



# The Implementation of Occupational Therapy to Enhance The Quality of Life of Elderly at X Nursing Home, Jakarta

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## Article Information

Received: February 27, 2026

Revised: March 31, 2026

Online: April 02, 2026

## Keywords

Quality of life, Occupational Therapy, Elderly

## ABSTRACT

*As individuals age, they often experience physical, psychological, and social changes that can reduce their quality of life, including decreased independence, limited social participation, loneliness, and a lack of meaningful daily activities. These challenges are commonly associated with retirement, reduced social interaction, and monotonous routines, which may negatively affect emotional well-being and overall life satisfaction. This study aimed to examine the effectiveness of occupational therapy in improving the quality of life of elderly individuals. An experimental approach was applied using a one-group pretest–posttest design involving seven participants aged 66–89 years. The intervention consisted of seven group therapy sessions in which participants engaged in structured occupational activities by creating beaded brooches. Quality of life was assessed using the WHOQoL instrument before and after the intervention. The results demonstrated a substantial improvement in participants' quality of life, with the mean WHOQoL score increasing by 36 points, from 56 to 92. Statistical analysis using a paired-samples *t*-test indicated that this improvement was significant,  $t(6) = 20.67$ ,  $p < .001$ . These findings suggest that occupational therapy is effective in enhancing the quality of life of elderly individuals. Structured, craft-based group activities can promote active engagement, social interaction, and a sense of personal accomplishment. Practically, such low-cost interventions can be integrated into routine elderly care programs in community centers or nursing homes to reduce social isolation and support meaningful daily engagement.*

**Keyword:** Quality of Life, Occupational Therapy, Elderly



## INTRODUCTION

The large number of elderly people in Indonesia in the future has a positive or negative impact. Have a positive impact if the elderly population is in a healthy, active and productive state. On the other hand, the large number of elderly people is a burden if the elderly have a low quality of life resulting in a decrease in productivity and health resulting in an increase in the cost of health services, decreased income / income, increased disability, lack of social and environmental support for the elderly population. According to the Government Regulation of the Republic of Indonesia Number 43 of 2004, the elderly is someone who has reached the age of 60 (sixty) years and above. The composition of the elderly population is increasing rapidly in both developed and developing countries, this is due to a decrease in fertility (birth) and mortality (death), as well as an increase in life expectancy, which changes the structure of the population as a whole (Depkes, 2017).

According to the Central Bureau of Statistics (BPS, 2018) that in 2045, Indonesia will have 63.31 million elderly residents or almost 20 percent of Indonesia's population. Even the UN also mentioned the same thing would be an increase in Indonesia's elderly which would reach 25 percent in 2050 or around 74 million elderly. The increase in the population of the elderly will have its own impact on development in Indonesia. Based on BPS data in 2018 (Ritonga, 2019) over a period of almost 50 years (1971-2018), the percentage of Indonesian elderly occupation has doubled to around 24.7 million people (9.3%). In addition, based on data from the National Socio-Economic Survey (BPS, 2018), there are at least 9.28 percent or 22.4 million elderly people living alone without care from their families. In addition, as many as 42.80 percent of Indonesia's elderly have income of less than one million rupiah or no income. This is a problem so that the elderly become neglected and without care from the closest person.

The elderly commonly experience physical vulnerability due to declining physiological functions and reduced homeostatic capacity, which increases their susceptibility to various diseases. In addition to physical changes, many older adults also experience psychosocial challenges such as social isolation, loneliness, reduced social interaction, and monotonous daily routines, particularly among those living alone or in institutional care settings (World Health Organization, 2015; Hawkley & Cacioppo, 2010). These conditions may lead to feelings of purposelessness and difficulty in finding meaningful activities during later life.

Based on the results of observations and preliminary interviews conducted at Panti Werdha X Jakarta, there were 63 elderly people living in the orphanage, 20 men and 43 women. When observed, the elderly at Panti Werdha X showed less activities that supported their physical. The elderly there are mostly only seen sitting in front of the room or resting in the room. Very few of them interact with fellow elderly people and are only seen sitting watching around or daydreaming in a chair.

In addition, when observed, it was found that elderly people who only sat in wheelchairs and looked at their cupboards for a long time about 10 minutes without doing any activities. Then the researchers conducted interviews with 5 elderly people at the Jakarta X Nursing Home, where 2 elderly people said they were quiet, no one noticed even children and families rarely saw them. The elderly person has been living in hospital for more than 2 years and said he felt lonely and sad about



his current condition. Whereas interviews conducted with 2 other elderly people said that with limitations in carrying out daily activities he felt troublesome to those around him, he felt a burden especially for his family so he was entrusted to the institution. While 1 other elderly person said that there was no useful thing for the elderly to do, he could only sit in a wheelchair with limitations and depend on others. The elderly said he was sad about his condition and sometimes he felt worthless because of difficulties in his activities and was considered unable to do anything. Elderly at Jakarta X Nursing Home feels that her life is only a burden for her family and carers and often feels feeling sad, hopeless, and worthless.

In addition to conducting observations and interviews with the elderly, the researchers also conducted interviews with the management of Jakarta X Nursing Home. The management at Nursing Home said that in one week, the elderly there did not have routine activities to support their activities and skills while in the Home. Activities that are sometimes carried out in the form of gymnastics activities on Friday mornings, or church activities. While there, the elderly only take part in activities given by donors or spend their time in the room waiting for their meal and bath time. The limitations of the activities and activities in the Nursing Home are due to a lack of competent human resources in providing activities or activities to the elderly. In addition, the supportive education background of the nurse (caregiver) and the large workload at the Nursing Home in treating the elderly are considered to be disproportionate. The limitations of the activities and socialization of the elderly make the lives of the elderly become less meaningful and become lonely so that the impact on the quality of life and daily functions decreases.

Based on observations and interviews with the elderly and administrators of the Jakarta Nursing Home, they showed a lack of individual judgment in assessing the quality of life of the elderly. This is judged by the lack of a positive assessment of the acceptance of the physical condition of the elderly, the lack of social relations and life goals that the elderly expect, the emergence of concerns about physical, psychological, environmental conditions which are considered to be less supportive of the elderly's activities and independence in Jakarta negative quality of life. In addition, the existence of the elderly who are often believed by the community to date is a time that is synonymous with a decrease in both physical, mental and interests. Elderly is considered as an unpleasant person, sick, troublesome and does not make a positive contribution to his social environment. In addition, the elderly are sometimes treated as a burden on the family, society and the state. Elderly people are often disliked, and are often excluded from nursing homes (Bandiyah, 2009).

The elderly risk experiencing a variety of negative changes in life, death of loved ones, illness and physical disability, decreased income, and higher dependence. Negative changes in life can be difficult for everyone, and are very likely to trigger stress and decrease the quality of life in older people compared to young adults (Gatz, Kasl-Godley. Karel 1996, in Berk, 2012). In the elderly, social support can still reduce stress, thereby increasing physical health and psychological well-being. The existence of social support in the form of emotions and psychology increases the chances of living longer (Fry & Debats, 2006; Temkim-Greener, Bajorska, Peterson, & Mukamel, 2004). There are various approaches in therapy that can be applied to the elderly such as art therapy (cognitive



therapy), cognitive therapy (cognitive therapy), behavioral therapy (behavior therapy), music therapy (music therapy), group therapy (group therapy) and occupational therapy (occupational therapy).

One way to optimize physical and cognitive and social functioning of the elderly is to use occupational therapy. Occupational therapy is one of the interventions that has proven to be successful and effective in dealing with individuals with psychiatric disorders, especially in dealing with depression. Occupational therapy aims to help individuals achieve a high level of functioning and independence in all aspects of daily life through individual achievement in completing tasks from their abilities (Sarsak, 2018). Occupational therapy is everything that individuals do to do activities, including to enjoy life and contribute to the social and economic aspects of an individual's living environment (Law et. Al, 1997 in Soderback, 2009).

Occupational therapy is found to significantly increase ADL (activity daily living) and quality of life in a variety of elderly people, such as the elderly who suffer from stroke, Alzheimer's or dementia, rheumatism or elderly people who are at risk and this therapy can reduce caregiver burden (Graff Vernooij-Dassen, Thijssen, Dekker, & Rikkert, 2006).

Many studies have proven that occupational therapy is effective in assisting the elderly to improve the ability of the elderly in daily activities through physical activities such as gymnastics, yoga, and daily activities training (ADL) (Mehdizadeh, Mehraban, Zahedyannasab, 2016), brain stimulation activities by writing, drawing (art activity), reading (Roswiyani, Kwakkenbos, Spijker, & Witteman, 2017), recreational activities by making craft such as folding, cooking, reminiscence can increase self-esteem and quality life (Minhat, Rahmah & Khadijah, 2013) however, research related to occupational therapy with the approach of handicraft activities is still little done to the elderly. Research related to occupational therapy uses many physical approaches and daily activities (ADL). Based on the research, the researchers assessed the importance of research related to occupational therapy using crafts to make brooches for elderly women at the Jakarta X Nursing Home. Meronce is an occupational therapy activity because meronce activity is considered more attractive and desirable based on the characteristics of the female sex (Wolf, 1989).

## **METHODS**

### **1. Research Participants**

The participants of this study are 7 elderly female in Jakarta X Nursing Home, and aged  $\geq 60$  years, could communicate, did not have psychiatric disorders, and had lived in the Institution for  $\geq 6$  months. The sampling method used in this study is non-probability purposive sampling.

### **2. Research Hypothesis**

This study hypothesized that participation in structured occupational therapy activities would significantly improve the quality of life of elderly individuals living in a nursing home.

### 3. Measures

This study used the WHOQOL-BREF quality of life measuring instrument. In WHOQoL-BREF there are 26 questions, 24 questions in WHOQoL-BREF cover aspects of WHOQoL-100 and two other additional questions in the form of overall quality of life and general perception of health (WHO, 1998). The WHOQoL-BREF questionnaire has been translated into various languages and one of them is Indonesian. The Indonesian version of WHOQoL-BREF adapted by Purba, Hunfeld, Iskandarsyah, Fitriana, Sadarjoen, Passchier, and Busschbach (2018) has been validated and tested for reliability in the 1056 sample with an age range of 17-75 years from Indonesian Population. It is made up of four domains, i.e. physical, psychological, social, and environment domain. WHOQoL-BREF uses a Likert scale with interval points 1-5. The high and low points chosen indicate the suitability of the statement with the participants. A higher score indicates higher quality of life whilst lower score indicates lower quality of life.

### 4. Occupational Therapy Intervention

The occupational therapy intervention is conducted in 7 sessions, conducted twice a week. The occupational therapy provides activities to individuals independently to be more productive and have meaningful and satisfied experiences during activities. The occupational therapy intervention design was adapted from Mehdizadeh, Mehraban, and Zahedyannasab (2017), which consisted of six group therapy sessions and 1 termination sessions conducted with elderly individuals who had experienced stroke, utilizing activity-based interventions.

**Table 1. Occupational Therapy Intervention Design**

Session	Phase	Activities	Objective	Duration
1	Introduction, Goal Setting, Evaluation	Introduction to the occupational therapy program and session objectives; participant introduction; creation of simple circular beaded brooches; session evaluation	To introduce occupational therapy as a medium for skill development, product creation, and enhancement of fine motor coordination	120 minutes
2	Introduction, Goal Setting, Evaluation	Review of session objectives; creation of beaded brooches with threading technique; session evaluation	To improve fine motor coordination and task engagement through structured craft activity	120 minutes
3	Introduction, Goal Setting, Evaluation	Creation of more complex brooch designs using pearl and floral beads; incorporation of ribbons, hair clips, and safety pins; session evaluation	To enhance motor coordination, creativity, and task complexity tolerance	160 minutes



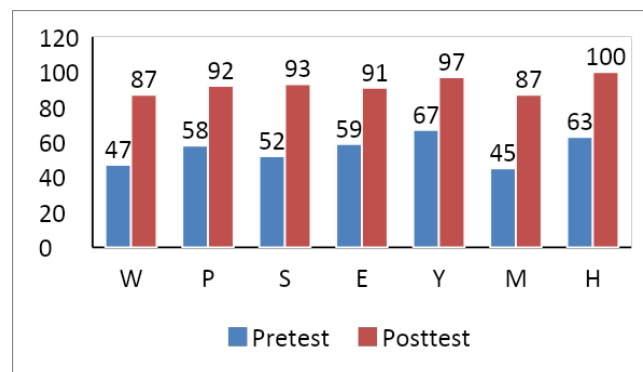
4	Introduction, Goal Setting, Evaluation	Assembly of brooches using leaf and palette beads; session evaluation	To strengthen fine motor precision and sustained attention	120 minutes
5	Introduction, Goal Setting, Evaluation	Continued refinement of brooch designs; session evaluation	To reinforce motor skills and promote productive engagement	120 minutes
6	Introduction, Goal Setting, Evaluation	Final production activities; exhibition of participants' work	To promote social interaction, self-confidence, and sense of accomplishment	120 minutes
7	Termination and Evaluation	Reflection on therapy experience; post-intervention assessment using WHOQOL-BREF	To evaluate intervention effectiveness and conclude the program	120 minutes

## 5. Data Analysis

Data were analyzed using descriptive and inferential statistics. Descriptive statistics were calculated to determine the mean and standard deviation of WHOQoL scores before and after the intervention. The normality of the difference scores was tested using the Shapiro–Wilk test due to the small sample size ( $n = 7$ ). Since the data were normally distributed, a paired-samples t-test was conducted to examine the difference between pretest and posttest scores. Statistical significance was set at  $p < .05$ .

## RESULTS

After 7 sessions of the occupational therapy, there are an overall increase in quality of life score raises up to 36 points, from 56 to 92, after the occupational therapy is implemented in the therapy sessions.



**Figure 1. Description of increasing quality of life**

Based on information from figure 1, the seven participants showed a high increase in quality of life scores from before the research activity began. There were three participants who experienced an increase in the quality of life points of more than 40 points in the post-test phase, namely



participants W, S, and M. Broadly speaking, there was an increase in categorization of the low quality of life category into the category of moderate quality of life.

**Table 2. Comparison of Quality of Life Scores Before and After Occupational Therapy (N = 7)**

Variable	Pre-test M (SD)	Post-test M (SD)	t(df)	P
WHOQoL	55.86 (8.17)	92.43 (4.83)	20.67 (6)	< .001

The paired-samples t-test analysis revealed a statistically significant difference between pre-test and post-test WHOQoL scores. The mean quality of life score increased from 55.86 (SD = 8.17) before the intervention to 92.43 (SD = 4.83) after the occupational therapy program. The mean difference was 36.57 points. Statistical testing indicated that this improvement was significant,  $t(6) = 20.67, p < .001$ .

These findings indicate that participation in structured occupational therapy sessions substantially improved the quality of life of elderly participants. The magnitude of the increase suggests not only statistical significance but also practical and clinical relevance. The intervention appears to have enhanced participants' perceived well-being, autonomy, and functional engagement in daily activities. Therefore, the study hypothesis that occupational therapy would significantly improve the quality of life of elderly individuals was supported.

## DISCUSSION

The main purpose of this study was to find out the application of occupational therapy in improving the quality of life of the elderly at the X Nursing Home in Jakarta. At the same time, this study also aims to assess occupational therapy activities whether it can improve independence, sense of worth, social interaction, and satisfaction with the environment in the quality of life of the elderly at the X Nursing Home in Jakarta.. The first hypothesis which predicts an increase in quality of life in participants is fulfilled and the second hypothesis that predicts activity in occupational therapy can be proven to increase independence, sense of worth, social interaction, and satisfaction with the environment can be fulfilled.

Significant increases in the quality of life scores with occupational therapy are the results of studies consistent with previous studies (Karefjard, & Nordgren, 2018; O'Flynn, O'Regan, O'Reilly, & Kenned, 2018). According to the development theory of the elderly Gatz, Kasl-Godley, and Karel 1996 (in Berk, 2012) the elderly risk experiencing a variety of negative changes in life, death of loved ones, illness and physical disability, decreased income, and higher dependence. In this study, negative changes in life were very likely to trigger stress and decrease the quality of life in the elderly.

Theoretically occupational therapy can provide meaningful activities for participants to be able to remain productive and develop feelings of worth. In other words, this activity teaches participants to be able to indulge independently, learn to interact with the environment by communicating, and work so as to increase self-esteem so that the quality of life in participants can be improved. The results of the study of quality of life after occupational therapy showed that the quality of life after occupational therapy had increased, from low to sufficient as many as 3 people



(43%), while the quality of life was as much as 4 people (64%). According to Anderson (2008) that there are several factors that influence quality of life, namely biological, sociocultural, and psychological factors. Based on the results of the study it was found that when given occupational therapy, the seven participants showed improvement in quality of life in the physical health domain ( $x = 3.21$ ), social support domain ( $x = 1.98$ ), and psychological domain ( $x = 1.78$ ). Physical, psychological and social support factors are one of the factors associated with quality of life. Through strong emotional support for the participants who live together in the orphanage, it becomes an adequate source in facing loneliness. This will affect the achievement of a person's quality of life. While life satisfaction is a psychological condition that is generally influenced by physical and mental health status.

Based on research on physical activity and quality of life in the elderly by Rejeski and Mihalko (2001), the results show that activities involving physical relationships are closely related to indicators of quality of life where participants get satisfaction from the activities carried out. Other studies by Buckinx, Reginster, Petermans, Croiser, Beaudart, Brunois, and Bruyere (2016) regarding the effects of physical decline and quality of life on nursing homes showed that individuals who have a low quality of life will affect physical health and active adults. This is in line with the results of research that researchers found that physical health is important for supporting factors for high quality of life. The domain of psychology is also an important factor in influencing the quality of life in this study. This is in line with research by Rohmah, Purwaningsih & Bariyah (2012) which shows that psychological factors are the most dominant factors in influencing quality of life.

In this study the support of fellow elderly friends became an important factor in this study where participants can discuss or channel their emotions when in a state of sadness and disappointment. Besides that the psychological condition of the participants who were happy and satisfied when attending occupational therapy sessions became a supporter in improving the quality of life in the elderly. Continuity theory says that most elderly people try to maintain a personal system, an identity, and a set of personality traits, interests, roles and skills that foster quality of life by ensuring consistency between the past and the future (Finchum & Weber, 2000).

The results of this study based on the WHOQoL-BREF measuring instrument stated that all participants experienced an increase in quality of life. That is because all participants can function and be productive by making various types of brooches. This is in accordance with Occupational Therapy (Hagedorn, 1995 in Sodeback, 2009) which states that the status quo is occupational therapy aimed at maintaining functioning at this time so that it can return to function. Another thing that affects the improvement of quality of life is that all participants have the support of fellow elderly friends who always support each other. This is also in accordance with World Health Organizations (WHO, 1998) that a good quality of life can be seen from the subject to recognize themselves, the subject is able to adapt to the conditions experienced at this time, the subject has feelings of love for others and is able to develop empathy and feel the suffering of others.

In addition, all participants can combine their thinking, creativity, motor function, visual, kinesthetic when making brooches. This is in accordance with International Classification of Functioning, Disability, and Health (ICF, 2010) explaining that occupational therapy has advantages



if it is applied to individuals who have weaknesses in body function or structure, namely: (1) mental function; (2) sensory functions; (3) neuromusculoskeletal and related motion functions; and (4) tactile functions.

When evaluating all participants have meronce abilities, an increase in activity, a feeling of pleasure because it can produce work from occupation, the emergence of feelings of security and comfort, the existence of positive experiences from group interactions, and feeling more optimistic about the old days. The results of the WHOQoL-BREF measuring instrument stated that Y participants had the lowest increase. This is because Y is in an unhealthy condition and has difficulty when sleeping, age Y has reached 73 years, and there is no social support from the family. This is in accordance with World Health Organizations (WHO, 1998) which states that physical health and social relations are important in improving a person's quality of life. Anderson (2008) also said that physical factors which are increasing age affect physical and mental abilities which are then related to the degree of health and quality of life.

## CONCLUSIONS

This study states that the application of occupational therapy can improve the quality of life in the elderly at X nursing homes in Jakarta. However, there are some shortcomings in this study, one of which is the number of participants is only seven, so it has not been able to conclude and has not been able to generalize. There were also not many sessions and only six sessions, so they could only see the impact in the short term in general. Second, the design of this study did not have control variables and inclusive criteria regarding the high or low quality of life score (QoL). In the absence of a comparison group between participants who were given therapy and controlled participants or had a high score of quality of life with a low, it was difficult to accept the conclusion that occupational therapy is a variable that plays a role in improving the quality of life causally.

The advice given is occupational therapy can be used as a therapy to improve quality of life, especially in the elderly. Factors that support improving the quality of life of the elderly are to feel themselves able to function, cooperative attitude and mutual support from fellow elderly people. Another thing that can be suggested is to increase the number of participants. This can be done to make it easier for researchers to generalize conclusions from research. This can also reinforce whether occupational therapy can be used for all elderly people.

The addition of therapy sessions and the addition of activities, such as music, art activities, gymnastics, and daily activities can also be done. This is to see the long-term impact of the application of occupational therapy to the elderly. It is also able to improve functioning, especially for daily activities and make participants motivated and not bored to take part in occupational therapy activities with several variations given. In addition, it was assessed from the impact of low quality of life on the emergence of depression in the elderly. Researchers also suggested further research related to research on quality of life in elderly people who were depressed or anxious, because it was known from the results of interviews with participants that depression symptoms appeared in the elderly at the Nursing Home. The researcher hopes that the measurement of the



variable depression can be an initial screening and recommendation to the clinician and the orphanage in preventing the elderly from becoming depressed and having a high quality of life.

The findings of this study have several implications for the implementation of occupational therapy programs in elderly care settings. The structured occupational therapy sessions conducted in this study, particularly through creative craft-based group activities such as making beaded brooches, demonstrated that meaningful and engaging activities can improve elderly participants' quality of life, motivation, and participation in daily activities. These results suggest that occupational therapy interventions should incorporate structured, varied, and socially engaging activities to reduce boredom and increase active participation among elderly residents in nursing homes.

In addition, the results indicate that occupational therapy activities may contribute to improving psychological well-being and reducing the risk of depressive symptoms among elderly individuals. Therefore, integrating regular occupational therapy programs into routine elderly care services may serve as a practical intervention to promote functional engagement, maintain emotional well-being, and support healthy aging. Future research may further examine the long-term effects of occupational therapy interventions and explore additional activity variations, such as music therapy, art activities, and light physical exercises, to enhance the sustainability and effectiveness of elderly care programs.

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