

PENGARUH TERAPI AKTIVITAS KELOMPOK TERHADAP PENINGKATAN  
INTERAKSI SOSIAL DAN FUNGSI KOGNITIF PADA LANSIA: PENELITIAN *QUASI-  
EXPERIMENT*

*The Effect of Group Activity Therapy on Improving Social Interaction and Cognitive  
Function in the Elderly: Quasi-Experiment*

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**Riwayat artikel**

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**Kata Kunci:**

*elderly, group activity therapy, social interaction, and cognitive function*

**Abstrak**

**Pendahuluan:** Penurunan fungsi kognitif merupakan salah satu masalah kesehatan lansia yang merupakan prediktor utama terjadinya demensia. Terapi kombinasi kegiatan orientasi kelompok realitas dan sosialisasi dapat dilakukan untuk mempertahankan fungsi kognitif dan perubahan peran sosial pada lansia. **Tujuan:** Untuk mengetahui pengaruh terapi aktivitas kelompok dalam meningkatkan interaksi sosial dan fungsi kognitif pada lansia. **Metode:** merupakan penelitian Quasi-Experimental Group Pretest and Posttest dengan menggunakan uji Wilcoxon dan Paired T-test dengan sampel penelitian sebanyak 30 responden. Inklusi responden lansia berusia 45-60 tahun, lansia dengan masalah interaksi sosial, dan lansia dengan penurunan fungsi kognitif. Instrumen yang digunakan adalah Mini Mental State Examination (MMSE) dan angket interaksi sosial. **Hasil:** Distribusi usia tertinggi diperoleh dengan rentang usia 60-65 tahun sebanyak 16 orang (23,3%), dengan jenis kelamin tertinggi 19 orang (63,3%). Distribusi pendidikan terakhir diperoleh dari SMA 13 orang (43,3%) dan pekerjaan terbanyak adalah pekerja 25 orang (83,3%) dan berstatus kawin 20 orang (66,7%). Ada perbedaan yang signifikan antara skor sebelum dan sesudah pada interaksi sosial dan fungsi kognitif dengan  $p\text{-value} = 0,000 (< 0,005)$ . **Kesimpulan dan saran:** intervensi terapi aktivitas kelompok orientasi realitas dan sosialisasi efektif untuk meningkatkan interaksi sosial dan fungsi kognitif pada lansia. Ini dapat digunakan sebagai program baik di masyarakat maupun di panti jompo dalam asuhan keperawatan gerontik.

**Abstract**

**Background:** Decreased cognitive function is one of the health problems of the elderly which is a major predictor of dementia. Combination therapy activity groups orientation reality and socialization can be done to maintain cognitive function and changes in social roles in the elderly. **Purpose:** To determine the effect of group activity therapy in increasing social interaction and cognitive function in the elderly. **Methods:** This research is a Quasi-Experimental Group Pretest and Posttest research using the Wilcoxon test and Paired T-test with a research sample of 30 respondents. The inclusion of elderly respondents aged 45-60 years, elderly with social interaction problems, and elderly with decreased cognitive function. The instruments used are Mini-Mental State Examination (MMSE) and the social interaction questionnaire. **Result:** The highest age distribution was obtained with an age range of 60-65 as many as 16 people (23.3%), with the highest gender being 19 people (63.3%). The most recent distribution of education was obtained from high school 13 people (43.3%) and the most occupations were workers 25 people (83.3%) and married marital status 20 people (66.7%). There is a significant difference between pre and post-scores on social interaction and cognitive function with a  $p\text{-value} = 0.000 (< 0.005)$ . **Conclusions and suggestions:** reality orientation and socialization group activity therapy interventions are effective for increasing social interaction and cognitive function in the elderly. This can be used as a program both in the community and in nursing homes in gerontic nursing care.

## **INTRODUCTION**

The elderly population in Indonesia in 2009 amounted to 9.6% and is expected to continue to increase in 2035 by 16.77%. The composition of the elderly population in Indonesia in 2000 was 7.18% of the total population, and the 2011 data increased to 7.58%. According to data from the Central Statistics Agency (BPS), as many as 16 million people could live in 2021. This amount is 5.95% of the total population of Indonesia, which is recorded at 270.2 million people. An increase in the number of elderly people will have an impact on changes in the epidemiological transition, namely an increase in morbidity due to degenerative diseases. (Pambudi et al., 2017). In West Java alone in 2019, the number of elderly people was 4.76 million. That number is about 9.71% of the total population of West Java.

"Elderly is an acronym that means "elderly" when a person has reached the age of 60 years or over. Aging is not a disease but a natural process that is gradual and creates cumulative changes. The increased life expectancy in the elderly is expected to be in line with the improvement in the quality of life. But in fact, the changes that occur in various body systems can cause various problems with age. Other changes that may occur in the elderly include psychological and spiritual (Meiner, 2015).

The elderly have complex problems with increasing age. Decreased cognitive function is one of the health problems of the elderly, which is a major predictor of dementia. People's cognitive changes occur due to the biological changes they experience and generally with the aging process. Based on research conducted by Coresa and Ngestiningsih (2017) conducted in the cognitive function social rehabilitation unit in the study, the *Mini-Mental State Examination* MMSE examination was found to be 60.9% likely to be disturbed and 22% likely to be impaired. The MMSE examination based on age showed the most decline in cognitive function, 60–75% per year. This is similar to previous research which stated that the increasing age, the lower the results of the cognitive function examination.

In the elderly who experience a decline in cognitive function, it will have an impact in the form of a decrease in long-term and short-term memory, behavior, and the ability to carry out daily activities. (Darmojo, 2009). This can affect the ability to socialize. This situation can cause the ability of social interaction in the elderly to have a bad impact. Social participation and interpersonal relationships are an important part of physical,

mental, and emotional health for the elderly. (Pambudi W., Dewi E. Sulistyroni L. 2017) Solutions that can be applied to overcome cognitive changes in the elderly include counseling, brain exercise, neurotic therapy, and group activity therapy, supported by a healthy lifestyle. Group activity therapy is an exercise and education that aims to provide an overview of the elderly's surrounding environment so that they can socialize well. It is hoped that with the implementation of group activity therapy, the elderly can train their cognitive functions so that they can increase their cognitive level, develop self-awareness and improve interpersonal relationships (Keliat, 2007).

Group activity therapy that is given to improve cognitive and interpersonal relationships is group activity therapy with reality orientation and socialization. reality-oriented group activity therapy. You can help the elderly who experience changes in cognitive function by orienting themselves to the present situation. Meanwhile, socialization group activity therapy (TAKS) for the elderly is one of the most important therapies to improve interpersonal relationships, starting with individuals in groups. Therefore, researchers are interested in combining these two types of therapy. This is a common misunderstanding.

## **METHODS**

### **Research Design**

This type of research is quantitative and uses quasi-experimental one-group pretest and posttest where there is one group, namely the intervention group. The target population of this research is the elderly who have problems with decreasing social interaction and cognitive function in the Sukajadi Public Health Center, Bandung City. The estimated sample measurement was calculated by G-power 3.1 with a T-test, which means the: difference between two dependent means (matched pairs), = 0.05 total sample size. However, to avoid errors in the sample, an attrition rate of 10%–15% was added. ie 3. Then the number of samples is 30. In this study, purposive sampling was sought using the inclusion criteria: the elderly aged 60–70, the elderly with social interaction problems, and the elderly with cognitive decline.

### **Instruments**

The instrument in this study used two instruments, namely the thing-Mental State Exam (MMSE), which aims to assess cognitive function by being given 30 questions that include orientation,

registration, attention, calculation, long-term and short-term memory, naming, language, writing, and construction skills. and a social interaction instrument that aims to measure the ability of social interaction.

**Research Procedure**

Face-to-face meetings were held three times a week for 45 minutes each, with the group sitting in a circle in each session. In the first session, the group will introduce themselves to each group member using a ball and music and circulate to each group member until all groups introduce themselves. In the second session, each group member will introduce themselves, their nicknames, and hobbies and ask for their full name, nickname origin, and hobbies of the interlocutor. In the third session, the group will provide conversation topics to discuss and provide opinions on the topics discussed.

**Statistical Analysis**

This univariate analysis was conducted to frequency analysis the demographics of the respondents such as age, gender, last education, last occupation, marital status, meaning, and median standard deviation. Meanwhile, a bivariate analysis was conducted to see the relationship between the effect of group activity therapy on increasing social interaction and the effect of group activity therapy on improving cognitive function.

**RESULTS**

After the intervention of group activity therapy in the elderly: 3 face-to-face meetings. produced:

**Demographic Characteristics of Respondents**

The characteristics of the respondents in this study were age, gender, last education, last occupation, and marital status.

**Table 1. Distribution of Demographic Data.**

<b>Variable</b>	<b>Intervention (n=30)</b>
<b>Age n (f%)</b> (mean±sd)	64.77±3.636
<b>Gender n (f%)</b>	
Man	11 (36.7)
Woman	19 (63.3)
<b>Last Education n (f%)</b>	
Primary School	5 (16.7)
Junior high school	12 (40.0)
High school	13 (43.3)
<b>Last Job n (f%)</b>	
entrepreneur	5 (16.7)
Others (Labor)	25 (83.3)
<b>Marital Status n (f%)</b>	
Marry	20 (66.7)
Widower widow	10 (33.3)

Analysis of table 1: distribution of the results The average age is 64.77 (SD = 3.636), the more than half of the respondents were female 19 people (63.3%), and the last education with the highest score is SMA with 13 people (13.43), the last job got the most other values with 25 (83.3%), and marital status obtained the distribution of results with 20 (66.7%).

**The effect of group activity therapy on improving social interaction and cognitive function in the elderly**

Using the Wilcoxon test, the effect of group activity therapy on increasing social interaction and cognitive function in the elderly was obtained.

**Table 2. Data On the Distribution of Social Interaction Abilities.**

<b>Variable</b>	<b>Mean ± SD</b>	<b>P-value</b>	<b>P-value</b>
<i>Pre</i>	27.00± 2.533	-12.869	0.000
<i>Post</i>	34.50± 1.996		

Table 2 shows the results of the pre-test and post-test using the social interaction ability instrument, consisting of 12 questions. In the above results, there is a median value on the pre-test of 27.0, and after the intervention, there was an increase in the median value of 35.0, with p-values of 0.000 (0.05).

**Table 3. MMSE Distribution Data (n=30)**

<b>Variable Group</b>	<b>Mean ±SD</b>	<b>Min-Max</b>	<b>p-value</b>	<b>p-value</b>
<i>Pretest</i>	18.97±0.718	17-20	-4.837	0.000
<i>Post-test</i>	22.70±1.685	20-26		

The results are obtained enables 3 for the pre-test and post-test using the MMSE instrument, consisting of 30 questions. The mean is 22.70 (SD = 1.685) and the value is 0.000 (0.05).

## DISCUSSION

Based on the results of research conducted based on age, it was found that the average value obtained was 64.77 (SD = 3,636). The aging process experienced by the elderly causes a decrease in overall body functions, so that the health status of the elderly decreases. This situation will have an impact on the ability of the elderly to interact (Wahyu et al. 2017).

Based on demographic data, we can see that gender affects the decline in cognitive function and interpersonal relationships. Decreased cognitive function is more common in women than in men because women produce the hormone estrogen. According to Marlina (2012), a decrease in the hormone estrogen can increase the risk of neo-degenerative diseases. These hormones are closely related to maintaining cognitive function. The impact of the decline in cognitive function, which is the disruption of interpersonal relationships, The elderly who experience social disorders are more likely to be female (Fatma, 2018). This is in line with Townsend's (2009) statement that gender will affect a person's ability to communicate because the sexes of men and women show different communication styles and have different interpretations of a conversation.

Other categories of demographic characteristics are education, occupation, and marital status. The education level is generally closely related to knowledge, so the lower the education level of a person, the more likely he or she can to receive and seek knowledge as well. This can have an impact on reducing a person's knowledge of the problems that occur to them (Keliat, 2014). Working is closely related to one's productivity and finances. Therefore, one researcher emphasized that if someone does not work, it will be easier for psychological disorders to occur, st it will have an impact on cognitive, affective, and psychomotor abilities. In the marital

status of the elderly, the spouse is both a life partner and a support system in living the remaining time of their life. Individuals who experience divorce or do not have a partner are included in a group with a high risk of experiencing psychological problems, while the elderly who have a life partner makes it possible to alleviate their psychological problems, and the elderly must be able to adjust to the loss of a life partner (Wahyu Elok, et al., 2017).

### **A description of the effect of group activity therapy on increasing social interaction.**

In the results of the research on the application of group activity therapy, there were differences in scores of social interaction skills before and after the intervention. There was a significant increase in the mean value after group activity therapy was performed. The result *op-values* = 0.000 indicates that there is an effect after the intervention is given. This is in line with several studies, including Fatma (2018), which carried out the same intervention, showing that there is an effect of group activity therapy on social interaction. The implementation of group activity therapy to improve social interaction is given socialization group activity therapy by facilitating several respondents in dealing with other people, such as asking questions, discussing, telling stories about themselves in groups, and greeting friends in groups (Keliat, 2009).

The increase in social interaction experienced by the treatment group is a therapeutic effect of the group which includes universality, instilling hope, developing social skills, the ability to relate to others, information entry, identification, group cohesion, and ownership, interpersonal experience, and strong emotional sharing.

### **An overview of the effect of Reality Orientation Group Activity Therapy on improving cognitive function in the elderly**

In the results of the study above, there were significant differences after the intervention. The value of 0.000 was obtained from previous research by Adriana et al. (2019). There was a significant value after the intervention, with an average value of 22.70, proving that the score became lighter after the intervention. Group therapy is often used successfully for the elderly who experience changes in cognitive function. The group therapy in question is reality-oriented group activity therapy. Group activity therapy; Reality orientation can help the elderly who

experience changes in cognitive function by orienting them to the current situation (Keliat, 2009) maintain cognitive function in the elderly is very important for their welfare. Carrying out routine cognitive activities is thought to be able to maintain excellent cognitive function in the elderly (Adriana et al. 2019).

## CONCLUSIONS

Based on the results of the analysis and discussion of the research results, it can be concluded That the intervention given in the form of socialization group activity therapy can increase social interaction in the elderly who experience changes in cognitive function. The MMES calculation results showed that this therapy freedom reduces cognitive impairment. The results of this study are expected to be a consideration for health services in improving social interaction and cognitive function. The results of the study are expected to be a reference for further research on the effect of group activity therapy on increasing social interaction and cognitive function in the elderly. It is hoped that future research can continue this research in a conducive situation.

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