



PROGRESSIVE MUSCLE RELAXATION THERAPY AGAINST ANXIETY IN HIGH SCHOOL STUDENTS RELATED TO THE COVID-19 PANDEMIC

Nuraini Fitri, Hernida Warni*, Niken Yuniar Sari

Nursing Program, Faculty of Health, Universitas Mitra Indonesia; Jl. ZA. Pagar Alam No.7, Gedong Meneng, Kec. Rajabasa, Kota Bandar Lampung, Lampung 40115, Indonesia

*hernida.warni@gmail.com

ABSTRACT

In early 2020 until August 2021, the world experienced a pandemic related to the corona virus that required people to Stay At Home. Continuing with the IPK findings regarding anxiety complaints in 2020 related to the COVID-19 pandemic situation, it reached 18.9%. This research was conducted with the aim of reducing the intensity of anxiety in JHS students through progressive muscle relaxation techniques using the STAI (State-Trait Anxiety Inventory) measuring instrument. The sample in this study amounted to 18 people divided into 2 groups, namely experimental and control. This study uses a Quasy Experimental Pre-Past Test With Control Group with Purposive Sampling design.. The data collection technique used purposive sampling, univariate analysis with categorical distribution and bivariate analysis using paired sample test with 95% confidence level ($\alpha=0.05$). The results showed that there was a significant difference in the level of anxiety in the experimental group before and after the intervention of progressive muscle relaxation techniques was given to anxiety in the State section, ρ value $0.000 < 0.05$ and the Trait section, ρ value $0.001 < 0.05$, meaning that there was an effect of progressive muscle relaxation on anxiety in the experimental group at JHS UI Fitrah Insani Bandar Lampung.

Keywords: anxiety; covid-19; progressive muscle relaxation

INTRODUCTION

Anxiety is a psychological condition that is very very uncomfortable which is usually indicated or has symptoms of a faster heart beat, worries that suddenly haunt and tend to give negative perceptions. While Sigmund Freud, 1936 has an interpretation of anxiety is an unpleasant state, accompanied by physical sensations as if the individual was warned about impending danger. When a person experiences continuous or persistent anxiety problems for less than six months and makes the person very disturbed or uncomfortable, chances are that person has an anxiety disorder. Anxiety disorders are a very common form of emotional problem and can be felt by every individual, both young and old. (Holand, Kimberly 2020). Anxiety also has different symptoms depending on the person experiencing it. It can start from butterflies that fill the abdominal organs, the heart beats fast, out of control, namely- the feeling of the mind being beyond the capacity of one's body.

Corona virus, also known as Covid-19, has had a huge impact on life around the world. Social distancing or social restrictions affect the psychosocial environment of countries affected by this outbreak. Restrictions and lockdown policies can increase a person's level of anxiety. Al Jazeera quoted, as of May 12, 2021, 214 countries were affected by this outbreak. With details of more than 167.6 million people infected, there have been more than 3.5 million deaths and more than 8.8 million people have recovered from the corona virus. The corona virus was detected in Indonesia after President Joko Widodo announced that there were 2 citizens who had tested positive for the corona virus on March 2, 2020. The Ministry of Health explained, as of August 30, 2021, there were 4,100,138 confirmed cases (Specimen 220,061, Suspected 251,359 and Active 189,571) and the healing rate of 3,776,891 people. Then, 133,678 died.

The Basic Health Research (Riskesdas) of the Ministry of Health of the Republic of Indonesia in 2018, explained that the prevalence of emotional disorders in the population aged 15 years and over increased from 6% (in 2013) to 9.8% (in 2018). Riskesdas Ministry of Health of Lampung Province, explained that the prevalence of emotional disorders in the population aged 15 years and over increased from 1.2% (2013) to 5.6% (2018). Furthermore, the Bandar Lampung City Health Service stated that in 2018 the percentage of Mental Emotional Disorders was at 5.6%. In the first quarter of 2021, the Kemiling Health Center and the All Mider Health Center reported no cases of GME in their area. Meanwhile, the Gedong Air Health Center has 13 people. WHO research in 2019 explained that depression and anxiety caused economic losses of 1 trillion USD due to the loss of human resources. (HIPSI, 2020). It was recorded in the IPK (Clinical Psychological Association) report that Indonesia had the six most psychological problems experienced in this pandemic from March-August 2020. As for the details of the population analysis, 14,619 individual clients, 927 family clients, and 191 community clients with child age specifications. or teenagers totaling 4,690 people, 9,426 adults and 501 elderly people. The six most common problems are learning barriers with the highest percentage, namely 25.8 percent, which is motivated by changes in teaching and learning activities that were originally face-to-face to online and made parents and students stressed.

This makes general stress in the second percentage with 23.9 percent, followed by anxiety complaints by 18.9 percent, mood swings or sudden changes of heart by 9.3 percent, followed by anxiety disorders by 8.8 percent, and lastly somatic complaints with a figure of 4.7 percent. (Gamayanti, Indria L., 2020). Teenagers themselves are individuals aged 10-19 years. (WHO, 2014). Meanwhile, the National Population and Family Planning Agency (BKKBN) states that adolescents are individuals aged 10-24 years. And according to the Regulation of the Minister of Health of the Republic of Indonesia Number 25 of 2014 argues that the age of adolescents is in the range of 10-18 years. The management in handling anxiety itself is divided into two categories, namely handling in terms of pharmacology and non-pharmacology. in pharmacology, benzodiazepines can be used for short periods and long-term use is not recommended because it can cause tolerance and dependence. For non-benzodiazepines such as buspirone (buspar) and antidepressants are also used. (Marsh, 2015 in Revai, Alwan 2018).

While the non-pharmacological treatments include progressive muscle relaxation, distraction, humor, spiritual therapy, aromatherapy and others. (Padilah, et al 2012). Progressive muscle relaxation therapy aims to differentiate the feelings experienced when muscle groups are relaxed and compared to when muscles are tense. More specifically, this therapy can stimulate the release of endorphins and enkafalin chemicals as well as stimulate brain signals and give the effect of relaxing muscles and increasing blood flow to the brain. Finally, the mind will feel calm, relaxed and easier to sleep. (Conrad & Roth, 2007). The purpose of this study was to determine the effect of progressive relaxation on the anxiety of IT Fitrah Insani students in Bandar Lampung regarding the Covid-19 Pandemic Situation in 2021.

METHOD

This study uses a Quasy Experimental Pre-Past Test With Control Group design with purposive sampling or questionnaires before and after being given progressive muscle relaxation exercises to students of IT Fitrah Insani Junior High School Bandar Lampung. In detail, giving a primary questionnaire to filter samples from the population, here the researcher uses the SDQ (Strengths and Difficulties-Questionnaire) questionnaire which will be used as the first measuring tool in behavioral assessment that focuses on the strengths and difficulties of adolescents aged 3-18 years. Followed by the division of groups, namely the experimental group and control group.

Then the pre-test was carried out on both groups using the STAI (State-Trait Anxiety Inventory) which is a questionnaire consisting of two parts, namely State Anxiety and Trait Anxiety in the form of 40 statements in measuring situational anxiety. In this study, respondents were required to choose one answer for each item. STAI itself consists of 40 statements that contain a description of "usually or in general" a person's feelings with details of 9 points favorable and 11 points unfavorable. Followed by giving treatment to the experimental group related to progressive muscle relaxation. The meeting will be held online via zoom-meet and will be coordinated by researchers via whatsapp.

Followed by monitoring the implementation of concurrent relaxation at a zoom-meet once a day which takes approximately 15-35 minutes including strengthening in understanding the goals, benefits and implementation for 14 days and ending with a pre-test to determine the effect of progressive muscle relaxation on anxiety in children. IT Fitrah Insani Junior High School students Bandar Lampung regarding the COVID-19 pandemic situation in 2021. This research has also passed the ethical test conducted by the Research Ethics Committee of the Faculty of Nursing, Universitas Mitra Indonesia SK No. S.25/140/FKES10/2021.

RESULTS

Table 1.
Characteristics Respondents (n=18)

	Experiment		Control		Total	
	f	%	f	%	f	%
Gender						
Male	3	33,3	4	44,4	7	38,9
Female	6	66,4	5	55,6	11	61,1
Age						
12	3	33,3	5	55,6	8	44,4
13	4	44,4	3	33,3	7	38,9
14	2	22,2	1	11,1	3	16,7

Table 1, the characteristics of the overall respondents amounted to 18 people with an even distribution between the experimental and control groups, namely the experimental group was dominated by women amounting to 66.4%. In the control group, women also dominate with a total of 55.6%. The experimental group aged 13 years dominates with a total of 44.4%. In the control group, the age of 12 years dominated as much as 55.6%.

Table 2.
Average Anxiety Levels in Experimental and Control Groups Before Progressive Muscle Relaxation was Given (n=18)

Experimen N	State						Trait							
	Mean	SD	SE	Min	Max	95%CI	Kon	N	Mean	SD	SE	Min	Max	95%ci
9	40,88	12,27	4,09	21	61	31,4555-50,3223		9	45,66	9,73	3,24	33	64	38,1845-53,1489
Contro N	Mean	SD	SE	Min	Max	95%CI	Kon	N	Mean	SD	SE	Min	Max	95%ci
9	46	5,72	4,10	34	53	28,0857-47,0254		9	50	2,64	0,88	45	55	47,9663-52,0337

Table 2, the State Section of the Experimental Group has an average value of 40.88 with a standard deviation or standard deviation of 12.27 and a standard error of 4.09 with the lowest value of 21 and the highest value of 61 and 95%ci 31.4555-50.3223. The Experiment Group

Trait section has an average value of 45.66 with a standard deviation or standard deviation of 9.73 and a standard error of 3.24 with the lowest value of 33 and the highest value of 64 and 95%ci 38.1845-53.1489. The State control group has an average value of 46 with a standard deviation or standard deviation of 5.72 and a standard error of 4.10 with the lowest value of 34 and the highest value of 53 and 95%ci 28.0857-47.0254. The Trait Control Group has an average value of 50 with a standard deviation or standard deviation of 2.64 as well as a standard error of 0.88 with the lowest value of 45 and the highest value of 55 and 95%ci 47.9663-52.0337.

Table 3.
Average Anxiety Levels in Experimental and Control Groups After being Given Progressive Muscle Relaxation

Experiment N	State						Eks	N	Trait					
	Mean	SD	SE	Min	Max	95%ci			Mean	SD	SE	Min	Max	95%ci
9	23,32	6,63	3.70	20	36	28.4491-35.5509	9	24	9.71	3.39	20	42	30.1800-41.8200	
Control N	Mean	SD	SE	Min	Max	95%ci	Eks	N	Mean	SD	SE	Min	Max	95%ci
9	38,67	9,35	1,90	21	51	41.6011-50.3989	9	43	4,92	1,84	33	49	39.7549-48.2451	

Table 3, the State Section of the Experimental Group has an average value of 23.32 with a standard deviation or standard deviation of 6.63 and a standard error of 3.70 with the lowest value of 20 and the highest value of 36 and 95%ci 28.4491-35.5509. The Experiment Group Trait section has an average value of 24 with a standard deviation of 9.71 and a standard error of 3.39 with the lowest value of 20 and the highest value of 42 and 95%ci 30,1800-41,8200. The State control group has an average value of 39.67 with a standard deviation or standard deviation of 9.35 and a standard error of 1.90 with the lowest value of 21 and the highest value of 51 and 95%ci 41.6011-50.3989. The Trait Control Group has an average value of 43 with a standard deviation or standard deviation of 4.92 and a standard error of 1.84 with the lowest value of 33 and the highest value of 49 and 95%ci 39.7549-48.2451.

Table 4.
Differences in mean anxiety before and after the experimental group given progressive muscle relaxation and the control group

Variable	Before		After		Differences		p Value
	Mean	SD	Mean	SD	Mean	SD	
Experiment State	40,89	12,272	23,33	6,633	17,556	9,369	0,000
Experiment Trait	45,67	9,734	24,89	9,701	20,778	12,558	0,001
Control State	46	5,723	39,67	9,354	6,333	8,426	0,54
Control Trait	50	2,646	43	4,924	7	4,528	0,006

Table 4, the average difference before being given an intervention in the experimental group in the state section has an average value of 40.89 with a standard deviation of 12,272 after being given an intervention has an average value of 23.33 with a standard deviation of 6.633. The average difference is 17,556 and the standard deviation is 9,369 with a value of 0.000 (<0.005) meaning that there is a significant difference in the level of anxiety in respondents who are given progressive muscle relaxation therapy. The average difference before being given the intervention in the experimental group in the trait section has an average value of 46 with a standard deviation of 5.723 and after being given the intervention it has an average value of

39.67 with a standard deviation of 9.354. The average difference is 6.333 and the standard deviation is 12.558 with a value of 0.001 (< 0.005) meaning that there is a significant difference in the level of anxiety in respondents who are given progressive muscle relaxation therapy. The average difference before the control group in the state section has an average value of 46 with a standard deviation of 5.723, then the pre-test has an average value of 39.67 with a standard deviation of 9.354. The average difference is 6.333 and the standard deviation is 8.426 with a value of 0.54 (> 0.005) which means that there is no significant difference in respondents who are not given intervention. The difference in the mean before the control group on the trait section has an average value of 50 with a standard deviation of 2,646 then the pre test has an average value of 43 with a standard deviation of 4.924. The average difference was 7 and the standard deviation was 4.528 with a value of 0.006 (< 0.005), which means that there was no significant difference in respondents who were not given the intervention.

In the Pre-Test Experimental Group, temporary anxiety and persistent anxiety were both at moderate anxiety level with details, namely temporary anxiety had an average value of 40.89 with a standard deviation of 12,272 or moderate anxiety and in persistent anxiety had an average value of 45, 67 with a standard deviation of 9.734 or moderate anxiety. In the control group, temporary anxiety has a mild mean value of 46 with a standard deviation of 5.7233 or mild anxiety and persistent anxiety has an average value of 50 with a standard deviation of 2.646 or moderate anxiety.

In the Post-Test Experimental Group, temporary anxiety and persistent anxiety were both at the level of mild anxiety with details, namely temporary anxiety had an average value of 23.33 with a standard deviation of 6.633 or mild anxiety and in persistent anxiety had an average value of 24. .89 with a standard deviation of 9.701 or mild anxiety. In the control group, temporary anxiety and persistent anxiety were both at the moderate level of anxiety, with details, namely temporary anxiety, which had an average value of 39.67 with a standard deviation of 9.354 or moderate anxiety and in settling had an average value of 43 with a standard deviation of 4.924 or moderate anxiety.

The average value of temporary anxiety in the Experimental Group decreased with an average difference of 17,556 and a standard deviation of 9,369 with a value of 0.000 (< 0.005) and in persistent anxiety the average value also decreased with an average difference of 20.778 and a standard deviation of 12,558. with a value of 0.001 (< 0.005), which means that there is a significant difference in the level of temporary and permanent anxiety in the experimental group before and after the intervention of progressive muscle relaxation techniques. The mean value of temporary anxiety in the control group in the pre-test and post-test with a mean difference of 6.333 and a standard deviation of 8.426 with a value of 0.54 (> 0.005) and in persistent anxiety the average value in the pre-test and post-test with a mean difference of 7.00 and a standard deviation of 4.528 with a value of 0.006 (> 0.005). In the control group, which also experienced a decrease, although not significant, the researchers also concluded that the factors that influence anxiety began to decrease, such as social support began to be fulfilled and the number of covid transmission began to decline.

DISCUSSION

anxiety in the experimental group decreased, which previously had an average value of moderate anxiety after being given the intervention to mild anxiety with an average difference of 17.556 and a standard deviation of 9.369 with a value of 0.000 (< 0.005). The difference in the mean of persistent anxiety in the experimental group which previously had an average value of moderate anxiety after being given the intervention became mild anxiety with an average

difference of 20.778 and a standard deviation of 12,558 with a value of 0.001 (< 0.005). While the average anxiety in the control group in the pre-test has an average value of mild anxiety and the post-test has an average value of moderate anxiety with an average difference of 6.333 and a standard deviation of 8.426 with a value of 0.54 (> 0.005). The average persistent anxiety in the control group in the pre-test has a moderate anxiety value and the post-test has a moderate average value with an average difference of 7.00 and a standard deviation of 4.528 with a value of 0.006 (> 0.005).

Progressive Muscle Relaxation after Jacobson (PMR) is a technique used to teach patients to relax muscles through a two-step process. In PMR itself, the patient is directed to concentrate and hold tension and then directed to release all tension and focus on the sensation of relaxation. Regular exercise can help the patient to recognize tension and feelings of relaxation. Lauche, R. et al. (2013). The effect of progressive muscle relaxation related to stress, stress management has an important role in lowering pulse and blood pressure so that we can sleep relaxed to overcome sleep difficulties. By achieving progressive muscle relaxation, one's mind will feel relaxed. As for other actions that are in line with this is acupuncture, yoga and reiki. This technique has also been used to control anxiety in different contexts. (Paras-Bravo, et al. 2007). Progressive Muscle Relaxation (PMR) can be effective in a group of symptoms experiencing anxiety and stress due to environmental changes (Charalambous, 2016). Progressive muscle relaxation can help individuals to control emotional and psychological conditions. Several studies have also proven that it is quite effective for controlling anxiety that arises in individuals. Mutawalli, et al. (2014). By doing progressive muscle relaxation where the effect of calming the body's muscle tension due to anxiety symptoms so that the emotional condition will be calmer. (PH et al., 2018)

In line with the survey conducted by Judge (2020) The impact of the COVID-19 pandemic on psychosocial conditions in Indonesia, during the 7 days at the beginning of the PSBB and the Policy Brief of the Social Psychology Association (Cahyono, et al. 2020) showed that 27% of the 1,319 participants experienced acute stress. due to social restrictions, lack of basic needs, threat of infection and behavioral adjustments. The Child Protection Commission (KPAI) in April 2020 conducted a survey in 20 provinces and 54 districts/cities in Indonesia, where 73.2% of children felt burdened with tasks. The more children feel burdened, the more vulnerable they are to academic stress. This proves that the lack of interaction between students and teachers so that the results obtained are less than optimal and trigger stress which also manifests into anxiety and other psychological problems. In line with the Persakmi study survey on July 22, 2020 in collaboration with IKA FKM UA which involved 8,031 respondents from 34 provinces in Indonesia, it was found that more than 50% of respondents experienced anxiety in the categories of anxiety and very anxious. From the research results of Fidalika & Purwoko (2020) regarding the application of progressive muscle relaxation techniques to deal with stress using the literature study method, it can be concluded from 15 articles proving that 11 articles describing progressive muscle relaxation techniques are able to cope with stress in students and 4 others proving that the technique Progressive muscle relaxation can overcome problems such as anxiety, difficulty sleeping, boredom and learning difficulties to improve emotional control.

According to researchers, anxiety management through progressive muscle relaxation techniques will really benefit if it is done on an ongoing basis. The thing that must be accompanied is mindfulness regarding the situation we are currently facing. Because whatever is happening now there is cause and effect as well as losses and benefits. Judging from the average value of the decrease in the control group that was not given the intervention although it was not significant, the researchers also concluded that anxiety can be slightly reduced when

the factors that influence anxiety begin to decrease, such as the sloping spread of covid or social support has been fulfilled. Trying to have a positive mindset and apply health protocols correctly then this situation will be easier for us to go through. The decline in the rate of transmission of the corona virus will also subside and the situation will improve so that the days before the pandemic will return to normal.

CONCLUSION

Based on research conducted at the IT Fitrah Insani Junior High School regarding the effect of progressive muscle relaxation on anxiety in students related to the COVID-19 pandemic situation, it can be concluded that there is a significant difference in the level of temporary and permanent anxiety in the experimental group before and after the progressive muscle relaxation intervention was given. And in the control group that was not given intervention, it also decreased but was not significant, then the researchers concluded that the factors that influence anxiety began to decrease, such as social support began to be fulfilled and the number of covid transmission began to sag.

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