



The Effect of Benson Relaxation on Insomnia among Elderly

Agusti¹, Rima Berti Anggraini¹, Ardiansya¹

¹Department of Nursing, Institut Citra Internasional, Bangka Belitung, Indonesia

Correspondence author: Agusti

Email: agustika193@qmil.com

Address: Jl. PS Lalang, RT 019/RW 005, Kembiri Village, Membalong District, Belitung Regency, Phone: +62 878-6999-8181

DOI: <https://doi.org/10.56359/qj.v7i1.857>

 This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

Abstract

Introduction: Insomnia is a common sleep disorder among elderly and is associated with physical, psychological, and functional decline. The prevalence of insomnia increases with aging and may negatively affect quality of life if left untreated. Non-pharmacological interventions are recommended as safe and effective strategies to improve sleep quality in the elderly. One such intervention is the Benson Relaxation Technique, which promotes relaxation through controlled breathing and mental focus. This study aims to examine the effect of Benson Relaxation Therapy on insomnia in elderly.

Objective: This study aimed to determine the effect of Benson relaxation therapy on insomnia in the elderly at the Simpang Rusa Community Health Center, Belitung.

Method: The study design used a pre-experimental study with a pre-test and post-test in one group. A total of 10 elderly individuals received Benson relaxation therapy for one week. Insomnia levels were measured using the Toward Optimized Practice (TOP) screening questionnaire and analyzed using the Wilcoxon test.

Result: The results showed a significant decrease in insomnia levels after the intervention. The Z-value was -2.814 with a significance value of $p = 0.005 (<0.05)$, indicating that Benson relaxation therapy significantly reduced insomnia in the elderly.

Conclusion: From these results, it can be concluded that Benson relaxation therapy is effective in improving sleep quality in the elderly with insomnia. It is recommended that the elderly practice Benson relaxation independently and regularly. Community health centers (Puskesmas) consider this therapy as a non-pharmacological intervention in elderly healthcare. Further research is recommended to combine Benson relaxation with aromatherapy for optimal results.

Keywords: benson relaxation, elderly, insomnia

Introduction

As we age, a person will experience a series of declines and changes in their physical, mental, and social health, including changes in sleep patterns (Utami Tri et al., 2023). When we sleep, our brain replenishes biochemical processes that gradually decrease while we are awake. This process is part of the natural sleep-wake cycle regulated internally by the human body (Sugiarto, 2020). Although everyone has different needs, a good night's sleep is usually defined as 6 to 8 hours of uninterrupted sleep in bed (Syaharani et al., 2020).

One common sleep disorder experienced by elderly is insomnia, which causes changes in both the amount and quality of sleep a person gets each night. Many factors, such as the elderly's health, medications taken, living conditions, psychological stress, diet and nutrition, and lifestyle, can contribute to sleep disorders. The Indonesian Ministry of Health (2023) found that sleep disorders, or insomnia, in elderly are associated with changes in functional performance, poor concentration, and decreased memory. Some symptoms of sleep disorders or insomnia in the elderly include difficulty falling asleep, staying asleep, and waking up too early. As people age, their sleep habits change due to problems with the brain's sleep-regulating system. Classic symptoms of insomnia include chronic inability to fall asleep or stay asleep, occurring at least three times a week for at least three months and significantly interfering with daily life. Daytime symptoms include anxiety at bedtime, mood swings, and difficulty concentrating, in addition to affecting the quality of sleep at night. The following are some key characteristics of insomnia.

The number of individuals aged 60 and over increased by more than 1 billion to 1.4 billion in 2020, according to the World Health Organization (2024). Predictions indicate that the number of people aged 60 and over will reach 2.1 billion by 2050, marking an unprecedented increase in the global population. Specifically, the population of people aged 80 and over is anticipated to triple, bringing the total to 426 million. Healthcare systems worldwide are facing serious challenges as a result of this demographic shift and need to rapidly transform to accommodate an aging population.

The number of people aged 65 and over is predicted to increase from 27.1 million to 33.7 million by 2025. Due to their increasing vulnerability and reliance on informal support networks, seniors must undergo immediate policy adjustments to ensure their safety in light of this growth (Ministry of Health of the Republic of Indonesia, 2021). According to the Belitung Regency Health Office (2018), there were 6,910 men and 8,447 women among the seniors in the regency.

According to the Central Statistics Agency (2020), the percentage of the population aged 65 and over in Indonesia increased to 11.75% between 2010 and 2022, a 4% increase. From 2010 to 2022, life expectancy will grow from 69.81% to 71.85%. By March 2023, the elderly population will reach 11.75 percent, projected to represent 17.08% of the total population. This means that for every 100 people in the workforce (aged 15 to 59), there will be 17 dependents as they age. Women constitute 52.85% of the elderly population, while men constitute 48.72%. Among the elderly, 55.35 percent live in urban areas, while only 44.65 percent live in rural areas. The elderly can be divided into three age groups: young elderly (60–69 years), middle elderly (70–79 years), and old elderly (80 years and older). Ten to thirty percent of the global population suffers from insomnia. The risk of insomnia increases by 50% to 60% in elderly. In 2017, the United States had the highest prevalence of insomnia with 83,952 cases, while Mexico had the lowest rate with 8,712 cases (Arifin et al., 2021).

Nearly 67% of Indonesia's population suffers from insomnia. Meanwhile, 23.3% suffer from moderate insomnia, and 55.8% suffer from mild insomnia. Of Indonesia's 238 million

population, 10%, or 28 million, suffer from insomnia. Twenty to fifty percent of adults suffer from some type of sleep disorder each year, with seventeen percent suffering from severe cases. (Indonesian Central Statistics Agency for the Elderly, 2023). Insomnia is a common sleep disorder, especially among the elderly, who frequently wake up during the night. Insomnia is more common among elderly women in Indonesia, with a prevalence of over 67%. Ignored insomnia in the elderly can have far-reaching consequences, including but not limited to an increased risk of physical illness, increased likelihood of psychological and emotional disorders, difficulty carrying out daily activities, and even threats to their safety (Tri Utami et al., 2023). If we want to improve sleep quality in the elderly, we need to find ways to address their insomnia. One non-pharmacological option for improving sleep quality is the Benson Relaxation Technique. The Benson Relaxation Technique combines deep breathing exercises with the power of one's mind and faith. This method involves focusing attention on a word or phrase that has a personally calming meaning, such as the name of God, and repeating it periodically while surrendering to the process. (Salsabilla et al., 2024).

The Benson Relaxation Technique has been shown to improve insomnia levels in the elderly, according to research by Utami Tri et al. (2023). Mild insomnia resulted from the Benson relaxation therapy intervention, compared to previous severe insomnia. Before Benson relaxation therapy was administered, the Pittsburgh Sleep Quality Index (PSQI) instrument produced an unsatisfactory sleep quality score ranging from 8 to 12, according to research by Salsabilla et al., (2024). After therapy, sleep quality improved. Results were achieved after Benson's relaxation technique. The majority of participants reported good sleep quality on the Pittsburgh Sleep Quality Index (PSQI), although one participant reported poor sleep quality but experienced a decrease from 10 to 7. There was a statistically significant decrease in insomnia levels among the elderly after the Benson relaxation technique intervention. According to research (Surani et al., 2023) using an insomnia rating scale questionnaire. The Z score was 3.578 and the p value was 0.000. This indicates that the intervention was successful in alleviating insomnia symptoms. The approach, results, and consequences of this intervention are detailed in the following sections. (Banuapta Abrorri Khosi, 2024) also conducted a study with 10 participants, lasting two weeks and consisting of 30-minute sessions twice daily. Independent T-analysis revealed that elderly benefited from Benson relaxation therapy in terms of sleep quality ($p = 0.000$). This study supports the idea that Benson relaxation therapy can help alleviate insomnia in elderly.

Objective

Insomnia is common in the elderly and affects sleep quality. This study aimed to determine the effect of Benson relaxation therapy on insomnia in the elderly at the Simpang Rusa Community Health Center, Belitung.

Method

This study employed a quantitative pre-experimental design using a one-group pretest–posttest approach to examine changes in insomnia levels among elderly individuals after the application of Benson relaxation therapy. The study was conducted in the working area of the Simpang Rusa Community Health Center, Belitung Regency, in 2025.

The study population consisted of elderly individuals aged 60 years and over who experienced insomnia. A total of ten participants were included in the study using a total sampling technique, as all elderly individuals who met the inclusion criteria during the study period were recruited. Participants were elderly who were able to communicate effectively,

were willing to participate in the study, and provided informed consent. Elderly individuals with severe cognitive impairment, those using pharmacological sleep medications, or those experiencing acute illness during the study period were excluded.

The intervention applied in this study was Benson relaxation therapy, which was administered to all participants for one week. The therapy was performed once daily and followed standard Benson relaxation procedures. Participants were guided to assume a comfortable position, close their eyes, relax their muscles, practice slow and deep breathing, and repeatedly focus on a calming word or phrase with spiritual meaning while exhaling. Each session lasted approximately 15 to 20 minutes. The initial session was conducted under supervision, and participants were subsequently encouraged to practice the technique independently.

Data collection was carried out by measuring insomnia levels before and after the intervention using the Toward Optimized Practice (TOP) insomnia screening questionnaire. The questionnaire was administered as a pretest prior to the intervention and as a posttest after completion of the Benson relaxation therapy program.

Data analysis included univariate and bivariate analysis. The Wilcoxon Signed Rank Test was used to analyze differences in insomnia scores before and after the intervention, as the data were not normally distributed and the sample size was small. Statistical significance was determined at a p-value of less than 0.05.

Result

Table 1. Wilcoxon Test Before and After Treatment: Benson Relaxation on Insomnia in Elderly

Benson Relaxation on Insomnia	Intervention	
	N:10	Mean
<i>Pre-test insomnia-</i>	5.50	55.00
<i>post-test insomnia</i>	0.00	0.00

Based on the table above, the data analysis results show that the average score before Benson Relaxation in the elderly was 5.50 and after Benson Relaxation was 0.00. The sum of ranks before Benson Relaxation was 55.00 and after Benson Relaxation was 0.00. The Z-value was -2.814 and a significance level of 0.000.

Table 2. Results of the Wilcoxon Signed Ranks Test Before and After Benson Relaxation on Sleep Quality in Elderly Patients with Insomnia

The Effect of Benson Relaxation on Insomnia in the Elderly	Nilai Z	Nilai Sig
<i>Pre-test Insomnia - Post-test insomnia</i>	-2.814 ^b	0.005

The table above shows that the average insomnia score in the elderly before the Benson Relaxation intervention was 5.50, while after the intervention it decreased to 0.00. Based on the Wilcoxon Signed Rank Test, the sum of ranks before the intervention was 55.00 and after the intervention was 0.00, with a Z-statistic of -2.814b. The significance value (p-value)

obtained was 0.000, indicating a statistically significant difference between before and after Benson Relaxation.

Discussion

An elderly person is someone who has reached the age of 60 or older. As they age, changes in their physical appearance generally occur. The impact of the aging process also causes psychological decline, which is often experienced by the elderly, including insomnia, stress, depression, anxiety, dementia, and delirium (Surani et al., 2024). Meanwhile, according to Prasetyo et al., (2018), an elderly person is an individual who has reached advanced age and whose body's tissue capacity to repair or replace itself and maintain normal function has gradually declined to the point where repair of damage and infection is no longer sufficient to sustain further treatment.

Insomnia is the most common sleep disorder, characterized by a primary complaint of dissatisfaction with the quality or duration of sleep, accompanied by difficulty falling asleep, frequent early morning awakenings, and a persistent desire to return to sleep even though sleep time is still long. Insomnia is not a disease; it is merely a symptom of an illness or a result of a problem a person is facing in their life (Surani et al., 2024).

According to Madari et al., (2021), insomnia is characterized by difficulty initiating or maintaining sleep associated with daytime disturbances, not caused by environmental factors that hinder sleep, such as insufficient sleep. Chronic insomnia is defined as symptoms occurring at least three times a week for at least three months. An estimated 30% of the global population experiences one or more symptoms of insomnia. Insomnia can impact physical and mental health.

This study used a quantitative experimental method with a one-group pretest-posttest design. A total sampling technique was used to select 10 elderly subjects. The data analysis technique used in this study was the Wilcoxon Signed Rank Test. The analysis results indicate the effect of Benson relaxation on sleep quality in elderly people with insomnia in the Simpang Rusa Community Health Center (Puskesmas) area of Belitung Regency in 2025. The Wilcoxon Signed Rank Test (WRS) for the experimental group showed a $\text{-}z$ -value of 0.005, or $p < 0.05$. The calculated Z-value was -2.814, with a significance level of 0.005, indicating a significant difference between the experimental group before and after treatment.

As a comparison, a study by Tri Utami et al. (2023) on the application of Benson relaxation therapy to insomnia in the elderly showed that before the intervention, 11 respondents (44%) experienced moderate insomnia. After receiving Benson relaxation therapy, this number increased to 14 respondents (56%), indicating improved sleep quality. The statistical analysis showed a p -value of 0.0005, which is smaller than $\alpha = 0.05$, thus concluding that Benson relaxation therapy has a significant effect. The mechanism of action of this therapy is physiological, namely by stimulating the activity of the parasympathetic nervous system, reducing stress hormone levels, increasing sleep hormone secretion, and calming brain activity. This process overall helps accelerate sleep onset and improve sleep quality, especially in the elderly who are prone to insomnia.

This research also aligns with research conducted by Hidayat et al. (2021). In that study, elderly people who underwent Benson relaxation twice daily for two weeks experienced a decrease in sleep disturbance scores from an average of 6.36 to 2.51 ($p = 0.000$), indicating a significant improvement in sleep quality. Therefore, it can be concluded that there is a significant difference between sleep quality before and after Benson relaxation training. The results of this study demonstrate that the Benson relaxation technique works by normalizing

the body's response to stress, activating the parasympathetic system, and reducing physiological and psychological components that disrupt sleep. This prepares the body to enter a natural sleep phase and improves sleep quality, especially in the elderly.

Another study on the effects of Benson relaxation was also conducted by (Nursiah et al., 2024) which is in line with the results of the Mann-Whitney statistical test, which showed a significant value ($p = 0.000$). This can be seen from the results of the study, which showed that after Benson relaxation therapy, the score for fulfilling sleep needs increased from $X = 42$ to $X = 80$ ($p < 0.003$). Sleep time for the elderly increased from only 3–4 hours to 5–8 hours per night, with 100% of the elderly in the treatment group experiencing improved sleep quality. The Benson relaxation technique in this study provided comprehensive physiological effects, ranging from stabilizing stress hormones, improving circulation, to influencing the central and autonomic nervous systems. This directly improved sleep quality and quantity, especially in elderly people experiencing mild to moderate insomnia. Research on the effect of Benson relaxation on sleep quality conducted (Khosi Abrorri Banuapta, 2024) is also in line with this study, with the results of the study. Before therapy, all respondents had poor sleep quality with a PSQI score of more than 5. Then after Benson relaxation therapy, 3 of 4 respondents showed a significant improvement in sleep quality, the PSQI score dropped to less than 5. With one respondent still having poor sleep quality, but experienced a decrease in the PSQI score better than before. The average PSQI score decreased, indicating an improvement in sleep quality. Statistical tests showed significant results with a p -value = 0.012 (<0.05). Physiologically, Benson therapy in this study was able to suppress the stress response through the HPA axis, increase endorphin release, activate the parasympathetic system (rest-and-digest), help reduce anxiety and pain, and restore the body's natural sleep rhythm. All of these mechanisms synergize to reduce insomnia levels and improve sleep quality, especially in elderly people with poor sleep complaints. Based on the description above, researchers state that Benson relaxation therapy is beneficial for improving sleep quality in the elderly and is very easy to perform. Benson relaxation can also be done independently and routinely before bedtime, thereby improving sleep quality. The relaxation achieved through Benson relaxation therapy makes the elderly feel comfortable, calm, and at ease, resulting in improved sleep quality. There was a significant impact on sleep quality before and after Benson relaxation in the intervention group, with a decrease in the average sleep quality score.

Benson relaxation aims to train patients to achieve a state of relaxation, reduce anxiety and anger, relax muscles and bones, regulate heart rhythm, and reduce hypertension, reduce sleep disturbances, reduce pain, and reduce tension related to body physiology. Thus, Benson relaxation can be described as a relaxation technique linked to one's beliefs and promoting greater relaxation and calmness.

Conclusion

This study demonstrates a significant difference in insomnia levels among elderly individuals in the working area of the Simpang Rusa Community Health Center, Belitung Regency, before and after the administration of Benson relaxation therapy in 2025. The findings indicate that insomnia levels decreased significantly following the intervention, confirming that Benson relaxation therapy has a positive effect in reducing insomnia among the elderly. Therefore, Benson relaxation therapy can be considered an effective non-pharmacological intervention to improve sleep quality in elderly individuals experiencing insomnia.

Conflict of Interest

No declare.

Acknowledgement

Researcher would like to thanks to my parents, supervisor, friends, and all parties involved in compiling this research

Reference

1. Amalliyah. (2021). Penjelasan Tentang Analisa Univariat Dan Bivariat.
2. Ariana, P. A., Putra, G. N. W., & Wiliantari, N. K. (2020). Relaksasi Otot Progresif Meningkatkan Kualitas Tidur Pada Lansia Wanita. *Jurnal Keperawatan Silampari*, 3(2), 416–425. <Https://Doi.Org/10.31539/Jks.V3i2.1051>
3. Arifin, H., Boy, E., Rizki Adila Sitepu, D., Aqila Rangkuti, Z., Lailatu Assziva, A., Afif Armadi, I., Pramudia Krisna, A., Hafianty, F., Atika Meliala, A., Utami Siregar, F., Ramadhani, K., & Amilina, S. (2021). ARTIKEL PENELITIAN Prevalensi Insomnia Pada Perempuan Lanjut Usia: Studi Berbasis Komunitas.
4. Badan Pusat Statistik Lansia Indonesia. (2023). Statistik-Penduduk-Lanjut-Usia-2023.
5. Badriyani, A., Nurhidayah, N., Terapi Okupasi, J., & Kesehatan Kemenkes Surakarta, P. (N.D.). Pengaruh Progressive Muscle Relaxation Terhadap Tingkat Insomnia Pada Lansia Di Panti Wredha Maria Sudarsih.
6. Banuapta Abrorri Khosi, H. (2024). Pengaruh Terapi Benson Terhadap Kualitas Tidur Lansia. <Http://Journal.Stikeskendal.Ac.Id/Index.Php/Keperawatan>
7. Dinas Kesehatan Kabupaten Belitung. (2018). 1.
8. Dr. Ahmad Hafidah Ekayanti., SKM. , M. K., Dr. Ns. Makkasau, M. Kes. , M. EDM., Fitriani, SKM. , M. M., Anita Latifah, S. S. S. M., Marlin Eppang, S. Kep. , Ns. , M. Kep., Syahruni Buraerah, SKM. , M. Kes., Dr. Sri Syatriani, SKM. , M. Kes., Dr. Widia Shofa Ilmiah., SST. , M. Kes., Titik Suhartini, S. Kep. , Ns. , M. K., & Lidia Widia., S. ST. , M. K. (2023). METODOLOGI PENELITIAN KESEHATAN. Rizmedia.
9. Dr. Wawan Kurniawan, SKM. , M. K., & Aat Agustini, SKM. , M. K. (2021). METODOLOGI PENELITIAN Kesehatan Dan Keperawatan (S. P. Rahmawati Aeni, Ed.).
10. Fadilla, A. R. , & Wulandari, P. A. (2023). Literature Review Analisa Data Kualitatif: Tahap Pengumpulan Data. 34–36.
11. Hartutik, S., Widodo, P., Surakarta, A., & Pandan Arang Boyolali, R. (2023). Penerapan Terapi Relaksasi Benson Terhadap Tingkat Insomnia Pada Lansia Di Ruang Akar Wangu Rsud Pandan Arang Boyolali. *Jurnal Kesehatan Kartika*, 18(2).
12. Hidayat, R., Amir, H., Keperawatan, J. S., Masyarakat, K., Kunci, K., Usia, L., Tidur, K., & Benson, R. (2021). The Effect Of The Benson Relaxation Technique On Sleep Quality In The Elderly. *In An Idea Health Journal Issn (Vol. 1)*.
13. Nasrullah, D. (2021). Etika Dan Hukum Keperawatan (N.Rahman, Ed.). Madari, S., Golebiowski, R., Mansukhani, M. P., & Prakash Kolla, B. (2021). Pharmacological Management Of Insomnia. <Https://Doi.Org/10.1007/S13311-021-01010-Z/Published>
14. Nursiah, A., Pannyiwi, R., Juwariah, S., Rasyid, D., & Relaksasi Benson Terhadap Pemenuhan Kebutuhan Istirahat Dan Tidur Pada Lansia Di Panti Jompo Andi Nursiah, T. (2024). Tekhnik Relaksasi Bensonterhadap Pemenuhan Kebutuhan Istirahat Dantidur Pada Lansia Di Panti Jompo.

15. Prasetyo, W., Nancye, P. M., Sitorus, R. P., William, S., & Surabaya, B. (2018). Pengaruh Relaksasi Benson Terhadap Tingkat Insomnia Pada Lansia Di Griya Usia Lanjut St. Yosef Surabaya.
16. Salsabilla, C., Aulia Putri Maharani, Awalisa Mey Dentasari, Azaima Qurata'Ayyun, Bielsa Agla Azzahra, Dimas Aditya, Rifai Joko Pramono, & Hapsari Cahyaningrum. (2024). Peningkatan Kualitas Tidur Dengan Benson's Relaxation Techniques Di Posyandu Lansia Seruni 29 Jebres Surakarta. Empowerment Journal, 4(2), 78–85. <Https://Doi.Org/10.30787/Empowerment.V4i2.1458>
17. Sugiarto, I. (2020). Efektivitas Chamomile (Matricaria Chamomilla) Terhadap Peningkatan Kualitas Tidur Lansia. <Http://Jurnalmedikahutama.Com>
18. Sugiyono. (2019). Metode Penelitian Kuantitatif, Kualitatif, Dan R&D.
19. Surani, V., Pranata, L., Indaryati, S., & Ajul, K. (2023). The Effect Of The Benson Relaxation Technique On Insomnia Levels In The Elderly. Formosa Journal Of Science And Technology, 2(1), 245–256. <Https://Doi.Org/10.55927/Fjst.V2i1.2787>
20. Syaharani, F. A., Kurniawati, R., Kep, S., & Kep, M. (2020a). Gangguan Tidur Pada Lansia. <Http://Akperalkautsar.Ac.Id/>
21. Utami Tri, L., Hartutik, S., Widodo, P., & Surakarta, A. (2023). Penerapan Terapi Relaksasi Benson Terhadap Tingkat Insomnia Pada Lansia Di Ruang Akar Wangu Rsud Pandan Arang Boyolali. Jurnal Kesehatan Kartika, 18(2).
22. Uyuun, N., Biahimo, I., & Gobel, I. A. (2020). Faktor Yang Mempengaruhi Gangguan Tidur (Insomnia) Pada Lansia Di Desa Kaidundu Kecamatan Bulawa Kabupaten Bone Bolango.
23. Zaini Binti, N. (2020). APA ITU INSOMNIA. Https://Scholar.Google.Com.My/Scholar?Hl=En&As_Sdt=0%2C5&Q=Apa+Itu+Insomnia+Nurzakiah&Btng=