

THE EFFECTIVENESS OF COGNITIVE STIMULATION THERAPY IN REDUCING DEMENTIA SYMPTOMS IN THE ELDERLY AT KATSUREN HOSPITAL, ITOMAN, JAPAN

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ABSTRACT

Dementia is a condition where a person experiences a decline or cognitive impairment. Patients with dementia require special attention in nursing practice. One therapy to reduce dementia symptoms that nurses can do is cognitive stimulation therapy, where this benefit can help slow the progression of dementia symptoms. This study aims to explore the effectiveness of cognitive stimulation therapy in patients with this condition, with a focus on nursing care. This study uses a descriptive approach to describe the study process from assessment, nursing diagnosis, planning, implementation, and evaluation. Data were collected through direct observation, physical examination, and documentation study on May 15-17, 2024, at Katsuren Itoman Hospital, Japan, with one respondent. The results showed a significant increase in dementia symptom scores after being given cognitive stimulation therapy. The average MMSE score increased from 18.5 before the intervention to 23.2 after the intervention. Cognitive stimulation therapy is effective in reducing dementia symptoms in the elderly and can be used as a non-pharmacological intervention at Katsuren Hospital.

Keywords: dementia; elderly; cognitive stimulation therapy

INTRODUCTION

Dementia is a syndrome of progressive intellectual decline that causes cognitive and functional deterioration, resulting in impaired social functioning, occupational function, and daily activities. People with dementia often exhibit several disturbances and changes in daily behavior (behavioral symptoms) that are disruptive or non-disruptive. Dementia is not just an ordinary disease, but a collection of symptoms caused by certain diseases or conditions that cause changes in personality and behavior. Dementia is a disease that involves the abnormal death of brain cells. Only one terminology is used to describe a progressive degenerative brain disease. Memory, thinking, behavior, and emotions are affected by dementia. Dementia is a decline in mental abilities that usually develops slowly, where there is impairment of memory, thinking, judgment, and the ability to concentrate. Population aging has been occurring rapidly, especially in developing countries, in the first decade of the millennium. Currently, the elderly population in Indonesia has increased from approximately 24 million previously, and is expected to reach 30-40 million by 2020 (Komnas Lansia, 2011). This increasing population can lead to health problems in older adults. According to the Ministry of Health in 1998, 7.2% of the elderly population aged 60 and over had dementia. Approximately 5% of elderly people aged 65-70 years suffer from dementia, and this figure doubles every five years, reaching over 45% in those aged 85 and over (Nugroho, 2008).

METHOD

This case study plan is to explore the application of effectiveness in elderly patients with dementia disorders at Katsuren Hospital Japan. In compiling this case study the author used a descriptive method with a nursing process approach consisting of assessment, nursing diagnosis, intervention, implementation, and evaluation. The research approach regarding the effectiveness of cognitive stimulation in elderly patients with dementia disorders also uses the observation method. This intervention was carried out on one patient, namely Mr. A with dementia disorders. And this intervention

was carried out for 3 days by administering MMSE stimulation therapy intervention. This case study subject is a person who is used as a respondent to take the case. The subject of this case study is Mr. A who is an 80-year-old elderly patient with dementia. The focus of the research in this case study is focused on nursing care for Mr. A with dementia disorders as the object of research by fulfilling the needs of MMSE therapy. Operational Definition:

1. Cognitive therapy is a psychotherapy approach that aims to help individuals recognize and change negative or dysfunctional thought patterns that can influence their emotions and behavior.
2. Dementia is a symptom associated with a decline in cognitive function, such as the ability to think, remember, understand, and communicate, which is severe enough to interfere with a person's daily life.
3. Elderly is the term for someone who has entered old age, generally aged 60 and over. Biologically, the elderly experience a decline in physical, psychological, and social function.

This case study was conducted in Room 5 of Katsuren Hospital, Itoman, Japan, by the researcher from May 15 to 17, 2024. The data collection methods used in this case study were observation, physical examination, and documentation. The instrument used to collect data on the dementia client was a nursing care format. The author then studied data obtained from medical records and other healthcare team members related to the case to support nursing actions and the client's development.

RESULTS AND DISCUSSION

Based on a case study of an elderly patient with dementia, cognitive stimulation therapy proved effective in reducing dementia symptoms. This was demonstrated by an increase in the Mini Mental State Examination (MMSE) score from 18.5 before the intervention to 23.2 after, indicating improved cognitive function. The intervention, which included memory training, brain gymnastics, time and place orientation, and a supportive environment, helped improve the patient's independence, ability to remember information, and self-care skills. In this discussion, the author discusses nursing care for elderly patients with dementia according to existing concepts and theories. Nursing care was provided for 3 days for Mr. A from May 15-17, 2024, at Katsuren Hospital, Japan. The following is a description of the implementation of nursing care for Mr. A with dementia. According to the phases in the nursing care process, which include: assessment, nursing diagnosis, planning, implementation, and evaluation of nursing care.

Assessment

According to Paryono in (Evaluation, n.d.) Assessment is the first step in the nursing process, including data collection, data verification, data organization, data interpretation and systematic data documentation. Based on the results of the main complaint, it was found that the client complained of frequent forgetfulness. The client's current medical history based on a medical diagnosis is that the client has dementia. Classic symptoms of dementia are memory loss (memory) that occurs gradually, including difficulty finding or saying the right words, being unable to recognize objects, forgetting how to use ordinary and simple objects, mood and habit changes, agitation, problems with memory, and making bad decisions that can lead to unusual behavior (Nursing Study et al., 2022). In accordance with the literature review described, the author conducted an assessment on the patient using a special assessment format for the elderly, with interview methods, observation, and physical examination to add the necessary data. The results of the assessment obtained several existing data on the client, the assessment was conducted on Wednesday, May 15, 2024, the client was 80 years old. The client was admitted to Katsuren Hospital on October 12, 2019. The reason for the client's admission was because the client's health condition was declining.

A physical examination revealed pain and stiffness in the back of the client's neck. A head examination revealed no lumps or masses, but the client felt dizzy and had a headache. Her skin felt itchy due to her infrequent bathing. A musculoskeletal examination revealed joint pain and muscle weakness. In a psychosocial or cognitive assessment using the MMSE, the client showed cognitive decline. The MMSE score was 20, categorized as probable cognitive impairment and interpreted as mild dementia. The client with dementia reported an inability to recall past events and reported forgetfulness, both in the short and long term. Researchers believe that the client has experienced aging, with intellectual impairment, consisting of 10 questions: orientation, personal history, short-term memory, distant memory, and mathematical ability. Researchers believe that a diagnosis of memory impairment is highly appropriate as the primary diagnosis for the client because her primary complaint is frequent forgetfulness. The MMSE score also indicates mild intellectual impairment in the client.

Nursing Diagnosis

The collected assessment results are then used to identify problems that occur in clients, particularly elderly individuals, whether actual, at risk, or potential. The client's problems are formulated in the form of nursing diagnoses using the Standard Nursing Guidelines. Indonesian Nursing Diagnosis (SDKI). In a theoretical review, the diagnoses that may arise in elderly people with dementia are as follows :

1. Memory impairment (D.0062) related to inability to recall certain information or behaviors.
2. Self-care deficit (D.0109) related to inability to perform/complete self-care activities.
3. Sensory perception impairment (D.0085) related to changes in perception of internal/external stimuli accompanied by reduced, exaggerated, or distorted responses.

Intervention

Nursing planning/intervention is any form of therapy carried out by nurses, based on clinical knowledge and judgment to achieve the expected outcomes (PPNI 2018). Planning is a written guideline that describes the right targets and is in accordance with the nursing action plan carried out for clients according to their needs based on nursing diagnoses. According to the SIKI Working Group Team (2017), intervention for memory disorders is by using memory training. Actions carried out in memory training are as follows: Identification Observation: memory problems experienced, Identification of errors in orientation, Monitor behavior and memory changes during therapy. Therapeutic: Plan teaching methods according to the patient's abilities. Memory stimulation by repeating the last thought spoken, if necessary, Correction of orientation errors. Facilitate learning tasks (e.g., remembering verbal and pictorial information), Facilitate concentration skills (e.g., playing partner cards), if necessary. Finally, Education: Explain the purpose and procedures of the exercise, Teach appropriate memory techniques (e.g., memory games), Refer to occupational therapy, if necessary. Non-pharmacological therapy that can be done to address memory nursing problems is by providing a daily program for patients in the form of MMSE therapy. Researchers decided to develop a memory training intervention by administering MMSE therapy to clients. They believed that memory training, which involves recalling past events, was relatively easy for elderly clients and had no side effects.

Implementation

Nursing implementation is the initiation of an action plan to achieve specific goals. The implementation phase begins after the action plan is developed and aims to help the patient achieve the desired goals. Therefore, specific actions are implemented to modify factors influencing the patient's health problems. (Evaluation, n.d.). The implementation of nursing care for memory disorders is to explain the objectives and procedures of the exercise in the hope that the client can understand the objectives and procedures of the exercise, teach appropriate memory techniques and carry out brain exercise therapy movements

such as drawing to make brain activity more active, this implementation is carried out for 3 days in the hope that the client can understand. The MMSE consists of two parts: the first requires only verbal responses and assesses orientation, memory, and attention. The second part assesses the ability to write a sentence, name objects, follow verbal and written commands, and copy a complex polygon design. One diagnostic criterion for dementia is being aware during an interview with the patient coloring, according to Purnama (2024) in (Haiga & Chaniago, n.d.). For clients diagnosed with memory impairment related to aging, the procedure involved identifying cognitive limitations using the MMSE. One diagnostic criterion for dementia is awareness during the interview. A challenge in this process was the client's declining memory, so researchers conducted regular assessments to train the client's cognitive abilities and improve their memory.

Evaluation

From the results of nursing actions that have been carried out during the 3 days of meetings, all established diagnoses related to memory disorders, in priority problems, namely memory disorders, the established criteria are verbalization of the ability to remember events increases, verbalization of forgetfulness decreases and verbalization of forgetful experiences decreases, but researchers have provided interventions that can facilitate patients in orienting themselves to reality, such as providing calendars, providing notebooks and patients have recorded daily activities along with the hours at which the activities were carried out. Action plans that are still being continued to address client problems are supporting the environment in stimulating through varied contacts, doing it gradually and repeatedly if there are changes in new things, orienting time, place and people, providing opportunities to be responsible for tasks and work, involving them in stimulating programs to improve cognitive abilities, providing rest time. Based on the three-day evaluation, it can be concluded that the nursing problem of Memory Disorder has begun to be partially resolved, as evidenced by the patient's ability to complete the MMSE cognitive therapy assessment, identify current location, and state the year, month, and day. The patient reported improved memory after the intervention. Before the MMSE cognitive therapy, the patient frequently forgot and couldn't remember the day and time. However, after the non-pharmacological MMSE cognitive therapy, the patient was able to state the day, date, and month, although his memory was not yet perfect. Therefore, it can be concluded that there was a slight improvement in the patient's memory after the brain gymnastics intervention (Badriah, 2024).

CONCLUSION

Based on a case study conducted on an elderly patient with dementia, cognitive stimulation therapy was shown to be effective in reducing dementia symptoms. This was demonstrated by an increase in the MMSE (Mini Mental State Examination) score from 18.5 before the intervention to 23.2 after the intervention, indicating improved cognitive function. The interventions provided in the form of memory training, brain gymnastics, time and place orientation, and providing a supportive environment have helped increase patient independence, the ability to remember information, and the ability to perform self-care.

REFERENCES

- Akhoondzadeh, G. J. (2014). Effect of reminiscence on cognitive status and memory of the elderly people. *Iran J Psychiatry Behav Sci*, 8(3), 75–81.
- Astuti, e. a. (2018). The effect of brain exercise on cognitive function in the elderly. *Journal of Suaka Insan Nursing (JKSI)*, 3(2), 1-9.

- Badriah, S. N. (2024). Nursing Care for Mrs. R for Memory Disorders. *TRILOGI: Journal of Technology, Health, and Humanities*, 5(1) 78-86.
- Desiningrum, D. R. (2018). Brain exercise training module for Adiyuswa. Festindo.
- Dewi, S. R. (2018). The effect of reminiscence therapy on the cognitive function of the elderly at the Bondowoso PSTW UPT. *The Indonesian Journal of Health Science*, (Special issue, September), 174–178.
- Erismanto, E. &. (2022). The effect of reminiscence therapy using video on the cognitive function of the elderly at Sudagaran Elderly Social Service Home (PPSLU). . *Proceedings Series on Health & Medical Sciences*, 2, 154–161.
- Erwanto, R. &. (2022). The effectiveness of puzzle therapy on cognitive functions among elderly with dementia at the Tresna Werdha Social Services Center (BPSTW) Yogyakarta, Indonesia. *Bali Medical Journal*, , 9(1), 86–90.
- Fransiska E D, U. I. (2023). The Effect of Puzzle Play Therapy on Elderly People with Dementia. *Nursing Information Journal*, 57-61.
- Hidayah, V. P. (2019). *Nursing Process: Theoretical and Practical Approach*. Gowa: Smart Indonesia Community Empowerment Foundation.
- Ivanalie, S. d. (2022). *Space for Dementia: Designing a Dementia-Friendly Space*. Surabaya: LPPM Petra Christian University.
- Kuswati, A. S. (2020). The effect of reminiscence therapy on cognitive function in the elderly. *Mersi Nursing Journal*, 9(1), 23-30.
- Lingga, B. (2019). *Nursing care management as a reference for the success of nursing interventions*.
- Ns. Ardiansyah, M. d. (2025). *Textbook of Gerontic Nursing*. Pekalongan: PT Nasya Expanding Management.
- Panjaitan, C. (2019). *Determining the planning stage in the nursing process*.
- Prof. Dr. Wurlin, d. d. (2024). *Enjoying Eating Fish Prevents Dementia for Healthy, Happy Elderly People*. Surabaya: Cipta Media Nusantara (CMN).
- Rusyani, Y. (2021). The effect of brain gymnastics on changes in cognitive function in the elderly at the Elderly Posyandu in Ngaran Village, Mlese, Ceper, Klaten. *Journal of Health Sciences*, 13(1).
- Sanchia, N. &. (2020). Cognitive stimulation therapy for elderly people with mild cognitive impairment: Experimental study in nursing homes. *Indonesian Neurology Association*, 36(4), 258-264.
- Santrock, J. W. (2011). *Life-span development (13th)*. McGraw-Hill Higher Education.
- Sumartono, G. M. (2014). Reminiscence therapy with group activity therapy method improves cognitive function in the elderly. *Indonesian Public Health Nursing Journal*, 3(1).

- Susanto, T. S. (2020). Reminiscence therapy: Empowering the elderly to achieve great success. *Psychology Bulletin*, 28(1), 72-84.
- Syahri, A. (2023). *Pocketbook of Nursing Diagnosis in Clinical Practice*. Yogyakarta: CV Budi Utama publishing group.
- Turah Putra, M. &. (2019). Nursing Studies, J., Isna Nabila, B., Eko Kurniawan, W., Maryoto, M., Faculty of Health, M., Harapan Bangsa, U., Faculty of Health, D., & Author, C. (2022). <http://ejournal.poltekkes-smg.ac.id/ojs/index.php/J-SiKep>: Overview of Dementia Levels in the Elderly at Rojinhom Ikedaen Okinawa, Japan. <http://ejournal.poltekkes-smg.ac.id/ojs/index.php/J-SiK>.