

# Implementation of Nursing Round and Discharge Teaching to Improve Discharge Readiness for Patients Post Hip Surgery: A Literature Review

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## Abstract

The condition of returning home unpreparedness post hip surgery has an impact on the patient's ability after returning home. This unpreparedness is caused by the inability of patients to manage their own needs and care needs after returning home in carrying out daily tasks, caring for themselves, and the ability to do health care. Therefore nursing strategy is needed in preparing the patient's discharge planning in the form of discharge teaching. Four databases namely Cochrane, EBSCO, Google Scholar, and Scopus were used to explain the effect of discharge teaching to improve patient readiness post hip surgery. Educational needs expected by patients post hip surgery are related to complications, operating procedures, rehabilitation programs, prosthesis, and pain management. Patients hope to get knowledge related to all dimensions, but in reality, they only get from the functional aspect. Patients get more knowledge only during treatment than when they are going home. Discharge teaching must also pay attention to the content of information and delivery methods and must be given in all stages of treatment and repetition of essential items. So nurses are required to have competence and knowledge in carrying out discharge teaching to increase patient readiness.

**Keywords:** discharge teaching, discharge readiness, post-hip surgery

## 1. Introduction

Hip joints as a means of motion often experience disorders such as fractures, osteoarthritis, dislocation, and osteonecrosis or Avascularisation Necrosis (AVN), therefore hip surgery is needed to restore the patient's functional abilities as before, reduce pain, and prevent complications (1). One of the surgical procedures is surgical arthroplasty (hemiarthroplasty and total hip arthroplasty) (2). Data on hip arthroplasty surgery in the United States between 2012-2015 showed quite high numbers, namely 169,060 operations, with details of 1,560 hips resurfacing, 17,144 partial hip replacement/hemiarthroplasty, 17,180 hip revision, and the total hip replacement was

133,176 surgeries (3). While the incidence of hip surgery in one Asian country, namely Korea in 2007-2011 as many as 24,682 surgeries, consisting of 13,681 bipolar hemiarthroplasties, 8,926 primary THA (Total Hip Arthroplasty), and 2,075 revised THA (4). In Indonesia, national hip surgical procedure data have not been obtained, but based on data from two orthopaedic national referral hospitals namely Fatmawati General Hospital Jakarta and Soeharso Orthopaedic Hospital Surakarta in 2018 a total of 364 patients. Based on data on the incidence of hip fractures in Indonesia each year totalling 119 per 100,000 people and data from several government and private hospitals that report to the Ministry of Health every three months there are 43,000 cases of hip fractures reported in 2010 (5). So that it can be estimated that with the increasing incidents of hip fracture will also positively affect the amount of hip surgery to be performed.

Hip surgery is orthopaedic surgery which requires a high cost, THA costs in America are around \$ 7.300-8.287 (6), and the total maintenance costs which are the economic burden of the United States government in 2010 are estimated \$ 16-19 million (7) Furthermore, if there is a reduction in length of stay if the patient after surgery home two days after hip surgery can reduce costs by \$2,365,613 (8). Whereas in Indonesia based on the 2013 INA-CBG's tariff (M-1-20-III) the required expenses are \$1.267-3.733. So with the increasing number of hip surgeries, it can be expected to cause a high burden of the costs incurred by the BPJS (Health Guarantee Agency) for the health care of patients with hip surgery every year.

The condition of unpreparedness of the patient's return will have an impact on the status of the patient after returning including having a high average length of stay, i.e., the patient is treated three days longer than the patient who is prepared (9). Patient characteristics and lack of discharge readiness were assessed to be associated with reduced hospital discharge conditions (10). Discharge readiness is an indicator to determine the preparation process for return and gives an influence on the risk of readmission (11). Unpreparedness to go home will also increase visits to the Emergency Room (ED), the incidence of unplanned readmission, and the risk of death after 30 days of discharge from the hospital (9). Every 1% increase in readmission in postoperative patients with THA provides an increase in the cost of health care costs by 1.8% (12).

Conditions of unpreparedness are caused by the inability of patients to manage their own needs and care needs after returning home in carrying out daily tasks, caring for themselves, and the ability to perform health care (13). The nursing strategy needed in preparing the patient's discharge planning in the form of discharge teaching (14). Education required by patients post hip surgery is related to pain management, especially regarding the level of pain, drug use, side effects, and how to get rid of drugs (15). But the patient's expectation post surgery for THA in receiving knowledge is, in fact, incompatible with the results obtained (16). Based on one of the JCI (Joint Commission International) standards and also contained in SNARS (National Standards for Hospital Accreditation) Issue 1 of 2018 in providing access to care and continuity of concern related to patient return standards namely patient readiness to be sent home must be determined using criteria or indications determined by the hospital and ensure patient safety (17,18) so that the critical role of a nurse has the competence to do asses discharge readiness and improve discharge readiness as part of preparing for the patient's discharge readiness (14).

## **2. Objective**

This literature review aims to explain the effect of discharge teaching to improve patient readiness post hip surgery.

### **3. Methods**

#### **3.1 Data Sources**

Four databases used are Cochrane, EBSCO, Google Scholar, and Scopus in this study.

#### **3.2 Search Strategy**

A literature search has done after the PICO (Patient Intervention Comparison Outcome) is determined. Search is done through an online database using the keywords "discharge teaching," "discharge readiness," and "post-hip surgery."

#### **3.3 Inclusion Criteria**

This literature review is based on several research results. The type of research chosen was a study published in a randomized controlled trial (RCTs), cohort, prospective study that examined the effect of discharge teaching on discharge readiness. The articles were limited based on English language articles that have been published from 2013 until 2018.

### **4. Results**

#### **4.1 Discharge Readiness for Patients Post Hip**

Patient readiness to return home from the hospital is a stage and process characterized by physical stability, ability to care for yourself at home, having adequate support when leaving the hospital, mental ability to care for oneself, having information and knowledge to deal with problems well (19). Perceived readiness of patients post hip surgery is the perception of patients post hip surgery related to self-coping ability and health care needs after returning home, and the expected emotional and instrumental support after the patient returns home from the hospital (20). Patient's discharge readiness becomes a benchmark in assessing the results of hospitalization procedures (13).

Patients discharge readiness as a transition process that is perceived by patients and families can be identified as conceptual frameworks and relevant research variables by using the Meleis middle range theory of transition. So that using the transition theory can be known the influence of the transition conditions (patient characteristics), the nature of the transition (hospitalization factor), and nursing practice (discharge teaching and care coordination) on the transition response pattern, namely discharge readiness (14).

#### **4.2 Discharge Teaching**

Factors in nursing practice in the form of nursing strategies in preparing patient discharge planning consist of discharge teaching and care coordination. Discharge teaching is all information received by patients while being treated until preparation for return and needed coping after returning home (14). The needs of patients related to patient discharge teaching, in general, are comprised of daily activities, pain, wound care, medication, complications, and how to get further treatment. More specifically the information needed by patients posts orthopaedic surgery is about treatment and care which includes diagnosis, choice of anaesthesia, treatment, surgical procedures, possible complications, post-operative care, rehabilitation programs, long-term outcomes, and

professional health personnel involved (16). While the information desired by THA patients is related to complications, operating procedures, rehabilitation programs, prosthesis, pain management (pain levels, drug use, side effects, and ways to escape from drugs (15,21).

Post-surgical patients with THA generally expect to get more knowledge when hospitalized. But hope about what they want to know and learn is not fulfilled according to expectations. Patients hope to gain experience related to all dimensions, but in reality, they only get from the functional aspect. Patients get more knowledge only during treatment than when they are going home (16). Although in another study it was stated that patients' expectations after THA surgery exceeded expectations of > 60%, but attention was still needed to provide information and education to patients (22). The quality education will provide emotional comfort and feel, the ability of patients, and develop themselves, patients. Education must involve family members and give them opportunities to be active. Education must also be provided in all stages of treatment and the repetition of essential items (23). Also, knowledge related to physical therapy was also able to improve patient readiness due to the achievement of physical therapy goals, although this did not affect the length of stay and WOMAC Score (The Western Ontario and McMaster Universities Arthritis Index) (24).

Expectations and knowledge received by patients are influenced by work status, gender, and experience of being treated in a previous hospital (16). Age can also affect perceptions of the quality of discharge teaching and discharge readiness from the hospital (25). Old age and low levels of education are associated with low levels of knowledge (21). Patients with advanced age are more unprepared to go home because they are related to physical abilities, knowledge and possible problems after hospitalization, and decreased self-care ability (9).

The strength of the patient's information and knowledge can be assessed by using The QDTS (Quality of Discharge Teaching Scale) which will examine patient perceptions regarding discharge teaching (26). QDTS consists of 18 questions consisting of six questions asking about the expected information and six items of issues related to the information received and 12 questions related to nurses' ability to provide discharge teaching (14). While the patient's discharge readiness can be measured using RHDS (Readiness for Hospital Discharge Scale). This scale consists of 1 final question that asks "are you ready to go home?" And 21 issues related to four aspects of assessment, namely personal status, knowledge, coping ability, and expected support (13).

## 5. Discussion

Knowledge is the ability of someone to have the information needed when facing common problems and problems that will arise after being treated. Knowledge required is related to self-care, personal needs, health needs, complications, limitations, assistance if there are problems, coping with pain, and sources of information and services available (13). The study said that the risk factors for patients not ready to go home were the presence of a cognitive disorder, lack of satisfaction with hospital services, depression, lack of knowledge, previous experience of being hospitalized, and perceived symptoms or disability (25).

Patient characteristics and hospitalization factors are difficult variables to modify, unlike the discharge-teaching factor which makes modifications possible. Discharge teaching is also able to increase patient satisfaction, and there are significant differences regarding the information needed with those obtained (27). The study explained that there were differences in knowledge scores on the RHDS scale based on the level of literacy; low knowledge occurred in patients who had inadequate literacy (10). Another study also explained that the quality of nurses delivering discharge teaching (not the content of education) was related to nurses' perceptions and assessment of patient discharge readiness (28). Post-surgical patients with THA who get an education can effectively improve patient quality, namely improving self-care ability and self-efficacy and reducing depression levels (29) although there are conflicting results of other studies which state that there is no significant relationship between knowledge and discharge readiness (30). Discharge teaching is still needed to improve patient preparation.

Discharge teaching can be done from the beginning before the patient undergoes surgery (15). Nurses can do education using a variety of assistive media, one of which is iPad media or booklets. iPad media and brochures are both able to improve the ability to recall information that is conveyed and the level of patient satisfaction. Although iPad media is more effective than booklet media (29), although modern media (iPad) has more advantages compared to traditional media (booklet), it needs to be taken into consideration at the beginning of nurses interacting with patients to provide modern or traditional educational delivery media choices because the patient's interest in educational media is different. Also, it is necessary to consider the timing of the provision of education as well as the involvement of family activities so that the goals of patient care after hip surgery can be adequately realized without any complications or disorders in the patient.

Fatmawati General Hospital Jakarta as one of the national orthopaedic referral hospitals is currently not optimally implementing discharge teaching to prepare the patient's discharge readiness. Based on patient data post hip surgery in 2018, there were 71% of patients returning home more than three days post surgery. The average length of stay for patients after surgery is six days. Furthermore, related to the patient's unpreparedness can be seen from the data of the occurrence of readmission in these patients. Based on data in Fatmawati General Hospital, data showed that in one year in patients post hip surgery there were 28% of patients who experienced readmission and 28% of patients from patients whose re-entry were treated more than twice (3-4 times) in one year and 10% patient dies during treatment. Readmission is caused by 24% due to medical problems, 20% due to having to undergo a debridement procedure, and 54% for revision. This is possible because of the unpreparedness of the patients to go home due to the lack of discharge teaching.

## **6. Conclusion**

Discharge teaching is vital to be done by nurses to improve the discharge readiness of patients post hip surgery. Education contains complications, surgical procedures, rehabilitation programs, and prosthesis, pain management. Discharge teaching must pay attention to the contents of information and methods of delivery and must be given in all stages of treatment and repetition of essential items. Using media assistance to facilitate nurses in achieving educational goals can do education.



## 7. Recommendation

The hospital can establish discharge teaching as a standard for returning home care for patients post hip surgery and nurses are required to have competence and knowledge in conducting discharge teaching to increase patient discharge readiness.

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