

The Effectiveness Of Beapreasi Therapy (A Combination Of Brain Relaxation With Benson's Relaxation) On Depression Rates In The Elderly

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Abstract. The elderly or the elderly are the age group of humans who have entered the final phase of their life span. The increasing number of elderly people is inseparable from the problems that arise, one of which is health problems. Psychological health problems in the elderly are high rates of depression. Beapreasi therapy (a combination of brain exercises and benson relaxation) is a complementary and alternative therapy. Beapreasi therapy has the goal of relaxation where this therapy can reduce the hormones cortisol and norepinephrine which help reduce anxiety, worry, anger, and depression. The purpose of this study was to determine the effectiveness of Beapreasi therapy on depression levels in the elderly. This research is a quantitative study with a quasy experimental pretest-posttest control group design, a population of all elderly people aged 60-90 years. 56 people, with a sample of 28 as the experimental group and 28 as the control group. The independent variable of Beapreasi therapy, the dependent variable is the level of depression. The instruments used are questionnaires and SOP sheets. The statistical test uses the Wilcoxon test with a significance value of $\alpha = 0.05$. The results showed that the pretest value before being given Beapreasi therapy had the lowest GDS score of 5 and the highest score of 11 and the lowest score of 5. The results of the Wilcoxon test on beapreasi therapy obtained a value of $p = 0.000$ and a value of $\alpha = 0.05$ meaning $p < \alpha$ then H_0 was rejected, meaning that there was an effect of Beapreasi therapy on the level of depression in the elderly. The conclusion from this study is that the more routinely attending Beapreasi therapy, the lower the depression rate of the elderly. (Mirawati, D., Izhar, J., Oktivani, L. S., & Putra, 2021)

Key words: [Appreciation, Depression, Elderly.]

INTRODUCTION

Elderly or old age is the final stage of the human life cycle and is an unavoidable part of the human life process that will be experienced by living things. Elderly people usually start at the age of 65 years with changes in several factors where there are 3 factors of change, namely in terms of physical, cognitive and psychosocial, of the three the most felt are changes in the physical aspect or often called the aging process (Mirawati, D., Izhar, J., Oktivani, L. S., & Putra, 2021). Factors that influence the increase in the growth of the elderly include economic factors, social level, health services, and public knowledge about increasing survival (Krisnayanti, N. W., Sukraandini, N. K., Ayu, S., & Candrawati, 2012).

Based on WHO data that the elderly population in Southeast Asia reaches 8% or estimated at 142 million people. Elderly data in 2010 has increased with a population of 9,77% or an estimated 24.000.000 of the total population. In 2020 it is estimated that the population will increase with a population of 11.34% or an estimate of 28.000.000. It is estimated that data in 2025 will continue to increase with a population times the previous population (Indrayani, T., & Liuri, 2020) Based on the population in Indonesia in 2017, there is a population of 23.66 million elderly people in Indonesia. The number of elderly people in 2020 will increase to an estimated 27.08 million people, in 2025 it will increase again to an estimated 33.69 million people, in 2030 it will increase again to an estimated 40.95 million people. This number will continue to increase in 2035 and is estimated to reach 48.19 million people. And for the population of Kudus Regency in 2012 amounted to 791,891 people, in 2015 797,003 people, in 2017 it became 831,343 people so that there was a population increase of approximately 34,340 people (4.31%) in 2 years (Oktaviani, E., 2020).

The increasing number of elderly from year to year is certainly inseparable from the problems that arise, one of which is a problem of physical health and mental health. Entering old age successfully is the hope of every individual. According to Erik Erikson's 1963 theory, it is the stage of integrity versus despair, that is, individuals who are successful in passing this stage will be able to adapt well to accept various changes that occur sincerely, be able to adapt to their limitations, be wiser in responding to the life processes they are experiencing. However, not all individuals can enjoy successful old age (successful aging). Individuals who fail to go through this period will certainly experience stress, denial, anger, and despair at the reality they are experiencing. Changes that occur in the elderly both physical and psychosocial changes make the elderly have a risk of health problems, especially mental health problems and depression is a mental problem that is commonly found in the elderly. The prevalence of the elderly population experiencing depression is estimated

at 1-2%, which is divided into a male prevalence of 0.4% and a female prevalence of 1.4%. The results of the study showed that the average prevalence of major depression was 1.8%, the prevalence of minor depression was 9.8%, and clinical symptoms of real depression were 13.5% (Henry, 2013). In Indonesia as an illustration, according to Basic Health Research data (2008) conducted by the Ministry of Health in 2008, mental emotional disorders (depression and anxiety over the age of 15 include the elderly) are around 11.6% of Indonesia's population. Depression in the elderly by 15% does not show obvious symptoms, and depression in the elderly is more common in the elderly who have medical illnesses. Depression in the elderly can cause negative impacts including: sad, irritable, feeling left out and feeling useless. Elderly who experience stress tend to be more sensitive to depression.

The results of the study showed that 40% of the elderly who were depressed experienced impaired quality of life (Kurlowicz, L. & Greenberg, 2007). Improving the quality of life in the elderly one of which is through improving health, both physical and mental health. So that cooperation between the government and the community (family) is needed as the first service provider for the elderly. The level of mental health problems, especially depression in the elderly, if left untreated will have significant clinical and social impacts in reducing quality of life and increasing dependency. Depression in the elderly also has an impact on dementia, physical disability and hopelessness. Efforts to treat and improve the condition of the elderly can be in the form of pharmacological and non-pharmacological therapy, pharmacological therapy with drugs that can help systematically, but this pharmacological therapy can cause detrimental effects for the elderly if used for a long time (Stuart, G. W., & Sundeen, 2007). The application of non-pharmacological therapy is very helpful in preventing and overcoming depression in the elderly. Therapies that can be used to treat depression in the elderly include: self-therapy, family therapy and environmental therapy. Non-pharmacological therapy that can be done independently by the elderly is cognitive therapy, somatic therapy and complementary therapy (Dennison, P. E., & Dennison, 2006). The results of the study show that complementary therapy is effective in reducing depression rates. Beapreasi therapy (a combination of brain exercise and benson relaxation) is a complementary and alternative therapy. Beapreasi therapy has the goal of relaxation where this therapy can reduce the hormones cortisol and norepinephrine which help reduce anxiety, worry, anger, and depression. Research studies conducted by researchers, several respondents showed symptoms of depression where there were disturbances in sleep patterns, decreased work productivity, fatigue, no appetite, irritability. Based on this, researchers are interested in taking the research title "Effectiveness of beapreasi therapy (a combination of brain relaxation with Benson relaxation) on the level of depression in the elderly"

METHODS

This study used a quantitative approach with a quasy experimental research design. The quasi-experimental design used in this study was pretest-posttest control group design. This research was conducted in the village of Gribig. The population of this study is the elderly in Gribig village. Based on purposive sampling technique and according to the inclusion criteria, namely aged 60 years or more willing to be a respondent marked by signing an informed consent, having a diagnosis of depression (because it has a depression questionnaire value of 5-11 or with the category of depression (mild - moderate), communicative verbal and cooperative. Exclusion criteria for this study were the elderly who were experiencing physical illness. A sample of 56 elderly was selected with a total of 28 elderly as experimental respondents and 28 elderly as control respondents.

The independent variable in this study is the appreciation therapy and the dependent variable is the level of depression in the elderly. The instrument in this study was a Geriatric Depression Scale (GDS) assessment questionnaire. The instrument has been tested for validity and reliability ($r > 0.632$). Data analysis is processed using statistical program (SPSS) which includes univariate and bivariate analysis

Table 1.
Age and Gender

Variable	Intervention (n= 28)		Control (n = 28)	
	f	%	f	%
elderly age category				
a. Elderly	20	71.4	22	78.5
b. old	8	28.5	6	21.4
Gender				
a. Man	10	35.7	12	42.8
b. Woman	18	64.2	16	57.1

Based on table 1 above, the results of the intervention group were Elderly (aged 60-74 years) as many as 71.4% or 20 elderly, while for the old group (aged 75-90 years) there were 28.5% or 8 elderly. For the control group who were Elderly (aged 60-74 years) there were 78.5% or 22 elderly while for the old group (aged 75-90 years) there were 21.4% or 6 elderly. Based on these data according to the age group in the community, the age criteria for the elderly group are more numerous than the old age group Table 1 also shows that most of the sex data are female. In the intervention group, the number of elderly women reached 64.2% or 16 elderly. Whereas for the elderly with male sex only 45.7% or 10 elderly. In the control group, most were female, reaching 57.1% or 16 elderly and the number of elderly male was only 42.8% or 12 elderly. This is in accordance with the number of elderly people in the community, that is there are more elderly people who are female than male.

Table 2 Characteristics of respondents based on health status

Variable	Experiment (n= 28)		Control (n = 28)	
	f	%	f	%
health status condition				
Healthy	13	46.5	12	42.8
Sick	15	53.5	16	57.2

Based on table 2 above, the characteristics of respondents with sick health status in the Experiment group were higher with a percentage of 53.5% or 15 elderly, while healthy health status was 46.5% or 13 elderly. This is consistent with the control group that respondents with sick health status were higher with a presentation of 57.2% or 16 elderly, while healthy health status was 42.8% or 12 elderly.

Table 3 Characteristics of respondents based on length of illness

Variable	Experiment (n= 28)		Control (n = 28)	
	f	%	f	%
Health status condition				
Acute	12	42.8	11	39.3
Chronic	16	57.1	17	60.7

Based on table 3 above, the characteristics of respondents based on length of illness between the experimental group and the control group were directly proportional, namely the duration of chronic illness was higher with a percentage of 75.1% or 16 elderly in the experimental group and 60.7% or 17 elderly in the control group. Length of illness with acute health status in the experimental group was 42.8% or 12 elderly and 39.3% or 11 elderly in the control group

Table 4 Differences in GDS in the experimental and control groups before and after the intervention was given

Group	N	Mean	SD	Min - Max
Experiment	28			
Pretest		7.20	2.182	5-11
Posttest		5.03	1.524	2-10
Control	28			
Pretest		6.64	1.470	5-10
Posttest		6.17	1.924	4-10

Based on table 4 the average pre-test results for the experimental group respondents were 7.20 with a standard deviation of 2.182, the lowest value was 5 and the highest value was 11. The posttest value for the experimental group decreased the GDS value by 5.03 with a standard deviation of 1.524 and the highest GDS value was 10 and the lowest value was 2. In the control group the average pretest result was 6.64 with a standard deviation of 1.471, and the lowest GDS score was 5, the highest score was 10. This is consistent with the experimental group. There was a decrease in the posttest GDS score in the control group with a value of 6.17 and a standard deviation of 1.924 and the GDS value lowest 4 and highest score 10.

Table 5 Comparison of GDS scores before and after being given intervention in the experimental group

	Mean	SD	p value
GDS pretest	7.21(5-11)	2.175	0.000
GDS posttest	5.04(2-10)	1.518	

Table 5 shows that the p-value is 0.000 (<0.05), which means that there is effectiveness between beaprification therapy on the level of depression in the elderly.

DISCUSSION

1. Characteristics of Respondents

Based on table 1 above, the results of the intervention group were Elderly (aged 60-74 years) as many as 71.4% or 20 elderly while for the old group (aged 75-90 years) there were 28.5% or 8 elderly. For the control group who were Elderly (aged 60-74 years) there were 78.5% or 22 elderly while for the old group (aged 75-90 years) there were 21.4% or 6 elderly. This is in accordance with the results of research conducted in the United States which said that elderly people aged 65 years who live in the community experience depression as much as 10 to 15% (Stanley, 2006). Alexopoulos, 2005 said that the prevalence of depression in the elderly increased 2x higher than in adulthood. Depression is also influenced by several factors including age. The age factor is one of the determinants that influence the level of depression, which means that the older the elderly, the more severe the depression they experience.

Depression is influenced by several factors, including age. Depression can be influenced by several factors, including age. Based on table 1 it shows that all of the respondents (100%) are aged 60-69 years. The age factor is one of the determinants that influence the level of depression, which means that the older the elderly, the more severe the depression they experience. According to (Lumbantobing, 2011) explains that there is a decline in several abilities and there are more setbacks in several types of abilities at the age of over 60 years and increases in the elderly over 80 years.

Gender also has an influence on the level of depression, this is in accordance with the results of the characteristics with the characteristics of the experimental group respondents who were mostly female as much as 64.2% while those who were male were 35.7%. In terms of gender characteristics, the control group had more females with a percentage of 57.1% than male respondents with a percentage of 42.8%. The life expectancy of women is higher than that of men. This is in accordance

with the statement (Darmono, 2008) that the incidence of depression in women is more than 60%. The results of the study stated that the level of depression in women was 2 times higher than men. Women have a tendency to be depressed 2 times more than men, this is because this is because women's mindsets tend to use emotional rather than rational. So that women's communication patterns are different from men's, women are more likely to think about their problems and communicate less with others so that their emotions are unstable which often causes depression. If allowed to continue for a long time will result in role stress which can trigger depression.

According to Miller, 2009 states that depression that occurs in the elderly can be affected due to decreased health status. Decreased physical condition in the elderly results in a decrease in their functional abilities, interferes with activities and assumes that illness is a limitation, so feelings of limitation lead to depression. Chronic illness causes a feeling of discomfort as well as being one of the causes of depression. Several chronic diseases that cause depression include endocrine, metabolic, neurobiology, heart, lung, cancer, blood vessels and anemia (Stanley & Beare, 2007). This is consistent with the results. In this study, elderly respondents based on length of illness, chronic had a higher percentage, namely 57.1%, while acute illness in the elderly was 42.8%.

2. Identification of Depression Levels in the Elderly Before and After Given Beapreasi Therapy

The results of the study in Table 4 show that the average GDS value at the pretest in the experimental group is 7.21 with a standard deviation of 2.183 and the lowest GDS value in the pretest is 5 and the highest is 11. After Beapreasi therapy there is a decrease in the posttest GDS value in the experimental group by 5.04 with a standard deviation of 1.526, with the lowest GDS value of 2 and the highest score of 10. From the results of the study there was a decrease in GDS to normal - mild, this is because Beapreasi therapy is effective, easy, inexpensive and can change feelings or moods which make you feel happy, cheerful and happy and can reduce depression. Beapreasi can stimulate the release of endorphins and serotonin, which are a type of natural morphine in the body and also melatonin. These three substances are good substances for the brain so that we can feel calmer

3. Analyzing the Effect of Beapreasi Therapy on Depression Levels in the Elderly

Beapreasi therapy has a significant effect on the level of depression in the elderly with the GDS value before being given beaprecation therapy, the average GDS value is 7.21 and after being given beaprecation therapy, it is 5.04. The results of the Wilcoxon Sign Rank Test obtained a value of $p = 0.000$ and a value of $\alpha = 0.05$ meaning $p < \alpha$ then H_0 was rejected, meaning that there was an effect of Beapreasi therapy on the level of depression in the elderly. From these data it shows that there is an effect of Beapreasi therapy on depression levels, supported based on normal/non-depressed reduction caused by Beapreasi therapy. Beapreasi therapy is . Beapreasi therapy (a combination of brain exercise and benson relaxation) is a complementary and alternative therapy. Beapreasi therapy has the goal of relaxation where this therapy can reduce the hormones cortisol and norepinephrine which help reduce anxiety, worry, anger, and depression. When the body becomes relaxed it releases endorphins which make the body feel comfortable (as a natural tranquilizer), stress hormones will decrease and increase feelings of happiness. Endorphine is a hormone released by the HPA (hypothalamic pituitary adrenal) gland, one of the hormone-producing glands under the hypothalamus, and this hormone will be secreted when a person feels comfortable and relaxed. Then the increase in the endorphin hormone produced will have a positive psychological and physical impact on a person such as: suppressing emotions or mental stress, increasing interpersonal relationships, increasing self-confidence, increasing social relations, stimulating the heart and blood circulation, increasing immunity (Katona, C., Cooper, C., Robertson, 2012).

Beapreasi will affect the pituitary in the brain to release endorphins. Endorphines can provide a feeling of relaxation and calm so as to reduce depression. Depression can have negative impacts,

for example: feeling useless, irritable, sad, feeling left out and not needed anymore. In addition, stress can also cause a person to become more sensitive or sensitive to depression (Haryadi, 2012). The HPA (Hypothalamic-Pituitary-Adrenal) early stage response plays an important role in adapting to external and internal stress and in a state of depression there is an increase in HPA activity which is characterized by the release of CRH (Corticotropin-releasing-hormone) from the hypothalamus. CRH is found in the PVN (Paraventricular-Nucleus) of the hypothalamus. Then the release of CRH from the hypothalamus is stimulated by noradrogenic, serotonergic and cholinergic which causes depression. Increased stimulation of the anterior pituitary causes the secretion of ACTH (Adrenocortico Tropin Hormone). ACTH stimulates the release of cortisol from the adrenal cortex. Then an increase in ACTH in a state of depression if it lasts a long time can cause hyperactivity of the adrenal glands and cortisol after that, which is released from the adrenals and then enters the general circulation, where in depressed patients there is an increase in cortisol levels, especially in the afternoon and at night. So it is important to maintain one's mental and physical condition (Nurmiati, 2005). This beapreasi therapy can make the elderly calm and relaxed so that it can reduce depression in the elderly. This is supported by research from (Wulansari, 2019) with the results of a significant effect between Beapreasi therapy and improving the sleep quality of the elderly. Beapreasi Therapy

CONCLUSION AND RECOMMENDATIONS

The conclusion of this study is that there is a significant effect of Beapreasi therapy in reducing the level of depression in the elderly with a value of $p = 0.000$. Suggestions for the future Beapreasi therapy is one of the complementary therapies used in nursing care interventions independently or in groups.

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