

R E V I E W

The cardiac surgery patient and the use of transitional care: Impact on post-operative complications and hospital readmissions. A structured narrative review

ALESSIA CARUCCI¹, FABIO D'AGOSTINO², MANUELE CESARE^{3,4}

¹Casa di Cura Villa Verde, Hemodynamics Unit, Taranto, Italy; ²Department of Medicine, Saint Camillus International University of Health Sciences, Rome, Italy; ³Gemelli IRCCS University Hospital Foundation, Rome, Italy; ⁴Section of Hygiene, University Department of Life Sciences and Public Health, Catholic University of the Sacred Heart, Rome, Italy.

ABSTRACT

Background: Cardiac surgery patients are clinically and emotionally complex. Surgery represents a highly critical event not only for patients but also for their families. Care for these patients should not end at discharge; rather, ongoing support and education are essential. This underlines the relevance of Transitional Care (TC), characterized by nurse-led follow-up programs to ensure continuity of care and effective disease management post-discharge. However, the impact of such interventions remains poorly documented. This structured narrative review aims to assess the effectiveness of nurse-led follow-up models in managing post-operative complications and hospital readmissions in patients after cardiac surgery.

Study design: A structured narrative review was conducted to explore existing TC models and their effects on post-operative complications and hospital readmissions in patients discharged after cardiac surgery.

Methods: A comprehensive search strategy was implemented using PubMed and Cochrane Library databases, covering literature published from December 2014 to February 2025. The review was guided by the PIO framework: Population (adults undergoing cardiac surgery), Intervention (nurse-led Transitional Care programs post-discharge), and Outcome (reduction in post-operative complications and hospital readmissions). Studies were included if they were quantitative, experimental or observational designs, involved adult patients, evaluated



Received: 5 August 2025 | Accepted: 12 February 2026

Correspondence: Alessia Carucci, RN, / Casa di Cura Villa Verde, Hemodynamics Unit, Via Golfo di Taranto 22, 74121 Taranto, Italy / E-mail: alecarucci5@gmail.com

nursing-led transitional care interventions and published in English. Studies involving pediatric populations, non-nursing interventions, or qualitative methods were excluded.

Results: After applying inclusion and exclusion criteria, seven studies were selected. Two main TC strategies were identified: post-discharge home visits and tele-nursing. These models were associated with improved medication adherence and reduced post-operative complications, including anxiety, depression, bleeding, thromboembolism, and lower hospital readmission rates.

Conclusions: Nurse-led TC interventions after cardiac surgery demonstrate promising potential to enhance recovery, ensure greater continuity of care, and reduce adverse events and healthcare system burden. Implementing structured follow-up TC programs can support sustained patient engagement, promote treatment adherence, and contribute to improved long-term outcomes.

Key words: patient readmissions, post-operative complications, transitional care, cardiac surgery, continuous nursing.

Introduction

The concept of Transitional Care (TC) in nursing originated in the 1980s, in response to the growing need for continuity of care between hospital and home settings. As hospital stays became shorter and healthcare resources more constrained, the necessity for structured post-discharge care emerged to prevent complications and reduce rehospitalizations. TC refers to a set of coordinated actions aimed at ensuring continuity and integration of care as patients move across different levels of the healthcare system (1). The term “TC” was coined to describe this process of safely navigating transitions between care environments. Coleman (2003) emphasized the importance of this phase, stating that “a well-structured transitional care system is essential for improving care quality and reducing re-hospitalization rates” (2). Over the years, the role of nurses within TC has gained recognition as central to the process. Early nursing models were primarily focused on patient monitoring, medication management, and complication prevention post-discharge. However, these models were initially fragmented and poorly integrated with the broader healthcare system. Mardani et al. (2020) noted that the role of nurses in transitional care has gradually evolved, moving from logistical support to a more active role in managing chronic conditions and fostering patient self-management

(3). In the 1990s and early 2000s, interest in TC expanded, driven by growing evidence of its cost-effectiveness and clinical benefits—particularly in elderly and chronically ill populations. Studies during this period demonstrated that well-planned discharges and continued support at home were associated with significant reductions in rehospitalization rates. This led to the development of structured programs, such as the Care Transitions Program, which formalized the role of nurses in coordinating post-acute care. In his 2003 work, Coleman reiterated the foundational principles of TC, emphasizing that nurses should be at the forefront of patient education and care coordination to mitigate post-discharge risks (2). Consequently, training programs and monitoring systems were introduced to optimize patient reintegration into home environments. In subsequent decades, technological advances significantly transformed TC delivery. Telemedicine and telehealth interventions, including remote patient monitoring and structured follow-up after hospital discharge, have been shown to improve patient engagement, adherence, and transitional care outcomes (4). Tools such as remote monitoring platforms and mobile health applications have become essential for nurses, facilitating real-time follow-up and timely intervention. Today, TC is considered a pillar of modern nursing practice, critical to enhancing patient outcomes and containing healthcare expenditures by

avoiding preventable readmissions. As nursing practices continue to evolve, TC has incorporated innovative methods and digital tools to address the needs of increasingly complex patient populations. Despite this evolution, the absence of fully integrated systems to ensure seamless care transitions—especially for patients discharged home or transferred to other specialties—has contributed to a high rate of therapeutic errors. Notably, 50.8% of such errors occur during transitions, with 22.9% classified as severe. Additionally, 30.3% of cardiac patients experience adverse drug events during this period (9). Originally designed to support clinical staff in managing discharges, TC aims to reduce hospital readmissions, ensure safe care transitions, and empower patients through education on ongoing health management (10). This is particularly relevant for cardiac surgery patients, who are highly vulnerable both clinically and emotionally. The heart, symbolically linked to life, amplifies the perception of risk among patients undergoing cardiac procedures (11). Studies have shown that these patients experience a higher prevalence of depressive symptoms compared to the general population, which can complicate the onset, progression, and prognosis of cardiovascular disease (12). Upon discharge, many patients feel isolated as they face complex therapy regimens and significant lifestyle adjustments without continuous professional support. Structured nursing follow-up at home can help bridge this gap, fostering better disease management, enhancing treatment adherence, and ultimately reducing complications and avoidable readmissions (7,8,16). TC thus serves as a vital link between hospital and home, ensuring safer, more effective recovery trajectories. Although individual studies have reported encouraging outcomes, the literature on TC in the context of cardiac surgery remains fragmented and context-specific (17-20). To date, no comprehensive review has consolidated available evidence regarding the effectiveness of TC interventions in reducing post-operative complications and hospital readmissions in this population. Accordingly, this structured narrative review was conducted to examine and synthesize existing TC models and their reported outcomes among patients discharged after cardiovascular surgery.

Methods

Design and search strategy

A structured narrative review was conducted in accordance with the PIO framework, defined as follows: P (Population): adult patients undergoing cardiac surgery; I (Intervention): implementation of TC programs during the postoperative period; O (Outcome): reduction in hospital readmissions rates and post-operative complications. A structured narrative review was selected to allow a transparent and structured synthesis of heterogeneous quantitative evidence across diverse study designs. Given the variability in interventions, outcomes, and methodological approaches of the available studies, a formal systematic review or meta-analysis was not considered appropriate for the study objectives (21). The literature search was carried out using the PubMed and Cochrane Library databases. PubMed was selected to ensure coverage of peer-reviewed biomedical literature, including nursing-related studies indexed in MEDLINE. The Cochrane Library was searched to identify trials and evidence syntheses relevant to transitional care interventions. Searches were limited to studies published in English, involving adult populations, and reporting quantitative experimental or observational designs. The time frame (December 2014–February 2025) was selected to capture contemporary nurse-led Transitional Care models, including the progressive integration of tele-nursing and digital follow-up interventions. The search strategy, including specific terms and MeSH descriptors, is summarized in Table 1.

Inclusion and exclusion criteria

Studies were included if they met the following criteria: (1) Assessed the effects of nurse-led TC programs in adult patients who had undergone cardiac surgery; (2) Employed a quantitative study design, specifically experimental (e.g., randomized controlled trials) or quasi-experimental methods, including observational approaches such as case-control, cohort, or retrospective comparative studies; (3) Published in English between December 2014 and February 2025. Studies were excluded based on the following criteria:

Table 1. Search strings used in the two databases.

PubMed Medline	((“Cardiac Surgical Procedures/nursing”[Mesh]) OR “Transitional Care”[Mesh] OR “continuous nursing”) AND (“Patient Readmissions”[Mesh] OR “post-operative complications”)
Cochrane Library	(MeSH descriptor: [Transitional Care] explode all trees) AND (MeSH descriptor: [Patient Readmission] explode all trees) AND “cardiac surgery” AND (MeSH descriptor: [Cardiovascular Nursing] explode all trees)
In the two databases, MeSH terms were combined with free-text terms using Boolean operators, while filters were applied as reported above: English language; adult population; quantitative experimental or observational study designs; publication years 2014–2025.	

(1) utilization of qualitative designs, process evaluations, or cross-sectional methodologies that do not allow inference of causal relationships; (2) implementation of TC programs led by non-nursing professionals (e.g., physicians, psychologists); (3) involvement of pediatric patient populations.

Methodological appraisal

Methodological quality was assessed using JBI critical appraisal checklists appropriate to each study design: RCTs, cohort studies, quasi-experimental (22). The checklists were applied independently by two authors, with disagreements resolved through discussion until consensus was reached. Detailed JBI scores and quality ratings are presented in Table 2. Critical appraisal was conducted for descriptive purposes only and did not influence study inclusion or data synthesis. Overall, studies demonstrated moderate to good methodological quality, supporting the consistency of transitional care intervention benefits despite common limitations such as small sample sizes and retrospective designs.

Results

The bibliographic search initially retrieved 395 articles. After the removal of duplicates, 384 unique records remained. A first-level screening based on titles led to the exclusion of 339 articles deemed irrelevant to the research objective. Subsequently, the full texts of 45 articles were evaluated for eligibility. Of these, seven

studies met all inclusion criteria and were included in the final review. The remaining articles were excluded for the following reasons: nine involved pediatric populations, three were study protocols, 16 evaluated transitional care interventions led by non-nursing professionals (e.g., physicians, psychologists), two were qualitative studies, and one was a cross-sectional study (Figure 1).

Main findings

The selected studies employed a variety of research designs, including randomized controlled trials (RCTs), controlled clinical trials, quasi-experimental designs, and retrospective observational studies. All studies were conducted in China, Iran, the United States, and Turkey. Collectively, these studies focused on the evaluation of diverse nurse-led follow-up strategies designed to support cardiac surgery patients after discharge. Across the selected literature, two main TC strategies emerged as the most commonly adopted: post-discharge home visits, often scheduled in the early weeks following surgery (9, 10, 19), and telephone-based assistance, including structured telecommunication systems such as the WeChat messaging platform (14, 15), implemented to aid patients who had undergone procedures like coronary artery bypass graft (CABG) or valve replacement in managing recovery and preventing readmissions (see Table 2). The findings suggest that these follow-up interventions contributed to a measurable reduction in post-discharge anxiety and depression, improved medication adherence, and a significant decrease in post-operative

Table 2. Summary of main characteristics of the studies included in the review.

Title	Author / Year / Reference / Country	Study Sample / Study Design	Results	Limitations	Impact on Clinical Practice	JBIR Quality Rating
Investigation of the effect of nurse counseling with mechanical valve replacement patients	Eda A. & Özlem B., 2024 (5) Turkey	30 patients in the intervention group and 30 patients in the control group. Randomized controlled trial (RCT)	The study demonstrated that patients who received personalized nurse counseling had significantly higher average scores on the Barnason Efficacy Expectancy Scale and the Anticoagulant Treatment Adherence Scale (ATAS) 3 months post-surgery ($p < .05$).	Reduced sample size.	Continuous care is recommended for patients undergoing cardiac surgery for the 3 months post-operatively in order to increase treatment adherence and reduce post-operative complications.	Moderate JBIR RCT (9/13 items met)
Impact of Tele-nursing on adherence to treatment plan in discharged patients after coronary artery bypass graft surgery: A quasi-experimental study in Iran	Ali B. et al., 2016 (6) Iran	71 patients undergoing CABG (n. experimental group 36) (n. traditional group 35). quasi-experimental study	Baseline adherence scores showed no significant difference between the two groups before the intervention ($P=0.696$). Post-intervention adherence scores were significantly higher in the experimental group compared to the control group ($P<0.01$). These results indicate that tele-nursing significantly improved patients' adherence to their treatment plans following CABG surgery.	Study with a limited sample size.	Tele-nursing has increased adherence to treatment plans after CABG surgery.	Good JBIR Quasi-Experimental (7/9 items met)
Cost analysis of Physician Assistant Home Visit Program to reduce readmissions after cardiac surgery	John P. et al., 2016 (7) USA	Patients undergoing cardiac surgery in the 48 months from September 2008 to August 2012 were subjected to a retrospective review. Cost analysis study/ retrospective observational study.	Home visits by a cardiac surgery expert on days 2 and 5 post-discharge resulted in a 41% reduction in the hospital readmission rate in the first 30 days following cardiac surgery.	None of the patients discharged to a rehabilitation unit or nursing home received a home visit, therefore the incidence for this group is unknown.	Scheduling post-discharge home visits for patients undergoing cardiac surgery reduces the rate of hospital readmissions and consequently lowers costs.	Moderate JBIR Cohort Studies (8/11 items met)
Cardiac surgery nurse practitioner home visits prevent coronary artery bypass graft readmissions	Michael H. et al., 2014 (8) USA	156 patients received nursing intervention; 232 patients received usual care. Retrospective cohort study.	The intervention showed a significantly lower 30-day readmission/mortality rate of 3.85% (6 out of 156) compared to 11.54% (18 out of 156).	This analysis excluded patients who were discharged to an intermediate care facility.	Implementing a transitional care program and continuity of care at home after discharge reduces the number of hospital readmissions in patients undergoing Coronary Artery Bypass Graft (CABG).	Moderate JBIR Cohort Studies (7/11 items met)

(Continued)

Title	Author / Year / Reference / Country	Study Sample / Study Design	Results	Limitations	Impact on Clinical Practice	JBI Quality Rating
The value of continuous nursing in patients after cardiac mechanical valve replacement	Sai-lan L. et al., 2020 (14) China	116 patients undergoing mechanical replacement (n. continuous nursing = 56) (n. conventional nursing = 60). Retrospective study.	A retrospective study comparing two groups of patients after mechanical heart valve replacement. The continuous nursing group (n = 56) showed significant improvements in SAS (Self-Rating Anxiety Scale) and SDS (Self-Rating Depression Scale) scores ($P < 0.05$) and fewer anticoagulant complications (4vs 13, $P=0.027$) compared to the conventional nursing group (n = 60).	Retrospective study with a small sample size. Patients who do not have independent reading ability were not included. Single-center study.	Continuous nursing care after patient discharge improved treatment adherence, reduced post-operative complications at one year follow-up, and provided the patient with proper psychological assessment to alleviate anxiety and depression.	Moderate JBI Cohort Studies (8/11 items met).
The application and value of continuous nursing in patients after coronary artery bypass grafting	Sheng-Huo Z. et al., 2020 (15) China	62 patients undergoing CABG (n. continuous nursing care 30) (n. traditional nursing care 32) retrospective observational study.	The incidence of chest tightness or chest pain was lower in the continuous nursing group (2 patients) compared to the conventional group (8 patients), with a significant difference ($P = 0.039$). Additionally, no cases of coronary restenosis were reported in the continuous nursing group, whereas the conventional group had 4 cases ($P = 0.045$).	Retrospective study with a small sample size.	Continuous nursing care has improved patient compliance with treatment and reduced the occurrence of complications.	Moderate JBI Cohort Studies (8/11 items met)
The effects of Nurse Led Transitional Care Model on elderly patients undergoing open heart surgery: a randomized controlled trial	Simge C. &, Sergul D., 2021 (16) Turkey	Sixty-six elderly patients were randomly allocated to the intervention (n = 33) and control (n = 33) groups. Randomized controlled trial.	The study demonstrated that the Nurse-Led Transitional Care Model significantly improved functional autonomy and quality of life among elderly patients undergoing open heart surgery. At the 9th week post-discharge, the intervention group scored higher on the Functional Autonomy Measurement System and SF-36 Quality of Life Scale compared to the control group ($P < 0.05$). Additionally, during the 6-month follow-up, the intervention group exhibited lower rates of readmission and rehospitalization ($P < 0.05$).	Patients with diseases or injuries that could affect their functional autonomy during the study were excluded.	Home visits within 24 h, at 2nd, 6th, and 9th weeks, respectively after discharge, improved functional autonomy and quality of life and decreased post-discharge hospital readmission.	Good JBI RCT (10/13 items met)

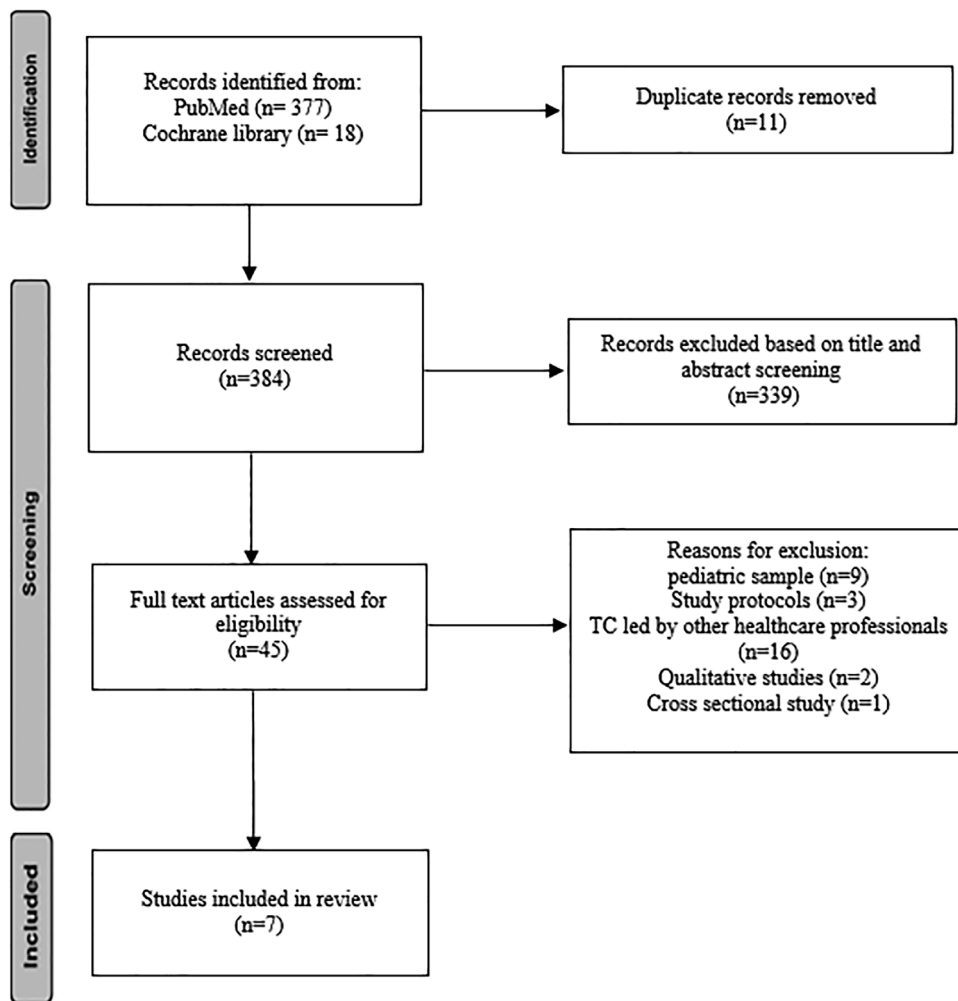


Figure 1. Study selection flowchart.

complications within the first year after surgery (14). Furthermore, the implementation of structured TC strategies was associated with increased patient autonomy and enhanced quality of life, which collectively led to a reduction in hospital readmission rates (16). The detailed summary of the main characteristics, outcomes, and clinical relevance of the studies included in this review is presented in Table 2.

Discussion

The objective of this structured narrative review was to evaluate the effectiveness of Transitional Nursing Care for patients following cardiac surgery.

The analysis of the selected studies confirms that TC interventions can positively influence patients' post-operative trajectories, enhancing their quality of life and reducing hospital readmissions (14,7,16). All the included studies, despite differences in design and setting, consistently reported improvements following TC implementation in populations who underwent CABG or valve replacement procedures. The post-discharge phase for these patients is often characterized by emotional vulnerability, difficulties in medication adherence, and psychological distress (5,6). The evidence shows that TC, particularly when structured through regular home visits or tele-nursing interventions, helps mitigate these challenges (6). As illustrated by Sheng-huo Zhou (14, 15), the simple

provision of contact tools—such as care team phone numbers or messaging platforms like WeChat—can reinforce patients' sense of support, reducing uncertainty and enabling closer therapeutic monitoring. These systems, especially when integrated with psychological counseling, appear to act not only on clinical outcomes but also on patients' perceived security and emotional well-being. Similarly, the study by Eda Aytan (5) underscores the relevance of a personalized approach: patients who received individualized nursing counseling demonstrated enhanced confidence in managing their care and greater engagement in the recovery process. This suggests that TC does not merely extend hospital care into the home but reshapes it to foster autonomy and active participation. Bikmoradi's study (6) adds another layer by emphasizing the timing and frequency of post-discharge contact. The gradual scheduling of telephone follow-ups helped consolidate adherence behaviors and likely prevented patient disengagement, a common risk in complex therapeutic regimens. These observations highlight how continuity of care extends beyond technical monitoring, embracing the motivational and educational dimensions of nursing. What emerges clearly is that the absence of structured support in the post-operative period can leave patients at risk of complications and feelings of abandonment. Several studies point to the protective role of TC not only in physical outcomes but in building patient resilience and functional recovery. For example, Nabagiez et al. (7) and Hall (8) showed that timely home visits shortly after discharge were particularly effective in preventing destabilization that might otherwise lead to readmission. Finally, the multidisciplinary model described by Simge Coskun et al. (16) highlights that effective TC benefits from coordination among multiple professionals, but nursing remains the anchor of the system. The continuity provided by nurses—through education, symptom monitoring, and psychosocial support—plays a decisive role in sustaining the gains achieved during hospitalization and ensuring they are maintained in the home setting. In summary, the discussion of the findings points to a coherent message: TC, especially when nurse-led, is not a marginal addition but a critical component of high-quality cardiac surgical care. Its effectiveness lies in its ability to

humanize follow-up, individualize support, and restore a sense of safety in a vulnerable period of transition. Nevertheless, this literature review has several limitations. As a structured narrative review, it lacks the quantitative rigor of systematic reviews and does not include formal meta-analytic synthesis. Although nursing-specific databases such as CINAHL were not included, PubMed and the Cochrane Library were selected to ensure coverage of peer-reviewed biomedical and nursing-related literature. The absence of additional databases is acknowledged as a limitation. Additionally, the selection criteria focused exclusively on adult patients undergoing a specific type of cardiac surgery, which may affect the generalizability of findings. This focus, however, was deliberate, as the application of similar TC models in pediatric contexts is still limited and methodologically challenging. No formal standardized risk-of-bias assessment tools were applied, in line with the structured narrative design of the review and the heterogeneity of included studies; although a qualitative methodological appraisal was conducted, the absence of a formal risk-of-bias assessment limits the strength of the conclusions. Finally, many of the individual studies reviewed were conducted on small samples, limiting the statistical robustness of their results. To address these limitations and validate the findings further, future research should include systematic reviews with rigorous quality assessment criteria and larger, more diverse patient populations. This would provide stronger evidence to guide policy and practice in the implementation of TC for cardiac surgery patients.

Conclusions

This review underscores the pivotal role of nurses in delivering TC to cardiac surgery patients, highlighting its potential to reduce hospital readmissions and improve postoperative quality of life. TC emerges not only as a clinical support strategy, but as an approach that aligns with the broader interests of patients, families, and the National Health Service (SSN), and should be envisioned as a structural component of future healthcare models in Italy (13). However, none of the included studies were conducted in the Italian

healthcare setting, which may limit the applicability and transferability of the findings to the national context. Hospital discharge represents a sensitive phase in the continuum of cardiac care, often coinciding with significant lifestyle adjustments and psychological burden (13). For this reason, it is critical to recognize the ongoing care needs of these patients and to implement structured follow-up systems, as consistently advocated in the literature. The evidence reviewed supports the value of telephone-based and home-visit interventions, suggesting that adopting similar systems in Italy—such as periodic outpatient check-ins or virtual support groups—may facilitate safer and more effective home management while reducing the risk of complications. The implementation of such strategies, and the broader promotion of continuity of care, should be viewed as indicators of a well-functioning healthcare system.

Abbreviations: TC (Transitional Care), PIO (Population, Intervention, Outcome), RCT (Randomized Controlled Trial), SAS (Self-Rating Anxiety Scale), SDS (Self-Rating Depression Scale), CABG (Coronary Artery Bypass Graft), SSN (Servizio Sanitario Nazionale), MeSH (Medical Subject Headings), JBI (Joanna Briggs Institute)

Conflict of interest: Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article.

Declaration on the use of AI: The authors declare that no artificial intelligence (AI) tools were used in the preparation of this manuscript.

Author's contribution: AC and MC designed the study. AC, FD, and MC were involved in the selection and assessment of the articles included. AC and MC prepared the initial draft of the manuscript.

MC and FD contributed to revising and refining the manuscript.

All authors reviewed and approved the final version.

References

1. Parry C, Mahoney E, Chalmers SA, Coleman EA. Assessing the quality of transitional care: further applications of the care transitions measure. *Med Care*. 2008;46(3):317-22. doi: 10.1097/MLR.0b013e3181589bdc.
2. Coleman EA, Boulton C; American Geriatrics Society Health Care Systems Committee. Improving the quality of transitional care for persons with complex care needs. *J Am Geriatr Soc*. 2003;51(4):556-7. doi: 10.1046/j.1532-5415.2003.51186.
3. Mardani A, Griffiths P, Vaismoradi M. The role of the nurse in the management of medicines during transitional care: a systematic review. *J Multidiscip Healthc*. 2020;13:1347-1361. doi: 10.2147/JMDH.S276061. PMID: 33154651.
4. Noel K, Messina C, Hou W, Schoenfeld E, Kelly G. Tele-transitions of care (TTOC): a 12-month, randomized controlled trial evaluating the use of telehealth to achieve triple aim objectives. *BMC Fam Pract*. 2020;21(1):27. doi: 10.1186/s12875-020-1094-5.
5. Kankaya EA, Bilik Ö. Investigation of the effect of nurse counseling with mechanical valve replacement patients. *Res Theory Nurs Pract*. 2024;38(1):105-23. doi: 10.1891/RTNP-2023-0054.
6. Bikmoradi A, Masmouei B, Ghomeisi M, Roshanaei G. Impact of tele-nursing on adherence to treatment plan in discharged patients after coronary artery bypass graft surgery: a quasi-experimental study in Iran. *Int J Med Inform*. 2016; 86:43-8. doi: 10.1016/j.ijmedinf.2015.12.001.
7. Nabagiez JP, Shariff MA, Molloy WJ, Demissie S, McGinn JT Jr. Cost analysis of physician assistant home visit program to reduce readmissions after cardiac surgery. *Ann Thorac Surg*. 2016;102(3):696-702. doi: 10.1016/j.athoracsur.2016.03.077.
8. Hall MH, Esposito RA, Pekmezaris R, Lesser M, Moravick D, Jahn L, et al. Cardiac surgery nurse practitioner home visits prevent coronary artery bypass graft readmissions. *Ann Thorac Surg*. 2014;97(5):1488-95. doi: 10.1016/j.athoracsur.2013.12.049.
9. Kripalani S, Roumie CL, Dalal AK, Cawthon C, Businger A, Eden SK, et al. Effect of a pharmacist intervention on clinically important medication errors after hospital discharge: a randomized trial. *Ann Intern Med*. 2012;157(1): 1-10. doi: 10.7326/0003-4819-157-1-201207030-00003.
10. Kangovi S, Grande D. Transitional care management reimbursement to reduce COPD readmission. *Chest*. 2014;145(1):149-55. doi: 10.1378/chest.13-0787.
11. Angelica G, Carpico A. Il paziente cardiocirurgico: management clinico assistenziale. Milano: Edizioni Scientifiche; 2009.
12. Frasure-Smith N, Lespérance F. Recent evidence linking coronary heart disease and depression. *Can J Psychiatry*. 2006;51(12):730-7. doi: 10.1177/070674370605101202.
13. Sanità Informazione. Transitional care ICT in Italia [Internet]. Sanità Informazione; 2024. Available from: <https://www.sanitainformazione.it/salute/transitional-care-ict-in-italia/> [Last accessed: 2025 Mar 3].

14. Li SL, Zhou SH, Lin YJ. The value of continuous nursing in patients after cardiac mechanical valve replacement. *J Cardiothorac Surg.* 2020;15(1):299. doi: 10.1186/s13019-020-01326-5.
15. Zhou SH, Huang ST, Xu N, Chen Q, Chen LW, Kuo YR. The application and value of continuous nursing in patients after coronary artery bypass grafting. *J Cardiothorac Surg.* 2020;15(1):168. doi: 10.1186/s13019-020-01210-2.
16. Coskun S, Duygulu S. The effects of nurse led transitional care model on elderly patients undergoing open heart surgery: a randomized controlled trial. *Eur J Cardiovasc Nurs.* 2022;21(1):46-55. doi: 10.1093/eurjcn/zvab005.
17. Davies S. Transitional care for the cardiac surgery population: development of a clinical practice guideline [dissertation]. Minneapolis: Walden University; 2018. Available from: <https://scholarworks.waldenu.edu/dissertations/5068> [Last accessed: 2025 Jan 10].
18. Maleki M, Mardani A, Iloonkashkooli R, Khachian A, Glarcher M, Vaismoradi M. The effect of hospital-to-home transitional care using a digital messaging application on the health outcomes of patients undergoing CABG and their family caregivers: a randomized controlled trial study protocol. *Front Cardiovasc Med.* 2023; 10:1224302. doi: 10.3389/fcvm.2023.1224302
19. Tepsuriyanont S, Sayasathid J, Tangpanyawong C, Sudasut T, Prasitpaphada Y, Konkam K. Effects of a transitional care program on knowledge and self-care behavior among patients undergoing cardiac surgery. *Thai J Cardio-Thorac Nurs.* 2022;33(1):167-82. Available from: <https://he02.tci-thaijo.org/index.php/journalthaicvtnurse/article/view/251300> [Last accessed: 2026 Jan 15].
20. Danielsen SO, Moons P, Leegaard M, Solheim S, Tønnessen T, Lie I. Facilitators of and barriers to reducing thirty-day readmissions and improving patient-reported outcomes after surgical aortic valve replacement: a process evaluation of the AVRre trial. *BMC Health Serv Res.* 2020;20(1):256. doi: 10.1186/s12913-020-05125-5.
21. Paré G, Kitsiou S. Methods for literature reviews. In: Lau F, Kuziemsky C, editors. *Handbook of eHealth evaluation: an evidence-based approach.* Victoria (BC): University of Victoria; 2016. p. 157-84.
22. Joanna Briggs Institute. *Critical appraisal tools* [Internet]. Adelaide: JBI; 2024. Available from: <https://jbi.global/critical-appraisal-tools> [Last accessed: 2026 Jan 3].

Copyright: The Author(s), 2026. Licensee Mattioli 1885, Fidenza, Italy. This is an open-access article distributed under the terms of the Creative Commons Attribution NonCommercial License (CC BY-NC-4.0).

Disclaimer/Publisher's Note: The statements, opinions and data contained in this article are solely those of the author(s) and contributor(s) and do not necessarily reflect those of their affiliated organizations, the publisher, the editors or the reviewers. The publisher and the editors disclaim any responsibility for injury to people or property resulting from any ideas, methods, instructions or products mentioned in the content. Any product that may be evaluated in this article, or claim made by its manufacturer, is not guaranteed or endorsed by the publisher.