

Original Article

The Effect of Progressive Muscle Relaxation Exercises on the Sleep Quality of Menopause Women in the Kolaka Health Center Work Area

Rosani Naim^{1*}, Mariany¹, Ekawati Saputri¹, Iis Afrianty¹

¹ Department of Nursing, Universitas Sembilanbelas November Kolaka, Kolaka, Southeast Sulawesi, Indonesia

(Correspondence author email, rosaninaim.80@gmail.com)

ABSTRACT

Menopause is the final phase of a woman's reproduction or it is said that the last menstruation experienced by a woman has a psychological impact, especially sleep disorders.. Four of five women who were surveyed stated that their sleep was often disturbed, especially when it was difficult to fall asleep and woke up feeling it was the middle of the night so they complained of blisters in the morning because the duration of sleep at night was around 4 o'clock. The purpose of this study was to analyze the quality of sleep of mothers before and after carrying out progressive muscle relaxation exercises. Quasy Experiment Method in one group pre test-post test design is the method used with a sample of 30 respondents. The quality of sleep before exercise and after exercise progressive muscle relaxation was measured using a questionnaire. Provision of progressive muscle relaxation exercises in accordance with Standard Operating Procedures (SOP). There were significant differences in the quality of sleep of mothers before and after progressive muscle relaxation exercises on sleep quality of postmenopausal women, namely sleep quality (p value 0.000), sleep latency (p value 0.000), efficiency (p value 0.000), sleep disturbance (p value 0.000), sleep disturbance (p value 0.000), value 0.001, and disturbed activity (0.005). Postmenopausal women's sleep quality improves after doing progressive muscle relaxation exercises is effective. It can be said that the application of progressive muscle relaxation exercises in menopausal women is very good so that the quality of sleep for menopausal women is of high quality.

Keywords: *Progressive Muscle Relaxatio, Menopausa, Women*

<https://doi.org/10.33860/jik.v17i3.3354>



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INTRODUCTION

Indonesia is projected that in 2025 there will be 60 million menopausal women. In 2016, there were 14 million women experiencing menopause or 7.4% of the total population. Kolaka Regency Health Profile in 2019, the number of women was 21,995 people. In 2016, there were 4467 people aged 50-54 years. In 2019 aged 50-54 years in 2016 there were 5575 people¹.

The condition of a woman who is in her

last menstrual cycle is called menopause². The problems often experienced by women facing menopause from a psychological perspective include emotional, fear, anxiety, irritability, difficulty concentrating, stress and decreased libido. In addition, if not treated properly, sleep disorders can cause physical and psychological disorders, resulting in poor sleep quality in menopausal women. This is because the ovaries progressively no longer produce estrogen³.

Psychological changes that often occur during menopause are depression, fatigue, lack

of enthusiasm, insomnia or difficulty sleeping. The problem of insomnia or difficulty sleeping will be experienced by some menopausal women. Apart from that, menopausal women will wake up at night and find it difficult to go back to sleep. The results showed that 63% of menopausal women experienced sleep problems, including difficulty falling asleep and waking up too early rarely, sometimes, or often⁴.

Sleep quality can be interpreted as a person's sleep satisfaction. Sleep quality can be divided into two (2) categories, namely sleep quantity and sleep quality. Sleep quantity includes sleep duration, sleep latency and subjective sleep. Sleep quality can be defined as the ability to maintain and achieve REM and non-REM sleep stages and create a fresh and healthy state when waking up from sleep⁵.

According to the sleep survey, women of all ages reported more sleep disturbances than men, with the incidence of moderate and severe insomnia increasing substantially after age 50-55 years in women. Based on the results of interviews with 5 menopausal women who were in the Kolaka Community Health Center work area, 4 of the 5 women revealed that they experienced sleep disorders such as difficulty getting to sleep and frequently waking up in the middle of the night so they complained of being sleepy in the morning because the duration of sleep at night was around 4 hours. Based on information provided by Puskesmas officials, progressive strength training has never been taught to menopausal women. Sahin in his research showed that there was an effect of progressive muscle relaxation in improving sleep quality with an average score before the intervention was 10.81 ± 4.01 and after the intervention, with a score of 6.25 ± 3.34 ($p < 0.001$). Sleep quality improves when patients continuously and regularly follow progressive muscle relaxation therapy⁶. This study aims to examine the effect of progressive muscle relaxation training on sleep quality in menopausal women.

METHOD

The research design uses Quasy

Experiment research with one group pretest-posttest design is the research method used. The population is menopausal women who live in Tahoa sub-district with a sample of 30 women who have experienced menopause. The sampling technique used by researchers is purposive random sampling, that is, the sample selected is considered to be representative of the population. One group was selected to assess sleep quality before the test and after the test.

The researcher made a visit to each respondent when carrying out the test. Before the test, sleep quality was assessed in menopausal women using the Pittsburgh Sleep Quality Index (PSQI) questionnaire. Progressive Muscle Relaxation Exercises based on Standard Operating Procedures (SOP). Then after the test a reassessment is carried out.

Paired t-test using the SPSS version 23 application was used to analyze sleep quality data before the test and after the progressive muscle relaxation exercise test.. This research has been approved by the Regional Leadership Health Research Ethics Committee of the Indonesian Public Health Professionals Association (IAKMI) South Sulawesi with number 125/KEPK-IAKMI/VII/2021 and pays attention to research ethical principles.

RESULTS

Based on univariate tests to analyze the characteristics of respondents and bivariate tests to analyze sleep quality before and after progressive muscle relaxation training in menopausal women, you can see the following table written in sub-headings for each variable.

Table 1. Respondent Characteristics

Respondent Characteristics	n	%
Age		
51 – 55 years old	12	40
56 – 60 years old	18	60
Education		
No school	2	6,7
Elementary school	3	10
Junior High School	7	23,3
Senior High School	13	43,3
Diploma/bachelor	5	16,7
Age of First Menarche		

9 – 10 years old	2	6,7
11 – 12 years old	5	16,7
13 – 14 years old	20	66,7
15 – 16 years old	3	10

Table 1 shows that most menopausal women are aged 56-60 years (60%), the highest education level is high school (43.3%) and the highest age at first menarche is 13 - 14 years (66.7%).

Table 2. Analysis before and after progressive muscle relaxation therapy on the Sleep Quality of Menopausal Women.

Sleep Quality	Pre therapy Mean (SD)	Post therapy Mean (SD)	p-value
Sleep Quality	2,40(0,498)	1,97(0,809)	0,000
Sleep Latency	2,80(0,407)	2,07(0,868)	0,000
Long Sleep	2,50(0,509)	2,37(0,490)	0,102
Efficiency	2,07(0,785)	0,90(0,845)	0,000
Sleep Disorders	2,13(0,346)	1,73(0,450)	0,001
Drug Use	0,30(0,794)	0,20(0,551)	0,083
Disruption of Activities	1,50(0,509)	1,23(0,430)	0,005

Note: p value: Wilcoxon test, significant (0.05)

Table 2 shows that there is a significant effect of progressive muscle relaxation training on menopausal women's sleep quality (p-value 0.000), sleep latency with a p-value of 0.000, efficiency with a p-value of 0.000, sleep disturbance with a p-value of 0.001, and activity disruption with a p-value of 0.005.

DISCUSSION

Based on the results of research on pre and post-analysis of progressive muscle relaxation therapy on the sleep quality of menopausal women, it was found that it was significantly present before and after following progressive muscle relaxation therapy, namely in the sleep quality component, sleep latency component, efficiency component, sleep disturbance component and also activity disturbance component. . The research is in line with the research results ⁷, namely, there is an increase in the quality of sleep in menopausal women by carrying out progressive muscle

relaxation ⁸ also stated that sleep hygiene education and progressive muscle training were proven to improve the quality of sleep. Another similar study by Nashiroh et al also explained that after doing progressive muscle training it had a good influence on the sleep quality of menopausal women ⁹

Sleep quality is also influenced by gender, women are very dominant in experiencing sleep disorders, because women's activity is higher than men ¹⁰. Sleep efficiency, defined as the ratio of sleep duration to time in bed, was strongly associated with total time in bed, depressed mood, and age, and slightly associated with menopausal status and loss of sexual interest ¹¹. It can be said that menopausal women will experience sleep problems which will affect sleep quality. Progressive Muscle Relaxation Exercise is a technique for practicing how to relax all muscles by tensing and relaxing several muscle groups and differentiating the sensation of tense and physical relaxation, accompanied by mental relaxation, thereby helping a person to meet their sleep needs ¹².

Sleep quality is also influenced by several factors, one of which is stress. Proven in Research ¹³ If you do muscle relaxation exercises for 20 minutes, you can significantly overcome stress, anxiety and reduce salivary cortisol. Progressive muscle relaxation will reduce body tension as well as bring positive changes in thinking and lead towards an open approach ¹⁴. It can be said that progressive muscle relaxation has an impact on emotional well-being, and resistance to physical and emotional problems ¹⁵. Bertich et al's research states that only about 2% of people use medication therapy to treat sleep disorders and it usually tends to be used to treat certain medical conditions ¹⁶. Other research also revealed that there was no difference between the intervention group and the control group when providing progressive muscle relaxation therapy ¹⁷ because a menopausal woman had daily activities in her free time at home such as sewing, gardening, watching TV and praying. It can be said that a menopausal woman who does activities in her free time can reduce stress which affects sleep quality.

Progressive muscle relaxation therapy also did not have a detrimental physical or psychological impact on the respondents in this study. This is known from the results of research conducted in Turkey, which found that the therapy that is safe to use is progressive muscle relaxation therapy (not dangerous) so this is one important reason for the high compliance in the experimental group¹⁸. Therefore, menopausal women carry out progressive muscle relaxation therapy to treat sleep disorders. Apart from that, several studies have revealed that muscle relaxation therapy combined with music therapy also affects the sleep quality of menopausal women^{19,20}. It can be said that progressive muscle relaxation therapy is safe and can be combined with other therapies that can have an impact on sleep disorders in menopausal women.

CONCLUSION

Progressive muscle relaxation exercises have an influence on sleep quality in menopausal women. The therapy provided is also very simple so it is easy to teach to health workers at the Community Health Center so that it can later be applied to female patients who have entered menopause.

Progressive muscle relaxation therapy can also be combined with other therapies so that it can improve the sleep quality of menopausal women. Making leaflets, booklets or CDs containing information about how to carry out progressive muscle relaxation exercises by nursing educational institutions would be better as a form of active participation in society, especially menopausal women.

ACKNOWLEDGMENTS

Researchers would like to thank 1) Directorate of Research and Community Service, Deputy for Strengthening Research and Development, Ministry of Research, Technology/National Research and Innovation Agency, 2) Chancellor of Sembilanbelas November Kolaka University for his support in this research, 3) Head of LPPM-PMP and Team at Sembilanbelas November Kolaka University for the support provided from preparation of the proposal to the

final research report, 4) Head of Kolaka Community Health Center and elderly programmer at Kolaka Community Health Center, Kolaka Regency for their support in carrying out this research.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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