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EFFECTIVENESS OF ACCEPTANCE AND COMMITMENT THERAPY ON ANXIETY IN HYPERTENSIVE PATIENT

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ABSTRACT
Hypertension is a major problem in public health both in developed and developing countries. Emotional reactions due to hypertension are grieving, fear/anxiety, anger, depression and guilt. Anxiety is an unpleasant emotional by fear and tense and unwanted physical symptoms. Acceptance and commitment therapy (ACT) teaches clients to approach fear and anxiety more fundamentally, deeper, and in different ways Objective to knowing the effect of acceptance and commitment therapy on anxiety in hypertensive patients. Quasi-experimental design with a control group"with ACT interventions. The data obtained from 124 hypertensive patients who were divided into intervention and control groups. It analyzed by using Independent t-test and T-Paired tests. Research found there are differences in anxiety before and after intervention Acceptance and commitment therapy. Acceptance and commitment therapy can reduce the anxiety of hypertensive patients

Keywords: acceptance and commitment therapy, anxiety, hypertension

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INTRODUCTION

Hypertension is a major problem in public health both in developed and developing countries. It is a condition when the blood pressure in blood vesselsis increased chronically. This can occur because the heart works hard to pump the blood into the whole of the body part and giving oxygen and nutritional needs. Furthermore, this condition leads to a disease that can interfere with the function of other organs, especially vital organs such as the heart and kidneys. Hypertension causes significant changes such as lifestyle, loss of self-control, physical disorders, pain and discomfort, potential loss of roles, status, independence, and financial instability. The whole change causes stress which will disturb the physical and psychological balance such as disturbance of emotional distress. Emotional reactions that arise in individuals who experience hypertension are grieving, fear and anxiety, anger, depression and guilt (D.R. Palvo, 2013)

Research has shown that someone who has psychological distress has an 8% higher risk of developing hypertension than someone who has minimal distress (Rutledge and Hogan, 2015). Research on the relationship between hypertension with anxiety and depression

shows hypertension is associated with anxiety and some of the factors that strengthen it are age, family history of hypertension and obesity. (Bernard M.Y Cheung, 2015) Anxiety is a normal reaction that someone shows when under pressure. Anxiety can appear as an over-understanding of the anticipation of a problem (Kring et al., 2010). Fear and anxiety can help someone to solve the emergence of threats in the future, so they can anticipate these threats in various ways, such as avoiding them or preparing themselves to deal with these threats. While pathological anxiety can be a problem in itself such as mental health problems.

In hypertensive patients, anxiety often appears as comorbidities. Research by Huffman, Celano, and Januzzi (2010) found that there were increase anxiety levels in hypertensive patients by 16% to 42% compared to individuals in general. Anxiety in hypertensive patients often arises due to a decrease in physical conditions they experienced. This condition causes patients difficulty in normal activities, feels helpless, disturbance in social relations, and feels guilty to those around them (DeJean, et al., 2013).

Acceptance and commitment therapy (ACT) was developed by Steven Hayes who is a clinical psychologist where he sees that acceptance and commitment factors have a huge impact on the development of better client conditions. The ACT is a therapy based on philosophical analysis that has the function of the relationship between behavior and the environment including the language in it (Heyes, 1986). The ACT is a new generation of cognitive behavioral therapy (CBT) that utilizes an acceptance and awareness strategy in the face of a change.

Arch (2012) has comparedthe cognitive behavioral therapy (CBT) and acceptance and commitment therapy (ACT) to clients who experience anxiety disorders. It showed that ACT is a very appropriate therapy for anxiety disorders. It uses an approach to the process of acceptance, commitment, and behavior change to produce psychological changes that are more flexible. The application of acceptance and commitment therapy to anxiety is helping hypertensive patients to accept and live with their anxiety symptoms, such as thoughts of death, fear, perceived bodily sensations, and discomfort, with mindfulness exercises, rather than trying to eliminate and suppress them (Hayes, Strosahl, & Wilson, 2003). Lance M. McCracken's, Ayana Sato, and Gordon J. Taylor (2013) examined the application of therapies using the concept of acceptance, commitment, and action with a brief model showing the groups given intervention showed a decrease in disability, decreased depression and anxiety, and the presence of acceptance of health conditions.

METHOD

This study uses the design "Quasi-experimental pre-post test design with control group" with the intervention of ACT. Participants were 124 hypertensive patients who experience anxiety, lived in two villages that have a high population of hypertension in Bogor. Hypertensive patients were screened using the State-Trait Anxiety Inventory for Adults instrument developed by Spielberger (1983), namely the State Anxiety Inventory and Trait Anxiety Inventory (STAI). The sampling technique waspurposive sampling. Inclusion criteria were: Aged 40-60 years old, receiving anti-hypertension treatment, staying with

family, compost mentis awareness, being able to do light activities, being interviewed and willing to be a respondent.

Data were collected by pre and posttest using two questionnaires. The first questionnaire is an instrument about respondent demographics data which contains a description of the characteristics of respondents such as some respondents, age, sex, marital status, education, employment, monthly income. The second questionnaire is an instrument of the State-Trait Anxiety Inventory for Adults To measure anxiety from Spielberger (1983), namely the State Anxiety Inventory and Trait Anxiety Inventory (STAI). STAI is designed to measure A-State and A Trait. The scale for the State consists of 20 items designed to measure how subjects feel about certain events. The scores obtained indicate a temporary degree of anxiety that is characterized by the onset of fear, tension, and symptoms induced by the central nervous system: anxiety, worry, and fear. While the Trait form scale consists of 20 items that are designed to measure anxiety as a characteristic of a stable personal or sedentary characteristic or to assess an individual's predisposition to judge a situation as a danger or a threatening state.

The research intervention was carried out after data collection and determining the intervention and control groups. Interventions that have been carried out are acceptance and commitment therapy consisting of 4 (four) sessions, each session is carried out 2 (two) times a meeting with a total as eight meetings in 12 weeks. In this study, ACT used four sessions developed by Widuri, Endang (2012). The four sessions are; Session (one): Identification of events and their impact on the experience. The activity is identifying bad or unpleasant events that are experienced, thoughts experienced or felt and responses to feelings (emotions and behavior) due to these events, and behavior carried out based on thoughts and feelings that occur related to events. Session 2 (two): Practicing to accept the events and their effects. Identify the efforts made related to the events experienced based on the client's experience (can be family relationships, social, work, health or spiritual) both destructive and constructive. Session 3 (three): Identifying and choosing the values. Clarifying the value that is owned and the actions are taken. Organize his life by giving the best for others with their values. Session 4 (four): Committed to preventing recurrence. Commit to living life based on the values you have and those you have chosen. Maintain adaptive behavior according to the value chosen independently.

Data is analyzed and processed using a computer program system. Data were analyzed univariately and bivariate. Sociodemographic characteristics are processed using univariate and bivariate to determine the mean, standard deviation, and P-value. Kolmogorov test and Levene test showed normal data distribution. The intervention and control groups were analyzed and processed using a T-Paired test used to measure the anxiety (state anxiety and trait anxiety) of hypertensive patients in the intervention and control groups before and after receiving acceptance and commitment therapy. Independent sample t-test was used to compare state anxiety and a trait anxiety for hypertensive patients between the intervention and the control group after being given acceptance and commitment therapy.

RESULTS

Following the results of his research:

Table 1.
Respondent Distribution Based on Age (n=124)

Variable	Group	N	Mean	Median	SD	Min-Max	P-value
Age	Intervention	62	51,13	52,5	6,166	40-60	0,31
	Control	62	52,24	53	5,922	40-60	
	Total	124	51,69	53	6.046	40-60	

Tabel 1 Shows Age distribution obtained an average age of respondents are 52 years and a median of 53 years with a standard deviation of 6,046. The youngest is 40 years old and the oldest is 60 years old

Tabel 2.
Respondent distribution based on sosiodemographic (n=124)

Variable	Category	Intervention Group (n=62)		Control Group (n=62)		Total		P-value
		f	%	f	%	f	%	
Marital Status	Married	47	75,8	45	72,6	92	74,2	0,68
	Broke up married	15	24,2	17	27,4	32	25,8	
Education	None	7	11,3	4	6,5	11	8,9	0,10
	Elementary - Junior High School	53	85,5	84	77,4	101	81,5	
	Senior High School	2	3,2	10	16,1	12	9,7	
Working Status	Wiraswasta/ Swasta	0	0	4	6,5	4	3,2	0,08
	Petani/Buruh	0	0	2	4,8	3	2,4	
	PNS/TNI/ABRI	0	0	3	3,2	2	1,6	
	None	62	100	53	85,5	115	92,7	
Income	< UMR	61	98,4	56	90,3	117	94,4	0,06
	≥ UMR	1	1,6	6	9,7	7	5,6	

Tabel 2 Shows distribution of marital status as a whole is mostly married, education at the most are elementary and junior high schools, not workingabout, and most monthly income is less of UMR.

Tabel 3 Analysis found that there was a significant difference in mean in state anxiety before and after acceptance and commitment therapy. The results also showed that a state anxiety intervention group experienced significant changes in p-value (0 = 000) before and after ACT in the intervention group

Table 3.
The analysis of anxiety in intervention group before and after ACT (n=124)

Kecemasan		Mean	SD	95%CI	t	P-value
A-Stateanxiety	Before	52,18	7,919	9,3666-10,376	3 9,106	0.000
	After	42,31	7,463			
	Difference	9,87	0,456			
A-Trait anxiety	Before	49,18	5,606	-0.016-0.221	1 .150	0.255
	After	46,85	5,677			
	Difference	2,33	-0,071			

Table 4.
The analysis of anxiety in control group before and after ACT (n=124)

Kecemasan		Mean	SD	95%CI	t	P-value
*A-State*anxiety	Before	49,03	7,191	-0,060-0,221	1,150	0,255
	After	48,95	7,047			
	Difference	0,08	0,144			
A-Trait anxiety	Before	48,48	6,352	-0,007-0,103	1.150	0,083
	After	48,44	6,342			
	Difference	0,04	0,01			

Table 4 showed that there was a very small difference in mean (0.08 and 0.004) in state anxiety before and after acceptance and commitment therapy. The results also showed that in the control group there were no significant differences in state anxiety and trait anxiety.

Table5.
The analysis of anxiety in intervention dan control group after ACT (n=124)

Anxiety	Group	Mean	SD	SE	P-*value*
A-State Anxiety	Intervention	42,31	7,463	0,948	0,000
	Control	48,95	7,047	0,895	
A-Trait Anxiety	Intervention	46,85	5,677	0,721	0,146
	Control	48,44	6,342	0,805	

Table 5 showed there was different state anxiety in the hypertensive patients between the intervention and control groups after the acceptance and commitment therapy(p-value = 0,000) while in trait anxiety there was no difference (p-value = 0.146).

DISCUSSION

This study showed that anxiety of hypertensive patients who received acceptance and commitment therapy decreased significantly in state anxiety after being given acceptance and commitment therapy compared to trait anxiety. Anxiety is defined as an organic response, characterized by fear and increasing response to situations of uncertain danger or the potential to threaten self-integrity, (Grillon C. 2008). Spileberg (1983), described state anxiety is an unpleasant experience or feel when confronted with certain situations, objects, and events. State anxiety is also called temporary anxiety that arises when there is a cognitive assessment of a threat and disappears when the threat disappears.

Individuals respond to something threatening with a sense of worry about the dangerous situation that will be faced and they feel unable to face the threatening thing. This research shows that acceptance and commitment therapy is very good to change the cognitive assessment of anxiety experienced by patients who are threatening that occurs at this time and are subjective, cause feelings of tension, anxiety, nervousness, and worry, and stimulate the autonomic nervous system. Because in-state anxiety the anxiety that arises is temporary so that it can reappear.

rait anxiety (T-anxiety) called innate anxiety refers to individual differences in responding to anxiety both the frequency and the incidence of anxiety influenced by past experiences that are permanent and have an impact on the future. Trait anxiety is stable anxiety and that occurs in many situations influenced by the environment such as the occurrence of an incident and the presence of negative statements from others, causing disturbances of perception, cognitive and excessive memory and consider it all as a threat (Yori Gidron, 2013). This shows the reduction in trait anxiety can be done by improving perceptual, cognitive and memory disorders.

Acceptance and commitment therapy is more emphasized to identify present anxiety rather than persistent anxiety. Where temporary anxiety can be more easily overcome because it is seen from the symptoms that are felt. In this study, it can reduce the anxiety of hypertensive patients because it can identify the threat felt at this time, so it can directly overcome the problem. Some important things done at ACT in sessions one and two are an individual cognitive assessment of the stimulus faced by an individual who plays an important role in raising momentary anxiety. Cognitive assessment of stimulus as something frightening, threatening, and as something dangerous can cause the emergence of momentary anxiety with high intensity without the influence of an individual's basic anxiety. This cognitive assessment includes a cognitive assessment of external and internal stimuli.

Cognitive assessment of external stimuli as frightening is a threat to individual conditions that can arouse the emergence of anxiety. Likewise, cognitive assessments of internal stimuli that can cause individuals to think or anticipate situations that are frightening or dangerous can also arouse the emergence of momentary anxiety in high intensity regardless of an individual's basic anxiety. Furthermore, in sessions three and four patients are asked to choose one of the behaviors that are carried out as a result of thoughts and feelings that arise related to unpleasant events, practice to overcome the selected unfavorable behavior, incorporate the exercise into the daily schedule of client activities and committed to preventing recurrence.

The decrease in the anxiety of hypertensive patients in this study was marked by changes in behavior and emotions such as feeling relatively comfortable, relaxed, calm and being able to carry out daily activities without being disturbed. This was by the manifestation of anxiety reduction from strait anxiety. The absence of a decrease in anxiety (trait anxiety) is marked that they are not satisfied with themselves, feel unhappy, feel there are still many difficulties faced, feel that they are not enough with their conditions and have not become a strong person.Efforts are made to reduce state anxiety and trait anxiety is to identify things

that are often a threat so that hypertensive patients can manage their lives according to their values and strengthen self-defense through various other interventions such as counseling, psychotherapy, cognitive behavioral therapy, and other behavior modification therapies.

CONCLUSION

State anxiety in patients with hypertension is decreased significantly after being given acceptance and commitment therapy compared with trait anxiety. It also significantly decreased in hypertension patients who were given acceptance and commitment therapy compared to those who were not.

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