

GENERIC NURSING CARE FOR ELDERLY PEOPLE WITH PHYSICAL MOBILITY DISORDERS AT KATSUREN HOSPITAL

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ABSTRACT

Problems that often occur in the elderly are caused by the aging process because it causes changes in the body system, one of which is the musculoskeletal system that causes impaired physical mobility. The purpose of this case study is to determine the description of nursing care for the elderly with impaired physical mobility at Katsuren Hospital. The study period was December 2024. This type of research is descriptive using a case study approach. Data were collected through interviews, observations, and measurements. The subject in this case study was an elderly person with impaired physical mobility. The results of the assessment found that the client complained of difficulty standing and moving from one place to a wheelchair, stiffness and pain in the hands, waist, feet and toes, and the client was at risk of falling because of a history of falls. The main nursing diagnoses that emerged were impaired physical mobility, risk of falls, and impaired skin integrity. The implementation was ambulation training with a wheelchair, ROM exercises, fall prevention with environmental modifications, and pain management with deep breathing techniques. The nursing evaluation showed that the results of the muscle strength of the left hand and left leg increased to 4 from the previous 3, this indicates that the problem was partially resolved.

Keywords : disorders; elderly; nursing care; physical mobility

INTRODUCTION

Elderly is the final stage in an individual's life process or a period where individuals naturally experience various changes in balance, both in terms of physical, mental, social and spiritual aspects, with ages above 60 years (Ruswadi & Supriatun, 2022). Aging is the cumulative process of changes occurring in living organisms, including the body, tissues, and cells, which experience a decline in functional capacity. Aging is a condition that occurs throughout life. It occurs not only at a specific point in time but also from the very beginning of life. Human aging is associated with degenerative changes in the skin, bones, heart, blood vessels, lungs, nerves, and other body tissues (Widiyawati & Sari, 2020).

Ariyanto's 2020 research on "Physical Activity and Quality of Life in the Elderly" in Yogyakarta found a correlation between physical activity and quality of life in the elderly. Lack of physical activity leads to chronic diseases in the elderly, such as stroke, joint disorders, diabetes mellitus, and cancer. The study concluded that there is a relationship between physical activity and quality of life in the elderly; the more physical activity, the better the quality of life (Ariyanto et al., 2020). Japan has the highest percentage of elderly people in the world. Currently, Japanese people aged 65 and over account for 29.1% of the total population of 36.2 million. Currently, the number of Japanese people aged 80 and over is approximately 12.59 million. Meanwhile, the number of Japanese people aged 75 and over is 20.05 million, or 16.1 percent of the total population. This is the first time that the number of elderly people aged 75 and over has exceeded 20 million. Women make up 56.6 percent of the elderly population in Japan, or 20.5 million people. Meanwhile, the

number of elderly men is 15.7 million. This difference indicates that the average life expectancy of women in Japan is longer than that of men. Japan's population has been shrinking and aging for decades. This is because many young people are delaying marriage and having children due to job instability and economic hardship. The population of elderly people aged 75 and over in Japan continues to age. As a result, more than 9 million elderly people are still working. This number is equivalent to 13.6 percent of the workforce or 1 in 7 workers in Japan (Geriatrics, 2023).

The hospital in Japan that became the place for the author's research is Katsuren Hospital. Katsuren Hospital was founded on April 1, 1978 and is located in Itoman, Okinawa, Japan. Katsuren Hospital is a hospital for the elderly who require neurological and psychiatric care. This hospital has a land area of 27,810.87 square meters and has 446 beds divided into 7 wards. One of the wards was used by the author to complete this scientific paper by taking a sample of a 79-year-old female elderly with a medical diagnosis of impaired physical mobility. The nursing diagnoses that appeared in the patient were impaired physical mobility related to joint stiffness, impaired skin integrity related to decreased mobility, and risk of falls related to decreased muscle strength. The interventions carried out were providing range of motion exercises, isometric and isotonic muscle contractions, strength/endurance, aerobics, posture, and adjusting body position.

Impaired physical mobility is a limitation in the independent physical movement of one or more extremities caused by several causes including damage to the integrity of bone structure, metabolic changes, physical unfitness, decreased muscle control, decreased muscle mass, joint stiffness and others. Impaired physical mobility is characterized by complaints of difficulty moving the extremities, decreased muscle strength and decreased range of motion (PPNI, 2016).

Based on a preliminary survey conducted in room 11 of Katsuren Hospital, Japan on December 1, 2024, there was a 79-year-old woman experiencing problems with physical mobility. The elderly experienced impaired physical mobility characterized by the use of mobility aids. Problems in elderly with impaired physical mobility are generally joint pain, difficulty standing for long periods, difficulty walking long distances, back pain, muscle weakness, impaired balance, stiff joints, and difficulty performing daily activities. The diagnosis established from this case is impaired physical mobility related to joint strength, impaired skin integrity related to decreased mobility, and risk of falls related to decreased muscle strength. Actions that can be given to elderly women with impaired mobility include ROM exercises, isometric and isotonic muscle contractions, and adjusting body position.

Based on the explanation above, the author is interested in discussing physical mobility disorders in the elderly with the title "Gerontic Nursing Care for the Elderly with Physical Mobility Disorders at Katsuren Hospital".

METHOD

This research is a descriptive study using a case study approach. The subject was an elderly woman with impaired physical mobility at Katsuren Hospital, Japan. Data collection techniques included interviews, observation, assessment, intervention, implementation, and evaluation of nursing care.

RESULT AND DISCUSSION

Table 1
Assessment of Muscle Strength

Scale	Muscle Strength Percentage	Characteristics	Upper Extremities		Lower Extremities	
			Left	Right	Left	Right
0	0	Perfect paralysis				
1	10	No movement, muscle contractions can be palpated or seen				
2	25	Full muscle movement against gravity				
3	50	Normal movement against gravity	√		√	√
4	75	Normal full movement against gravity and against minimal resistance		√		
5	100	Normal strength, normal full range of motion against gravity and full resistance				

Table 1 shows that the muscle strength of the right hand is 4 and the muscle strength of the left hand is 3. The muscle strength of the right leg is 3 and the muscle strength of the left leg is 3.

Table 2
Barthel Index

Criteria	With The Help of	Independent	Information	Mark
Eating	5	10	Frequency: 3 times a day	10
Drinking	5	10	Amount: Sufficient	10
Transferring from wheelchair to bed/vice versa	5-10	15	Type: Rice, vegetables, side dishes	10
Personal toileting (washing face, brushing teeth, combing hair)	0	5	Frequency: 6-8 times a day	0
Getting in and out of the toilet (washing clothes, wiping body, flushing)	5	10	Amount: A small cup	5
Bathing	5	15	Type: Ocha	5
Walking on level ground	0	5	Needs help from others	0
Going up and down stairs	5	10	Using diapers	5
Getting dressed	5	10	Needs help from others	5
Bowel control	5	10	Needs help from others	5
Bladder control	5	10	-	5

Criteria	With The Help of	Independent	Information	Mark
Exercise/Exercise	5	10	-	5
Recreation/Time use	5	10	Needs help from others	5
Total Value:				70

Table 2 The assessment results show a score of 70, which means the client is partially dependent.

Table 3
Morse Scale Assessment

No.	Assessment	Scale	Scoring
1.	Fall history: Has the patient fallen in the last 3 months?	No Yes	0 25
2.	Secondary diagnoses: Does the patient have more than one medical condition?		0 15
3.	• Ambulatory aids:		0
	• • Bed rest/nurse assistance		15
	• • Crutches/cane/walker		30
4.	• Holding on to objects around them	No Yes	0 20
5.	Gait/Movement:		0
	• Normal/bed rest/immobile (unable to move independently)		10
	• Weak (lack of energy)		20
6.	• • Impaired/abnormal (limping/dragging)		0 15
Total Value			100

Tabel 4
Short Portable Mental Status Questioner (SPSMQ)

Questions	Correct	Wrong
What date is today?		√
What day is it?		√
What is the name of this place?		√
What is your address?	√	
How old are you?	√	
When were you born? (at least your birth year)		√
Who is the current president?		√
Who was the previous president?		√
What is your mother's name?		√
Subtract 3 from 20 and keep subtracting 3 from each new number, all in descending order.		√
Sum	2	8

Table 4. The score obtained from the assessment **results is 8**, so it is concluded that the client has **moderate intellectual impairment**.

Assessment

Katsuren Hospital is a hospital for the elderly who require neurological and psychiatric care. This hospital has a land area of 27,810.87 square meters and has 446 beds divided into 7 wards. One of the wards was used by the author to complete this scientific paper by taking a sample of a 79-year-old elderly woman with a medical diagnosis of physical mobility disorders. The main complaint felt by Mrs. T was difficulty moving her right and left hands and feet. The results of the assessment obtained BP: 140/80mmHg, N: 84x/minute, S: 36.3°C, Rr: 20x/minute. The upper extremities were symmetrical, no wounds, no edema, CRT 2 seconds, the hands seemed difficult to grip. The muscle strength of the right hand was 4 and the muscle strength of the left hand was 3. The lower extremities were symmetrical, no wounds, no edema, CRT 2 seconds, the muscles of the right and left legs looked weak. Right leg muscle strength 3 and left leg muscle strength 3.

Nursing Diagnosis

In Mrs. T's case, the diagnosis was Impaired Physical Mobility related to decreased muscle strength, namely, limitations in independent physical movement of one or more extremities. Impaired Skin Integrity related to decreased mobility, namely, skin or tissue damage. Risk of Falls related to decreased muscle strength, namely, the risk of experiencing physical damage and health problems due to falls. This nursing diagnosis is in accordance with the Indonesian Nursing Diagnosis Standards. This diagnosis was established because of the presence of signs and symptoms that meet the characteristic limitations of impaired physical mobility. Subjectively, the patient reported stiffness and difficulty moving her hands and feet. Objective data showed decreased muscle strength and range of motion (ROM) (Sari, 2022).

Nursing Interventions

The first intervention is impaired physical mobility related to decreased muscle strength and joint strength. Nursing interventions for impaired physical mobility are aimed at increasing physical mobility and ambulation. Physical mobility increases with the outcome criteria of increased limb movement in the elderly, increased muscle strength in the elderly, and increased range of motion (ROM). Ambulation increases with the outcome criteria of the elderly being able to walk with increased effective steps and decreased joint stiffness. These goals can be achieved by providing nursing interventions for ambulation support and joint strengthening exercises. Ambulation support interventions include explaining the procedures and objectives of ambulation, identifying physical tolerance for ambulation, monitoring blood pressure before starting ambulation, monitoring general condition during ambulation, facilitating ambulation activities with wheelchair assistance, and involving caregivers in facilitating ambulation exercises for the elderly. Prior to that, provide training to caregivers regarding ambulation exercises so that caregivers can continue this intervention with clients.

The second intervention is the risk of falling related to decreased muscle strength. Nursing interventions for fall risk nursing problems aim to reduce the fall rate. The fall rate decreases with the following outcome criteria: decreased falls from bed, decreased falls while sitting, decreased falls while being transferred. Fall prevention management interventions are identifying fall risk factors (e.g., age > 65 years), identifying environmental factors that increase the risk of falling (e.g., slippery floors, poor lighting), monitoring the ability to transfer from bed to wheelchair and vice versa, placing patients at high risk of falling under the supervision of nurses, recommending the use of non-slip footwear, recommending concentration on maintaining body balance,

recommending holding onto the handrails provided on the walls of the guesthouse, recommending widening the distance between the feet to improve balance, educating and involving caregivers in controlling factors that cause fall risk in clients, and involving caregivers regarding the proper and correct use of wheelchairs.

Nursing Implementation

Implementation of nursing for nursing diagnosis of physical mobility disorders related to joint stiffness, namely identifying the patient's ability to mobilize, identifying the presence of pain or other physical complaints, identifying physical tolerance for ambulation, monitoring general conditions during ambulation, facilitating ambulation activities with wheelchair aids, measuring blood pressure, pulse, respiration (TTV) before and after activities, explaining the procedures and objectives of ambulation, involving caregivers in assisting clients when doing ambulation exercises and helping clients move from wheelchairs to beds and vice versa, doing ROM exercises and teaching clients to do ROM exercises independently. During the implementation of nursing care, the client was very cooperative and responded positively, as she felt helped, particularly with her health issues. Ambulation is a procedure that improves muscle strength and endurance. Ambulation involves practicing sitting in bed, getting out of bed, transferring to a wheelchair, and so on. This activity is performed systematically gradually (Hidayat & Uliyah, 2021). This case study is strengthened by the research of Reza Rozanna et al (2022) who obtained research results after the implementation of ROM, the results of the nursing process evaluation obtained were an increase in balance where after the PSBB test assessment, namely: standing test from 1 pt to 3 pt, walking test from (18 seconds = 1pt) to (8 seconds = 2pt) and standing test from a chair from being unable to be done once to being able to do it 3 times in 23 seconds = 1 pt, lower extremity muscle strength became 4 and was able to do light activities independently such as washing dishes and washing several pieces of clothes.

Evaluation

Nursing evaluation is the assessment stage of the entire nursing process to determine whether the nursing care goals implemented for the client have been achieved. Nursing evaluation is conducted based on the Indonesian Nursing Outcome Standards (SLKI) and established outcome criteria. The nursing evaluation is conducted using the SOAP format. The nursing evaluation is conducted three days after the nursing intervention. On the first and second days, the client reported still having difficulty moving her limbs. After ROM exercises, the client was able to move her left limb slightly.

CONCLUSION

After 8 hours of nursing care every day for 3 days, the results obtained on Wednesday, December 3, 2024 showed an increase in muscle strength from 3433 to 4443. This was due to body movements such as ROM exercises. These ROM exercises prove that cases of physical mobility disorders can be partially resolved.

SUGGESTION

It is hoped that the elderly can improve the functional capabilities of their organs per system in fulfilling their health status and fulfilling the needs of the elderly so that these capabilities can be continuously applied in the daily lives of the elderly in their old age and train their physical members or exercise so that their physical condition is maintained the elderly remain healthy. The

researchers hope the research results will serve as a reference and comparison for future researchers conducting research on elderly people with physical mobility impairments.

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