

CHARTER I

INTRODUCTION

A. Background

Globalization is driving a demographic transition to an aging population, marked by a sharp increase in the number of elderly people. Statistics from the World Health Organization (WHO) show that the number of individuals aged 60 and over will jump from 1.1 billion (13.75%) in 2023 to 1.4 billion (16.47%) in 2030. This rapid growth is supported by a global life expectancy increase to 73.3 years in 2024, an increase of 8.4 years since 1995.(WHO, 2024).

This global phenomenon, particularly in developing countries, demands that governments design strategic policies to ensure seniors remain active contributors without becoming a social burden. Aging brings permanent physiological changes that increase vulnerability to various chronic diseases, physical and mental weakness, and cognitive decline. Cognitive decline in the elderly is a serious issue due to its crucial nature, and therefore must be prioritized to maintain the independence and quality of life of the elderly.(Ministry of Health of the Republic of Indonesia, 2024).

According to WHO data in 2021(Xiaopeng et al., 2024), approximately 50 million elderly people worldwide experience cognitive decline, with 60% living in low-middle income countries, and the prevalence reaching 5-8% in elderly people aged 60 years and above. DataMinistry of Health of the Republic of Indonesia, 2024In Indonesia, it is estimated that there are 1.2 million elderly people (27.9%) who experience a decline in cognitive function and this is predicted to continue to increase to 2 million in 2030 and 4 million in 2050. According to Riasmini, Astried, & Resnayati, 2025 in(Hasbiah et al., 2025)It was found that 69.1% of elderly people living in nursing homes experienced severe cognitive impairment.

Cognitive decline in the elderly is progressive and can threaten independence, characterized by disorientation and memory impairment. Functionally, cognitive decline directly impacts the elderly's ability to perform basic Activities of Daily Living (ADLs) such as eating, drinking, bathing, and other independent activities. Another consequence of cognitive impairment is a drastic decline in the elderly's productivity in adapting to maintaining daily independence.(Safitriana & Al Jihad, 2023).

Efforts to prevent the progression of cognitive impairment in the elderly, which if left untreated will worsen, include optimizing non-pharmacological interventions, which work alongside pharmacological therapy for symptom management. Various cognitive stimulation methods can be implemented, such as Cognitive Stimulation Therapy (CST), Reality Orientation Therapy (ROT), Brain Gym, Play Therapy, and Music Therapy. Various cognitive stimulation interventions certainly contribute to their specific benefits. However, in the context of this study, Reminiscence Therapy (RT) is considered a highly accommodating approach to cognitive function in the elderly. This is because RT can revive long-term memories in a structured manner, which in turn provides a powerful stimulus for the sharpness of thought processes while supporting the stability of their motor functions (Martina et al., 2024). This RT approach facilitates the elderly in recalling and retelling their past life stories.(Liu et al., 2021)

Besides RT, another form of non-pharmacological intervention that can be effectively combined to improve cognitive function in the elderly is Crossword Puzzle Therapy (CPT). This therapy requires seniors to fill in empty boxes with letters based on specific clues that lead to the answer, to form words or phrases, which involves memory, basic connections, and visualization.(Mutyah & Putri, 2024).

Based on data from the Tresna Werdha Social Home (PSTW) in Bengkulu City in 2025, it shows that the population of elderly people in this home is 65 individuals, consisting of 39 men and 26 women. To measure the level of cognitive function in the elderly PSTW, an initial survey was conducted

on August 29, 2025, of 10 elderly people, using the Mini-Mental State Examination (MMSE) instrument. The results of the measurement showed that there were 6 people (60%) experiencing cognitive dysfunction and 2 of them had received Reminiscence Therapy (RT). However, there has not been a combination therapy between the two modalities of RT and CPT applied to optimize the results of improving cognitive function.

The combination of RT and CPT was chosen in this study because they have complementary mechanisms. Yunita & Siregar (2021) shows that RT strengthens psychosocial aspects that support the cognitive function of the elderly. Similarly, studies Nabilla et al. (2023) Using the MMSE instrument, CPT was proven effective in improving working memory and language skills in the elderly. These findings confirm that both RT (emotional focus) and CPT (lexical focus) are equally effective in improving cognitive decline in the elderly, so the combination of the two has the potential to provide more optimal results for their cognitive abilities and quality of life.

Based on the background described above, the researcher is interested in conducting research and studying in depth the topic "The Effect of Combination of Reminiscence Therapy and Crossword Puzzle Therapy on Improving Cognitive Function in the Elderly at the Tresna Werdha Social Home in Bengkulu City in 2026". It is hoped that the results of this study can contribute empirical data regarding the effectiveness of superior therapy modalities in improving cognitive function. These findings are important for strengthening the scientific basis of nursing practice and serving as standard guidelines in developing interventions in elderly care facilities.

B. Formulation of the problem

Based on a survey conducted at the 2025 PSTW, 6 out of 10 elderly people (60%) experienced cognitive dysfunction, and 2 of them had undergone RT, but had never received a combination of RT and CPT interventions. Based on a literature review, Kim et al. (2021) The combined intervention of RT and CPT is expected to increase holistic stimulation, which will directly optimize

cognitive function more comprehensively. This underlies the research question "Is there an Effect of the Combination of Reminiscence Therapy and Crossword Puzzle Therapy on Improving Cognitive Function in the Elderly at the Tresna Werdha Social Home in Bengkulu City in 2026?"

C. Research purposes

1. General purpose

The effect of the combination of Reminiscence Therapy and Crossword Puzzle Therapy on improving cognitive function in the elderly at the Tresna Werdha Nursing Home in Bengkulu City in 2026 was known.

2. Special purpose

- a. The characteristics of elderly people who experience a decline in cognitive function are known, including age, gender, and level of education.
- b. The average cognitive function score of the elderly before and after the intervention was known, both in the intervention group (RT and CPT) and the control group (Brain Gym).
- c. The difference in the average values before and after the intervention was known, both in the intervention group (RT and CPT) and the control group (Brain Gym).
- d. It is known that there is a difference in the increase in the average total cognitive function score (MMSE) between the intervention group (RT and CPT) and the control group (Brain Gym).

D. Benefits of research

1. For Students

The results of this study are expected to provide educational benefits for nursing students. It is hoped that this research will enrich their insight and clinical skills in managing cognitive decline in the elderly.

2. For the Orphanage

The results of this study are expected to increase the choice of efficient and effective cognitive stimulation programs, so that the quality of elderly care services can be improved sustainably.

3. For Academics

The results of this study are expected to enrich the scientific literature on geriatric nursing, particularly in the area of non-pharmacological cognitive stimulation, by providing superior empirical evidence. This evidence points to the superior effectiveness of combined RT and CPT therapy.

4. For Further Researchers

The results of this study are expected to serve as a reference and foundation for future researchers developing research on non-pharmacological interventions to improve cognitive function in the elderly. Further research can be conducted with a larger sample size, a longer intervention period, or by combining other interventions to achieve more comprehensive results.