

Case Report: Fear of Falling in Postoperative Total Hip Replacement in Older Persons in Thailand

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ABSTRACT

Falls are one of the most common causes of hip fracture that required hospitalization and it is one of the leading causes of death in older people. Hip arthroplasty will help the patient move their body faster and helps to reduce complications from being bedridden. The majority of older people who have fallen will have a fear of repeated falls and avoid practicing daily activities. This fear of falling results in the inability to perform simple activities, decreases their quality of life and makes them more dependent upon others to perform simple tasks. In order to prevent complications and follow the guidance of the nursing care, nurses play an important role in caring for patients, both before and after surgery. The objective of this case study is to reduce the fear of falling by implementing the self-efficacy promotion program on older people who have a fear of falling after hip replacement surgery. The results showed older people with postoperative total hip replacement and after participating in the self-efficacy promoting program, had a lower fear of falling compared to high to mild to moderate fear of falling. The people who followed the self-efficacy program were able to walk with a supportive device and had no complications after surgery.

Keywords: Fear of falling, Hip replacement surgery, Self-efficacy, Older persons, People

INTRODUCTION

A 72-years-old Thai female patient was hospitalized after she slipped and fell in the bathroom. Her right hip hit the floor, became swollen and deformed, and very painful. She was unable to walk and her relatives brought her to the hospital. She was diagnosed of a closed fracture neck of the femur and was admitted to the surgical department to prepare for surgery. Her vital signs were: T 37.3 C, BP 130/80 mmHg, P 74 / min, RR 22 / min. Both of her legs were not the same length, but she was able to move her ankles. The doctor ordered treatment with a skin traction weight of 2 kilograms and for 7 days before surgery for a Total Hip Arthroplasty. Three days after surgery, she had stiffness while the nurse tried to turn her to the side and she refused to sit in bed. Even after receiving morphine for pain relief, she still had muscle cramps and did not cooperate with any activities. Then, she was assessed on fear of falling using the Thai Falls Efficacy Scale-international (Thai FES-I) [1] and found that she had a high-level fear of falling with a score of 60.

EPIDEMIOLOGY

Falling is one of the leading causes of hospitalization and the death in older people. It has been shown that 70% of the cause of death from injury in people aged 75 and over was

falls, especially in those with hip fractures. Injury after a falling accident causes an older person to restrict their activities, resulting in lower quality of life and more dependence on others [2]. Older people with hip a fracture at the hospital perceived incompetence, dependent person, lack of confidence in their own physical condition, and fear of recurrence falling [3].

PATHOPHYSIOLOGY

Age-related changes can involve with maintaining balance and stability and environmental factors can increase the risk of falling. Over 50% of falls among older people result in an injury. About 5% of falls result in fractures of the humerus, wrist, or pelvis and about 2% of falls result in a hip fracture [4]. Older people with falls and hip fractures often receive operation with hip arthroplasty that will help them to

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mobilized faster and reduce complications from a long hospitalized.

CLINICAL MANIFESTATIONS

Fear of falling refers to the perception of older person's level of confidence in performing daily activities safely without falling [5]. The fear of falling is a problem for the older persons' lifestyle, especially in psychosocial aspect. Older people who fall down and need hip replacement surgery in the hospital will try to avoid performing their daily activities after surgery because they feel uncomfortable and have a fear of repeated falls [4]. They will also avoid participating in social activities due to a perception of low self-performance, and lack of confidence in their own abilities from fear of falling [6].

IMPACT FROM FEAR OF FALLING

The fear of falling has firstly, impact on physical health. A fall can cause injuries ranging from mild to severe. Secondly, impact on psychological and emotional behaviors, older people who fall often have difficulty in walking, due to a fear of falling and are not confident in performing activities [7], resulting in longer hospitalization, and are often unable to live with normal life. This would cause stress, anxiety, lack of self-confidence, low self-esteem, and fear of repeated falls. Finally, impact on socio-economic, including medical expenses, family members cannot go to work or have to hire someone to assist and long-term care will be provided if disability is present. All of which have implications on quality of life of older people [8].

THE EFFECT OF SELF-EFFICACY PROMOTING PROGRAM ON FEAR OF FALLING

Efficacy expectations are a major determinant of people's choice of activities. This expectation is known as perceived self-efficacy that influences choices of behavior. It is the confidence in one's ability to perform behavior towards a set goal. In social learning analysis, expectations of personal efficacy are based on four major sources of information: performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal [9]. The self-efficacy theory was applied to develop a self-efficacy promoting program on fear of falling. It was a nursing intervention that was developed by Jaipiti and Sasat [10] for older people who were admitted in orthopedic wards with fear of falling after hip replacement surgery to encourage perception of her own competencies and have no fear of falling. This intervention was conducted with the permission from the patient and her surgeon. It was consisted of 4-week activities, 2 times a week, 1 hour each time, a total of 8 times as follows;

- **Session 1:** Day 3 after surgery. Assessing fear of falling with the Thai Falls Efficacy Scale-international (Thai FES-I) [1] before starting activities. Step 1, verbal persuasion for relationship building, giving health education about hip arthroplasty and postoperative

rehabilitation and illustrative examples of patients who have had hip replacement surgery and being able to perform activities on their own. Step 2, organized activities to see the post-operative symbolic model, such as demonstration with muscle exercise, sitting, standing, and walking with a support device.

- **Session 2:** Day 5 after surgery. Step 3: Enactive mastery experience by organizing a self- practice activity after watching a video of the symbolic - modeling demonstration with muscle exercise, sitting, standing, and walking. Then process to Step 4, stimulate physical aspects and emotions that affect the efficacy of the patient by asking for symptoms and assess the vital signs and pain before starting each activity. The pain relievers will be given according to the treatment plan.

It was noted that the patient had a lower fear of falling and needed to follow the model in the video. She said; "When the nurse came to teach and show me an example on VDO. It gave me encouragement. When I saw him walking, I must be able to walk like him.

- **Sessions 3-4:** Day 9-12 after surgery. The activities were performed according to the same procedures as the 1st and 2nd sessions starting from Step 2 to Step 4.
- **Session 5-6:** After being discharged to home, giving a phone call to motivate the patient to continue activities at home, discussing problems and obstacles, asking for symptoms and received inquiry, including prompt correct behavior. This state took 10 - 15 min at a time.
- **Session 7:** Stimulating the physical and emotional aspects at home. Followed up patient's physical and emotional condition on the phone to discuss problems and obstacles to do activity, giving question and answer, including prompt correct behavior. This state took 10 - 15 min at a time.
- **Session 8:** Day 28 after surgery, on the appointment date with the surgeon at the Orthopedic OPD for the postoperative examination and evaluation of fear of falls (Thai FES-I).

It was found that, after the case study received the self-efficacy promotion program for 4 weeks, the fear of falling had been reduced from high level fear of falling (score 66 points) to mild - moderate fear of falling (score 20 points). She was able to walk with a support device and had no complications after surgery. She said;

"When I can walk, I'm very happy. I'm not a burden. If I'm afraid of walking, I probably just lie in bed."

DISCUSSION & CONCLUSION

The self-efficacy promoting program promotes the awareness of patient's competencies through supporting resources based on Bandura's self-efficacy theory [9] as

follows; Using the persuasive words, suggestion and explanation for helping people to believe in their own abilities, as well as giving knowledge about hip replacement surgery and rehabilitation in order to encourage patients to perceive their own competencies to achieve success. Appropriate behavior through encouragement, motivation, and appreciation of practice activities have led to confidence building in performing postoperative activities [11]. Seeing the experience of others is one of the activities that causes behavior change [12]. Older person had seen the symbolic modeling and the life modeling through video and practice demonstration, this led to the perception of one's competence and more confidence, resulting in no fear of falling in the practice of activities. Training activity after surgery, including following the video activities and ability to follow it properly, resulted in raising confidence in one's abilities. It is believed that many self-fulfilling experiences are the most effective means of improving one's perception of competence [9]. Direct experiences that have been successful have the greatest influence on the perception of one's competence, resulting in the ability to accomplish activities without fear of falling. Helping older people to be confident with their own body condition by follow up on the phone to discuss problems and obstacles in doing activities at home in a relaxed and friendly atmosphere, would increase self-efficacy. It is believed that changes in behavior is the result of the learning process [9] and led to a change in thinking and less fear of falling. It can be concluded that older person who had hip replacement surgery after receiving the self-efficacy promotion program had less fear of falling. Nurses, therefore, should assessing problems and managed them with nursing process skills and a holistic care approach, to play a key role in coordinating with a multidisciplinary team and patient's family, and giving counseling by providing information about the care of older people after hip surgery.

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