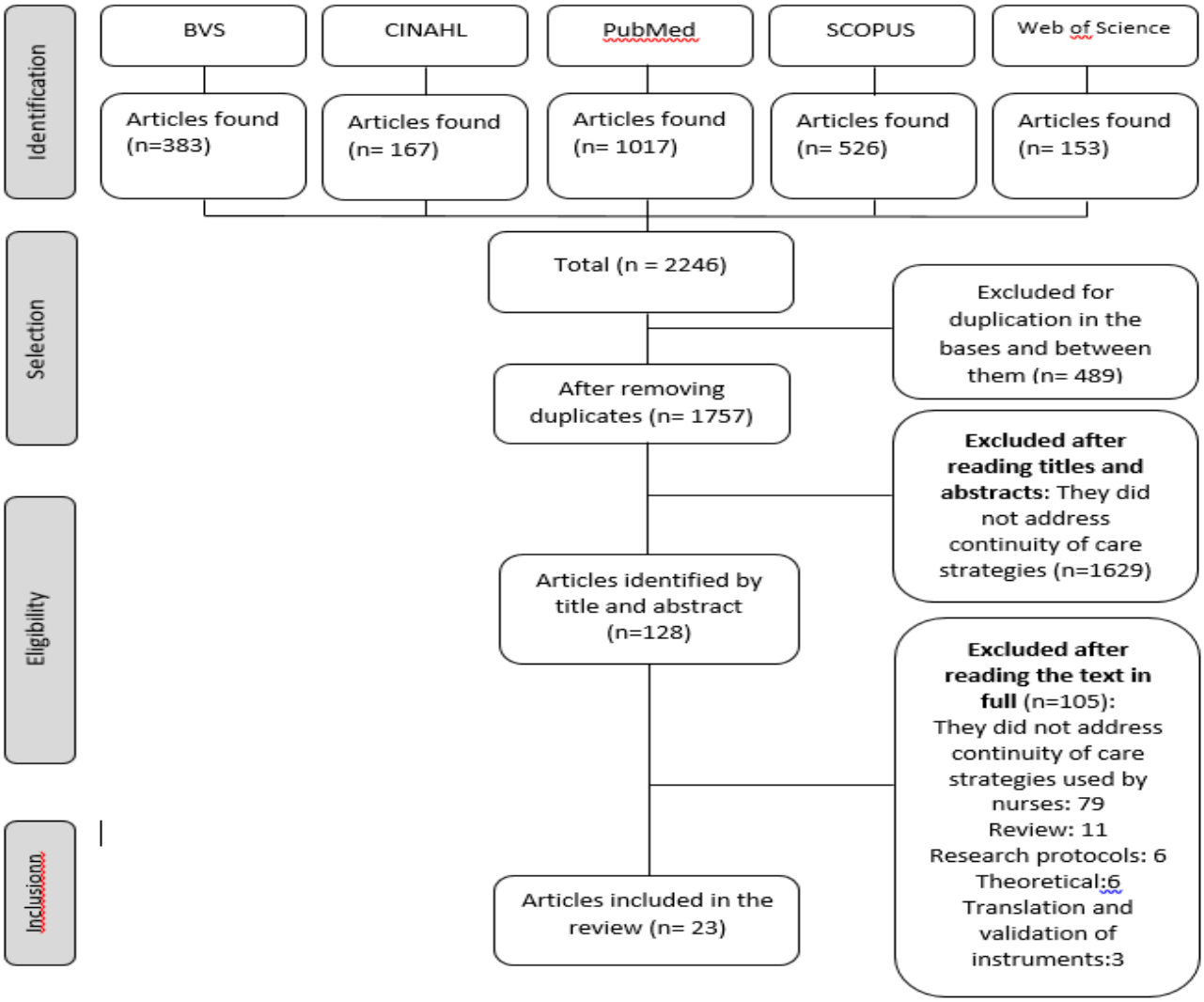

Figure 1- Primary studies selection flow chart, 2020.

In the publications of the sample (corpus of analysis), the levels of evidence (NE) of each study were identified. Levels are classified as NE 1, systematic reviews or meta-analysis; NE 2, randomized clinical trials; NE 3, non-randomized controlled trial; NE 4, control cases and cohort; NE 5, systematic reviews of descriptive studies and qualitative studies; NE 6, evidence of a single descriptive or qualitative study; and NE 7, expert opinion reports.[10]

In step 3, representation of the characteristics of the captured material, information on the studies selected for the corpus of analysis is presented. The use of Microsoft Office Excel® spreadsheet allowed organizing the data, distributed in the fields reference code, level of evidence, year of publication, title, authors, database, journal, study site, methodological design, objective and strategy of transition of care after hospital discharge.

The 23 articles selected for the review were analyzed in step 4, in three phases (pre-analysis, exploration and interpretation), according to the coding and analysis process. In the pre-analysis phase, the selected material was floating reading. In the exploration phase of the material, the coding operations included the clippings of the units of recording the results of the studies, the aggregation of information into initial categories from the identification of keywords and the thematic aggregation with the formation of initial, intermediate and final categories. In the third phase, the contents were interpreted, highlighting the similar and different aspects of the studies. It was assisted with Microsoft Office Excel® spreadsheets for the process of decoding and coding with grouping by similarities.

The analysis allowed to identify the units of registration, which were grouped into initial thematic categories, involving strategies for the transition of care performed by nurses. In step 5, interpretation of the results, the initial categories were articulated among themselves, forming six intermediate categories.

Step 6 constituted the final presentation of the article, and, at this stage, the contributions of the studies were highlighted at the first appearance in the text, mentioning the reference code.

Results

The results will be presented first with brief characterization of the studies. As observed in Chart 1, in this review, 23 articles were selected and analyzed: eight (34.8%) from the SCOPUS database; seven (30.5%) from the VHL; five (21.7%) from CINAHL; two (8.7%), from PubMed; and one (4.3%) from WoS.

Table 1 – Characterization of the integrative review sample, 2020.

Reference Code / Year of Publication	Methodological Design / Level of Evidence	Objective	Continuity of care strategy after hospital discharge	Main results
1[11] 2016	Quasi-experimental study NE-4	Evaluate the effect of tele-nursing on the adhering to treatment plans in patients discharged after myocardial revascularization surgery	Control group: routine education and completion of a questionnaire to support the treatment plan before discharge and five weeks after discharge; Intervention group: routine education, six tele-nursing care and questionnaire to support the treatment plan before discharge and in the fifth week.	Tele-nursing can be used as a system for providing continued health care to increase treatment adhering to revascularized patients.
2[12] 2018	Pilot study NE-4	Provide support to patients after discharge until the beginning of primary care follow-up for a smooth transition after discharge.	Discharge meeting, identification of patients, discussion of planned interventions and contact before discharge to explain the intervention.	The transition nurse supported the transition from hospital to primary health care (PHC) with positive results to improve the quality of care for patients at higher risk, such as diabetics and drug addicts.
3[13] 2016	Randomized clinical trial NE-2	To assess the effectiveness of a transition of care intervention using remote patient monitoring in reducing all-cause readmissions within 180 days in an elderly population with heart failure.	Pre-discharge education (primer, orientation of the use of portable play media, scale and blood pressure and heart rate monitor); Nine training phone calls, reinforcing pre-discharge guidelines (between 48 and 72 hours after discharge; second week; between third and fourth week; monthly up to six months) Message-to-call center telemonitoring about weight, blood pressure and heart rate and three symptoms.	The intervention had a significant effect on the improvement of quality of life among respondents in 180 days.
4[14] 2018	Pilot study NE- 4	Create a Care Transition Intervention (CTI) service model.	Structured telephone contact up to 18 hours after hospital discharge, with the use of a script addressing the understanding of the disease, health maintenance and self-care.	Structured telephone consultations to review self-care and maintenance and health promotion guidelines are simple and effective interventions to reduce readmission rates within 30 days of discharge.
5[15]	Study pilot	Implement a	Conference of lists of patients	Post-discharge calling

2019	NE- 4	consistent 48-hour post-discharge phone call process for patients with heart failure (HF).	diagnosed with heart failure who are discharged from the hospital; Telephone call, 48 hours after discharge, using a script developed by the service and recorded in the electronic medical record shared with the primary care provider.	programs are a simple and effective way to identify and intervene in patients' issues after discharge. Nurses play a key role in post-discharge monitoring programs for safe care transition.
6[16] 2016	Case control study NE- 4	Reduce post-discharge readmission rates of patients at high risk of readmission.	Application of the LACE scale (predictive assessment of risk of readmission or death within 30 days) for patients admitted to surgical, medical and telemetry units (LACE score between 11 and 15 - referred to the program through electronic medical records); Single home visit, structured between 48 and 72 hours after discharge for medication reconciliation, disease management and education, and referral of ongoing support resources and care plan adjustment.	The 30-day readmission rate for the control group was 23.61% and for the intervention group it was 12.22%. The association of LACE score assessment with structured home visits substantially reduced readmissions within 30 days. The intervention with home visits promoted greater communication with the PHC team.
7[17] 2018	Randomized clinical trial NE- 2	Assess whether a scheduled phone call made by a hospital nurse decreases the rate of return to the emergency room, readmission or death within 30 days	Call from a nurse 1 to 3 days after discharge using a questionnaire (obstacles to elements of successful care transitions: purchasing medications, post-discharge instructions, and getting medical follow-up).	The 30-day readmission rate was 15.5% in the intervention group and 15.2% in the control group. Death within 30 days was unusual. Follow-up of scheduled phone calls by nurses after discharge did not reduce turnaround rates in 30 days
8[18] 2017	Pre- and post-intervention study NE- 4	Assess readmission rates in 30 days after the implementation of a care transition service program.	Multifaceted approach: identification of readmission rates before intervention; identification of patients for the intervention, with risk score (age, diagnosis and previous hospitalization); pre-discharge planning; home visit, followed by three phone calls (30 days), including medication reconciliation; and addressing psychosocial challenges.	Readmission rate before the intervention was 13.7% and after, 11.4%. Nursing involvement in the care transition program is an essential component to identify patients at risk. Readmission rates decreased significantly after the intervention.
9[19] 2019	Pilot study NE- 4	Determine the efficacy and feasibility of the transfer by	Videoconferences scheduled the day before hospital discharge, with the participation of the case manager, bedside nurse, PHC, patient and	Videoconferences have improved communication, care coordination and staff involvement during the care

		videoconference of hospital care to the home in pediatrics.	family. Use a tablet with secure video conferencing app and checklist. Case discussion addressing health status, safety, interventions, response to treatment, care plan and need for equipment, supplies and visits.	transition and have the potential to reduce anxiety by improving preparation, as well as increasing comfort with the arrival of a nurse in your home. Videoconferencing can be a viable and effective means of achieving a smooth transition and continuity of care.
10[20] 2019	Quasi-experimental study NE- 4	Evaluate the effectiveness of the multi-component transition intervention based on the ideal care transition model (ITC), on reducing readmission within 30 and 90 days.	Patient selection, early involvement to anticipate discharge needs; drug reconciliation; patient education; advance guidance and contingency plan; and follow-up with a structured link (assess symptoms and review guidelines).	Patients had lower chances of readmission at 30 and 90 days. Multifactor intervention performed by nurses was effective in reducing readmission at 30 and 90 days and in reducing costs.
11[21] 2018	Pilot study NE- 4	Deploy the transition care program called Transitions Across Care Settings - TRACS.	Home visit with assessment of the need for education, environmental assessment, personalized education for self-management of care at home, with medication reconciliation (supply of medication box). Weekly phone call to monitor and reinforce guidelines. Communication from the PHC about the health status and follow-up needs, with the aid of communication forms.	Improved communication between health services, self-management and self-care.
12[22] 2016	Randomized clinical trial NE- 2	To evaluate the impact of the E-Coach program on readmission rates, or death after discharge in patients with chronic obstructive pulmonary disease (COPD) and HF.	*E-Coach* is condition-specific tailored intervention and in-hospital and post-discharge support by a care transition nurse, post-discharge interactive voice-response calls, and follow-up nursing versus usual post-discharge care. During hospitalization: assessment and training by the care transition nurse regarding medication self-management, recognition of signs and symptoms, and use of the E-Coach support and monitoring system. Automatic calls daily for seven days	Overall readmission rate for the control group was 16.3% and for the intervention group 15.0%. The system collected patient data, provided personalized education and motivation, and alerted the nurse to alert responses.

			and then every three days until 28 calls are completed.	
13[23] 2019	Multicenter randomized clinical trial NE- 2	To verify readmission or death within 30 days after intervention of the transition service model of patient-centered care.	Usual care group: education and a home visit Intervention: nurse at discharge assessed needs, provided self-care education with structured discharge summary, arrangements for medical follow-up in PHC, referral for post-discharge home visit by nurses, followed by weekly structured visits or telephone calls for four to six weeks.	Three-month readmission rates were 49.4% for the intervention group and 50.2% for the control group, with no significant difference.
14[24] 2017	Descriptive study NE- 6	Identify and quantify the activities of the navigator nurse for the coordination of hospital discharge. Identify and quantify the activities of the navigator nurse for the coordination of hospital discharge.	Patient follow-up with help for the patient, with links for guidance or information relay; Management of technical problems, with calls to alert about service problems such as delivery of supplies, malfunctioning equipment; and guidance on service protocols with clarifications.	Nurses' activities involve organizational and managerial coordination, training and qualification for patients and professionals. Possibility of collecting and transmitting patient data to other services.
15[25] 2016	Pilot study NE- 4	Assess whether a postoperative education checklist reduces readmissions among new ileostomized	Development of a patient-centered knowledge checklist, with skills considered essential for successful discharge with ileostomy (24 hours after surgery, with guidance during hospitalization). Monitoring of patient autonomy.	Significant reduction in readmission assigned to the checklist (P= 0.04). Patient-centered and self-care-oriented checklist, focused on autonomy and independence; significantly improves the readmission rate after making an ileostomy.
16[26] 2018	Pre- and post-intervention study NE-4	Reduce visits to the emergency department in the population with preexisting chronic conditions and increase PHC follow-up after discharge.	Care transition alert with exchange of health information within 24 hours, by secure electronic message, with patient consent, in an automated way. Use of the ePECAM software to support the clinical decision, filled in by the nurse in the phone call. COMPLEXedex clinical algorithm, with Big Data analysis (data from the electronic medical record stratify the risk of readmission based on comorbidities).	Use of data science can harmonize person-centered care with evidence-based, transitional care practices that qualify nursing care. Incorporate information on social and behavioral determinants of health in the electronic medical record for exchange between services. Risk stratification of patient readmission.

17[27] 2016	Retrospective descriptive study NE-6	Use the information collected by post-discharge calls to assess the symptoms of patients undergoing pulmonary resection and identify patients at higher risk of unmet needs after discharge.	Telephone contact made by nurses (questions scripted in the first week after hospital discharge to assess health conditions and provide health advice). Registration of care in the electronic medical record and referral to services in case of need.	Of the 523 patients who underwent lung resection, 245 (46.8%) received telephone contact, on average, 4.6 days after discharge, and 81 (33.1%) required counseling during the calls. Patients at risk of having care difficulties after discharge. Attempts to better prepare patients for discharge.
18[28] 2019	Quantitative descriptive study NE-6	Identify and describe the activities of the liaison nurse for continuity of care after hospital discharge.	Selection of patients by active search or indication of the multidisciplinary team. Hospital discharge planning started at different times of hospitalization (interviews with patients and family members). Liaison nurses transfer information between the hospital and other services with the support of information and communication technologies (ICT) between 48 hours before discharge and 24 hours after discharge.	Liaison nurse acts as coordinator of the discharge process and actively participates in identifying post-discharge care needs. Contribution to the continuity of care with identification of clinical and social conditions, survey of needs and resources in PHC, and reinforcement of discharge guidelines.
19[29] 2018	Randomized clinical trial NE-2	Determine whether a single nurse-led telephone call after discharge decreases the rate of reuse of the hospital service.	Telephone call between 48 and 96 hours after discharge, supported by a standardized model for the disease, used in home visits. High instruction reinforcement guidelines. Identification of changes, contact with the clinician or the PHC for control and standardized care of education for discharge.	442 (91.5%) received calls within 96 hours. Hospital reuse rate in 30 days in the control group was 13.1% and in the intervention group, 15.9%. A single phone call made by a nurse did not change the health service reuse rate. Intervention was well accepted after discharge, and parents were better able to identify warning signs in the child.
20[30]	Randomized	Examine the	Usual nursing care, including	The 30-day emergency

2020	clinical trial NE-2	effectiveness of a primary care-based telephone support intervention for veterans after discharge from the emergency department.	recommendation for scheduling appointments with the PHC. Two structured phone calls focused on improving the transition from the emergency department to PHC, self-management of chronic illnesses, and education about the PHC model (additional call option).	department return rate was 23.1% and 24.9% for the control and intervention groups, respectively. Nurse-led telephone support program after emergency room care did not reduce repeated hospital visits. Programs must focus sociopsychological factors to meet health needs.
21[31] 2017	Prospective study NE-6	Reduce readmission rates in 30 days of patients with heart failure (HF).	STOP-HF-Clinic Program: an early visit in the first week of discharge by a nurse; assessment to identify change (potential for decompensation) and request for additional assessments; blood collection for laboratory analysis; personalized health education activities for the patient and caregiver; three new visits for adjustment and orientation (during the 30 days); medication administration; sending an electronic message to the patient (after 30 days) and recording in the electronic medical record	Average time between discharge and first visit was five days; the average number of post-discharge visits was 3.1 days. Rehospitalization rate for any cause within 30 days was reduced by 47.5% with the intervention. Nurses were responsible for medication reconciliation, health education for self-care and participation in the immediate treatment of changes. 518 patients were oriented and followed up.
22[32] 2018	Intervention research NE-4	Identify the profile of users counter-referenced by the liaison nurse.	Selection of users and their care needs after hospital discharge; Identification of the PHC health unit (reference), make telephone contact with the nurse to discuss needs and schedule a post-discharge consultation; Fill out the counter-reference form and send it along with the discharge summary to APS (by email, and deliver a copy to the user); Guide the user to deliver the form to the health unit nurse	43 users were counter-referred to the APS with a discharge summary. Dialogue between health services and agility in the acquisition of supplies to ensure continuity of care. Liaison nurse proved to be a strategy to improve integration between services and promote continuity of care.
23[33] 2017	Pilot study NE- 4	Assess the feasibility and usefulness of home visits. for children with medical complexities.	Home visit conducted by a nurse (72 to 96 hours after discharge, lasting between 60-90 minutes). Topics covered during the visit: reinforcement of education about the discharge plan, review of the	38 patients were eligible for visits, and 36 (94.7%) received the visit. Visits occurred a median of three days after hospital discharge and lasted an average of 73 minutes.

			medication list, inspection and guidance on home care equipment and supplies, assessment of the home environment, identification and resolution of issues arising in the post-discharge period and assessment of social determinants of health.	Home visits helped to identify and resolve post-discharge problems that occurred with children with medical complexity, as well as the assessment of social determinants of health, home environment and provided health guidance.

Ten (43.5%) articles were published in interprofessional journals; eight (34.8%) of nursing and five (21.7%) of medicine. The publishing languages were English (86.9%), Portuguese (8.7%) and Spanish (4.4%). The research development countries were USA (73.9%), Canada (8.7%), Iran (4.3%), France (4.3%), Spain (4.3%) and Brazil (4.3%).

Regarding the year of publication, six (26.1%) were made available in 2016, four (17.4%) in 2017, seven (30.4%) in 2018, five (21.7%) in 2019 and one (4.4%) in 2020. Regarding the design, it was found that seven (30.4%) were pilot studies; six (26.1%), randomized clinical trials; four (17.4%), descriptive studies; three, pre and post-intervention (13.1%); two (8.7%), almost experimental; and one (4.3%) was control case.

In relation to the emerging categories, the following stand out: I) health education, II) drug reconciliation, III) telemonitoring, IV) discharge planning, V) counter-reference and VI) home visit, which led to a final category, outcome and strategies for transition from care to hospital discharge (Figure 2).

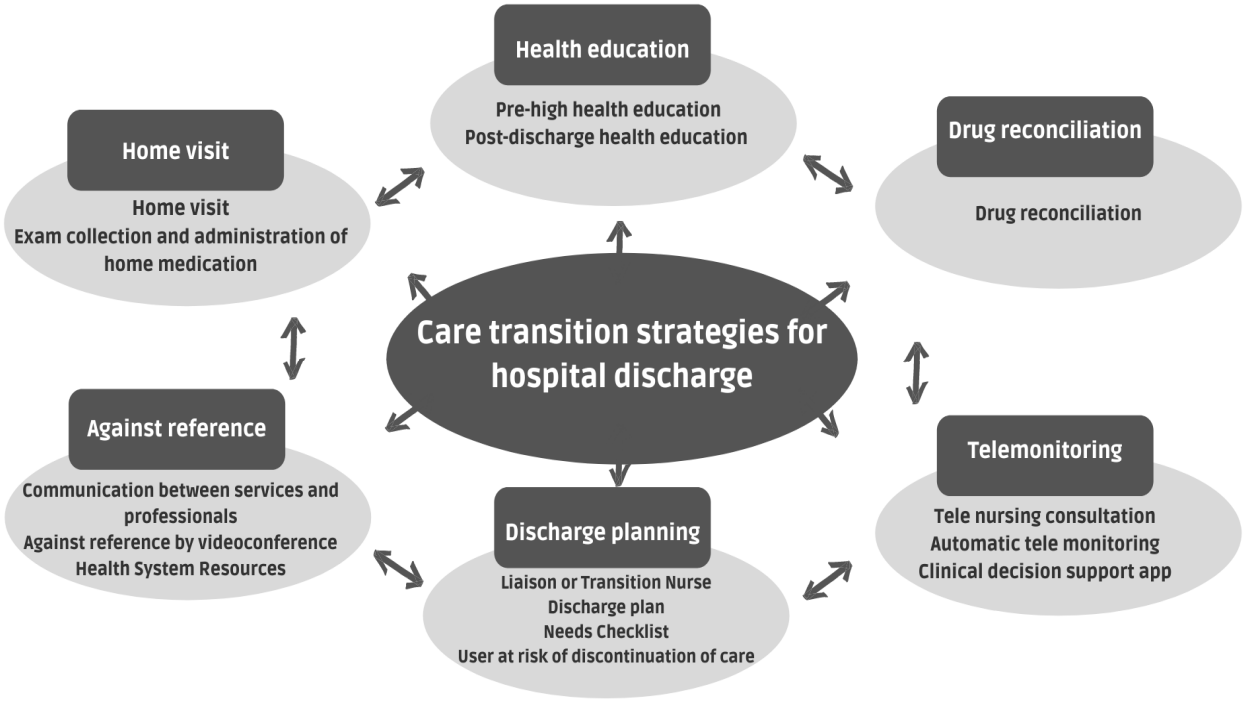

Figure 2 - Initial, intermediate and final categories (outcome).

The first intermediate category, presented in Figure 2, brings health education as a strategy for the transition of care, which consists of processes related to self-care, addressed before and after hospital discharge by 16 (69.5%) Studies. Health education, considered a set of practices that contribute to increase the user's autonomy to achieve health, according to their care needs,[34] was associated with other strategies, especially after hospital discharge.

Health education was identified in the pre-discharge period with actions of care guidelines, disease and treatment,[11,16,20,23,25,28] support and guidance of the use of monitoring equipment[13] and self-management of medications.[22] In the post-hospital discharge period, nurses developed self-care and counseling guidelines through telephone calls[11,14,17,20-22,27,29] and home visits.[21,31,33]

The second intermediate category was drug reconciliation,[16,18,20-21,33] considered a strategy for comparing the complete and detailed list of drugs used with prescriptions performed in admissions,

transfers, outpatient consultations and hospital discharge. This activity allows the use of medications in the transition of care in a safe way, reducing the risk of errors.[35]

Telemonitoring was the third strategy used by nurses and covered real-time nursing teleconsultation for guidance and risk assessment of discontinuity of care,[11-12,14-15,17-18,20-21,23,26-27,29-30] automatic telemonitoring from artificial intelligence software with identification of the need for contact in real time[13,22,31] and applications with data capture to support clinical decision-making.[26]

As the fourth intermediate category, the planning of discharge is characterized as systematization of activities determined from the needs and participation of the user to promote the well-being and resources necessary to ensure safe care and continuity of care.[36] For its effectiveness, plans were addressed,[18-19,28] use of a needs checklist,[19] identification of users with higher risks of discontinuity of care and the performance of liaison, transition or navigation nurses.[12,15-16,18-20,22-26]

The fifth category was formed by the counter-reference, which allowed an effective exchange of information between the different care services and health professionals, [15,21-24,26,29] use of videoconference for information exchange[19] and identification of health care network resources necessary for continuity of care.[16-17,19,24,28,33]

The sixth intermediate category included home visits, which consists of the care, follow-up and guidance of users in their homes.[37] This category was present associated with others, such as health education, medication administration and telemonitoring.[16,18,21-23] The six intermediate categories led to the outcome of the analysis, with the identification of the final category: transition strategies from care to hospital discharge.

Discussion

The main strategies for the transition of care aimed at strengthening the continuity of care after hospital discharge, identified in the scientific literature, were health education, drug reconciliation, telemonitoring, hospital discharge planning, counter-referral and home visit. There was a constant

production of studies on the subject between 2016 and 2019, with a sharp reduction in 2020, which needs to be better understood.

The USA presented significant production of studies developed on the theme of the transition of care, especially aimed at continuity of care, aimed at reducing avoidable hospital readmissions for the consequent reduction of health costs.[12-22,25-27,29-30,33] This reality is justified by the private health system in force in the country, which seeks strategies to reduce costs and optimize financial resources.[5]

Multidisciplinary journals were also highlighted as the main sources of knowledge dissemination and studies on transition strategies and continuity of care (43.5%), followed by those specialized in nursing.[20-21,23,31] This finding evidenced the multidimensional aspect of the theme as well as the increased interest on the subject in various areas of knowledge.[5]

There was a predominance of studies with NE 4 (56.5%), followed by NE 2 (26%) and NE 6 (17.4%). This reality proves the need to increase methodological rigor to strengthen the practice of the transition of care based on evidence. All the articles included in this review addressed more than one strategy of transition from care to hospital discharge.

It was noticed that 16 studies presented health **education actions**, described as pre- and post-hospital discharge guidelines, mainly aimed at self-care.[11,13-14,16-17,20-23,25,27-31,33] Among the topics addressed, the understanding of the disease and its complications stood out,[16,30] adhering to physical activities,[11] control of risk factors,[11,14] relief of signs and symptoms[20-21,29] and monitoring of vital signs.[13]

In a review conducted in Canada, researchers identified that health education applied in isolation as a care transition strategy did not show a positive impact on the reduction of hospital readmission, however, when associated with other interventions, it had an impact on improving quality of life and adhering to the proposed treatment. Health education involves the construction of knowledge considering the participation and reflection of reality.[6]

In **drug reconciliation**, nurses play an active role in preventing discrepancies related to safety and treatment interruptions, with consequent reduction of worsening of comorbidities.[38] This is a strategy

developed and used in the USA to improve the safety and continuity of therapy after discharge.[38] Drug reconciliation was used in association with health education[16,20] and home visits.[16,18,21,23]

The **telemonitoring** used by nurses to facilitate and support continuity of care was present in seventeen studies[11-15,17-18,20-23,26-27,29-31] involving contacts between nurses and users of health systems in real time or by programmed electronic messages. In recent years, the use of information and communication technologies, especially through calls on mobile devices, has been more present. When associated with strategies such as health education and home visits, it can help the success of continuity of care after hospital discharge[18,21,23,31] by facilitating a transition of safe care.

Researchers have evidenced the use of structured scripts as important to the development of telemonitoring because they standardized the review of self-care guidelines, maintenance and health promotion.[11-12,15,17,20,23,27,29] The research guidelines and post-discharge guidelines were carried out with guidelines for discharge adopted by the institutions as reference. This action was necessary to facilitate communication between nurses in monitoring centers, which played a fundamental role in post-discharge monitoring programs for a safe care transition.[17-18,21-22,25]

The **planning of discharge** was observed as part of the activities of nurses, with identification of users with risks of discontinuity of care,[15-16,18,28] preparation of discharge plans[19,28] and the performance of professionals specialized in care transition.[12,18-20,22-26,28,32]

The identification of users at risk of discontinuity of care and hospital readmission was important to optimize actions appropriate to their needs. Checklists and risk scores have been developed and used by professionals involved in the care transition.[15-16,18] The development of discharge plans helps the process of education and management of self-care in the processes of transition of care, providing information relevant to disease control, treatment to the therapeutic plan, pain control and use of health equipment and insums.[18-19,28] Nurses specialized in transition processes develop activities aimed at ensuring the coordination and continuity of care among health services.[4]

The **counter-reference** or exchange of health information between professionals and services is increasingly present. The use of shared electronic medical records,[15] the sending of information from hospitalization to PHC by telephone calls, electronic alerts and discharge forms[21,27-29,31] emerge as efficient strategies for strengthening the transition and continuity of care. Communication during the care transition processes created an opportunity to deliver essential information,[5] and nurses should pursue it effectively to ensure the user's safety.[39]

Furthermore , there was mention of the **home visit**, used by PHC-related nurses to implement continuity of care, allowing knowledge of family dynamics, adequacy and adjustment of self-care guidelines, direct care and assessment of psychosocial risks involved in discontinuity of care.[16,18,21,23,31,33] Home visits should occur early, allowing the identification of alterations with potential for clinical decompensation for adequate management and reduction of potential adverse effects in the post-discharge period.[31]

As a limitation of this study, we highlight the use of a sample of scientific articles from the last five years and the use of search filters, which may restrict the results of the research.

Conclusion

The results highlighted as strategies for the transition of care in hospital discharge activities of health education, drug reconciliation, telemonitoring, discharge planning, counter-reference and home visit, carried out in an interconnected way. The outcome presented in the corpus of analysis of the review reinforces the relevance of comprehensive care to the user of the health system, with the provision of the necessary care over time, that is, the longitudinality or continuity of care involving various levels of health care services.

Nurses are the key professionals in the development of connected care transition strategies, demonstrating their essentiality to ensure continuity of care. The integration of various strategies

enables the qualification of care developed by nurses, thus being essential the transition of care in the provision of post-discharge care, integrating users, family and service providers.

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