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(Mashudin Firdaus.,S.Kep.,Ns)

## Research Article

# The Effect of Progressive Muscle Relaxation Therapy on Elderly's Sleep Quality at PSTW Budi Luhur, Kasongan, Bantul

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### Abstract.

The sleep pattern of the elderly is different from that of the young. There are four sleep phases in which young people can enter a deep sleep phase, while the elderly experience a decreased sleep phase as a result of poor sleep, meaning that the elderly tend to be restless and easily awakened, which can interfere with sleep quality. The elderly have memory disorders and emotional disorders that reduce their quality of life. This paper was quantitative research that used a pre-experimental research design with pre-test and post-test with a control group. The results of the study obtained a sig. (2-tailed) value of 0.000 or 0.05. There was a difference in the average PSQI score in the pre-test and post-test measurement of the intervention group, while in the control group the sig. (2-tailed) value was 0.020 or 0.05. There was no difference in the average PSQI score in the pre-test and post-test measurements of the control group. Progressive muscle relaxation is an alternative therapy that serves to reduce muscle tension, which can then relax muscles ranging from facial muscles to leg muscles. There was an effect of progressive muscle relaxation therapy on the sleep quality of the elderly in the intervention group at PSTW Budi Luhur Kasongan Bantul.

**Keywords:** Progressive Muscle Relaxation Therapy, Elderly, Sleep Quality

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## 1. Introduction

Normal sleep patterns begin to change with age due to nerve cell reductions that affect sleep waves or because of central nervous system deficits that cause reduced response to extrinsic alarms and dysfunction of body rhythms and reduced production of melatonin. The condition of the increasing age of the elderly makes the elderly experience a decrease in the function of brain nerve cells, which causes a reduction in nerve activity, which affects the decrease in feelings that stimulate sleep. This, physiologically, can cause the quality and quantity of elderly sleep to decrease (Ariana et al., 2020).

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The sleep pattern of the elderly is different from that of the young. There are 4 sleep phases in which young people can enter a deep sleep phase, while the elderly experience a decreased deep sleep phase, which can only enter phases 2 to 3, not until 4. As a result, sleep is not deep, meaning that the elderly tend to be restless and wake up easily. Therefore, if there are elderly people in our environment, we should reduce noise at home, which can interfere with the sleep quality of the elderly. memory, emotional and biological disorders (Tadjudin, 2018).

Jacobson’s progressive relaxation technique involves contracting and relaxing muscles to make you feel calmer (Mushtaq, 2018). Progressive muscle relaxation is a therapy that can be used to reduce tension in the muscles of the body. This relaxation is a relaxation exercise that has various benefits for maintaining health and treating disease (Hidayah Nasution et al., 2022)

**METHODS**

This research is a quantitative research that uses a pre-experimental research design with a Pretest-Posttest research with a Control Group. A population that has been homogenized in such a way that samples can be taken for the experimental group and the control group. Both groups were each given a pretest (P1) with the same material. After that, the experimental group was given the intervention (X). After the intervention, in a few days, a posttest was given (P2). While the control group was not treated with intervention, the posttest was immediately given (P 2).

**2. Result**

TABLE 1: Baseline Pre and Post Outcome of Intervention Group.

Intervention Group		
PSQI score	F	P (%)
<b>Pretest</b>		
≤5: good	0	0%
≥5-21: poor	15	100%
<b>Total</b>	15	100%
<b>Posttest</b>		
≤5: good	9	60%
≥5-21: poor	6	40%
	15	100%

TABLE 2: Baseline Pre and Post Outcome of Control Group

Control Group		
PSQI score	F	P (%)
<b>Pretest:</b>		
≤5: good	0	0%
≥5-21: poor	15	100%
<b>Total</b>	<b>30</b>	<b>100%</b>
<b>Posttest</b>		
≤5: good	1	6,60%
≥5-21: poor	14	93,40%
<b>Total</b>	<b>15</b>	<b>100%</b>

TABLE 3: Paired Sampel T Test Data Pretest-Posttest Experiment and Pretest Post test Control.

Paired Samples Test		Sig. (2-Tailed)
Kelompok		
Pre Test Ekperimen - Post Test Eksperimen		.000
Pre Test Kontrol - Post Test Kontrol		.020

Based on the paired sample T-test in this study, the value of sig. 0.000 <0.005 it is mean that there is an effect of progressive muscle relaxation therapy on the sleep quality of the elderly in the intervention group, while in the control group the sig value is obtained. 0.020 > 0.005 then it is mean that there is no effect on the control group.

### 3. Discussion

Physical activity and light exercise such as gymnastics and muscle stretching therapy are important factors for maintaining the health of the elderly. The World Health Organization (WHO) guidelines recommend that older people aged 65 years or older should participate in at least 150 minutes of moderate-intensity aerobics throughout the week or do at least 75 minutes of vigorous-intensity activity throughout the week or an equivalent combination of the two. (Khasanah et al., 2017)

Progressive muscle relaxation is an alternative therapy that serves to reduce muscle tension, which can then relax muscles ranging from facial muscles to leg muscles. The provision of progressive muscle relaxation intervention was carried out after obtaining approval from the respondent and then distributing the pre-treatment PSIQ questionnaire, after which the therapy was carried out every day at 07:30 in the morning for 15-20

minutes by instructing the respondent to pay attention to the realized muscle movements. The effectiveness of this therapy is reducing pain due to tension, psychological conditions, reduce anxiety, and increasing the sympathetic nervous system, so that it can improve sleep quality from sleep disorders experienced. According to the researcher's assumptions made during the study, doing progressive muscle relaxation regularly for 2 weeks in a row can improve the quality of sleep in patients with hypertension. This is because progressive muscle relaxation therapy involves muscle contractions and relaxation movements that can stimulate a relaxation response both physically and psychologically. During muscle relaxation movements, nerve cells also secrete opioid peptides and circulate them throughout the body for a sense of comfort and relaxation. Then this progressive muscle relaxation also causes a trophotropic relaxation response that stimulates all functions that are contrary to the sympathetic nervous system, so that a sense of relaxation and calm is achieved.(Yuliadarwati et al., 2022)

According Setyoadi, 2011, there are many non-pharmacological methods for treating insomnia, including hypnosis, biofeedback, imagery training, diaphragmatic breathing, and progressive muscle relaxation. Progressive muscle relaxation therapy is a type of physical activity. (Klainin-Yobas et al., 2015) Progressive muscular relaxation therapy is a form of deep muscle relaxation that doesn't call for creativity, persistence, or persuasion. One method of relaxation called "progressive relaxation" combines deep breathing exercises with a series of contractions and specific muscular relaxation. Professional muscle relaxation therapy involves fifteen movements that are each held for 10 seconds for 20 to 30 minutes. The treatment of insomnia, moderate depression, weariness, irritability, muscular spasms, phobias, and mild stuttering, progressive muscle relaxation therapy is effective . (Idris & Astarani, 2019)

Because it can have a soothing impact and has very few contraindications, progressive muscle relaxation therapy is particularly efficient at lowering the perception of stress (Setyadi et al., 2021). Progressive muscle relaxation therapy is a form of treatment that can actively reduce various stress-related symptoms, including muscle tension. Progressive muscle relaxation is simple to perform. It may be performed both alone and in groups.(Auliani & Sholichah, n.d)

According to research by Dehdari et al, in cardiac patients, progressive muscle relaxation increases patients' quality of life following surgery in non cancer patients. The results of this investigation, consistent with in a study on the impact of two concurrent progressive muscle relaxation techniques and guided imagery on the pain score of

cancer patients, Kwekkeboom et al. found that both approaches had beneficial effects. (Mohebi et al., 2018)

## 4. Conclusion

There is an effect of progressive muscle relaxation therapy on the sleep quality of the elderly at PSTW. There are differences in the quality of sleep of the elderly before and after progressive muscle therapy in the significant intervention group. 0.0010. The results of this study are expected to provide benefits in the topic of gerontic nursing therapy in providing therapy for the elderly who have problems with sleep quality and can also be an additional reference for further research because research on progressive muscle therapy has not been done before. Holding relevant educational workshops to implement such supplementary therapy approaches for elderly is advised since nurses can learn these techniques and use them for their patients.

## References

- [1] Ariana PA, Putra GN, Wiliantari NK. Relaksasi Otot Progresif Meningkatkan Kualitas Tidur pada Lansia Wanita. *Jurnal Keperawatan Silampari*. 2020;3(2):416–25.
- [2] Auliani A, Sholichah M. The Effectiveness of Relaxation Techniques to Decrease The Anxiety of Diabetes Mellitus Elderly Patients. 117–123.
- [3] Hidayah Nasution N, Diningsih A, Maulana I, Kesehatan I, Program Sarjana M, Kesehatan F, et al. Pelatihan Relaksasi Otot Progresif Pada Masyarakat Di Desa Purwodadi. *Martabe: Jurnal Pengabdian Kepada Masyarakat*. 2022;5(3):1044–9.
- [4] Idris DN, Astarani K. Therapy of Effective Progressive Muscle Relaxation to Reduce Insomnia in Elderly. *Strada Jurnal Ilmiah Kesehatan*. 2019;8(2):165–71.
- [5] Khasanah DA, Kesehatan FI, Surakarta UM. (2017). View metadata, citation and similar papers at core.ac.uk
- [6] Klainin-Yobas P, Oo WN, Suzanne Yew PY, Lau Y. Effects of relaxation interventions on depression and anxiety among older adults: a systematic review. *Aging Ment Health*. 2015;19(12):1043–55.
- [7] Mohebi S, Parham M, Sharifirad G, Gharlipour Z. Social Support and Self - Care Behavior Study. *2018;January:1–6*. <https://doi.org/10.4103/jehp.jehp>.

- [8] Setyadi AW, Riswanto RB, Rofiq Z. The Effect Of Murottal Combination Progressive Muscle Relaxation On Stress Level In The Elderly At Lks-Lu, Kasembon Village. Malang Regency. 2021;3(1):393–400.
- [9] Tadjudin Sp.kj, D. dr. N. saelan. (2018). *Dokterku Gangguan tidur lansia 01*. ElshintaTV.
- [10] Yuliadarwati NM, Utami KP, Kunci K. Pengaruh Latihan Relaksasi Otot Progresif bagi Lansia dengan Kualitas Tidur Buruk Effects of Progressive Muscle Relaxation Exercises for Elderly with Poor Sleep Quality. 2022;7(2):319–323.