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REVIEW

Exploring the Learning Needs for Discharge Planning Among Postoperative Orthopedic Patients: A Scoping Review

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Background: Postoperative orthopedic patients often experience swelling and pain, leading to fear of movement and prolonged hospital stays. These symptoms hinder daily activities and recovery. Effective discharge planning is essential to prevent complications and improve self-care, but further exploration of patients' learning needs is needed to better tailor educational interventions.

Purpose: This scoping review aimed to explore and categorize the learning needs of postoperative orthopaedic patients to optimize discharge education and transitional care.

Methods: A literature search was conducted across five major databases: PubMed, Scopus, ScienceDirect, EBSCOhost, Taylor & Francis, and also search engine is Google Scholar. The keywords used were ("postoperative orthopaedic patients" OR "orthopaedic surgery patients" OR "patients after orthopaedic surgery" OR "post-surgical orthopaedic patients") AND ("learning needs" OR "educational needs") AND ("discharge planning" OR "hospital discharge" OR "discharge education"). Data extraction and synthesis were performed to identify key learning needs and patterns across different studies.

Results: The review identified seven key learning needs among postoperative orthopaedic patients: pain management, wound care and infection prevention, complication management, mobility and rehabilitation, daily activities and quality of life, medication and health monitoring, and digital and family support. The findings highlight gaps in patient education, particularly in pain management, complication recognition, and post-discharge support.

Conclusion: This scoping review highlights gaps in patient education and underscores the need for structured, comprehensive discharge planning. The reviewed literature suggests a potential link between improved patient education and better recovery outcomes, fewer complications, and greater adherence to rehabilitation programs. However, these observations are based on existing studies. Future research should include longitudinal studies on patient learning needs, healthcare provider perspectives, and the effectiveness of digital-based and personalized educational interventions tailored to specific surgical procedures.

Keywords: postoperative orthopaedic patients, learning needs, discharge planning, patient education, scoping review

Introduction

Discharge planning is a systematic process that aims to ensure that patients discharged from hospital continue to receive optimal care at home.[1] This process involves various aspects, including patient and family education, coordination with health workers, and providing adequate information regarding the management of postoperative conditions.[1–3] Effective discharge planning aims to improve patient health outcomes, reduce the risk of complications, and prevent unnecessary rehospitalizations.[1] Suboptimal implementation of discharge planning will result in an increase in the number of readmissions for patients after hospitalization.[4]

In the context of post-orthopedic surgery patients, discharge planning becomes essential because patients often face significant challenges in their recovery.[5–8] Patients with orthopaedic surgery, such as total knee replacement (TKR) or

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total hip arthroplasty (THA), require clear information regarding mobilization, pain management, infection prevention, and physical rehabilitation.[7–10] Without proper planning, patients are at risk of experiencing functional limitations, complications such as deep vein thrombosis (DVT), and even decreased quality of life due to a lack of understanding of the recovery process.[9–12]

Several studies have shown that the unpreparedness of patients and families in understanding the postoperative recovery process is a significant factor causing non-compliance with treatment and rehabilitation.[13–15] Previous studies have reported that patients who do not receive sufficient information about medications and symptoms of complications are more likely to experience poor recovery outcomes.[16] Similarly, other studies have suggested that there is wide variation in patient education provided by nurses across countries, which impacts patient preparedness after hospital discharge.[17,18]

To ensure effective discharge planning, the learning needs of the patient and family must be a primary focus.[19] Learning needs are the needs of individuals or groups to acquire the knowledge, skills, and attitudes necessary to understand, manage, and carry out appropriate actions related to their health condition.[20] In the context of discharge planning, learning needs include the information and abilities that patients and their families must learn in order to perform effective self-care after the patient is discharged from the hospital.[21] Previous studies have reported that patients and families require education on various aspects, including pain management, wound care, signs of infection, and functional recovery.[19,22,23] In addition, family support plays a significant role in helping patients adapt to postoperative life, especially in terms of mobilization and daily activities.[24,25] Therefore, it is essential to understand the learning needs of patients and families because this is also related to the role of health workers in providing appropriate education.[26–29]

Based on the results of the literature, this study is the first review to identify patient learning needs in the context of post-orthopaedic surgery discharge planning using a scoping review approach. Previous reviews have focused more on the effectiveness of postoperative patient education.[30] Therefore, while this review may not directly establish a fully evidence-based educational strategy, it contributes valuable insights into the main categories of patient education needs relevant to discharge planning. The findings can help inform health workers in designing a more structured, responsive, and effective discharge planning program, ultimately aiming to improve the quality of life of post-orthopedic surgery patients.

Materials and Methods

Study Design

This study uses a scoping review design based on the framework proposed by Arksey and O'Malley, a flexible method for exploring new, rapidly developing topics.[31] This design has a broader conceptual scope, allowing for a more in-depth explanation of relevant research findings. The scoping review is conducted through five main stages: identifying research questions, searching for and collecting appropriate findings, selecting relevant studies, mapping data, and compiling, summarizing, and reporting research results.[32]

Eligibility Criteria

In this review, two reviewers (UR and KI) independently selected relevant articles following the PRISMA guidelines (see Figure 1). The formulation of the research questions and eligibility criteria was guided by the PCC framework. The Population (P) consisted of postoperative orthopaedic patients and healthcare professionals involved in their care. The Concept (C) focused on patients' learning or educational needs, while the Context (C) referred to discharge planning as a critical element of postoperative transitional care.

To ensure the relevance and quality of the review, specific exclusion criteria were applied. We excluded: (1) secondary sources such as reviews, editorials, or commentaries; (2) articles not available in full text; and (3) publications not written in English. In addition, inclusion criteria required that studies be: (1) primary research; (2) fully accessible in full-text format; (3) published in English; and (4) explicitly addressing the learning needs of postoperative orthopaedic patients within the context of discharge planning. No restrictions were applied to publication year, in order to capture a broad range of conceptual and strategic developments in discharge planning across diverse healthcare settings. This

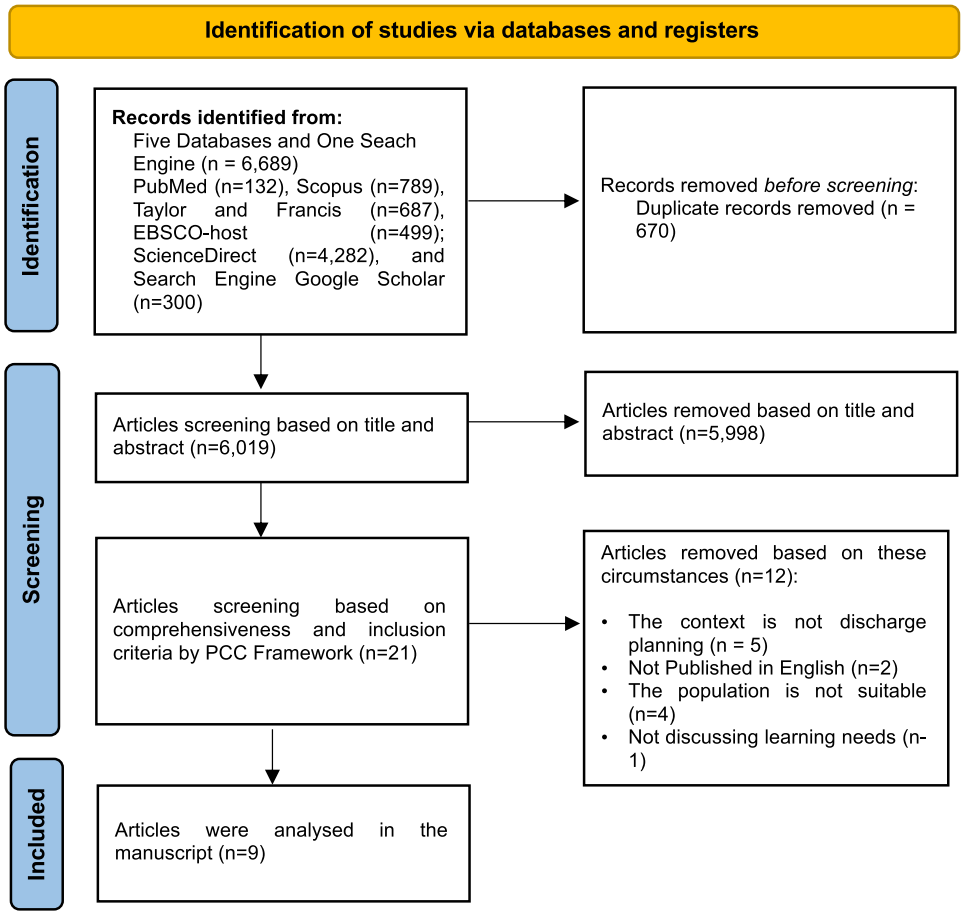

Figure 1 PRISMA Flow Diagram adapted from Page MJ, McKenzie JE, Bossuyt PM et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021; 372: n71. Creative Commons.[33]

inclusive approach supports a comprehensive and nuanced analysis of the educational needs of patients during post-operative recovery.

Search Strategy

A systematic literature search was conducted across five primary databases: EBSCOhost, PubMed, ScienceDirect, Scopus, and Taylor & Francis, as well as through the search engine Google Scholar. Reference lists of included articles were also screened to identify additional relevant studies. Search terms were developed based on MeSH terms and keyword variations, incorporating synonyms to enhance coverage. The main keywords included: ("postoperative orthopaedic patients" OR "orthopaedic surgery patients" OR "patients after orthopaedic surgery" OR "post-surgical orthopaedic patients") AND ("learning needs" OR "educational needs") AND ("discharge planning" OR "hospital discharge" OR "discharge education").

Boolean operators "AND" and "OR" were used to combine terms and expand or narrow the results as appropriate. Truncation symbols (eg, "educat"* to capture "education", "educational", etc.) were used where supported by the database to account for tense and word variation.

Selection of Studies

The selection of articles in this review was carried out by all reviewers following the PRISMA Extension for Scoping Review (PRISMA-ScR) guidelines.[33] After search results from various databases were exported, a deduplication process was performed using Mendeley and manually checked to remove any remaining duplicates. After deduplication, all papers were collaboratively screened by a review team. All authors independently assessed the eligibility of each study

based on the title and abstract. Discussions were held to reach a consensus on whether there was any disagreement in the initial screening process. If still unresolved, a third reviewer was asked to provide a final decision. In addition, additional papers were identified by reviewing the reference lists of the included studies. The abstracts of these additional papers were then evaluated using the same method. Finally, all reviewers performed full-text screening independently, and the entire review team agreed upon the final list of included papers.

Data Extraction and Synthesis

Data extraction was conducted independently (UR) and in duplicate by two reviewers (KI and HH) using a structured data abstraction form developed specifically for this review. Any discrepancies between reviewers were resolved through discussion or consultation with a third reviewer. The abstraction form included the following variables:

- Study characteristics (author, year, country of origin)
- Study design and methodology
- Participant characteristics (sample size, age, sex distribution, diagnosis, and education level)
- Identified patient learning or educational needs
- Discharge planning components
- Reported outcomes or key findings relevant to postoperative care

The extracted data were first organized in tabular format to provide an overview of the included studies. Subsequently, data were analyzed descriptively using thematic synthesis to map key findings and identify recurring themes related to patients' learning needs. This involved systematically reviewing, interpreting, and categorizing the findings to identify patterns and themes related to postoperative patients' learning needs in the context of discharge planning. All authors participated in reviewing and confirming the thematic categories. A final validation step was carried out to ensure consistency across the data and to minimize potential errors during synthesis.

Results

Study Selection

The study selection process followed a systematic and structured approach to ensure the inclusion of relevant literature (See Figure 1). Initially, 6,689 records were retrieved from multiple databases, including PubMed, Scopus, Taylor and Francis, EBSCO-host, ScienceDirect, and additional sources from Google Scholar. Following this, 670 duplicate records were identified and removed before the screening commenced, resulting in 6,019 articles eligible for further evaluation.

A comprehensive screening based on titles and abstracts was then conducted, excluding 5,998 studies that did not align with the research focus. The remaining 21 articles underwent a more rigorous assessment using the PCC (Population, Concept, and Context) framework to determine their relevance and comprehensiveness. During this phase, an additional 12 studies were excluded, as they either did not address discharge planning (n=5), were not published in English (n=2), involved an unsuitable population (n=4), and not discussing learning needs (n=1). There were four studies that did not meet the criteria because the population was quite heterogeneous, not only in postoperative orthopedics but also in patients with diagnoses other than orthopedics. After this meticulous selection process, a final set of 9 studies met all inclusion criteria and were thoroughly analyzed in the manuscript.

Study Characteristics

This study examines the characteristics of studies that focus on the learning needs and experiences of post-orthopaedic surgery patients, specifically patients with joint replacement (Total Knee Replacement/TKR, Total Hip Arthroplasty/THA), as well as patients undergoing other orthopaedic surgeries (See Table 1). The studies analyzed covered many countries, including Malaysia, Australia, the United States, Turkey, Denmark, Taiwan, and Finland (see Table 1). This wide geographic distribution suggests that postoperative patient needs are universal despite variations in health care systems and patient education approaches across countries.

Table 1 Characteristics of Study

Author (Year)	Country	Design	Participants				Key Findings	
			Sample Size	Male (%)	Diagnosis	Age & Educational	Learning Needs	Results
Muhamad et al, (2022)[19]	Malaysia	Mixed-methods (cross-sectional survey and phenomenological interview)	96	55.2%	Postoperative Total Knee Replacement (TKR) patients	60–70 years old (63.52%) Sijil Pelajaran Malaysia (46.90%)	Emotional, physical, spiritual support, and support groups	Most of the needs concerned by the participants were expressed by at least 70% of them except the financial need (59.4%).
Saunders et al, (2022)[22]	Australia	Descriptive Qualitative	34	59%	Postoperative orthopaedic patients of various types, including joint replacement and fractures	65.3 years old (±13.2) No information	Pain management, wound care, medication information, constipation prevention	Patients felt that discharge information was inadequate, especially in pain management and wound care.
Causey-Upton & Howell (2017)[34]	USA	Descriptive, Transcendental Phenomenology	4	25%	Postoperative Total Knee Replacement (TKR) patients	55 to 80 years old No information	Family support, preoperative education, realistic information about postoperative pain	Patients felt more prepared for discharge if they attended preoperative education and had family support.
Şendir et al, (2013)[35]	Turkey	Quasi-Qualitative	74	29.7%	Postoperative Total Hip Arthroplasty (THA) and Total Knee Arthroplasty (TKA) patients	Mean age 64.97 ± 13.66 Primary school (32.4%)	Activities of living, treatment and complication, quality of life improvement, community and follow up	The most important learning needs were about treatment and complications, activities of living, and enhancing quality of life.
Jensen et al, (2024)[36]	Denmark	Qualitative, Exploratory	55	71%	Postoperative orthopaedic patients with various procedures, including fractures and joint replacements	28.8–39.8 years old	Utilization of digital communication for post-discharge monitoring	Patients faced difficulties in post-discharge communication. Digital communication improved their sense of security and continuity of care.
Lemay et al, (2019)[37]	USA	Phenomenological, Qualitative Study	27	25.9%	Postoperative Total Joint Replacement (TJR) patients (including hip and knee replacements)	70.63 ± 8.32 years Post high School or more (70.4%)	Opioid and non-opioid pain management, pain relief techniques	Participants believed that information about pain management would be helpful and should be delivered at multiple time points.
Su et al, (2010)[38]	Taiwan	Longitudinal Descriptive, correlational study	85	27.1%	Postoperative Total Knee Replacement (TKR) patients	65–75 (60%) years old	Pain management, symptom management, rehabilitation.	• Before hospital discharge, the most important need is medical personnel to help relieve postoperative pain. • After discharge, the key need is medical personnel to help patients understand when to return to the hospital, with healthcare needs predicted by symptoms experienced.
Sayar & Sayar (2023)[39]	Turkey	Descriptive, Cross-sectional	150	41.3%	Postoperative orthopaedic surgery patients, including Total Knee Arthroplasty (TKA), fractures, and ligament reconstruction	Mean age 55.07 ± 17.01; Primary school graduates (54.7%)	Medication, life activities, community and follow up, treatment complications, quality of life, feeling related to the situation.	Patients with very high learning needs, especially regarding treatment complications.
Koivisto et al, (2019)[23]	Finland	Comparative Descriptive	258	51%	Postoperative elective orthopaedic surgery patients, including joint implant procedures and hand surgery.	61 ± 12 years old Secondary vocational degree (58%)	Medication, symptoms, complications information	Patients who received less information than expected experienced more postoperative complications.

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These studies used various methodological approaches, including quantitative (eg, descriptive and cross-sectional studies), qualitative (eg, phenomenological, exploratory, and in-depth interviews) and mixed-methods designs. Qualitative and phenomenological designs were more frequently used to explore patients' subjective experiences of their needs following orthopaedic surgery.[22,34,36,37] Quantitative and comparative studies focus more on the relationship between the information patients receive and their recovery outcomes.[23,39] Several other studies have used various designs. The sample sizes in these studies vary widely. The study with the smallest sample size was the study conducted by Causey-Upton & Howell (2017)[34] with only 4 participants, while the study with the largest sample size was conducted by Koivisto et al (2019)[23] with 258 participants.

The percentage of male participants in various studies also varied, with the lowest figure being 25% in the Causey-Upton and Howell (2017)[34] study and the highest being 71% in the Jensen et al (2024).[36] Then, the average age of the participants ranged from 41.6 years to over 75 years. The study with the oldest participants was conducted by Su et al (2010)[38] of whom studied patients with an age of 65–75 years old. Patients' information and education needs may vary depending on their age group.

Learning Needs of Postoperative Orthopedic Patients

The learning needs of postoperative orthopaedic patients encompass several key categories for supporting recovery after surgery. There are seven learning needs categories, including pain management, wound care and infection prevention, complication management, mobility and rehabilitation, daily activities and quality of life, medication and health monitoring, and digital and family support (See Table 2).

Table 2 Summary Table of Learning Needs for Discharge Planning Among Postoperative Orthopedic Patients

Learning Needs Category	Key Components	Main Findings	Study
Pain Management	• Opioid and non-opioid pain relief • Pain education and expectations • Constipation prevention side effect from opioid	Patients lacked education on opioid risks and alternatives. Pain management was a significant concern post-discharge.	[22,35,37,38]
Wound Care & Infection Prevention	• Proper wound care techniques • Signs of infection • When to seek medical attention	Many patients reported insufficient wound care education, increasing infection risks.	[22,35]
Complication Management	• Recognizing symptoms of complications • Managing postoperative swelling • When to seek emergency care	Patients who received less information had higher complication rates. Those with elective surgeries had more structured education.	[23,35,39]
Mobility & Rehabilitation	• Safe movement post-surgery • Use of assistive devices • Exercise and physiotherapy	Patients needed guidance on movement restrictions and physical therapy adherence.	[19,35,38]
Daily Activities & Quality of Life	• Adapting daily activities post-surgery • Return to work/sports • Emotional, mental well-being	Emotional, social, and cognitive needs were overlooked. Support groups and structured education improved outcomes.	[19,34,35,39]
Medication & Health Monitoring	• Understanding prescribed medications • Managing side effects • Importance of follow-up care	Patients who received inadequate medication education had higher readmission rates.	[22,23,36]
Digital & Family Support	• Use of digital health tools • Family involvement in recovery • Communication with healthcare providers	Digital health tools enhanced discharge communication, but patients relied heavily on family support.	[19,34,36]

One of the primary aspects is pain management, which includes education on opioid and non-opioid pain relief, the risks of opioid use (such as constipation), and patient expectations regarding pain. Studies indicate that many patients lack adequate education on opioid risks and alternative pain management strategies.[22,35,37] Another critical category is wound care and infection prevention, which involves proper wound care techniques, recognizing signs of infection, and knowing when to seek medical attention. Many patients report insufficient education on wound care, increasing their risk of infections.[22,35] Similarly, complication management is crucial, as patients need to recognize symptoms of complications, manage postoperative swelling, and know when to seek emergency care. Research suggests that patients with limited preoperative information tend to experience higher complication rates.[23]

Regarding mobility and rehabilitation, patients require guidance on safe movement after surgery, the proper use of assistive devices, and the importance of physical therapy.[19,35,38] A lack of understanding in these areas can lead to poor adherence to rehabilitation exercises.[19] Daily activities and quality of life are also significant considerations, especially in adapting to everyday activities, returning to work or sports, and maintaining emotional and mental well-being. Unfortunately, emotional and social support needs are often overlooked in patient education.[34]

Furthermore, medication and health monitoring are essential components of postoperative education.[22,23,36,38] Patients who receive insufficient education about prescribed medications, managing side effects, and the importance of follow-up care are at a higher risk of hospital readmission.[36] The role of digital tools and family support is also growing in importance. Digital health technologies improve communication between patients and healthcare providers, but patients rely heavily on family support during recovery.[19,34]

Discussion

Discharge planning is crucial to post-orthopedic surgery patient care to prevent complications, improve recovery, and reduce rehospitalization rates. Comprehensive education is needed to ensure patients properly care for themselves at home. This scoping review aims to explore learning needs in post-orthopedic surgery patients. In this review, there are seven categories of learning needs generated from the extraction and analysis of included studies, namely pain management, wound care and infection prevention, complication management, mobility and rehabilitation, daily activities and quality of life, medication and health monitoring, and also digital and family support. Several interrelated categories are important in ensuring optimal recovery for post-orthopedic surgery patients.

The first category of learning needs that is most needed is pain management. Pain management is a significant concern for patients after orthopaedic surgery.[22,35,37] Lemay et al (2019) reported that many patients do not have a sufficient understanding of pain treatment, especially regarding the risks and alternatives to opioids.[37] Most patients rely on opioids for pain control but are not adequately informed about side effects such as constipation, dependence, and excessive sedation.[37] Saunders et al (2022) emphasized the importance of pain education, including postoperative pain expectations, non-pharmacological pain management strategies such as relaxation techniques, physical therapy, and using modalities such as cold compresses.[22] In addition, Sendir et al (2013) revealed that many patients felt unprepared to deal with pain after returning home from the hospital because they were not given sufficient information regarding normal variations in pain intensity during the recovery phase.[35]

Wound care and infection prevention are the learning needs categories that patients and families most frequently propose.[22,35,38] Wound infection is one of the major complications after orthopaedic surgery that can worsen the clinical outcome of patients. Lack of education regarding wound care contributes to the increased risk of infection.[22] Many patients do not know basic wound care techniques, such as washing hands before touching the wound area, changing dressings appropriately, and early signs of infection such as redness, swelling, and discharge from the wound.[22] Additionally, previous studies have reported that patients who received hands-on training in wound care experienced lower infection rates than those who were only given written information.[35] Another study by Su et al (2010) confirmed that patients who were given visual guidance and direct demonstration by health workers had higher compliance with wound care protocols.[38]

Another category of learning needs is complication management. Post-orthopedic surgery patients are at risk of experiencing various complications such as deep vein thrombosis (DVT), pulmonary embolism, and limited mobility due to excessive swelling.[40] Sayar and Sayar (2023) highlighted that patients who do not receive adequate education about

the signs of complications are more likely to experience conditions that result in readmission to the hospital.[39] In addition, patients who received comprehensive education about postoperative complications, including the importance of early mobilization, monitoring for symptoms of blood clots (such as calf pain and unilateral swelling), and management of oedema, had lower complication rates.[23]

Information related to mobility and rehabilitation is also important for patients. Optimal recovery after orthopaedic surgery depends on patient compliance with mobility and rehabilitation guidelines. Some patients try to walk too soon without the correct aids. In contrast, others avoid movement for fear of causing injury.[41] Another study reported that patients who received intensive education on using walking aids, bed-to-chair transfer techniques, and the importance of physical therapy exercises were likelier to return to normal functional activity levels in a shorter time.[19]

Daily activities and quality of life are important educational components in discharge planning. Causey-Upton and Howell (2017) found that many patients felt overwhelmed adapting to daily activities, including work, hobbies, and social life.[34] Psychosocial factors such as anxiety, depression, and social isolation are often not a focus in patient education, even though these aspects have a significant impact on recovery. Sayar and Sayar (2023) also found that a group support program for postoperative patients helped improve emotional well-being and adherence to self-care.[39]

Another category of educational components or learning needs of post-orthopaedic surgery patients is medication and health monitoring. The importance of education regarding postoperative medications cannot be overstated. Patients who receive inadequate education regarding medications have lower levels of compliance, which increases the risk of complications and readmissions.[36] Patients' understanding of drug side effects and warning signs that require further medical evaluation are key factors in successful postoperative care.[23]

Some of these categories are interrelated, especially with the role of digital technology and family support. Advancements in digital technology have enabled remote patient monitoring and improved communication between patients and healthcare providers. However, despite these benefits, the actual adoption of such technologies remains low in practice.[19,34,36] As a result, family support plays a more significant role in assisting patients with daily activities and recovery. Jensen et al (2024) reported that while digital applications can enhance communication with medical personnel, many patients still rely heavily on family involvement for effective recovery.[36] Therefore, involving family members in patient education is crucial to improve adherence to care plans and accelerate the recovery process.[19] Educational programs should prioritize family engagement to ensure patients receive adequate support after hospital discharge.

This study presents a novel contribution by comprehensively categorizing postoperative orthopedic patients' learning needs into seven interconnected domains, while emphasizing the crucial role of digital technology and family support in facilitating effective discharge planning and recovery. The findings reveal that pain management is intrinsically linked with education on medication use and potential complications such as opioid-induced constipation and ketorolac, whereas wound care and infection prevention closely relate to patients' ability to recognize complication signs and adhere to rehabilitation protocols. Furthermore, needs concerning daily activities and quality of life work synergistically with family involvement and digital access to enhance patient independence. This interplay among categories underscores that effective discharge planning must adopt a holistic approach, integrating physical, emotional, social, and technological dimensions to ensure optimal and sustained recovery for orthopedic patients.

In addition to addressing learning needs across multiple domains, it is important to consider the role of insurance coverage in discharge planning for postoperative orthopedic patients. Adequate insurance support can significantly reduce financial barriers to accessing necessary medications, digital health tools, rehabilitation services, and follow-up care, which are all critical for successful recovery. Exploring patients' understanding of their insurance benefits and coverage options is essential to empower them in managing costs associated with their postoperative care. Incorporating education about insurance coverage alongside clinical and psychosocial learning needs ensures a more comprehensive discharge plan that supports both the health and financial well-being of patients.

Strengths and Limitations

This study has several limitations. First, the studies analyzed in this review use various definitions and methods to measure patients' learning needs. Some studies employ qualitative approaches based on interviews, while others use

surveys or secondary data analysis. This heterogeneity may affect the consistency of findings and make cross-study comparisons challenging. Second, the study is limited to patients' perspectives and does not thoroughly include the views of healthcare professionals. Most of the studies reviewed focus on patients' experiences and perceptions but lack an exploration of the perspectives of healthcare providers, including nurses, doctors, and physiotherapists, who play a crucial role in patient education. Further research is needed to understand how healthcare professionals assess patients' learning needs and their challenges in delivering effective education.

Nevertheless, despite these limitations, this study is one of the first scoping reviews to comprehensively identify the learning needs of postoperative orthopaedic patients in the context of discharge planning. By categorizing learning needs into seven key aspects, this study provides a framework that healthcare professionals can use to enhance the quality of patient education.

Conclusions

This scoping review has identified and categorized the key learning needs of postoperative orthopaedic patients within the context of discharge planning. Seven major categories were synthesized from the included studies: pain management, wound care and infection prevention, complication management, mobility and rehabilitation, daily activities and quality of life, medication and health monitoring, and digital and family support. Among these, pain management and wound care emerged as the most frequently reported areas where patients expressed a lack of adequate information and preparation.

This review maps the existing evidence on patients' educational needs and highlights persistent gaps, especially in psychosocial support, the integration of digital tools, and the limited exploration of healthcare provider perspectives in the discharge process. These findings offer a foundation for healthcare professionals to develop more responsive and targeted educational strategies for postoperative care. Future research should explore how learning needs are assessed and addressed by nurses, physicians, and physiotherapists, and how educational interventions can be personalized to specific surgical procedures and patient populations. Such efforts may help inform more comprehensive discharge planning that aligns with patients' real-world recovery challenges.

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Disclosure

The authors had no conflicts of interest in this research.

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