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Reminiscence Therapy For Cognitive Improvement and Mood Recovery in Dementia Patients

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ABSTRACT
Dementia is a degenerative condition that affects the cognitive function of the elderly. Symptoms of dementia include memory disorders, difficulty finding words and disturbances in thought processes, personality or emotional changes so that dementia can cause the elderly to be easily lost or lost. Purpose: This study aimed to determine the effectiveness of reminiscence therapy on cognitive and mood improvement in elderly people with dementia. This was a quasi-experimental study. This study used one group pre and post-test design. The study was conducted in October 2019 with a total sampling technique including 30 respondents who met the inclusion and exclusion criteria. The results show that the cognitive function improved after reminiscence therapy (mean of SPMSQ decreased from 5.7 to 3.13). The mood also improved after reminiscence (mean of mood score increased from 57.6 to 77.16). Reminiscence therapy is effective for cognitive and mood enhancement in dementia.

Keywords: Reminiscence Therapy, Dementia, Cognitive, Mood

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BACKGROUND

Indonesia has experienced an aging population, which projected population is estimated to increase by 10% in 2020, 15. 8% in 2035 and 18. 4% in 2050 (Ministry of Health RI, 2018). The increasing number of elderly people also increase in the incidence of geriatric diseases. There is expected to be a rise in conditions like dementia which leads to decreased cognitive function and productivity in the elderly (Alzheimer's Indonesia, 2019; Mendrofa et al., 2020).

Dementia is a degenerative condition that affects the brain and affects cognitive function in the elderly. Memory and executive function processing speed declined significantly over time, and at older ages, the decline was steeper (Zaninotto et al., 2018). People with dementia can experience a gradual decline in cognitive function, so continuous and chronic treatment is needed. Symptoms of dementia include memory problems, difficulty finding words and problems in thought processes, personality, or emotional changes so that dementia can make the elderly easily lost or lost (Sanchia & Halim, 2019).

The decline in cognitive function is a major concern for the elderly. Symptoms of mild cognitive decline include slowed thought processes, lack of use of appropriate memory strategies, difficulty focusing, easily switching to less necessary things, requiring a longer time to learn something new. These symptoms are common and normal for the elderly to experience even though these symptoms can lead to dementia and dementia which can affect daily life (Lök et al., 2019).

The number of people with dementia worldwide in 2017 reached 47 million people (Prince M, Wimo A, Guerchet M, 2015). In Indonesia, the Ministry of Health recorded an estimated number of elderly people with Alzheimer's dementia in 2013 as many as 1 million people. The results of a survey that was conducted in the city of Semarang, the number of people with dementia is not known with certainty because the level of recording and reporting of dementia cases is still low (Harding et al., 2017).

Increasing prevalence and progression of dementia requires an urgency to develop effective treatments in the management of the elderly with dementia. Impaired cognitive function is usually accompanied by worsening emotional control, behavior, and also motivation experienced by patients (Mendrofa et al., 2020; Prince M, Wimo A, Guerchet M, 2015; World Health Organization & Alzheimer's Disease International, 2012).

Several factors affect the cognitive function of the elderly, namely age, the ability to regenerate the brain, inadequate vascularization to the brain and hormones that can cause decreased quality of life, suboptimal functional status, and affect feelings of happiness and creativity (Lök et al., 2019).

In overcoming the problem of cognitive decline that harms the elderly, nurses as health workers can use therapeutic methods to reduce cognitive dysfunction in the elderly. One method of therapy is reminiscence therapy (Lök et al., 2019).

Reminiscence therapy is an intervention that uses memory to maintain mental health and improve quality of life. In this therapy activity, the therapist facilitates the elderly to collect back memories of the past that are fun since childhood, adolescence, and adulthood as well as client-family relationships, then sharing with others (Ilham et al., 2020).

This study aimed to determine the effect of reminiscence therapy on cognitive function and mood in the elderly with dementia. The research problem's formulation is "is reminiscence therapy effective in increasing the cognitive and mood of elderly with dementia?". This research's scope is the measurement of the cognitive function and mood of elderly with dementia.

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METHOD

The study was a quasi-experimental design without a control group pre and post-test. It was conducted between October to November 2020. The population in this study was 30 elderly with dementia at the Nursing Home in Semarang. This study used total sampling technique, thus a total of 30 respondents were contacted for sample selection, and all agreed to participate. Each participant was informed about the study's nature, purpose, benefits, the right to refuse or withdraw at any time, as well as the obtained data confidentiality. The study was conducted with 30 respondents who met the inclusion criteria. Participants were selected based on inclusion criteria: (1) minimum age of 60 years, (2) literate, and (3) able to enrol in the therapy. Respondents who did not enroll in the entire nine days were excluded. Information on the capacity to give informed consent was also provided during this process.

Therapy was conducted in 45 minutes per day for nine days. The day before the first time of reminiscence therapy, the respondents' cognitive function was measured by Short Portable Mental Status Questionnaire (SPMSQ) and the respondents' mood was measured by the Four Dimensional Mood Scale (4DMS) questionnaire. The two instruments have been standardized so there was no test of the validity in this study. Before data collection begins, the researcher asks prospective respondents to fill out the respondent's consent form. The data that has been collected is processed and analyzed using SPSS. Respondents' cognitive function and mood were then observed the day after the ninth day.

Before the final analysis, data were screened for normality assumption. The normality test of data using the Shapiro-Wilk test revealed that the data was not normally distributed. The respondents' demographic characteristics are reported as numbers and percentage distributions, and the Wilcoxon test was used to analyze the effect of the therapy on cognitive and mood. The study was declared to have passed the ethical review by the Research Ethics Committee Karya Husada Semarang College No.60/KH.KEPK/KT/I/2029.

RESULT

Cognitive score and mood status before reminiscence therapy

The cognitive value and mood of the elderly were measured the day before doing therapy. The measurement results can be seen in Table 1.

Table 1. Cognitive and mood score among the elderly with dementia before reminiscence therapy

Variable	N	Minimum	Maximum	Mean	SD
Cognitive score	30	4	8	5,7	1,165
Mood	30	53	64	57,6	3,790

Table 1 shows that the cognitive mean score of 30 respondents before reminiscence therapy is 5.7 with a standard deviation of 1.165, meaning that most of the data in the collection is 1.165 from the average. The definition of standard deviation is the statistical value used to determine how the data are distributed in the sample, and how close the individual data points are to the mean or average sample value. The highest cognitive score is 8 and the lowest cognitive score is 4. Meanwhile, the mean value of mood before reminiscence therapy was 57.6 and the standard deviation was 3.790, meaning that most of the data in the collection was 3.790 from the average. The highest mood score was 64 and the lowest mood score was 53.

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Cognitive score and mood after reminiscence therapy

The cognitive mean value after reminiscence therapy was 3.13 and the standard deviation is 1.431, meaning that most of the data in the collection is 1.431 from the average. The highest cognitive score was 7 and the lowest cognitive score was 1. Meanwhile, the mean of mood after reminiscence therapy was 77.16 and a standard deviation was 5.675, meaning that most of the data in the collection was 5.675 from the average. The highest mood score was 85 and the lowest mood score was 70. These results of cognitive and mood measurements in the elderly with dementia after reminiscence therapy showed in Table 2.

Tabel 2 Cognitive score and mood among the elderly with dementia after reminiscence therapy

Variable	N	Minimum	Maximum	Mean	Deviation standard
Cognitive	30	1	7	3,13	1,431
Mood	30	70	85	77,16	5,675

The effectivity of reminiscence therapy on cognitive and mood improvement

The mean of SPMSQ score decreased after reminiscence therapy means the cognitive function improved, while the mean of mood improved after the therapy. These results indicated that there was a difference between cognitive function and mood before and after the intervention. Reminiscence therapy affected the cognitive function and mood of the elderly with dementia (Table 3).

Table 3. The mean of cognitive function and mood before and after the therapy

Variable	Mean ± SD	
	Pre-test	Post-test
Cognitive	5,7± 1,165	3,13 ± 1,431
Mood	57,6± 3,790	77,16 ± 5,675

Statistical analysis using the Wilcoxon signed ranks test indicated that there was a significant difference in SPMSQ score before and after reminiscence therapy (Asymp. Sig 2 tailed <0.05) (Table 4). This showed that there was an effect of reminiscence therapy on improving cognitive function in elderly dementia.

Table 4. Respondents' Wilcoxon test statistics

	Cognitive Function Post-pre	Mood Score Post-pre
Z	-4.850[a]	-4.813[b]
Asymp.Sig. (2-tailed)	0,001	0,001

a. Based on positive ranks.

b. Based on negative ranks.

DISCUSSION

Reminiscence therapy for cognitive improvement

In general, after people enter the elderly, they will experience a decrease in cognitive and psychomotor functions. Cognitive functions include the learning process, orientation, understanding, and attention, causing reactions and behavior of the elderly to become slower. Age and dementia diagnosis was related to a steeper decline in all cognitive function domains. The elderly experience cell decline due to the aging process which results in organ weakness, physical deterioration, and the onset of degenerative diseases. In general, after a

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person enters the elderly, he/she will experience a decline in cognitive and psychomotor functions. Cognitive is the ability to recognize and interpret someone's environment in the form of attention, language, memory, visuospatial, and deciding functions (Yusuf et al., 2010; Zaninotto et al., 2018). In primary aging, individuals will experience changes related to chronological age. This causes a decrease in mental speed which will have an impact on cognitive processes (Sanchia & Halim, 2019).

Cognitive function is influenced by many factors, including the environment and the experience and knowledge obtained from the environment. The environment is directly proportional to the quality of human life. If the environment is good then the cognitive abilities are good, and vice versa if the environment is not good then the cognitive abilities are not good. This is supported by the Tabula Rasa theory which argues that humans are born in a holy state like white paper that has not been tarnished. Another factor that affects cognitive function is the maturity of each organ, both physical and psychological. Maturity is associated with a person's chronological age to be able to carry out their respective functions (Zaninotto et al., 2018).

This study shows that there are significant differences in cognitive function after being given reminiscence therapy. Individual given reminiscence therapy may have beneficial effects on cognition and quality of life of people with Alzheimer's disease or vascular dementia (Pérez-Sáez et al., 2021). The prevalence of cognitive impairment and dementia is expected to increase dramatically as the population ages, creating burdens on families and health care systems (Brasure et al., 2017).

Reminiscence therapy has the potential to improve psychosocial outcomes for people with dementia. Effects are small and can be inconsistent, varying across intervention modality and setting. Individual approaches were associated with improved cognition and mood. Group approaches were linked to improved communication. The impact on quality of life appeared most promising in care home settings(O' Philbin et al., 2018).

The increase in cognitive value in the elderly is influenced by the success factor of using well-targeted procedures, a supportive research environment, and competent therapists. Conversely, low cognitive scores are associated with environmental factors that do not support the study and the implementation of therapy that is not under the standard of procedure. The results of this study are in line with the theory of reminiscence therapy which is an intervention that uses positive memory, by recalling positive memories can maintain mental health and improve quality of life (Ilham et al., 2020; Lök et al., 2019).

Reminiscence therapy for mood recovery

Elderly people, specifically in long-term care facilities tend to get frustrated due to the progressive deterioration of brain cells and often lead to agitated behaviors (Mileski et al., 2018). Sensory and memory stimulation as non-pharmacological therapy can promote both physical and emotional comfort to the elderly (Mileski et al., 2018). In many years, reminiscence has become helpful to people with dementia as an effective tool for engaging the elderly in interactions, memory stimulation, and reduction in agitated behaviors. Reminiscence therapy can also be knowledge and understanding of a patients' medical history and cultural background and contribute to optimal health care. One study suggested that individual reminiscence therapy was more effective than a group to reduce depression. The life review process should be individualized because people may choose to spend more time than anticipated focusing on specific life stages (Moon & Park, 2020). The study stated that individual reminiscence therapy, applied for 8 weeks to non-institutionalized elderly women increased their adaptation to old age.

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Reminiscence therapy can decrease depressed mood. Reminiscence therapy using digital materials reflecting personal preference can evoke an individual's interest and actively induce participation. Therefore, digital content reflecting familiarity and multisensorial stimuli could prompt the recall of enjoyable implicit memories in participants (Moon & Park, 2020). Another study stated that individual reminiscence therapy, applied for 8 weeks to non-institutionalized elderly women increased their adaptation to old age and make their mood better (Aşiret & Dutkun, 2018).

Reminiscence as sensory and memory stimulation can be an effective non-pharmacological intervention for providing care and managing behaviors in individuals with dementia, especially those who reside in long-term care facilities (Mileski et al., 2018). Barriers to implementing reminiscence therapy into the care routines of people with dementia often included inadequate staff training and low staff-to-patients ratios.

CONCLUSION

This research highlights one of the critical issues related to cognitive and mood impairment in the elderly with dementia. It recommends applying reminiscence therapy for dementia patients to improve cognitive function to increase the quality of life of the elderly. Reminiscence therapy can also be a recommendation for nursing homes and health workers as an effort to improve cognitive and mood and to accompany routine elderly exercise activities that have been carried out in dealing with cognitive and mood decline.

Reminiscence can be better utilized with the identified barriers to implementation being understood by providers. Facilities can use this information to prepare for appropriate staff training, find options for reducing costs through utilizing donated or low-cost materials, and plan for possible time constraints with low staff-to-resident ratios.

Our suggestion is to plan the subsequent studies to cover the non-institutionalized elderly individuals through house visits. Moreover, our study performed individual reminiscence therapy, and we suggest

performing it in a larger sample group as well for longer periods and assessing the effect of reminiscence therapy on cognitive and mood either through group sessions or individually (Aşiret & Dutkun, 2018).

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CONFLICT OF INTERESTS

The authors do not have any conflicts of interest to disclose.

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