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EFFECT OF COMBINATION NATURE SOUND MUSIC THERAPY WITH POSITIVE SELF TALK ON REDUCING POST STROKE ANXIETY

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ABSTRACT
Stroke is the second leading cause of death and the third cause of disability in the world. Post-stroke anxiety arises due to dependence due to physical disorders that affect life satisfaction. Post-stroke anxiety can increase the risk of recurrence, slow recovery and decrease quality of life. One of the efforts to reduce anxiety is the combination method of nature sound music therapy with positive self talk. This study aims to determine the effect of the combination of nature sound music therapy with positive self talk on the reduction of post-stroke anxiety. The study used a type of pre-experiment with a one-group pretest-posttests design.. Sampling with purposive sampling technique was 30 respondents. The instrument uses the Zung Self-Rating Anxiety Scale (ZSAS). The intervention was carried out 3 times of meetings and data analysis with the Paired T-Test. There was a difference in the level of anxiety before (44.67) and after (35.73) was given a combination intervention of nature sound music therapy with positive self talk with a p value of 0.000 < α 0.05 with a mean difference of 8.94 so that Ho was rejected and Ha was accepted. There is an effect of the combination of nature sound music therapy and positive self talk on reducing post-stroke anxiety.

Keywords: nature sound; positive self talk; post-stroke anxiety

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INTRODUCTION

Stroke is a cerebrovascular disorder due to impaired brain function due to insufficient blood supply to the brain, causing tissue damage due to narrowing, blockage, or bleeding (Hengky et al., 2023). The World Health Organization (WHO) states that stroke is the second leading cause of death and the third cause of disability in the world (Tham et al., 2023). According to the World Health Organization (WHO), in 2016 stroke resulted in 6.7 million deaths in the world and in 2019 the highest death rate at the global level was 55% of 55.4 million deaths (Hengky et al., 2023). In Indonesia, the incidence of stroke has increased from 7% per 1000 population in 2013 to 10.9% per 1000 population in 2019 (Ministry of Health of the Republic of Indonesia (2018) in Khairunnisa et al., 2022). According to the Indonesian Ministry of Health, stroke in Central Java reached 11.8% and based on data from the Surakarta Health Office in 2019 there were 605 deaths due to stroke in Surakarta City (Martono et al., 2022). Physical disorders experienced after stroke affect life satisfaction resulting in dependence in daily activities and can become a psychological problem (Torabi et al., 2023). The psychological response that is often experienced in stroke patients is mood and emotional disturbances caused by anxiety (Liu et al., 2023).

Post-stroke anxiety is an unsatisfactory emotional state due to changes in body functions due to stroke (Khairunnisa et al., 2022). The prevalence of post-stroke anxiety is 9.4% - 36.7% (Surbakti et al., 2023). Anxiety after stroke affects 20-36% of survivors each year (Liu et al., 2023). The number of stroke patients in Indonesia who experience anxiety (post stroke anxiety) is 10.9% (Wulandari et al., 2023). Post-stroke anxiety not only increases the risk of recurrence, death and cognitive impairment but will slow recovery and decrease quality of life

(Liu et al., 2023). Some additional therapies that can reduce anxiety include cognitive behavioral therapy (CBT), mindfulness, relaxation, reminiscence, art therapy and music therapy (Chen et al., 2024). In addition, positive self-talk, psychosocial therapy and acupuncture are also effective in reducing anxiety (Tham et al., 2023), According to Hui (2023) Music can be used for therapy that is easy to do independently in reducing pain and anxiety. Music therapy is a non-pharmacological treatment method that utilizes musical elements such as sound, rhythm, melody and harmony as an intervention (Chengya et al., 2023). According to Bahanor (2019) Some types of music cannot be used to reduce anxiety, one of the music that can reduce anxiety is Nature sound or music from nature (Siregar et al., 2022). Nature sound is music sourced from natural events such as the sea, rain, rivers, animals, birds and wind that can be used for relaxation, improving physical conditions and picnics at various ages (Ilmiyah et al., 2022).

Natural sound music has a slow tempo, tone and rhythm and is not suddenly high (Yulisetyaningrum et al., 2021). According to research by Wulandari (2023) that nature sounds music supports post-stroke rehabilitation, especially in reducing anxiety, supported by research by Lalezari (2022) where the combination of ceiling displays and nature sounds significantly reduces anxiety and stress. When listening to music, natural sounds, brain activity, and nervous system activity become relaxed, which improves mood (Song et al., 2023). In addition to music therapy, consciously thinking positively can provide enthusiasm and motivation that can reduce anxiety by directing the body to heal immediately through communication within itself or positive self talk (Kurniati & Putri, 2022). According to Irawan's (2023) research, there is a difference in anxiety levels after doing positive self talk therapy, in line with Saragih's research (2022) that positive self talk therapy can reduce anxiety so that it can be used in nursing services to reduce anxiety levels. Through the application of positive self talk, it can help a person to express what makes him feel anxious in the condition he is experiencing (Irawan et al., 2023). So that a person with positive self-talk will have a view into a new reality and better acceptance (Nisa & Pranungsari, 2021). The study aimed to determine the effect of the combination of nature sound music therapy with positive self talk on reducing post-stroke anxiety.

METHOD

The research with a pre-experimental design uses a one-group pretest-posttest design and is carried out in the work area of the Stabelan Surakarta Health Center from September to October 2024. The population was 157 with a sample of 30 respondents who were selected by purposive sampling based on the following criteria: post-stroke clients domiciled in the working area of the Stabelan Surakarta Health Center, > 25 years old, not having hearing loss, able to interact and willing to be respondents. The Anxiety Instrument used the Zung Self Anxiety Rate Scale (ZSAS) questionnaire consisting of 20 questions. In this study, the researcher did not conduct a validity and reliability test on the Zung Self Anxiety Rate Scale (ZSAS) questionnaire because the researcher adopted in the Irawan (2023) study where to measure anxiety in adults to the elderly using a ZSAS questionnaire with 20 question items with the results of the validity test of each question on the ZSAS instrument having the lowest value of 0.663 and the highest value of 0.918 so that the ZSAS questionnaire is valid because r is calculated > r table (0.396) and the reality test value of the ZSAS instrument with cronbach alpha is 0.829 so that the instrument is proven to be reliable with cronbach alpha >0.6, in addition to the study of Zhang et al., (2023) in measuring anxiety in stroke survivors using a ZSAS questionnaire that has been tested for validity and reliability where a cronbach value of y of 0.835 was obtained so that 20 questions were declared valid and reliable. Before being given the intervention, the respondents filled out informed consent and carried out a pre-test, then the intervention was carried out for 3 consecutive days for 30 minutes each meeting consisting of 3 sessions, namely session I warming intro, session II explore your fear

and positive image, and session III build your stress and confidence, then the respondent filled out a post test questionnaire with a 3-day interval after the last intervention. Data analysis with the Paired Samples T Test.

RESULT

Table 1
Characteristics based on gender (n=30)

Gender	f	%
Male	15	50
Woman	15	50

Table 2
Crosstab anxiety levels based on gender (n=30)

Gender	Normal		Light		Keep		N	%
	f	%	f	%	f	%		
Male	3	20	9	60	3	20	15	100
Woman	1	6,7	11	73,3	3	20	15	100

Table 3
Characteristics based on age (n=30)

Age	f	%
Early adulthood (26-45)	2	6,7
Late adulthood (46-65)	20	66,7
Elderly (>65)	8	26,7
Sum	30	100

Table 4
Crosstab anxiety levels based on age (n=30)

Age	Normal		Light		Keep		N	%
	f	%	f	%	f	%		
Early adulthood (26-45)	1	50	0	0	1	50	2	100
Late adulthood (46-65)	2	10	15	75	3	15	20	100
Elderly (>65)	1	12,5	5	62,5	2	25	8	100

Table 5
Anxiety before and after the intervention (n=30)

Anxiety Level	Pre Test		Post Test		Difference	
	f	%	f	%	f	%
Normal	4	13,3	18	60	14	46,7
Light	20	66,7	12	40	8	26,7
Keep	6	20	0	0	6	20
Heavy	0	0	0	0	0	0
Sum	30	100	30	100		

Table 6
Test of Normality with Shapiro-Wilk (n=30)

Pre-Post	f	Significance
Pre Test	30	0,123
Post Test	30	0,072

Table 7.
Uji Paired Samples T Test (n=30)

Variable	f	Mean	SD	Median	Min-Max	95% CI	t value	p Value
Pre test	30	44,67	7,246	45,5	30-60	41,96-47,37	14,597	0,000
Post test	30	35,73	5,866	34	27-48	33,54-37,92		
Difference		8,94	1,38	11,5	3-12	8,42-9,45		

DISCUSSION

Respondent characteristics based on gender

Based on table 1, 50% were males and 50% females and in table 2 the anxiety level by gender was dominated by females with mild anxiety of 73.3%. According to Azzahra and Ronoatmodjo (2022), the incidence of stroke is more frequent in men than 1.8 times more likely than in women because of the hormone testosterone which can increase blood LDL levels. According to Martono (2022) men are more likely to have strokes due to various factors such as smoking and alcohol, but women after menopause have a higher risk due to decreased production of estrogen hormones. In line with Salman et al., (2022) that women after menopause have a comparable risk. Supported by research by Teja et al., (2022) there are 50% men and 50% women where there is no difference in the proportion of stroke incidence rates in women due to blockage of blood flow while in men due to bleeding. According to Lestari and Husain, (2022) women are more likely to experience anxiety because women tend to have worries that are often felt so that uncontrollable thoughts cause feelings of fear. In line with Khairunnisa et al., (2022) of the 30 respondents after stroke anxiety is dominated by women as many as 77.8%, because women are more sensitive to their feelings and irritable. In line with research by Irawan et al., (2023) that women experience more anxiety because they have sensitive and sensitive feelings and are influenced by hormones, social relationships, and the environment. Supported by research by Zhang et al., (2023) revealed that 12.3% of ischemic stroke patients experienced post-stroke anxiety with female respondents experiencing higher levels of anxiety due to differences in brain tissue, biology, hormones and function with men.

Respondent characteristics based on age

The results of the study in table 3 showed that the incidence of stroke was dominated by the age range of 46-65 years by 66.7%. And in table 4, the anxiety level based on age was dominated by the age of 46-65 years with mild anxiety of 75%. According to Azzahra and Ronoatmodjo, (2022) stroke often attacks the elderly and young and over 55 years old has a 2 times greater risk. After 46-65 years, aging occurs where there are many changes and decreases in physical condition and organ system function, including a decrease in the elasticity of brain blood vessels, so that there is a risk of stroke (Rabbani et al., 2024). Age is one of the factors that cause anxiety related to the body and mind, if the body and mind are not in sync, it can result in feelings of anxiety (Faozi et al., 2023). According to Abdu et al., (2022) strokes that occur in late adulthood have a disrupted mental health impact compared to the elderly. In the research of Liu et al., (2023) of post-stroke patients, there are 33.53% who experience anxiety with the highest age prevalence at 51-70 years. Research results Hengky et al., (2023) the most anxiety in stroke patients is in the age range of 46-55 years (32.9%) and age 56-65 (28.2%), at this age will experience organ deterioration so that good adaptation to conditions that are much different from young age is needed. Supported by research by Murtini et al., (2024) the anxiety of stroke patients where 100% is experienced at an average age of 55 years with a range of 45-65 years.

Anxiety before and after intervention combining nature sound music therapy with positive self talk

Based on the results of the study in table 5, there was a decrease in anxiety after being given a combination of nature sound music therapy with positive self talk, where before the intervention was given anxiety was dominated by mild anxiety by 66.7% and after the intervention was dominated by the normal category by 60%. In line with the research of Wulandari et al., (2023) post-stroke respondents before the intervention were 76.5% experienced severe anxiety and 23.5% experienced moderate anxiety, post-stroke anxiety occurs due to neurological disorders such as paralysis, weakness, impaired communication, perceptual disorders, bladder dysfunction, cognitive function impairment, psychological changes and limitations in movement. In line with the opinion of Mufidah et al., (2022) anxiety in post-stroke patients is caused by various decreases in physiological function, weakness, negative perceptions and lack of family support. After being given nature sound music, anxiety was reduced, this is because respondents could feel comfortable with natural sounds that have a slow tempo, tone, and rhythm that are not suddenly high (Yulisetyaningrum et al., 2021). Supported by research by Lalezari et al., (2022) the provision of ceiling displays, nature sounds and the combination of ceiling displays with nature sounds respectively significantly reduced the anxiety and stress experienced by respondents.

The provision of music therapy can overcome the presence of negative emotions by stimulating the activation of the limbic system in the brain related to emotions so that it can provide a sense of relaxation and reduce anxiety (lmiyah et al., 2022). In addition, music affects the heart rate which can provide a feeling of calm and relaxation through a gentle rhythm so that it has a good effect and can remind health (Arisandi and Hartiti, 2022). In addition to nature sound therapy, post-stroke anxiety due to negative thoughts, therefore it is necessary to change negative thoughts to think positively. Supported by research by Irawan et al., (2023) after conducting positive self-talk, most of the respondents were in mild anxiety of 68% and moderate anxiety of 32%, anxiety was felt by patients because of the fear of recurrence or more severe conditions so that they always felt fear in themselves. In doing positive self talk, a person will be directed to identify negative or irrational thoughts that are often thought about, then replace them with positive sentences. Through communication with oneself, it is able to influence a positive mindset with feelings or behaviors that are carried out. According to Nurul et al., (2022) after talking to yourself, you can reduce anxiety, depression and stress through positive words in yourself so that you can calm down in facing the situation and build your own spirit to achieve the expected change

Bivariate Analysis

In table 6, the normality test obtained p values of 0.123 and 0.072 > α 0.05 so that the data was normally distributed. Based on table 7, a p value of 0.000 < α 0.05 was obtained and a tcal value of 14.597 > the ttable value (1.699) which can be concluded that Ha was accepted so that there was a significant influence of the combination of nature sound music therapy with positive self talk on anxiety reduction. According to Wulandari et al., (2023) Giving bird sounds and splashing water for twenty minutes stimulates the brain to produce endophrine which can reduce fear and anxiety with a P value of 0.000. In line with the opinions of Auliya and Yudiarso, (2023) several studies show that after 15-30 minutes of music therapy can reduce anxiety. Supported by Fatehimoghadam et al., (2023) that the nature-based sound therapy method is effective in reducing anxiety and stress. Research conducted by Arisandi and Hartiti (2022) after listening to music for 3 days can affect vasodilation of blood vessels, decreased heart rate, decreased anxiety, increased metabolism and decreased muscle tone.

Music has therapeutic properties that are able to heal through stimuli received by the auditory organs, through the auditory nerve then music will be channeled to the part of the brain,

namely the limbic system which is related to a person's emotional behavior (Cahyani, 2023). According to Siregar et al., (2022) nature sound has been chosen for a long time as an intervention in reducing anxiety with various types of diseases because in essence humans have a direct relationship with nature so that it will produce therapeutic effects. According to Stobbe et al., (2022) The sound of birds and water is a link between humans and nature where the more we feel connected to nature, the better it will improve feelings, this sound also has the ability to distract from all factors that can trigger anxiety. In addition to music therapy, directing a person after experiencing a stroke through positive thoughts can also reduce feelings of anxiety. Supported by research by Saragih et al., (2022) that the provision of positive self talk can reduce anxiety so that it can be applied in nursing services as a non-pharmacological therapy. In line with research conducted by Nisa and Pranungsari, (2021) that a cognitive approach with communication to oneself through positive sentences can be used as an additional therapy in reducing feelings of anxiety. Changes due to stroke make a person feel helpless with and if they do not have good adaptability, it will give rise to negative thoughts and anxiety (Nurmalitasari et al., 2022). Positive self talk can change mood through positive communication that can demand the subconscious so that the positive sentences spoken affect a person's behavior. According to Setiawan, (2023) communication through positive words within oneself can direct the mindset to think optimistically and purposefully

CONCLUSION

There was an effect of the combination of nature sound music therapy with positive self talk on the reduction of post-stroke anxiety with a p value of 0.000 < α 0.05 and mean difference of 8.94

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