Effectiveness of Acceptance and Commitment Therapy to Reducing Depression in Nursing Home Residents

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Abstract: Each elderly person is expected to achieve successful aging so as to live to the end of their life with prosperity, but they are vulnerable to psychological disorders, especially depression. Nursing home residents have a higher risk of depression caused by several factors, such as loss of independence, isolation, loneliness, loss of personal space, monotonous activities, and conflicts with the nursing home staff. Acceptance and Commitment Therapy is an intervention aimed at improving psychological flexibility and the ability to adapt to change so as to make the individual able to deal with various problems that become stressors. The purpose of this study is to examine the effectiveness of Acceptance and Commitment Therapy in reducing depression in nursing home residents. This research is a quasi-experimental study with the non-randomized research design pretest-posttest control group. This study was applied to 6 elderly female subjects divided into two groups, 3 subjects in the experimental group and 3 in the control group. The measuring instrument used in this study is the Geriatric Depression Scale - 15 (GDS - 15). The results obtained in this study indicate that Acceptance and Commitment Therapy has a high effectiveness in reducing depression in nursing home residents. There was a significant difference between the mean score before and after intervention in both groups.

1   INTRODUCTION

The number of elderly people in the world increases annually. The WHO (2012) states that the elderly population around the world is increasingly growing, even estimating that in the next five years the number of elderly could exceed the number of infants worldwide. The growing number of elderly people is affecting the emergence of social and economic problems.

Reduced ability of organs in the elderly makes this group susceptible to various chronic diseases that not only adversely affect their physical health but also the mental health of the elderly (Infodatin, 2016). Nursing home residents have a tendency to experience higher psychological problems. Common psychological problems in elderly people living in nursing homes are dementia, mood disorders (depression and bipolar disorder), psychotic disorders and anxiety disorders (Fullerton et al. 2009). Several studies suggest that nursing home residents have a higher likelihood of depression than the elderly living in the general population (Kramer et al. 2009). As many as 22% of elderly people

living in a nursing home experience major depression (Rovner & Kats in Kramer et al., 2009).

The risk of depression in nursing home residents is higher when compared with older people living with their family due to several causes. These include factors such as losing the ability to be independent and free, and losing the opportunity to live as before; feeling socially isolated and lonely; lack of personal space, frustration at disturbing room mates, and being disturbed about sharing a bathroom with other residents; loss of rights and freedom due to rules of the nursing home; ambivalence associated with cognitive impairment of other inhabitants; witnessing death and grief; turnover and lack of institutional staff, monotonous daily activities, and lack of meaningful home activities (Choi et al., 2008).

Depression in residents is not solely due to environmental factors in the nursing home, but rather a complex interaction between factors, such as biological and psychosocial factors (Azis & Steffens, 2013). Elderly who are depressed according to the basic theory of acceptance and commitment therapy have the characteristics of

thought suppression, for example suppressing the mind, ineffective coping strategy, and reason-giving in which the subject associates the experience with self-blame (Bond & Dryden, 2004). Depression in the elderly has consequences such as reduced functioning and increased disability, increased use of non-mental health services, increased risk of cancer, increased mortality from cardiovascular and cerebrovascular disease, and increased risk of suicide (Dines, Hu & Sajatovic, 2014).

Depression in nursing home residents is often not recognized and does not receive proper treatment from nurses and doctors in nursing homes where the elderly live, increasing the adverse impact on the physical and psychological condition of the elderly themselves (Kramer et al., 2009). Furthermore, depression experienced by nursing home residents is treated more often by anti-depressant medications without clear medical history documentation. Meanwhile, treatment-handling for depression in the elderly in general requires not only pharmacotherapy techniques but also using a psychotherapy approach and psychosocial intervention (Glover & Srinivasan, 2017).

Acceptance and commitment therapy is one of the therapeutic approaches that use processes of acceptance, commitment and behavioral change to produce more flexible psychological changes. Acceptance and commitment therapy is a technique that has a high success rate in overcoming problems related to mood disorders, such as depression and anxiety (Swain et al., 2013). Acceptance and commitment therapy has the goal of improving the psychological aspects of the individual to become more flexible and improves the ability of individuals to adjust to changes that are happening (Hayes et al., 2006).

The effectiveness of acceptance and commitment therapy in dealing with depression in the elderly has been tested through research conducted by Karlin et al. (2013). It concludes that acceptance and commitment therapy enhances a person's ability to respond flexibly to difficult life events and take action in accordance with their ability to improve their quality of life.

This study aims to examine the effectiveness of acceptance and commitment therapy in reducing depression in the elderly living in nursing homes. Treatment of acceptance and commitment therapy was given to an experiment group of 6 sessions for 5 weeks. Measurements of depression were performed in both groups using a GDS-15 scale to compare the depression levels of both groups.

2 RESEARCH METHOD

The research is an experimental study that aims to see the effectiveness of Acceptance and Commitment Therapy interventions to reduce depression in the nursing home residents. This research will use a quantitative approach and is quasi-experimental. The quasi-experimental type of experiment itself is a type of research without randomization and is done by placing subjects in experimental and control groups (Latipun, 2015).

2.1 Ethical Considerations

This research has gained approval from the head of the nursing home institution where the research is conducted. Each subject is informed with details of the implementation of the intervention and has given agreement by signing informed consent.

2.2 Participants

Participants in this research have criteria (1) Women aged 60 - 74 years. The elderly group in this category was chosen because they still have good cognitive and health conditions, which will facilitate the process of intervention. In addition, this age range is the stage where the elderly must adapt to changes from the next stage of development, so that the success of the adaptation process in this category affects the mental health of the elderly in the next stage of development. (2) Able to communicate well. Communication ability is necessary to collect data about the condition of the participants. (3) Have moderate to severe depression score category according to the Geriatric Depression Scale (GDS) - 15. Medium depression category according to GDS – 15 is indicated by a score 9 - 11 and category Severe depression is indicated by a score of 12 - 15. Medium and severe depression categories according to GDS-15 scale are depressed categories requiring further treatment. (4) Willing to follow a series of Acceptance and Commitment Therapy interventions.

Participants of the study who met the criteria were six elderly women who lived at nursing homes in Surabaya. Six participants were divided into two groups, the experimental group receiving acceptance and commitment therapy and the control group not given any treatment as comparison. Each group consisted of three participants, in which participants who had higher depression scores were fused into the experimental group.

2.3 Research Variables

This study aims to measure the effectiveness of the independent variable (X) towards the dependent variable (Y). Independent variable (X) in this research is Acceptance and Commitment Therapy. The dependent variable (Y) in this research is depression.

2.4 Data Analysis

The research design used was quasi-experimental with non-randomized pretest-posttest control group design. Data analysis was performed by comparing the depression scores on the GDS-15 scale in the experimental group before and after treatment and the control group were not given any treatment as comparison. The data was analyzed by independent sample t-test and testing the effectiveness of acceptance and commitment therapy using online effect size calculators by Lee A. Becker.

2.5 Materials

The material used in this research is the Geriatric Depression Scale (GDS-15) by Sheikh and Yesavage (1986) and the intervention module, which is the result of developing acceptance and commitment with the older adult module by Petkhus and Wetherell (2013). GDS-15 is used to measure the depression level that is specific to the elderly. GDS-15 has alpha Cronbach reliability of .80 (Wongpakaran, 2013) and specificity of .75 (Nyunt, et al., 2009).

The acceptance and commitment therapy module in this research is the result of developing the acceptance and commitment therapy module with older adults by Petkus and Wetherell (2013). In the original module, the acceptance and commitment therapy was conducted for five sessions with two meetings at each session. This research module was developed according to the needs and abilities of the research subject.

2.6 Intervention

Interventions are conducted individually consisting of six individual sessions with a duration of 60 minutes each session. Each session consists of two meetings a week. An outline of the components of the intervention program is included in Table. 1.

Table 1: Overview of Intervention ACT

Session 1	1. Performed early depression level measurements. 2. Introduce acceptance and commitment therapy interventions and build rapport with all participants. 3. Gathering information about depression-causing experience.
Session 2	1. Mindfulness breathing. 2. Introduce the participants with a living value. 3. Determine and re-identify the value of life. 4. Establish short-term goals that match the value of life. 5. Metaphors "what do you want life to stand for?".
Session 3	1. Mindfulness breathing. 2. Be aware of emotional experiences that are felt. 3. Promote acceptance of painful experiences and emotions. 4. The metaphor of "pouring water into a hollow glass".
Session 4	1. Mindfulness breathing. 2. Identify negative self-concept. 3. Perform cognitive diffusion.
Session 5	1. Mindfulness breathing. 2. Live and focus on the moment. 3. The metaphor of "leaves are falling".
Session 6	1. Mindfulness breathing. 2. Evaluate values session and objectives. 3. Resolve the obstacles experienced during the intervention process.

3 RESULTS

The results of this study indicate a decrease in depression rates in the experimental group and the level of depression that is relatively constant in the control group based on the mean score. Furthermore, data analysis was done by independent sample t-test technique and effectiveness test using effect size calculator online by Lee A. Becker on the gain of pretest and posttest score of both groups. The following is the result of statistical analysis test:

Table 2: Descriptive Statistics

		N	Mean	SD	Min	Max
Experiment	Pre-test	3	11.67	1.155	11	13
	Post-test	3	6.33	1.528	5	8
Control	Pre-test	3	10.00	1.00	9	11
	Post-test	3	9.33	0.577	9	10

Table 3: Significance Independent Samples Test.

	Gainscore
t	3.395
Df	4
Sig. (2-tailed)	.027

Table 4. Effect Size

	Gainscore
t	3.395
Df	4
Sig. (2-tailed)	.861

Based on the results of statistical analysis it can be concluded that the hypothesis of this study is accepted. Acceptance and commitment therapy has a high effectiveness in reducing depression in nursing home residents.

4 DISCUSSION

Acceptance and commitment therapy is an effective intervention to apply for the elderly to overcome mental disorders that are classified as mood and anxiety disorders; depression is a type of mood disorder (Petkus & Wetherell, 2013). Karlin et al. (2013) explains that acceptance and commitment therapy effectively reduces depression in the elderly because it allows the basic capabilities associated with acceptance in the individual self, which increases flexibility in responding to difficult situations in life. Acceptance and commitment therapy also encourages individuals to behave and act in accordance with their life values so that quality of life can improve. Acceptance and commitment therapy supports acceptance of loss experiences and other pressing experiences at the end of life. Through acceptance and commitment therapy the subject also shows a decreased risk of negative thoughts and bad mood changes due to ineffective coping strategies (e.g. experiential avoidance).

Roberts and Sedley (2015) provide a classification of the causes of acceptance and commitment therapy being effective in overcoming depression in the elderly, first because of the transdiagnostic nature of acceptance and commitment therapy that focuses more on how individuals respond differently to problems. It does not only "fix" the problem or change the mind, which is difficult for the elderly to do due to the decline in ability in general. Secondly, acceptance and commitment therapy supports the achievement of positive aging through validation of individual experiences and reactions by accepting the event of loss where the individual cannot avoid and change the event. Third, acceptance and commitment therapy encourages elderly individuals to engage in meaningful activities that match the value of life at the end of their lifetime.

The results of this study show that the three participants in the experimental group have the same characteristics in dealing with and solving the problem. Participants in the experimental group had ineffective coping strategies such as thought suppression and avoidance coping. Thought suppression and avoidance coping have been associated with increased levels of depression, anxiety and suicidal risk in the elderly as it inhibits self-functioning (Rosenthal et al., 2005). The approach of acceptance and commitment therapy explains that psychopathological conditions that occur in a person occur because of psychological inflexibility characterized by the presence of experiential avoidance in both cognition and behavior (Hayes et al., 2002). Acceptance and commitment therapy is effective when applied to these characteristics because the therapy promotes acceptance as one of the better coping alternatives and connects individuals with their values so that every event becomes meaningful (Petkus & Wetherell, 2013).

The results of this study also showed that there were two subjects in the experimental group who had a higher depression score on the GDS-15 scale. This is because both subjects have a higher enthusiasm and commitment to follow a series of therapeutic processes. The success of the acceptance and commitment therapy process depends on how the subject has a willingness to apply the basic principles of therapy and increases their acceptance of an unpleasant experience based on acceptance and commitment therapy guidelines. During the course of the intervention, the two subjects were enthusiastic and focused on implementing activities and assignments taught in each session. This finding is consistent with the results of the research conducted by Ruiz (2010) who found that the

commitment of subjects in the implementation of acceptance and commitment therapy in accordance with the protocol and the basic principles of therapy greatly influenced the success of the intervention. Commitment had an influence especially related to its commitment to behave according to its value and process of cognitive de-fusion so as to escape from the negative self-concept possessed.

The results of the data analysis show that there is one subject with lower depression level. The subject had a worse health condition when compared to the other two subjects of the experimental group. Fractures in the femur experienced by one participant mean she has more limited mobility. Health condition is one factor that helped determine the success of the intervention process of acceptance and commitment therapy in the elderly. These findings are described by Karlin et al. (2013) who states that the success of the intervention process of acceptance and commitment therapy in the elderly is influenced by comorbidity of physical and mental health conditions, ongoing health care and disability.

Based on observations and interviews conducted during the implementation of the intervention, the third session, the acceptance session is the most significant session to bring changes to the subject. This is explained by Hayes (2005) who argued that the acceptance of the experience of suppressing and accepting the conscious change helps one to adapt to the experiences of suppressing and changing. Acceptance expressed by the subject of the research is evidenced by the emergence of ideas expressed by the subject. Although still an idea, but with strong support and motivation from the research subject, acceptance can be manifested in a variety of behaviors.

5 CONCLUSION

Based on the results of data analysis and discussion described in the previous chapter, the conclusion that can be obtained from this research is that the intervention of acceptance and commitment therapy is proven effective in reducing depression in nursing home residents who have ineffective coping strategy, that is avoidance coping and thought suppression. The effectiveness of acceptance and commitment therapy in this study was proven by the decrease of depression category score based on the comparison of pretest and posttest scores in the experimental group, the group receiving the intervention of acceptance and commitment therapy.

Recommendations for further research are based on the limitations of this study. There is a need to conduct a more accurate assessment to make the diagnosis of depression in research subjects. And there is a need to control the causes of depression in research subjects so that it can be seen if acceptance and commitment therapy is more effective when applied to specific causes of depression. This study has a limited number of subjects due to the limitations of existing research subjects, although this study may be a consideration to see the effectiveness of acceptance and commitment therapy to reduce depression in nursing home residents.

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