

THE EFFECT OF PROGRESSIVE MUSCLE RELAXATION TO IMPROVE THE QUALITY OF SLEEP OF NEUROSIS PATIENT

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ABSTRACT

Neurosis is a psychic reaction with typical anxiety. Anxiety may cause physical imbalance such as the increase of blood pressure, insomnia, muscle tension and palpitations. Muscle tension and sleep difficulties are common anxiety response symptoms experienced by the society. Progressive muscle relaxation therapy is a relaxation of the tightening and relaxing movement on the muscles of one particular body part at a time to provide physical relaxation. The muscles are tightened and relaxed in a series of movement.

This study aimed to determine the effect of progressive muscle relaxation to improve the quality of sleep of neurosis patients.

Pra-experimental research design with One Group Pre-Post Test with purposive sampling was conducted with the number of samples was 13 respondents. This study used a questionnaire to measure sleep quality while to measure the improvement of the quality of sleep used PSQI questionnaire, and the data were analyzed used bivariate analysis using the T-test.

The result of the quality of sleep before and after the therapy on the treatment was $p < 0.000$. It means there was some effect on progressive muscle relaxation therapy to improve the quality of sleep neurosis patient, so the hypothesis could be accepted.

From the results, it could be concluded that the progressive muscle relaxation therapy could be used to improve the quality of sleep of neurosis patients.

Keywords: Progressive Muscle Relaxation, Sleep Quality, Neurosis

INTRODUCTION

Neurosis is a mental disorder in which the psychological condition of the client are in fear and anxiety chronic, people put more pressure on the perceived negative emotions to the subconscious, where it affect the feelings, thoughts, behavior and health of the body of a person who experienced it. Individuals who in the span of life have positive thoughts to the events in his life will develop a positive emotional response. Likewise, individuals who have negative thoughts toward an event experienced always use the negative thoughts and irrational when the stressor appear¹. This is an impact on physical and psikis² one of neurosis. Anxiety can cause physical imbalance such as increased blood pressure, insomnia, muscle tension and palpitations. While the psychological imbalances that can arise for example

difficulty concentrating, confusion, loss of control and imbalance social¹.

Based on the results of basic medical research (Risksdas) Indonesia in 2013, the prevalence of emotional disorders as many (6%)². Among a variety of mental disorders, neurotic disorders (anxiety neurosis) is a mental disorder that is most widely found in the community that is 2-4%³. In Blitar City particularly in Puskesmas Kepanjen Kidul Blitar there are 35 clients with a diagnosis of neurosis who visit every month, and there are no further interventions to address them.

The prevalence of anxiety increased in line with the course of the disease and symptoms. Anxiety can provide the signs and symptoms of the complaints expressed subjectively or that can be observed with the observation that consists of the physical, cognitive, social

and psychological behavior. Muscle tension and difficulty sleeping is a response to the anxiety that is often experienced clients. Several factors can affect sleep as physical, psychological, social and environmental. Changes in the physical, psychological, social and environmental results in reduced time of sleep.

Psychotherapy more effective than medical therapy in the long-term evaluation, as psychotherapy aimed at helping the patient or family to change the pattern of cognitive, behavior that is based on a deep understanding of the problems experienced by patients and their family.

Progressive muscle relaxation therapy can be applied to clients with anxiety neurosis. Relaxation exercises aimed to distinguish the feelings experienced during be straightened muscle groups and compared when the muscles in a state of tension. By knowing the location and feel the muscles tense then the client can feel the loss of tension as one response to anxiety more clearly where therapy is progressive muscle relaxation can stimulate spending chemicals endorphins and enkephalins and stimulate signaling the brain that causes the muscles to relax

and improve blood flow to the brain. Progressive muscle relaxation can make the mind feel calm, relaxed and easier to sleep⁴.

The aim of this study was to determine the effect of progressive muscle relaxation therapy to improve the quality of sleep neurotics in Puskesmas working area Kepanjen Kidul Blitar.

METHODS

This research was a quantitative research used Pre Experimental with Pre-Post Test design. The population in this study was all neurotics in Puskesmas Kepanjen Kidul Blitar as 35 people. The Sampling technique used in this research was purposive sampling as 13 respondents.

The instrument to measure sleep quality used PSQI (The Pittsburgh Sleep Quality Index) questionnaires. The implementation of the entire study takes 6 weeks. 5 weeks were use for the implementation and one week of therapy were use to evaluate the quality of sleep after therapy. The data analysis used consisted of univariate and bivariate analyzes. In univariate analisis used statistical test Paired t-test.

RESULTS AND ANALYSIS

Table 1. Characteristics of Respondents by Age

Variabel	Mean	SD	Min	Max
Age (Year)	45,15	9,998	31	58

Table 2. Characteristics of Respondents by Sex, Occupation, Education, and Marital status

Variable	Category	Σ	
		n	%
Sex	Male	6	42,9
	Female	7	53,8
Occupation	Wrking Privately	6	42,9
	Farmer	1	7,1
	Not Work	6	42,8
Marital Status	Married	11	78,6
	Single	2	14,3
Education	SD	3	21,4
	SMP	6	42,9
	SMA	4	28,6

Most of the respondents were female gender. This type of work, the respondent is working privately, to the marital status of the majority of the respondents were married as many as 11 people. And for the respondent's educational level is junior high school.

Table 3 Distribution of Neurotics Sleep Quality Before and After Intervention

Interven si	N	Sleep Quality				<i>Paired t-test.</i>
		Mean	St. Deviasi	Min-Max	95% CI	
<i>Pre</i>	13	17,15	1,519	15-19	16,24- 18,07	P 0,000
<i>Post</i>	13	13,38	2,022	10-16	12,16- 14,61	

the quality of sleep neurotics on the average was 17.15 before the intervention, after the intervention has been changed into 13.38. Sleep quality score before and after progressive muscle relaxation with a p-value of 0.000 (p value <0.05).

ANALYSIS

Neurosis Patients Sleep Quality Before Given Progressive Muscle Relaxation Therapy In Puskesmas Kepanjen Kidul Blitar.

The results showed that the average quality of sleep neurotics before given progressive muscle relaxation therapy was 17.15.

Poor sleep quality could be anxiety, fear and worry that excessive respondents experienced a decline due to the condition of the disease or health status, environmental conditions and other psychological conditions. In addition, some factors trigger a decrease in the quality of sleep is also associated with diet, habits of the use of drugs to help you sleep and daily activities were performed. In this study, the majority of respondents, namely private work as a maker of craft that demands high job completion precipitate stress that impact on the fulfillment of sleep. Emotional stress causes the stress that often leads to frustration so that the individual would have difficulty to start sleeping or otherwise.

Smoking habits performed by male respondents were also concerned with the difficulty to start sleeping, this was because nicotine causes an increase in time awake. Nicotine has a half-life of about 1-2 hours so that individuals who smoked more than one cigarette in a few hours before sleep will have difficulty to start sleeping.

In this study, the average sex of the respondents in the treatment group was women. Women 2-3 times more prone to anxiety than men, this was because women were putting emotion. So that in times of stress, the more untouched emotion, aspects that impact on their health⁵ conditions.

Neurosis Patients Sleep Quality After Given Progressive Muscle Relaxation Therapy In Puskesmas Kepanjen Kidul Blitar.

The average score of PSQI respondents after being given progressive muscle relaxation therapy was 13.38. The average score of sleep quality decreased from before therapy, where the average quality of sleep 17.15. This shows that the average decrease in score indicates improvement in sleep quality.

The assessment of quality of sleep by PSQI based on a score of 7 components include appraisal quality of sleep subjectively, sleep efficiency, sleep duration, the accuracy of sleep, a history of the use of drugs to help you sleep, things disturb of sleep, the perceived impact associated with sleep problems. The sum score of PSQI would describe the quality of sleep in which a high score indicates bad sleep quality⁶.

Progressive muscle relaxation was part of a relaxation therapy that was used as a coping skill that teaches clients when and how to do relaxation and comfort under

conditions that can cause anxiety. This therapy was done with motion tightens and relaxes the muscles on one body part at a time to give a feeling of physical relaxation.

Progressive muscle relaxation showed benefit in reducing the tensions that will fix various physiological and psychological symptoms. The stress response was part of a closed feedback path between the muscles and the mind. Assessment of the stressors lead to muscle tension which sends stimulus to the brain and make feedback path⁷. Relaxation exercises was one of self-management techniques that are based on the workings of the sympathetic and parasympathetic nervous system. Muscle relaxation would inhibit the pathway by activating the parasympathetic nervous system works. Physiologically the body, to produce endogenous to inhibit pain impulses generated by the perceived tension. Consists of endogenous endorphins and enkephalins, when the body remove these substances then one effect was to relieve tension be perceived⁸.

The relaxation response occurred because parasympathetic autonomic nervous system activity raphe nuclei, causing changes that can control the activity of the autonomic nervous system in the form of a reduction in oxygen function, frequency of breathing, pulse rate, muscle tension, blood pressure, as well as alpha waves in the brain so it was easy to fall asleep.

Neurosis patients sleep quality before and after progressive muscle relaxation therapy in Puskesmas Kepanjen Kidul Blitar.

The results showed that there were differences in sleep quality scores neurosis patients with $p < 0.000$ ($\alpha < 0.05$), which means that there is the effect of progressive muscle relaxation therapy against in this study, the average patient has decreased the quality of sleep before therapy.

This was caused by the various conditions experienced by respondents include family conditions, relationships

with family members, delinquency, a relationship with a spouse, loss of loved ones and so on. Someone who were experiencing anxiety would lead to an imbalance in terms of physical vital signs, eating disorders, sleep patterns and tensions muscle⁹. Sleep disorders are perceived them difficult to start sleeping, easily awakened at night and did not get a good sleep quality that impact on their daily activities.

Progressive muscle relaxation were done by the respondents in a full concentration in which respondents were asked to distinguish between feelings experienced when the muscle groups be limp and compared when the muscles in a state of tension, and given the suggestion in the form of comfort to the respondents feel the relaxation maximum turned out to show a benefit in reducing tension and anxiety respondents experienced even a few respondents who feel the maximum relaxation stated doze off because of perceived convenience.

Therapy was well done and full of concentration would improve a variety of physiological and psychological symptoms because it could create a state of relaxed and effective in improving sleep. Another opinion that some of the techniques that could be done to increase the need for sleep quality and quantity was bootzin methods and methods of relaxation, but the approach were the most widely used relaxation is progressive muscle relaxation.

Progressive muscle relaxation was based on the mechanism of action of progressive muscle relaxation in influencing the need for sleep, which occurs the relaxation response (Trophotropic) that stimulates all the functions which works opposite to the sympathetic nervous system in order to reach a state of relaxation and calm. This relaxed feeling would be forwarded to the hypothalamus to produce Corticotropin Releasing Factor (CRF), which would stimulate the pituitary gland to increase the production of several hormones, such as β -Endorphin, enkephalin and serotonin¹⁰.

The relaxation response occurred because the activity of the parasympathetic

autonomic nervous system so that the raphe nuclei caused changes that can control the activity of the autonomic nervous system in the form of a reduction in oxygen function, frequency of breathing, pulse rate, muscle tension, blood pressure, as well as alpha waves in the brain so it is easy to fall a sleep.

Sleep was one of the basic requirements relating to the maintenance and restoration of health that allows the body and mind continue to function optimally. During the period of sleep the brain would process the long-term memory, integrate new information as well as tissue repair brain and nerve cells and plays a role in the biochemical processes. Less quality sleep was very harmful and affect the well-being of the negative impact on the function of physiological, psychological and work of someone¹¹. Progressive muscle relaxation could make the mind feel calm, relaxed and easier to sleep⁴.

CONCLUSIONS

Based on the research results, it could be concluded that there were significant progressive muscle relaxation therapy to improves the quality of sleep neurotics in Puskesmas Kepanjen Kidul Blitar

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Limitation research in the implementation of this study has limitations that technical issues such as location of residence respondents in 7 villages so it takes a long time. And the samples used only involve one group and no control group

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