

# Patients' Perspectives on Pre-Operative Education for Total Hip Replacement

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## Abstract

The purpose of this qualitative research was to explore subjective experiences related to pre-operative patient education experience with total hip replacement (THR). Semi-structured, in depth interviews were used to collect data. Eleven participants aged 44 to 76 were recruited. Data were analyzed using a constant comparative method. Three categories emerged from interview data. 1) Obedience professions' knowledge: trust professions' authority, synchronization with instruction and satisfy information; 2) Worries restrict mobility and lose job: post-op activities changes and impact on daily work; 3) Information wanted by personal preference: motivation differently. Hopefully insights on pre-operative education to THR patients experience will provide valuable references for application in teaching materials for orthotics' nurse to improve THR care.

## Keywords

Total Hip Replacement, Patient Education, Qualitative Study

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## 1. Introduction

In parallel with the increasing number of older people in Taiwan, the proportion of individuals with osteoarthritis is increasing. Severed osteoarthritis caused pain and disability posing a heavy burden on the patient. Total Hip Replacement (THR) is an effective way to solve severe osteoarthritis [1] [2]. As a THR patient hospitalized 5 - 7 days and has paid by Taiwan National Health Insurance according to the Diagnosis related groups (DRG) system. Most of the patients are in hospital at the day before the operation. Only half a day limit time have to implement the whole pre-operative preparation, including the patient education. This is a big challenge to nurse staff through Taiwan surgical ward workload which is rapidly and routinely patient education. Little is known

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about patients' real preference of THR patient education under this urgent rhythm. Especially late middle age group/young elderly group, who face to this surgery risk often worry disability postoperatively. Therefore, the purpose of this study is to realize THR patients' views about subjective experience, education content and process. Through this study, we hope that we can realize patients' feelings to education, and then distinguish patients' education needs; moreover, become reference of patient-centered education intervention in the future.

### 1.1. THR Patient's Physiological and Psychological Distress

THR patient is defined as one who is admitted for received an elective surgery hospitalized 5 - 7 days but requires several months' rehabilitation for recovery. Under this surgical treatment and then is the main purpose is to decrease joint pain and improve joint function [3]. Patients' diagnosis with hip osteoarthritis, rheumatoid arthritis and femoral head osteonecrosis will receive THR. Following new analgesics developed and arthritis patients' pain could get more relieved. However, THR surgery is still the terminal step to solve their pain. Although the successful rate of operation is more than 90%, patients still need to face problem including operative risk, complications, post-operative care and rehabilitation. Therefore, patients need to know more about the operation and its influence to the future [4].

Studies showed patients who just hospitalized will feel stress because of the change of living environment, threatened by uncertainty of the disease, unknown to medical terminology, endured pain from examination and treatment, and worried about family or friends' response. They were even high anxiety before the operation [5] [6]. Scholar indicated that patients' fear of pre-operation and disease could induce high anxiety. Lue, Chang, Liu, Chen and Lu [7] investigated knee and hip replacement patients' anxiety degree and found that 31.33% of the patients have mild anxiety; 10.84% of the patients have moderate to high anxiety. Patients worried about including safety of anesthesia, success rate of the operation, complications, mortality, how long can awake after operation, wound pain, discomfort, post-operation physical function, rehabilitation time, when can walk and independent self-care, and recover level etc. If they adjusted inadequately, it will cause negative impact on their health [8].

Meanwhile, every patient had different anxiety level. Peoples' anxiety level will influence by their past experience and preconceptions experience. Non-experienced and negative-previous experience patients had higher pre-operative anxiety. Younger, female and lower education level had higher anxiety [9]. Female patients worry about postanesthesia can not awake, and male patients worry about pain [6]. Every patient has its individuality and different afraid item. Therefore, individual assessment is necessary before operation. As what is concluded from the above, nurses need to face many challenges when provide emotional care for pre-operative patients.

Not only based on the medical treatment but also humanity caring, nurses hope to help patient recovered from operation fast and safe. Joint replacement patients need to actively participate in pain control, rehabilitation and daily care [10]. The pre-operative education is an important part of operation; it can enhance patient's knowledge about operation and their compliance. Pre-operative patients with psychologically distress will have more pain complaint and lower satisfaction level [9]. So be careful to manage patients' psychological distress is very important.

### 1.2. Education for THR Patient

Recently, inform pre-operative patient that they have the right to know is taken seriously. Under the pressure of hospital administrator, nurses explain the purpose and risk of the operation, routine process, the situation they may face and future management at a day before operation or the operation day. Let patient receive huge information in one time [11]. According to American Association of Orthopedic Surgeons (AAOS), patients' education should include knowledge about operation and rehabilitation, sign of pulmonary embolism (such as shorten breath, tachycardia, anxiety, chest pain, hemoptysis, hypotension and dizziness) and deep vein thrombosis [4]. Taiwan scholars suggested hip replacement education should include operating leg correct positioning, turning, ambulation, rehabilitation, walker or crutches using, self-care and home care [12] [13].

## 2. Methodology

The study consisted of 11 qualitative interviews of THR preoperative hospitalized patients at one medical center in northern Taiwan. All patients were informed about the study verbally by the researcher. After giving their written consent, the patients were guided to the meeting room of the ward. Exclusion criteria were difficulties in

speaking and understanding the Mandarin Chinese and obvious dementia.

Based on the authors' clinical experience and previous study, a semi-structured interview guide was constructed before the study [14]. The guide was tested on one THR patient and then revised slightly. The guide was then reviewed by a group of researchers with interviewing experience (Table 1). Eleven of the interviews were done by the third author who has been working as an orthopedics nursing clinical supervisor for about 20 years. Each interview took about 30 - 40 min. Interviews were tape-recorded. Demographic data and diseases information and past operative experience were collected from the patient records.

## 2.1. Analysis

Data were analyzed using qualitative content analysis as described by scholars [15]. First, the recorded tapes were repeatedly listened to and all the interview records were read through in order to get an overall sense of the patients' views. Next, the verbatim data were read line-by-line in order to identify statements related to THR. These statements were marked, and tentative codes were written in the margin for the detection of emerging patterns. Differences and similarities among codes were compared, and codes that were similar in content were subsequently grouped and classified into various categories.

## 2.2. Trustworthiness

To validate the results, responses to questions were further probed several times during the interview, to gain deeper understanding. Coding and development of the categories were done by the first author. The third author read all the condensed units of meaning and also questioned the preliminary analysis. After 11 interviews, no new categories or subcategories were developed, and then stop collected. The third author has been working as an orthopedics nursing clinical supervisor for about 20 years and the first author is a senior researcher in nursing.

## 2.3. Ethical Considerations

Ethical considerations were observed according to the recommendations of Helsinki declaration, as suggested by Wilkie [16]. This study has been approved by the Institutional Review Board of the hospital where the study was conducted (IRB No: 93-11-08A).

## 3. Findings

A total of 11 THR patients were interviewed in the ward. The patients were between 44 and 66 years of age. The average age was 58.5 years; most of their marital status was married; most of their education level was elementary school. All patients had operation experience before. More demographic data can be found in Table 2.

Three major categories emerged from the participants' experience with THR patient education. First category is "Obedience professions' knowledge". This category comprised three subcategories: believe in physicians' authoritative, passive learning and accept the fate. Second category is "Worries to mobilized and lose the job". This category comprised two subcategories: post-op activities changes and impact on daily work. Third category is "Information wanted by personal preference". This category comprised one subcategory: Learning motivation individual differently. The following are the findings of the categories and subcategories (Table 3):

**Table 1.** Interview guide.

After welcome and introduction of researcher:
Have you had surgery experience before?
Do you feel anxiety about the THR surgery? If do, what strategy have you done to adjust this anxiety?
Please describe what kind of the THR education nurse gave to you in the ward and THR education means to you?
Did you feel current THR patient education is effective?
Did you satisfy current THR patient education arranged? Did it (THR patient education) reach your individual needs?

**Table 2.** Demographic data.

Patient no.	Age	Gender	Marital status	Educational level	Primary Diagnosis	Past operative experience
C1	47	Male	Married	College	R't THR Loosening	Yes
C2	53	Male	Married	College	P't FNF s/p pinning loss of reduction	Yes
C3	63	Female	Married	Elementary school	L't THA Loosening	Yes
C4	51	Female	Married	Elementary school	L't OA hip	Yes
C5	60	Female	Married	Elementary school	L't OA hip	Yes
C6	49	Female	Married	Senior high school	R't INFH	Yes
C7	76	Male	Married	Elementary school	R't INFH	Yes
C8	74	Female	Married	Senior high school	L't OA hip	Yes
C9	50	Male	Divorced		L't AS hip	Yes
C10	76	Female	Widowed	Elementary school	Bil OA hip	Yes
C11	44	Male	Married		Bil INFH	Yes

**Table 3.** The category and subcategory of nursing education for pre-op THR patient.

Category	Subcategory
Obedience professions' knowledge	1. trust professions' authority
	2. synchronization with instruction
	3. felt satisfy information
Worries restrict mobility and lose job	1. post-op activities changes
	2. impact on daily work
Information wanted by personal preference	1. motivation differently

### 3.1. Obedience Professions' Knowledge

#### 3.1.1. Trust Professions' Authority

Ask around who is the best/famous doctor, wandering on the hospitals searching for second opinion, ask physicians with different treatment strategies, and feel secure more to be educated by physicians. As a case (C5) said: *"I have a friend had a same problem. She told me which doctor is the best. Well, we are business people, so we had heard much information related to the plans to solve THR."* Other case (C2) said: *"I prefer doctor do the THR education for me or let me participate my education process. If so, I feel it is more effective and give me confidence."* Another case (C7) said: *"I trust on Director Chen, I felt proud that he did the operation for me."*

#### 3.1.2. Synchronization with Instruction

Patients' education needs were just part of patient role obligation in Taiwan. Generally, patients didn't want to get more information and not used to questioning. They expressed lower desire to get more THR information from their physicians or nurses. On the other side, because of heavy working load (average take care of 8 patients/dayshift), nurses just want to finish THR education in the admission as soon as possible. Thus, patients' THR individual education needs are easy to be neglected consequently. If the doctor as a case (C10) said: *"What is THR education? Oh, I know! It is just a piece of paper that a physician (or a nurse) gave me at outpatient clinic."*

#### 3.1.3. Felt Satisfy Information

Influence by Confucianism and Moderation thinking, Taiwanese adapt themselves to circumstances. This view also reflects on their disease experience. Patients pleased with the information which enables them to understand the disease, as patients, not to ask questions too much. As (C4) said: *"I have seen the education pamphlet. I de-*

*liver my body and disease to the institution (hospital and doctors). It is a nature thing; I didn't understand the disease, though I didn't dare to ask."*

### 3.2. Worries Restrict Mobility and Lose Job

Patients afraid that physical activity will be affected after operation. In addition, they worry about lose job and not qualified the job requirement they used to be.

#### 3.2.1. Post-Op Activities Changes

Some cases mentioned about activities changes after THR surgery. A case (C2) asked some questions about activity, sex life and diet: *"What kind of position should I avoid? Should I avoid moving heavy objects? How long should I stop intercourse?" "What nourishment, as calcium, should I intake?" "Like my case, put bone nail into the leg will it take more time to recover?"* Another case (C4) said: *"Crutch is necessary for months after joint replacement. After that, can I walk without assistive devices?"*

#### 3.2.2. Impact on Occupation

After THR operation, patients need to take sick leave for a period of time. Thus, some patients worked in private company worry about their job can't maintain. As a case (C1) work in service industry said: *"I work at a private company, they don't allow me to take sick leave too long. Everybody has different work content. If I took three month off, others have to cover my works. Although they didn't mind it, I will still feel embarrassed."* Another case (C7) worry that taken too many days off will affect their career *"The rehabilitation took too long, that was very inconvenient"*. An advertising company employee (C7) said: *"I got laid off, so I came here had time do the THR. I will find a new job after THR recovery."*

### 3.3. Information Wanted by Personal Preference

#### Motivation Differently

The depth of educational content depends on personal demand. Somebody felt scared if the image was too realistic; somebody wanted to know more, but somebody thought they won't understand so just asked their children to be educated. As a case said (C7): *"Handout is better because I forget the contents soon after I watched the education video."* Another said (C9): *"I have an operation before and the THR educational content is similar."* Despite repeat THR information provided, patients confirmed and accepted the education. As a case (C6) said: *"I knew more about it after I watched the video. I won't know it if I didn't watch it. This video can help me to be well prepared."* Another said (C5): *"I think the education was clearly with that video. My family would also know how to take care of me if they watched it together."* The other said (C8): *"Could you tell us whether the operation have some risks? Is it dangerous? What should I do before the operation? Could you please tell me more details after the operation?"* And case C8 said he refuse to watch the video because he scared blooded and realistic images. *"I thought I would see some operative images in the video."*

## 4. Discussion

### 4.1. Obedience Professions' Knowledge

We found that the patients admire the hospital workers' authority with which it was not possible to argue or disagree. The patients believe the superior knowledge of health care professionals especially the doctor is a health team leader, which enhances patients' confidence. Edwards, Davies and Edwards [17] used meta-study approach to synthesis 7 studies. There were three themes of information exchange were found including non-empowered who non-user of information relies on doctor as ultimate information source; disempowered who healthcare practitioner regulated information, and empowered who patient-regulated information. Patients' motivation to seek information, the management of that information and its risks and information exchange in consultations can lead to empowerment. Our results are not quite the same with Edwards *et al.* [17] study. In present study, we found that patients only passively accept authoritative advice, they did not feel participation—but did not want to either. It may be patient with older age and the traditional Chinese character with more docile. However, patient empowerment is still the future direction to improve information exchange between patients with professionals.

## 4.2. Worries Restrict Mobility and Lose Job

After THR surgery, patients worry about mobility changed, similar as Japanese Scholar's study osteoarthritis patients after THR experience. In their study found that participants' anxiety was heightened around the time of discharge because of worries about dislocation and living at home with prosthesis [18]. The result of this study was similar with the previous results [19] [20]. Gustafsson, Ekman, Ponzer and Heikkilä [21] use phenomenology to interview 16 knee or hip replacement elderly people (above 65 years old). One of them said: "When I was young, I had been in hospital for a long time because of hip fracture. Maybe that's why now I feel more afraid of this hip replacement operation." Another also questioned about post-op life type: "Will I have more quality of life after THR? Can I do everything just like before?" It told that they worried whether they could have a regular life like before.

## 4.3. Information Wanted by Personal Preference

Most of the participants of this study were middle age and early elderly; this age group generation had lower learning motivation than younger. Thus, it seems possible that the preference of patients belongs to non-participant in THR education learning process. Little of patients can express preference of THR education. The study has investigated THR patients' perspectives of pre-operation THR education. It showed they did not clearly express their THR education needs. They want to be informed and listened to; they wanted to enjoy top-down communication with their health education providers. The result is similar with the previous study. Loft, Mc William, and Ward-Griffin [22] found five themes emerged centering on a strong desire to maintain independence through data analogist. Overall, participants experienced disempowered relationships with professional in-home care providers and a more equitable empowered relationship with nonprofessional care providers.

## Limitation

This generalizability of these findings is limited by the small sample of subjects from only one medical centre in Taipei.

## Further Research Suggestion

In future need to consideration the elderly THR education preference for participation in their hospital care. More research is needed to realize the elderly THR patients' needs. Hopefully to find a way that can take into both efficient and satisfy patients' individual needs.

Clinics should provide valuable THR information that fit the speed of orthopedic wards via pamphlet and/or audio-visual materials to increase THR knowledge and increase awareness of the THR education demands. And encourage patients to share THR successful experience and strengthen out-patient clinic THR education.

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