MINH
MALAHAYATI INTERNATIONAL JOURNAL OF NURSING AND HEALTH SCIENCE
ISSN 2620-9152 (Print)
ISSN 2621-4083 (Online)
DOI: 10.33024
Nomor: 79/E/KPT/2023

ARTICLE INFORMATION

Received: September, 4, 2025
Revised: December, 31, 2025
Available online: December, 31, 2025
at : https://e-jurnal.iphorr.com/index.php/minh

Understanding discharge planning for post-cardiac catheterization and post-stroke clients

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Abstract

Background: Clients who have undergone cardiac catheterization and stroke treatment often require comprehensive preparation before being discharged from the hospital. Discharge planning plays a crucial role in ensuring continuity of care, improving patient understanding, and preventing recurrence or complications. In urban hospital settings, the complexity of care pathways, time limitations, and the absence of standardized procedures may affect the effectiveness of discharge planning for these high-risk clients.
Purpose: To explore nurses' experiences in implementing discharge planning for post-cardiac catheterization and post-stroke clients in urban hospitals.
Method: A qualitative design using a descriptive phenomenological approach. Participants were nurses involved in the care of post-cardiac catheterization and post-stroke clients. Data were collected through in-depth interviews and analyzed thematically to capture the meaning of nurses' lived experiences in discharge planning implementation.
Results: Several key issues influencing discharge planning were identified. Patient admission pathways shaped the structure of discharge planning, with elective cases allowing more systematic education than emergency cases. Time constraints, particularly in CITO cases, led to rushed education. Nurses emphasized the need for visual educational media to improve patient understanding, while patient and family non-compliance remained a major challenge. The absence of specific SOPs, unstructured multidisciplinary collaboration, and the lack of written education forms and systematic checklists were identified as critical gaps in supporting post-discharge care.
Conclusion: Discharge planning for post-cardiac catheterization and post-stroke clients in urban hospitals has not yet been implemented in a comprehensive and standardized manner. Its practice remains largely dependent on individual initiative, with limitations in structured education, interprofessional coordination, and systematic doc
Suggestion: Strengthening the role of nurses as discharge planning coordinators, supported by standardized guidelines, structured education, and improved multidisciplinary collaboration, is recommended to enhance the effectiveness of discharge planning in urban hospital settings.

Keywords: Discharge Planning; Nursing Experience; Post Cardiac Catheterization; Post Stroke; Qualitative Study.

INTRODUCTION

Clients who have undergone cardiac catheterization and stroke whose condition has stabilized after undergoing procedures and treatment in the hospital require special preparation before returning home. This preparation, generally known as discharge planning, includes education, monitoring, and planning for continued support to help patients continue their recovery and prevent complications. This is crucial given that post-cardiac catheterization and post-stroke clients are at risk of recurrence or worsening of their condition if they do not adhere to the prescribed therapy regimen (Andrew, Busingye,

DOI: https://doi.org/10.33024/minh.v8i10.1505

Lannin, Kilkenny, & Cadilhac, 2018; Shroff, Kupfer, Gilchrist, Caputo, Speiser, Bertrand, Pancholy, & Rao, 2016; Bovim, Askim, Lydersen, Fjærtoft, & Indredavik, 2016; (Dewi, LYantie, & Gunawijaya, 2018). In post-cardiac catheterization clients, invasive procedures are performed for diagnostic or therapeutic purposes, such as stent placement to address obstructions in coronary blood vessels. Most of the underlying conditions for this procedure are closely related to unhealthy lifestyles, such as a diet high in fat, sugar, and salt, and low physical activity, which then trigger hypertension, diabetes, and hyperlipidemia as major risk factors. Therefore, discharge planning should not only focus on medication education or control, but also on how clients can start rebuilding a healthy lifestyle at home, with support from their families (Dewi et al., 2018; Wuopio, Lin, Orho-Melander, Engström, & Ärnlöv, 2023).

Meanwhile, post-stroke clients also face similar complexities. Stroke can occur due to the rupture of cerebral blood vessels (hemorrhagic) or blockage (non-hemorrhagic), both of which are heavily influenced by lifestyle factors and chronic diseases such as hypertension and dyslipidemia (9). After a stroke, clients often experience disabilities such as hemiparesis, speech disorders (aphasia), or cognitive impairment, which require comprehensive functional and psychosocial adaptation at home. Therefore, discharge planning for post-stroke clients should also include aspects of education, family support, activity monitoring, and functional recovery (Wegener, 2022).

In recent years, the growing prevalence of cardiovascular and cerebrovascular diseases has been closely linked to rapid urbanization and lifestyle changes in urban areas. Urban populations tend to adopt sedentary behaviors, consume processed and high-calorie foods, and rely more on eating outside the home, which significantly increases the risk of hypercholesterolemia, coronary artery disease, and stroke (d'Amour, Pandey, Reba, Ahmad, Creutzig, & Seto. 2020; Febriani, 2018). Studies on dietary patterns also show that patients with lipid disorders often maintain unhealthy eating habits even after being diagnosed, indicating that clinical interventions alone are insufficient without structured lifestyle guidance at home (Maștaleru, Cojocariu, Oancea,Leon-Constantin, Roca, Zota, Abdulan, Rusu, Trandafir, Costache, Cojocaru, Roca, & Mitu, 2022). These conditions highlight the importance of discharge planning as a bridge between hospital-based care and long-term lifestyle modification in the community setting.

Discharge planning has been recognized as an effective strategy to prevent disease recurrence, particularly in patients with coronary heart disease.Well-planned discharge education can improve patient adherence to treatment regimens, promote behavioral change, and reduce the likelihood of rehospitalization (Agustin, 2017). However, the effectiveness of discharge planning largely depends on how well it is delivered, personalized, and aligned with the patient's social and environmental context. In urban settings, patients often face additional challenges such as limited family time, work demands, and complex healthcare navigation, which may hinder the application of health advice provided during hospitalization.

Despite its importance, discharge planning in clinical practice often remains task-oriented and fragmented. Education is frequently delivered in a short time frame prior to discharge, with limited opportunity for reinforcement, clarification, or assessment of patient understanding. This situation is further complicated in emergency or unplanned admissions, where nurses must balance acute clinical demands with patient education responsibilities. As a result, discharge planning may not fully capture patients' lived realities, nor adequately address their readiness to manage complex health conditions at home.

In this context, nurses play a pivotal role as frontline healthcare professionals who interact most frequently with patients and their families throughout the hospitalization process. Understanding nurses' experiences in implementing discharge planning is essential to identify practical challenges, contextual constraints, and potential areas for improvement. A phenomenological approach is particularly appropriate, as it allows for an in-depth exploration of how nurses perceive, interpret, and navigate their roles in discharge planning for post-cardiac catheterization and post-stroke clients in urban hospital settings. Rather than generating new theoretical constructs, this approach seeks to reveal the essence of nurses' experiences within the dynamic and complex realities of clinical practice.

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RESEARCH METHOD

This study employed a qualitative research design using a descriptive phenomenological approach. This approach was selected to explore and interpret the lived experiences of nurses in implementing discharge planning for post-cardiac catheterization and post-stroke clients. Descriptive phenomenology emphasizes the exploration of experience as it is perceived and lived by individuals, allowing researchers to understand professional practice from the participants' own perspectives within their real clinical contexts (Van Manen, 2016).

The use of a phenomenological approach is appropriate because discharge planning for clients with complex conditions such as post-cardiac catheterization and stroke has not been extensively examined from the viewpoint of nurses as primary care providers in urban hospital settings. Phenomenology focuses on meaning, reflection, and the essence of experience, making it suitable for examining how nurses perceive their roles, responsibilities, and challenges in preparing patients for discharge amidst clinical, organizational, and social constraints (Van Manen, 2016).

In this study, the phenomenon under investigation refers to nurses' experiences, reflections, and interpretations related to the implementation of discharge planning for clients with complex clinical and social needs. These experiences encompass interactions with patients and families, decision-making processes, communication with other health professionals, and institutional conditions that shape discharge practices in urban healthcare environments. Through participants' narratives, the study seeks to capture the essence of discharge planning as experienced in everyday nursing practice.

The rigor of this qualitative study was guided by the trustworthiness criteria proposed by Lincoln and Guba. Credibility was addressed through member checking, triangulation of data sources including interviews, observations, and relevant documents, as well as ongoing reflexive engagement throughout the research process (Lincoln & Guba, 1985).

Transferability was supported by the provision of detailed contextual descriptions of participants and research settings, enabling readers to evaluate the relevance of the findings in other contexts. Dependability was addressed through systematic documentation of the research process and peer review with academic supervisors or qualitative research experts. Confirmability was strengthened through the maintenance of audit trails, researcher reflexivity, and careful interpretation of data based on participants' accounts rather than personal assumptions (Lincoln & Guba, 1985). This research has passed the ethical review conducted by the Academic Integrity Ethics Committee of Widya Dharma Husada College of Health Sciences, as stated in the ethical approval letter Number 706/K-STIKes/AKD/WDH/I/2025.

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RESEARCH RESULTS

Table Characteristics of Participants (N=10)

Participant	Education	Length of Service (Years)	Position	City of Hospital
P1	Nursing Professional + Master's Degree in Nursing	10	Cath Lab Nurse / Patient Care Manager	Surabaya
P2	Nursing Professional	8	Clinical Nurse	Surabaya
P3	Nursing Professional	9	Clinical Nurse	Jakarta
P4	Nursing Professional	7	Nurse Team Leader	Bogor
P5	Nursing Professional	5	Nurse Team Leader	Depok
P6	Nursing Professional	9	Clinical Nurse	South Tangerang
P7	Nursing Professional + Master's Degree in Medical-Surgical Nursing	6	Patient Care Manager	Bekasi
P8	Nursing Professional	8	Clinical Nurse	Tangerang
P9	Nursing Professional	7	Nurse Team Leader	Depok
P10	Nursing Professional	8	Clinical Nurse	Jakarta

The participants were selected using a purposive sampling technique, focusing on nurses who had been or were currently involved in discharge planning for post-cardiac catheterization and post-stroke clients. Snowball sampling was subsequently applied to identify additional participants who met the inclusion criteria, and recruitment continued until data saturation was achieved, indicated by the absence of new themes or meanings emerging from the interviews.

Of the ten participants, two nurses (20%) held a Nursing Professional qualification combined with a master's degree, while the remaining eight participants (80%) held a Nursing Professional qualification. In terms of professional roles, two participants (20%) served as Patient Care Managers, three participants (30%) were Nurse Team Leaders, and five participants (50%) were Clinical Nurses. All participants had a minimum of five years of clinical experience, indicating substantial professional exposure relevant to discharge planning practices in urban hospital settings.

DISCUSSION

Cardiac catheterization and acute stroke management are invasive medical interventions that often result in sudden and significant changes in patients' health status. Following these procedures, patients are required to adhere to strict post-treatment regimens, including activity limitation, long-term medication use, and continuous monitoring for complications. Discharge planning therefore plays a

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critical role in ensuring continuity of care and preventing adverse events after hospital discharge. However, the findings of this study indicate that discharge planning for post-cardiac catheterization and post-stroke clients in urban hospitals is frequently constrained by time limitations, lack of structured educational support, and insufficient standardization. Based on nurses' lived experiences, seven interrelated themes were identified to describe the realities of discharge planning implementation in clinical practice.

The findings of this study show that discharge planning for post–cardiac catheterization and post-stroke clients in urban hospitals is shaped by the complexity of patients' clinical conditions and organizational constraints in daily nursing practice. Nurses described that limited time, particularly in emergency or CITO cases, often resulted in rushed education and reduced opportunities for structured discharge preparation. This condition may affect patients' understanding of long-term risk management, which is crucial given that cardiovascular and cerebrovascular patients commonly present with multiple and recurrent risk factors requiring sustained self-care after discharge (Cho, Koyama, Honigberg, Surakka, Haidermota, Ganesh, Patel, Bhattacharya, Lee, Kim, & Natarajan, 2023).

Care Pathway Determines Discharge Planning Patterns

This study found that patient admission pathways significantly influence the structure and quality of discharge planning. Elective admissions provide healthcare professionals with adequate time to prepare patients and families through staged and systematic education. In contrast, emergency (CITO) admissions require immediate clinical action, which limits opportunities for comprehensive education prior to procedures. As one participant explained;

"Elective patients usually come through outpatient services, allowing education to be provided from the beginning, whereas emergency patients are taken directly to the procedure room, leaving very limited time for explanation" (Participant 1).

Participants consistently reported that education for emergency patients is often delivered in a rushed manner and focuses only on essential information. Another nurse noted;

"In acute cases, patients may reach the procedure table within minutes, leaving almost no time to explain the procedure or post-care instructions to the family" (Participant 3).

These findings suggest that emergency conditions significantly restrict ideal discharge planning practices and may compromise patient and family understanding. Similar findings have been reported in previous studies, emphasizing the need for flexible discharge education models that accommodate clinical urgency while maintaining educational quality (Cherlin, Curry, Thompson, Greysen, Spatz, Krumholz, & Bradley, 2013; Andrew et al., 2018).

Rushed Education and KIE as a Structural Challenge

Time constraints, particularly in emergency settings, were identified as a major barrier to effective communication, information, and education (KIE). Participants described situations in which education was delivered verbally, without sufficient opportunity for clarification or reinforcement. As one nurse stated;

"Sometimes the patient is already undergoing the procedure before we have had a chance to explain everything, and the family remains confused" (Participant 2).

Education provided under crisis conditions, such as in emergency departments, is often difficult for families to absorb due to emotional distress and information overload. Consequently, education is frequently repeated after the procedure, when the patient has been transferred to the ward. This pattern aligns with previous research indicating that rushed discharge education is associated with lower health literacy and reduced patient preparedness for self-care at home (Wang, Yu, Luo, Zhou, You, Duan, Liu, Chen, Jiang, & Zhu, 2022). Repeated and staged education delivered in a more conducive environment is therefore essential to improve discharge readiness, particularly for post-stroke patients who require long-term rehabilitation and self-management (Simbolon & Hamid, 2019).

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The Need for Comprehensive and Visual Educational Media

The findings highlight a strong need for visual and written educational media to support discharge planning. Participants emphasized that verbal explanations alone are often insufficient, particularly for patients with lower educational backgrounds. One participant noted;

"Patients with higher education levels tend to understand more quickly, but for others, verbal explanations alone are not effective without visual support" (Participant 5).

Visual media such as videos, booklets, and illustrative materials were perceived as effective tools to enhance patient understanding of procedures, medication regimens, activity restrictions, and potential complications. Another participant stated;

"Educational videos explaining the procedure and post-care would be very helpful, especially as patients can review them again at home" (Participant 6).

These findings are consistent with prior studies demonstrating that visual educational tools improve patient comprehension and adherence to post-discharge instructions, particularly in technologically advanced urban settings.

Patient Behavior as a Barrier to Discharge Planning Effectiveness

Patient non-adherence to post-procedure instructions emerged as a significant challenge in discharge planning implementation. Participants described instances in which patients violated activity restrictions or discontinued prescribed medications after discharge. As one nurse explained;

"Some patients feel better after discharge and stop taking their medication, even though antiplatelet therapy is still required" (Participant 1).

Such non-adherence can lead to serious and preventable complications, including bleeding, pseudoaneurysm, and in-stent restenosis. These findings suggest that discharge planning must go beyond information delivery and address patient readiness, motivation, and understanding. Previous research has shown that adherence to post-cardiac and post-stroke treatment regimens is a key determinant of long-term outcomes, highlighting the importance of patient-centered education strategies that actively involve families in post-discharge care (Shroff et al., 2016; Guo & Li, 2024).

The Need for Standardized Discharge Planning SOPs

The absence of specific SOPs for discharge planning in post-cardiac catheterization and post-stroke cases was identified as a major organizational challenge. Participants reported that discharge planning practices often depend on individual experience rather than standardized guidelines. As one participant stated;

"Without specific SOPs, education is based on personal judgment, which can differ between staff and units" (Participant 10).

Standardized discharge planning protocols have been shown to improve continuity of care and reduce readmission rates. Given the complexity of post-cardiac catheterization and stroke care, the development of evidence-based SOPs that account for clinical characteristics and admission pathways is essential to ensure consistent and comprehensive discharge planning (Wang et al., 2022; Cherlin et al., 2013).

Suboptimal Multidisciplinary Collaboration

Although discharge planning ideally involves collaboration among multiple healthcare professionals, this study found that interprofessional collaboration remains limited and largely situational. Participants reported that coordination with pharmacists, nutritionists, and rehabilitation specialists often occurs only when specific issues arise. One nurse noted;

"Discharge planning should involve multiple professions, but in practice, each discipline often works independently" (Participant 3).

Effective multidisciplinary collaboration is critical for addressing the diverse needs of post-cardiac catheterization and post-stroke patients, including medication management, nutritional support, and

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functional recovery. Previous studies suggest that structured discharge planning teams and regular interdisciplinary meetings can significantly enhance patient outcomes and reduce post-discharge complications (Cherlin et al., 2013; Indiartinie, Setiyowati, Septianingrum, Muhith, Nadatien, Soleha, & Rusdianingseh, 2023).

Strengthening Pre-Procedure Education and the Use of Checklists

The final theme emphasizes the importance of initiating education before procedures and utilizing written checklists to support post-discharge care. Participants reported that pre-procedure education is more common in elective cases and allows patients and families to better prepare psychologically and cognitively. One participant explained;

"When education starts before the procedure, patients have more time to understand the risks and ask questions" (Participant 1).

Written checklists and educational forms were perceived as valuable tools to reinforce key instructions and serve as reminders at home. The use of discharge checklists has been associated with improved discharge readiness and patient safety, particularly among high-risk populations. Integrating structured checklists into discharge planning may therefore enhance adherence and reduce preventable complications in post-cardiac catheterization and post-stroke care (Rinawati, Jumaiayah, Azzam, & Kurniasih, 2024).

CONCLUSION

Discharge planning for post-cardiac catheterization and post-stroke clients in urban hospitals has not yet been implemented in a comprehensive and standardized manner. Based on nurses' experiences, seven central themes were identified: care pathways influencing discharge planning patterns; rushed education and information delivery; limited use of visual educational media; patient and family non-adherence; absence of specific standard operating procedures; suboptimal multidisciplinary collaboration; and the need for systematic checklists and pre-procedure education. In the end, discharge planning remains highly dependent on individual initiatives rather than institutionalized systems, resulting in inconsistent educational practices and fragmented interprofessional coordination. These findings highlight that effective discharge planning requires not only clinical competence but also structured systems, appropriate educational media, and integrated teamwork.

SUGGESTIONS

It is recommended that urban hospitals strengthen the implementation of discharge planning by positioning nurses as key coordinators throughout the care process, supported by structured and continuous patient education from early hospitalization. The use of clear documentation, standardized checklists, and appropriate visual educational media should be integrated into routine practice to enhance patient and family understanding. In addition, improving interprofessional collaboration and communication is essential to ensure continuity of care and patient readiness after discharge.

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