

TREATMENT OF ELDERLY PARKINSON'S SUFFERS BY CARRYING OUT STRETCHING EXERCISE THERAPY AT AIWAKAI MEDICAL CORPORATION IKEDAEN OKINAWA JAPAN

Kamelia Aushofi, Riani Pradara Jati*

Sekolah Tinggi Ilmu Kesehatan Kendal, Jl. Laut 31 Kendal, Central Java 51311, Indonesia

*rianijati_95@yahoo.co.id

ABSTRACT

Parkinson's disease is the second most common neurodegenerative disorder suffered by many people after Alzheimer's disease. Parkinson's disease sufferers experience several symptoms, such as intellectual and behavioral disorders, dementia, memory loss, muscle weakness, catalepsy (slow and stiff movements) and tremors. Parkinson's disease is a disease that includes brain nerve disorders that trigger various problems such as the body's motor skills. Objective to provide information about the treatment of stretching exercise therapy to Parkinson's patients in increasing muscle strength, muscle balance, and fluency in communicating with everyone. The case study in this research uses a nursing approach method, such as assessment, nursing diagnosis, intervention, implementation, and evaluation. The intervention given to patients in this study was walking exercises with parallel bar physiotherapy. After being carried out for 3 days, it was able to increase muscle strength in Parkinson's patients, for example the patient showed that he could walk with the help of a nurse. Providing stretching exercise therapy intervention can improve balance in the leg muscles.

Keywords: exercise therapy; muscle strength; parkinson's

INTRODUCTION

Parkinson's disease is a brain condition that causes problems with movement, mental health, sleep, pain, and other health problems. Parkinson's gets worse over time. There is no cure, but therapy and medication can reduce the symptoms (WHO, 2023). International research estimates that there were 200,000 people suffering from Parkinson's in Indonesia in 2016. Research at the national level is still being carried out with a limited number of samples in certain hospitals, so it does not represent the number of Parkinson's cases in Indonesia. Meanwhile, in Japan alone there are around 150,000 Parkinson's sufferers. Symptoms usually appear around age 50, and the number of sufferers increases with age. Parkinson's disease can also appear before the age of 40 years, in which case it is called youth Parkinson's disease (Otsuka, n.d.). Parkinson's disease is the second most common neurodegenerative disorder suffered by many people after Alzheimer's disease. Parkinson's disease sufferers experience several symptoms, namely intellectual and behavioral disorders, dementia, memory loss, muscle weakness, catalepsy (slow and stiff movements) and tremors. Parkinson's disease is a disease which is classified as a disease which includes brain nerve disorders which trigger various problems such as the body's motor abilities (Rhani et al., 2021). There are two symptoms, namely motor and non-motor. Motor symptoms that often appear in Parkinson's sufferers are tremors, muscle stiffness, and postural instability. Meanwhile, the non-motor symptoms that appear involve many bodily functions, such as sleep disorders, cognitive disorders, memory disorders, dementia and sensory disorders (Wardhani & Manik, 2024). Some of the symptoms are tremors when resting, rigidity, bradykinesia, and reduced or lost postural reflexes. Basically, some of the symptoms experienced by sufferers are caused by the loss of dopamine nerve cells in the brain. The storage of dopamine nerve cells can be related to genetic factors, as well as external factors such as age, gender, NSAIDs. Trauma, anxiety, and exposure to chemicals.

METHOD

The case study method given to Mrs. S is 73 years old with complaints of impaired physical mobility, by providing stretching exercise therapy, such as walking exercises using parallel bar physiotherapy equipment. By using a nursing approach, namely assessment, nursing diagnosis, intervention, implementation, and evaluation. Exercise therapy itself in Indonesia for Parkinson's sufferers has begun to be considered and implemented. However, the success of this exercise therapy cannot be measured quantitatively. And also, existing publications and literature regarding the effectiveness of exercise therapy are not widely spread (Wardhani & Manik, 2024).

RESULTS AND DISCUSSION

Based on the case study that was given to Mrs. S with complaints of impaired physical mobility, during 3 days of management the results were obtained: On the first day the patient appeared to have difficulty standing, hesitated to take a step, and held the parallel bar too tightly. On the second day the patient still looked stiff, could step slowly and still hold on very tightly to the parallel bar device. On the last day the patient still looked stiff, could take wide steps, and was still holding the parallel bar tightly, making it difficult for the nurse to support the patient to step. Parkinson's is a progressive neurodegenerative disease that causes a decrease in brain function, giving rise to motor, non-motor and behavioral symptoms. The results of this study show that the symptoms experienced by Mrs. S with Parkinson's condition is postural instability. This can be seen from balance problems when walking. After implementation for 3 days with a training frequency of 10-15 minutes per day, the results showed an increase in muscle strength in patients. A good exercise method for Parkinson's sufferers is balance training, because it has a positive impact on increasing leg strength and balance control when walking (Ruben et al., 2017).

CONCLUSION

The case study on Mrs. S received a diagnosis, one of which was physical mobility impairment. The action given to the patient is in the form of walking exercise therapy using a parallel bar physiotherapy device. The results obtained by patients can be said to have increased muscle strength and decreased muscle stiffness in Parkinson's disorder. These results were obtained after the patient implemented it for 3 days with a frequency of 10-15 minutes per day.

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