

THE EFFECT OF COGNITIVE THERAPY ON THE LEVEL OF DEPRESSION IN THE ELDERLY WHO EXPERIENCE LIMITED MOVEMENT DUE TO STROKE

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ABSTRACT

Stroke patients who experience limited movement will experience biopsychosociospiritual changes. This study aims to determine the effects of cognitive therapy on the depressive condition of the elderly with stroke. The research method is a quasi-experimental design with a pre-post test design without a control group. Data was collected before and after the administration of cognitive therapy interventions in the elderly with limited movement due to stroke who experienced depression. The research sample was obtained using consecutive sampling, amounting to 30 respondents. Cognitive therapy was given for 6 weeks. The research instrument for determining the condition of depression used a modified questionnaire from the Beck Depression Inventory (BDI). Data analysis using the T test. The results of this study showed that cognitive therapy had a significant effect on reducing depression levels in the elderly with limited movement due to stroke. The results showed depression decreased more significantly (p value = 0.000; α = 0.005) and Has the opportunity to reduce depression by 31.2% or be able to reduce the value of depression by 6.29 points. Providing comprehensive, plenary and quality cognitive therapy interventions as well as integrated into health services can reduce depression in the elderly with stroke.

Keywords: *cognitive therapy; depression; elderly; stroke*

INTRODUCTION

Stroke accounts for 18-37% of deaths and ranks second in death in the world, as well as one of the main causes of death and neurological disabilities in Indonesia. When a person is diagnosed with a stroke, the patient will definitely experience shock and stress. this is because they will experience loss, limitations, decreased body function, and dependency in carrying out activities. This will result in enormous changes in life, lifestyle, daily habits and finances that cause biopsychosocial-spiritual changes in sufferers, which can lead to depression. Individuals with depression show moody

behavior, prolonged sadness, increased sensitivity, irritability and loss of enthusiasm for work, loss of self-confidence, and loss of concentration and decreased endurance.

Kaplan and Saddock (2021), said that depressed patients need psychosocial therapy, such as cognitive therapy. This therapy aims to increase, identify and recognize destructive negative automatic thoughts. And help individuals understand the relationship between cognitive, affective and behavior as well as help overcome thoughts that are flawed (cognitive distortions) and replace them with thoughts that are more realistic and positive. According to Townsend (2020), cognitive therapy focuses on emotional responses caused by thinking about environmental situations and conditions. The basic concept of this therapy is automatic thinking and belief schemes or feelings that underlie the emergence of these automatic thoughts. Automatic thoughts are things that appear quickly in response to situations and without any rational analytical process. Automatic thoughts can interfere with one's thinking by over-generalizing, disqualifying positive mental filters, jumping to conclusions (thought reading and error-solving), enlargement or shrinking of false thoughts, disturbing emotional reasoning and personalization.

Research conducted by Dewi (2015) on the Effect of Cognitive Therapy on Reducing Depressive Responses in Leprosy Patients Depression (Leprosy) has been proven effective in reducing depressive responses in leprosy patients. Research conducted by Kismanto (2014) concluded the same thing that this therapy was proven to be able to significantly reduce depression, both in the intervention and control groups. Furthermore, this study also concluded that depression in the elderly group who received cognitive therapy decreased significantly lower than the elderly group who did not receive cognitive therapy. A study conducted by Widodo on depressed kidney failure patients also showed the same thing that this therapy is very effective for reducing depression (p value <0.05).

The cognitive therapy used by researchers is a modification of various types of existing cognitive therapy. The therapy that the researchers carried out included 4 sessions consisting of,

Session One: Identification of automatic thoughts, namely by identifying all negative automatic thoughts, discussing for the selected automatic thoughts, giving rational responses to the first negative automatic thoughts and keeping a diary.

Session Two: Use of rational responses to negative automatic thoughts, namely evaluating the patient's ability to perform tasks independently in session one (giving rational responses to negative automatic thoughts 1), discussing the patient's ways and difficulties in using the diary, and discussing solutions for both automatic thoughts with the same steps as in the first session.

Session Three: The benefits of rational responses to negative automatic thoughts (expression of results in participating in cognitive therapy), namely evaluating the patient's ability to perform independent tasks second session at home, discusses solutions to third automatic thoughts with the same steps as in sessions 1 – 2, discuss ways and the patient's difficulty in using the diary, and discuss the benefits and feelings after the patient underwent therapy (expression of results in following therapy)

Fourth Session: Support system, which involves the family to be able to assist patients in carrying out cognitive therapy independently. The difference in the number of cognitive therapy sessions in this study did not violate the rules for implementing cognitive therapy because all sessions in other cognitive therapies were put together to make it more effective and efficient because of the condition of the respondents.

The importance of cognitive therapy given to the elderly who have limited movement due to stroke and the many studies that prove that this therapy is very effective given to the elderly who have limited movement attracted researchers to seek answers about the effect of cognitive therapy on the depressive condition of elderly people who have limited movement due to stroke.

METHOD

The research design was "Quasi Experimental Pre-Post Test Without Control Group" with cognitive therapy interventions. Aims to determine changes in depressive conditions before and after being given cognitive therapy. The population is the elderly with stroke who experience limited movement, with sample inclusion criteria as follows age 50 – 65 years, willing to be a respondent, patients with a diagnosis of depression (because they have depression questionnaire scores > 16, not experiencing

loss of consciousness, communicative and cooperative, and general condition and vital signs before.

Based on the calculation of the sample size for this study were 30 respondents. The sampling technique is Consecutive Sampling. The sample selection was carried out based on the results of the pretest using a questionnaire with a Depression score limit of > 16 . The time of the research was carried out from the second week of July to August 2022. The researchers collected data themselves with the help of 2 students. In the Jati Murni village area. The post test was carried out at the fifth meeting.

Research ethics through an ethical review test by the Research Ethics Committee of the Ministry of Health Poltekkes Jakarta III. Before the research was carried out, explained or informed consent regarding the plans, objectives and benefits of the research for respondents, the development of science and the improvement of health services. the informed consent was signed by all respondents, the elderly who were unable to sign, the informed consent sheet was signed by one of their family members. Research ethics for research subjects includes an explanation of the benefits of research for respondents beneficence, anonymity, confidentiality justice.

Data collection was carried out using a questionnaire which included Respondent Demographic Data namely name, age, gender, occupation, education, marital status, length of illness, Measurement of Depression Conditions which was a modification of the Beck Depression Screening Test containing 25 questions. has a value range of 0 – 30. The results are categorized into 4, namely values 0 – 9 are categorized as normal, values 10 – 15 are categorized as mild depression, values 16-30 is categorized as moderate depression and if the total value is > 30 it is categorized as severe depression. Depression condition instrument trials were declared reliable with a value of 0.710.

This cognitive therapy intervention is carried out 4 to 5 times, followed by post test activities. The intervention phase was carried out in four sessions, namely:
Session one : Identify negative automatic thoughts,
Session two: Using rational responses to negative automatic thoughts,
Session three : The benefits of rational responses to negative automatic thoughts (expression of results in attending cognitive therapy).

Session four : Support system,

To prevent errors or completeness of the questionnaire, the researcher conducted data coding and data entry and data cleaning. Univariate analysis aims to explain/describe the characteristics of the dependent variable with the independent variables. Bivariate analysis using the t-test.

RESULTS AND DISCUSSION

Tabel 1.
Analysis of Age And Length of Illness of Stroke Patients With Limited Movement

Category	Mean	Median	SD	Min-Maks	95% CI
Age	57,86	58,00	13,534	50 – 65	42,07 – 51,79
Length of Illness	5,366	5,00	8,990	2 – 10	13,53 – 28,26

Table 1 show that the average age of the respondents was 57.86 years with an average length of illness of 5.366 years

Tabel 2
Distribution Of Stroke Patients With Limited Mobility According To Gender, Occupation, Education, Marital Status

Characteristic	F	%
1. Sex		
a. Male	14	53,3
b. Female	16	46,6
2. Patient Work		
a. Work	7	23,3
b. Un work	23	76,7
3. Education		
a. Low Education (PPrimary dan Secondary School)	20	10,0
b. High Education (Senior high School and University)	10	90,0
3. Marrital Status		
a. Married	22	80,0
b. Un Married	8	20,0

Table 2 show there are 53.3% of respondents are male, 76.7% of respondents are not working, with the majority of respondents (90%) having higher education and 80% are married.

Tabel 3
 Analysis of Depressed Conditions in Stroke Patients with Limited Movement Before and
 After Cognitive Kognitif

Characteristic	Mean	SD	SE	t	P value
Before	27,82	2,051	0,408	8,720	0,000
After	22,85	1,96	0,325		
Difference	4,97	0,091			

Table 3 show that is an average decrease in the depressed condition of the respondents after being given cognitive therapy Of 4,97 with a p value of $0.000 < \alpha 0.05$.

This study proves that there is a decrease in the level of depression in elderly people with stroke who experience limited movement after being given cognitive therapy. Sperry (2016), said that depression occurs due to wrong and irrational psychological perceptions, resulting in distortions in learning and reasoning of depressive thoughts, the result of traumatic experiences or the inability to produce adaptive coping. Depressed people have negative perceptions or beliefs about themselves and their environment. In many cases, depression is a synthesis of negative thinking habits about oneself, the environment, and the future. When something bad happens, someone will follow what he thinks and it is these negative thoughts that make someone depressed. Someone who is depressed tends to have a more pessimistic view of the future and is more critical of himself and others (Glara et al, 1993). Depression can be overcome by stopping negative thoughts and replacing them with positive thoughts.

Decreased levels of depression and increased cognitive dimensions in the elderly occurred after being given cognitive therapy. In the elderly, depressive disorders are caused by impaired cognitive function caused by suffering, disability, lack of family attention and worsening physical ailments that many suffer. Bongsoe (2007), said that depressive disorder is the main mood for the elderly. According to activity theory, the role assumed by the elderly is a great source of satisfaction; the more they lose their role after retirement, widowhood, separation from children, or infirmity, the more dissatisfied they feel. The link between negative thinking and depression depends on the balance between positive and negative thinking, not just

the presence of negative thoughts. People with good cognitive functioning psychologically experience positive and negative thoughts simultaneously, but positive thoughts occur one and a half to two times more frequently than negative thoughts (Brunch, 1997; Lightsey, 1994a, 1994b). With cognitive therapy, it is hoped that individuals will be able to build objective and rational thoughts about the events they experience.

Cognitive therapy aims to help depressed individuals recognize bad life problems, by helping them develop positive life goals and assess a more positive personality (Donald, 2003). Cognitive therapy provided will help the elderly recognize the negative thoughts that arise, and turn them into positive perceptions. Positive perception will produce positive coping. Positive coping will make the cognitive dimension positive (good cognition) and this will help reduce depression levels. Nancy (2007) said that cognitive therapy aims to help clients understand and recognize and review negative cognitive patterns and turn them into positive cognitive patterns so that depression levels decrease. Cognitive therapy also helps individuals change pessimistic thoughts, unrealistic expectations, and negative self evaluations that will lead to depression.

Cognitive therapy teaches individuals to develop new ideas and ways to see themselves, experiences, and their environment positively. By changing negative thoughts and perceptions, changes can occur in the client's behavioral and emotional response to wrong thinking. This supports Townsend's theory (2020) which explains that the process of implementing cognitive therapy is a goal-oriented therapy to solve patient problems. At the beginning of the meeting, the therapist must identify the problems facing the patient. Then jointly set goals and expected results in therapy. The process of discussion in solving problems faced by patients is needed when patients begin to recognize cognitive distortions and improve their mindset.

Beck and Butler (1995) stated that cognitive therapy helps patients adjust their thoughts or beliefs, so that there will be a positive effect on motivation and behavior. Cognitive therapy has components and steps that can change negative thoughts to positive thoughts so that they will affect a person's mood status, as explained by (Rupke, Blecke, Renfrew, 2006), that thoughts are followed by feelings, so learn to change negative thought patterns to positive ones. Positive mindset will improve one's

mood status, self-concept, behavior and physical status. Elderly who have received cognitive therapy are able to build or change wrong thoughts or beliefs about themselves.

Goldfried and Davison (2003) state that the unpleasant emotional reactions experienced by individuals can be used as a sign that what they think about themselves is wrong, irrational, so that individuals learn to build objective and rational thoughts about the events they experience.

Researchers modified the implementation of cognitive therapy into 4 sessions, each session lasting 30-45 minutes. The modifications made do not violate the concept and goals of therapy. This therapy activity is carried out to help patients deal with patient problems cognitively, to help identify existing stressors, inaccurate thought patterns and beliefs. So that patients can refocus ideas, values, and hopes and start a new stage of cognitive change in a positive and rational direction. Andra (2017), usually the implementation of cognitive therapy is limited to 15-20 sessions, each session 50 minutes, once a week. In more severe cases of depression, two appointments per week are needed for the first 4-5 weeks. According to Frisch and Frisch (2006), significant improvement in the patient's depressive condition occurred after 6-12 weeks of cognitive therapy. Researchers conducted cognitive therapy with only 4 sessions due to the condition of the elderly who easily experience fatigue due to limited movement. Even though this therapy was carried out for 4 sessions, the results expected in this study were proven to be able to reduce the level of depression in the elderly who experience limited movement due to stroke.

CONCLUSION

Cognitive therapy has an effect on reducing the level of depression in the elderly who experience limited movement due to stroke by providing a stimulus to change the negative thoughts of the elderly towards the problems they face. In addition, this therapy also helps the elderly change negative (bad) cognitions about themselves, their environment and their future so that they become positive (good) cognitions. This is evidenced by changes in the level of depression and the cognitive dimensions of the elderly in a better direction after being given cognitive therapy.

It is necessary for the elderly to apply cognitive therapy routinely and regularly. Families are expected to provide assistance and assistance as well as facilitate the elderly to always carry out and apply cognitive therapy. In addition, families are expected to always listen to the problems of the elderly, and recognize the negative thoughts of the elderly that arise so that the elderly will not experience depression, cognitive therapy is one of the nursing actions in preventing or reducing the level of depression in the elderly, and it is hoped that further research can be conducted on the influence cognitive therapy for anxiety in the elderly.

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