



The Effect of Acupressure Therapy on the Sleep Quality of the Elderly: A Systematic Review

Ani Kuswati ^{1*}, Endang Triyanto ², Sidik Awaludin ³

¹ Lecturer, Master, School of Nursing Diploma III Study Program, Health Polytechnic, Ministry of Health, Purwokerto, Semarang, Indonesia

^{2,3} Lecturer, Doctor, School of Nursing, Faculty of Health Sciences, Jenderal Soedirman University, Indonesia

(Received: 27 October 2023

Revised: 22 November

Accepted: 26 December)

KEYWORDS

Acupressure therapy,
Sleep Quality,
Elderly

ABSTRACT:

Introduction: Sleep disorders are conditions characterized by disturbances in an individual's sleep patterns, encompassing alterations in quality, quantity, or the typical duration of sleep. Several factors contribute to sleep disorders in the elderly, including health status, medication usage, environmental conditions, psychological stress, diet/nutrition, and lifestyle. Insomnia, a common sleep disorder among the elderly, is associated with diminished memory, impaired concentration, and changes in functional performance. The repercussions of sleep disorders in the elderly extend to fatigue, cognitive decline, and an elevated risk of depression. Consequently, there is a pressing need for interventions to enhance sleep quality, with acupressure therapy emerging as a potential solution.

Objective: The primary objective of this research is to investigate the impact of acupressure therapy on sleep quality in the elderly.

Method: The research methodology employed in this study involves a comprehensive literature review utilizing prominent research databases such as Scopus, PubMed, CINAHL, and Google Scholar. The inclusion criteria stipulated for this study encompass articles published within the time frame of 2018 to 2023.

Results: The findings of the literature review identified five articles that satisfied the stipulated inclusion and exclusion criteria. Across the entirety of these articles, a consistent pattern emerged, indicating that acupressure therapy exerts a significant positive effect on enhancing the sleep quality of elderly individuals.

Conclusion: Drawing from the synthesis of literature on the impact of acupressure therapy on sleep quality in the elderly, it is evident that this therapeutic approach holds substantial promise in improving the sleep quality of older individuals. The consistent findings across the selected articles underscore the need for further exploration and application of acupressure therapy as an effective intervention for sleep disorders in the elderly population.

1. INTRODUCTION

Elderly is a stage of human growth and development when it is in the age range of more than 60 years and experiences helplessness in the process of life, especially to meet their daily needs (Dayuningsih et al., 2023; Kemenkes RI, 2018). Elderly can also be defined as the age phase of an individual ≥ 60 years old and experiencing a decline in body function, causing significant health problems. Aging in the elderly is a natural stage in the human lifespan that is often accompanied by significant health problems. Physical changes are a major aspect of this process, with

decreased muscle strength, poor balance, and decreased coordination of movement (Ozdemir et al., 2023). In addition to physical problems, mental health problems are also an important component of aging in the elderly. Cognitive disorders such as dementia, depression, and anxiety can affect the ability to think, remember, and live daily life independently (Ozer & Tanriverdi, 2023). One of the problems often felt by the elderly is sleep disturbance or the inability to maintain good sleep quality. This is caused by several factors such as a physiological decline in the body where there is a decrease in the production of the hormone melatonin



which changes sleep rhythms and patterns, psychosocial changes in the elderly such as an increase in anxiety, to other factors such as disease and medication (Juwita et al., 2023). The problem of sleep disorders in the elderly is something that encourages the emergence of other diseases such as cognitive impairment to depression. Sleep disturbances in the elderly occur when the elderly experience changes in normal sleep time or the inability of the elderly to maintain appropriate sleep time so that it has an impact on their daily lives (Atukorala & Hunter, 2023). Poor sleep quality in the elderly will have physical, mental, and social impacts and is closely related to the emergence of chronic diseases such as cancer, stroke, diabetes, and cardiovascular disorders (Mulyasari et al., 2023).

The problem of sleep disturbance or difficulty in the elderly is common in several countries. Research data from the World Health Organization in 2019 shows that out of 1000 elderly people in the United States who live in the community, 24% have difficulty falling asleep, and 39% are sleepy during the day (World Health Organization, 2019). While in Indonesia itself, the problem of sleep disorders in the elderly is indicated by the prevalence of 50% of the elderly from the population over 60 years of age (Kemenkes RI, 2018). From these data, it shows that health problems, especially sleep disorders, need to be resolved so that they do not cause complications or more severe diseases for the elderly themselves.

Elderly people with sleep difficulties or disorders need sufficient attention to get treatment and improve their sleep patterns. One solution that can be done is to provide alternative non-pharmacological therapies (Arbianto & Adriani, 2023). Acupressure therapy is one of the complementary therapies that benefits the body, especially to provide relaxation for the body so that it supports the process of improving sleep quality (Furqoni et al., 2022; Sangani et al., 2023). Acupressure therapy is a finger prick therapy by emphasizing and massaging certain points on the body based on the principles of acupuncture (Dewi et al., 2022; Putri & Mazarina, 2022). Through massage at certain points, the body is stimulated to release histamine which has an effect on vasodilation of blood vessels, resulting in increased blood circulation which makes the body more relaxed and can ultimately

lower blood pressure (Balaji & Smitha, 2023). From this process, acupressure therapy provides many benefits to the body such as relieving pain, alleviating stress, and helping to improve sleep quality.

Until now, there is a lot of scientific evidence that shows the benefits of acupressure therapy on improving the quality of sleep of the elderly. The results of the study explain that acupressure therapy combined with aromatherapy can help the elderly in improving sleep quality as evidenced by changes in sleep quality scores from 16.59 to 9.28 with a p value <0.01 (Setyaningsih et al., 2023). Other studies have also shown that acupressure therapy is effective in improving the quality of sleep of the elderly as evidenced by a decrease in the Pittsburg Sleep Quality Index score (Awi & Suhron, 2023). Therefore, researchers are interested in conducting a literature study on the topic of the effect of acupressure therapy on the quality of sleep of the elderly. Based on this explanation, the researcher is interested in conducting a literature study on the topic of the effect of acupressure therapy on the quality of sleep of the elderly. The purpose of this study was to analyze the effect of acupressure therapy on the quality of sleep of the elderly.

2. METHODS

The method applied in this research is a literature study using the Scopus, PubMed, CINAHL and Google Scholar research databases. The inclusion criteria used in this study are articles published in 2018-2023, using Indonesian or English, using experimental designs, and discussing the effect of acupressure therapy on elderly sleep quality. Exclusion criteria in this study are articles that cannot be accessed and are not available in full text. Step in search shared on several processes, namely identification, screening, eligibility and inclusion. This step has in accordance with guidelines in PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses). PRISMA is a series of minimum-based evidence bases purposeful evidence _ help writer report diverse review systematic and meta - analysis assessing benefit . PRISMA focuses on the ways in which authors can ensure transparent and complete reporting _ from type study (Sastypratiwi & Nyoto, 2020) matter the it's in figure 1.

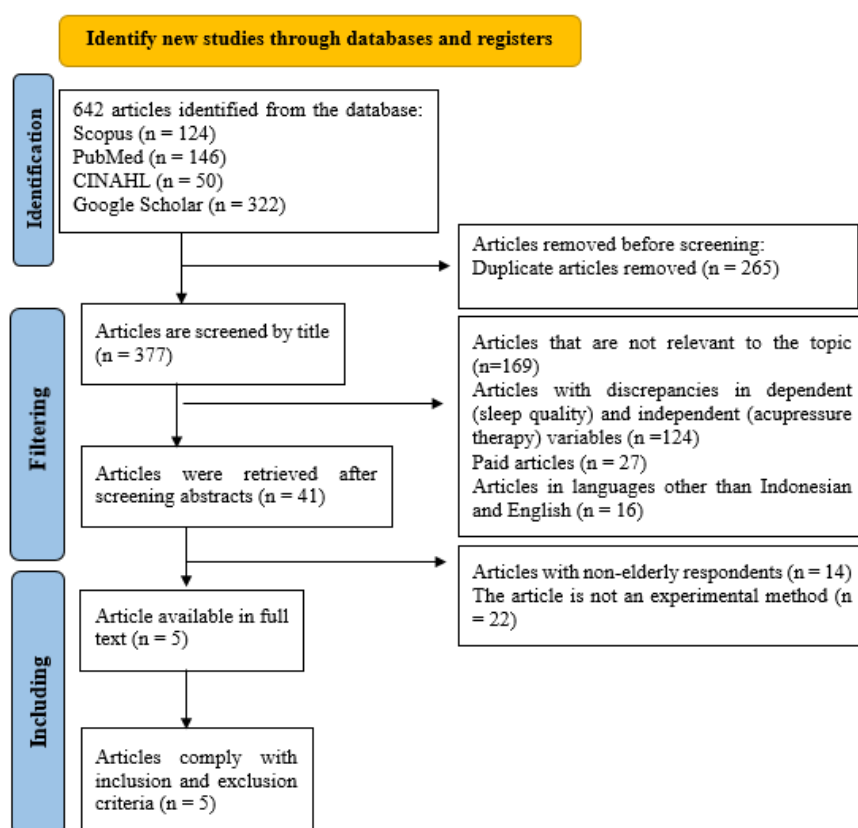


Figure 1. Article Selection Diagram based on PRISMA

The article selection process in this study used the PICO method (P: Sleep quality of the elderly, I: Acupressure Therapy, C:-, O: Effect of acupressure therapy on elderly sleep quality). In the literature search process, the keywords used were "Acupressure therapy", "Sleep quality" and "Elderly". The articles that have been determined are carried out research on the quality of the article according to the method used in the article. For non Randomized Control Trials experimental methods were assessed using the Checklist for Quasi Experimental Study from the Joanna Briggs Institute which consists of 9 questions. Whereas for Randomized Control Trials research is assessed using the Checklist for

Randomized Control Trials which consists of 13 questions.

3. RESULTS

The literature review in this study aimed to determine the effect of acupressure therapy on the quality of sleep of the elderly from research articles that have been done before. The results of the article search conducted in the Scopus, PubMed, CINAHL and Google Scholar databases found 5 articles to be reviewed from 642 articles that match the keywords. The articles came from the 2018-2023 publication period, which is summarized in Table 1. Next, a critical appraisal analysis was conducted to answer and compare the quality of research from each literature obtained.

Table I. Review results of selected articles

Article Title and Author	Design, Samples, and Sampling Techniques	Research Instrument	Research result
The Impact of Gender on the Effectiveness of an Auricular Acupressure	The sample for this study comprises 179 individuals divided into two groups: the	The instruments used were the <i>Pittsburg Sleep Quality Index</i> (PSQI) to	The results of the study showed that from the treatment given for 8 weeks there was a



Intervention Administered to Community-Dwelling Poor Sleepers: A Cluster Randomized Controlled Trial
Type: Publication Article
Author : Hung, HM, Chiang, HC, & Wang, HL (2021)
DOI: 10.1097/JNR.0000000000000427

intervention group and the control group. Inclusion criteria for participants are as follows: 1) aged ≥ 45 years, 2) able to communicate in Mandarin or Taiwanese, 3) experiencing a lack of sleep quality with a Pittsburgh Sleep Quality Index (PSQI) score of more than 5, 4) possessing normal mental health status without a diagnosis of dementia or psychological disturbance, and 5) not having skin lesions, sores, or dermatitis in either ear. Exclusion criteria include: 1) experiencing a serious medical condition that significantly interferes with evening sleep, 2) receiving medium or ongoing maintenance medical treatment for sleep problems within the last 6 months, 3) being pregnant, and 4) using hypnotherapy drugs more than once a week. The sampling technique used is *purposive sampling*.

Comparing acupressure with aromatherapy using Citrus aurantium in terms of their effectiveness in sleep quality in patients undergoing percutaneous coronary interventions: A randomized clinical trial
Type: Publication Article
Author : Asgari, MR, Vafaei -Moghadam, A., Babamohamadi, H., Ghorbani, R., & Esmaceli, R. (2019)

Design Used: Randomized Clinical Trial. The sample for this study consists of 85 individuals distributed among 4 intervention groups and 1 control group. Inclusion criteria involve patients diagnosed with angina pectoris or myocardial infarction, individuals capable of reading, and those aged between 40 and 75 years. Exclusion criteria include

determine the respondent's sleep quality and the *Short-Form Health Survey* -12 Version 2 (SF-12v2) to determine the respondent's health condition.

significant difference in the sleep quality of female respondents in the 4th week after the intervention with a value ($p\text{-value} = 0.022 < 0.05$). According to the results of statistical analysis, *Auricular Acupressure* Therapy had a significant effect on women and respondents with an age range of >45 years.

The instruments used in this research were a demographic questionnaire, *Visual Analogue Scale* (VAS) to determine the quality of sleep in respondents and *State-Trait Anxiety Inventory* (STAI) to determine the level of anxiety in respondents.

The results showed that the average pretest score for sleep quality was 2.98 ± 0.59 in the acupressure group, while the average posttest score for sleep quality was 7.35 ± 0.99 in the acupressure group. The results of the ANOVA analysis showed that there were significant differences between the 5 groups ($p < 0.001$). The posttest mean score for sleep quality was higher in the



DOI:
10.1016/j.ctcp.2019.10106
6

unwillingness to participate, a history of neurological diseases under current treatment, use of drugs in the two weeks preceding the study, a history of drug use, the presence of wounds at the HT7 point or the bottom of the wrist/hand, use of hypnotics in the month prior, a history of acupressure or respiratory distraction, allergies to plants, dysfunction in smell, BMI > 30 kg/m², carpal tunnel syndrome, and loss of awareness. The sampling technique employed is purposive sampling.

Effects of Acupressure on Sleep Quality and Psychological Distress in Nursing Home Residents: A Randomized Controlled Trial

Type: Publication Article

Authors : Chen, IH, Yeh, TP, Yeh, YC, Chi, MJ, Chen, MW, Chou KR, Lien, YY, & Yuan, CF

DOI:
10.1016/j.jamda.2019.01.0
03

Design Used: Double-Blind Randomized Controlled Trial with Repeated Measures

The sample for this research comprises 62 respondents divided into two groups. Inclusion criteria are as follows: 1) aged ≥65 years, 2) receiving home treatment for approximately 3 months, 3) capable of effective communication, 4) exhibiting good cognitive function (Mini Mental State Examination score ≥ 25), 5) having a Chinese-Pittsburg Sleep Quality Index (C-PSQI) score > 5 and a Kessler Psychological Distress Scale-10 (K-10) score > 22, and 6) being free from health issues such as fractures, ulcers, skin diseases, or inflammation at the acupressure points.

The instruments used in this research are C-PSQI to determine the level of sleep quality of respondents and K-10 to determine the level of psychological distress of respondents.

acupressure group compared to the other groups with $p < 0.001$

The results showed that the experimental group showed a more significant improvement in sleep quality than the control group at the end of the intervention (10.5 vs. 13.3) and 1 month after the intervention (8.3 vs. 14.2; both $P \leq .001$). In addition, the experimental group had lower levels of psychological distress than control group at 1 month after intervention (14.6 vs. 17.9, $P = .05$). There was a significant difference in the mean sleep quality ($F=60.8$, $P < 0.001$) and psychological distress ($F=24.6$, $P < 0.001$) of the experimental group from the examination results before the intervention.



Exclusion criteria include:

1) experiencing major organ failure, such as tuberculosis, burns, tumors, injuries, bleeding disorders, or local infections. The sampling technique employed is purposive sampling.

The effects of auricular acupressure on blood pressure, stress, and sleep in elders with essential hypertension: a randomized single-blind sham-controlled trial

Type: Publication Article

Author: Bomi Kim, Hyojung Park

DOI: 10.1093/eurjcn/zvad005 (18)

Design Used: Single-Blind Randomized Controlled Trials with Placebo-Controlled Studies

The sample for this research comprises 46 elderly individuals suffering from essential hypertension, aged between 66 and 84 years. Inclusion criteria are having a good level of consciousness, a MMSE-DS score <9 , and no prior experience with auricular acupressure. Exclusion criteria for respondents include having lesions in both ears, undergoing other complementary therapies, and currently using sleep aids.

Design used that is *Quasy Experiment with control group*. The sample consisted of 36 elderly people who were divided into intervention and control groups. *Random sampling technique*

Instruments used _ in study This that is tool gauge pressure blood electronics, *Heart Rate Variability (HRV)*, *actigraphy measure*, and *Pittsburg Sleep Quality Index (PSQI)*

Research result show There is significant difference _ in a way statistics between second group in pressure blood systolic ($F=5.67$, $P=0.022$), pressure blood diastolic (17.53, $P<0.001$) and pulse pulse ($F=6.78$, $P=0.013$) of time to time. Index stress ($\chi^2 = 2.12$, $P = 0.040$) and efficiency sleep ($\chi^2 = 3.57$, $P = 0.001$) also differed in a way significantly different in a way significant before and after test. However, no There is significant difference _ in PSQ.

The Effect of Acupressure Therapy and Murrotal Al-Quran on Sleep Quality in the Elderly

Type: Publication

Manuscript

Author : Awi K., Suhron M.

Instruments used _ that is *Pittsburgh Sleep Quality Index (PSQI)*

Research result show mark there is difference influence therapy acupressure and therapy murrotal shown _ with *Mann test results Whitney p* <0.05 . Besides that mark *Mean Rank* on therapy acupressure (22.72) more big compared to with mark therapy murrotal (14.28) which means there is difference more changes _ great at therapy acupressure compared to therapy murrotal.



Critical appraisal in a literature review is needed to determine the quality of the articles selected as research sources. From all the articles that were reviewed, the results of the critical appraisal were divided into several important points. Based on the characteristics of the scientific articles obtained, there are 4 (80%) scientific articles originating from international journals (English) and 1 (20%) scientific article originating from national publication manuscripts. For the journal database obtained, it is divided into 4 databases, namely Scopus 2 (40%) articles, PubMed 1 (20%) article, CINAHL 1 (20%) article and Google Scholar 1 (20%) article. By year of publication, 2 (40%) articles were published in 2019, 1 (20%) article from 2021, and 2 (40%) articles from 2023. Based on the research design, there were 4 (80%) articles with Randomized Control Trials design, and 1 (20%) Quasy-Experimental article. Overall, the articles obtained discuss the influence of acupressure therapy on the quality of sleep of the elderly.

4. DISCUSSION

The history of acupressure therapy marks the continuation of this practice since ancient times, forming an integral part of the rich and structured tradition of Chinese medicine. A treatment method derived from philosophical foundations in traditional Chinese medicine, acupressure therapy has been known and practiced for thousands of years (Dewi et al., 2022). The oldest written record of the use of acupressure can be found in the *Nei Jing*, a classic Chinese medical text dating back to the 2nd century BC. The *Nei Jing* presents detailed information on acupressure points, the function of organs in the body, and the relationship between the vital energy known as "qi" and human health (Saputra et al., 2023).

During the Han Dynasty (206 BC - 220 AD), acupressure therapy was further developed and recognized as an effective treatment method. The practice of acupressure became increasingly structured and documented in ancient medical texts such as the *Huangdi Neijing* (Yellow *Nei Jing*), which remain important guidelines in acupuncture and acupressure today. Over the centuries, acupressure therapy has continued to be passed down through generations of teachers and students, forming a deep tradition in Chinese medical knowledge (Dewi et al., 2022).

The importance of acupressure therapy in the history of Chinese medicine lies in the view that the human body has pathways of flowing energy, known as meridians. Acupressure points on these meridians are considered to be energy regulation centers that can affect a person's physical and mental health. During the Tang Dynasty (618-907 AD), acupressure was increasingly applied in clinical practice, and historical evidence suggests that the method was used in the treatment of the royal family (Putri & Mazarina, 2022; Somoyani, 2018).

In the modern era, along with the spread of science and technology, acupressure therapy has found its place in various parts of the world as a complementary and alternative form of medicine. Despite its transformation in the context of contemporary medical practice, acupressure therapy continues to maintain its roots in the rich and time-tested history of traditional Chinese medicine. The long history of acupressure therapy reflects its cultural heritage and valuable contribution to the understanding and treatment of human health (Maharani & Widodo, 2019).

The results of the study of five articles showed that blood pressure before being given acupressure therapy was in the PSQI score range of 10-13, indicating that the elderly experienced poor sleep quality. The decrease in blood pressure in each research object from all articles analyzed ranged from 5-8 scores on the PSQI instrument. From all the articles analyzed, the level of influence of acupressure therapy on the quality of sleep of the elderly is known to be very significant even though there are differences in the characteristics of the acupressure given. Sleep disturbance conditions in the elderly are influenced by several factors such as physiological changes in the body, anxiety levels, depression, illness, and medication (Budiono & Rivai, 2021; Smeltzer & Bare, 2017).

Structural and functional changes in the elderly body cause the problem of decreased sleep quality in the elderly. Some conditions that can cause the elderly to experience sleep disturbances include anxiety, stress, and comorbidities such as hypertension (B. Kim & Park, 2023; Monalisa et al., 2023). Acupressure which is a non-pharmacological therapy that focuses on certain body points is useful for improving blood circulation and stimulating the secretion of hormones that are beneficial to the body so that it can provide a relaxing effect and support the process of improving sleep quality (Asgari et



al., 2019; M. Kim, 2023). The mechanism of acupressure that stimulates the release of endorphin hormones in the body provides a comfortable, relaxing effect on the body. Acupressure therapy stimulates the nerves in the epidermis and is transmitted to the brain organ at the hypothalamus. The descending nervous system releases endogenous opiates similar to endorphins. The release of endorphins increases endorphin levels in the body and increases the production of dopamine hormone. The increase in dopamine hormone leads to increased activity of the parasympathetic nervous system (Dewi et al., 2022; Putri & Mazarina, 2022; Saputra et al., 2023). People with sleep disorders perceive touch as a stimulus for a relaxation response and lower blood pressure because the parasympathetic nervous system controls the activity that occurs and functions when the body is relaxed (Ambarwati et al., 2023; Maryati & Pertiwi, 2022).

Acupressure therapy is a complementary therapy performed by massaging the stimulation points on the body to provide comfort and relaxation. In providing acupressure therapy, what needs to be considered is the determination of acupressure points to stimulate energy in the body (Amalia, 2023). From all the articles obtained, the acupressure points that can affect the quality of sleep of the elderly are Shenmen (HT7) located between the upper and middle ear, Baihui (GV20) located at the top of the head, Tianzhu (BL10) located behind the head, Neiguan (PC6) located on two fingers below the wrist crease, Jueque (CV14) located in the center of the chest, and Yongchun (K1) located under the sole of the foot (Ambarwati et al., 2023; Hung et al., 2021).

Pressing techniques can be performed using tools or hands directly. The acupressure technique performed in the review article is by gently pressing by 1/3 of the thumb, index, and middle finger nails or can be put together into a fist. In addition, rotate, tap, and pull on several meridian points of the organ (Chen et al., 2019). The duration of effectiveness of acupressure therapy can be done in 15-30 minutes every 3 times a week for 2-8 weeks. However, when administering acupressure therapy, it is necessary to pay attention to individual responses so as to maintain comfort to support sleep quality improvement (Asgari et al., 2019; Awi & Suhron, 2023). Acupressure therapy should not be applied to clients with swelling of the massage points, abrasions on

the skin and serious diseases such as heart failure. One should not be too hard in pressing the points while giving the massage and should not put the patient in pain. A proper massage should be able to create a sensation of comfort. When massaged, the body relaxes and automatically affects the parasympathetic nerves. This is in accordance with research Wariin dan Pranata (2018) who stated that twenty respondents felt comfortable and relaxed when getting acupressure therapy.

Acupressure therapy on the Hegu point, which is an alternative treatment method derived from the Chinese medical tradition, has been known to have a positive impact on body relaxation and lead to a decrease in blood pressure. The Hegu point, located on the wrist, is one of the important points in the traditional Chinese meridian system (Fan et al., 2019). Through the application of precise pressure on these points, acupressure therapy can stimulate the flow of energy in the body, known as "qi" or "chi". This stimulation process is believed to relieve muscle tension, improve blood circulation, and trigger the release of endorphins that play a role in reducing stress. Along with these relaxing effects, acupressure therapy on the Hegu point has also been associated with a reduction in blood pressure, suggesting potential as a holistic method in cardiovascular health management (Maryati & Pertiwi, 2022; Sangani et al., 2023). Although more research needs to be done to understand the precise mechanism behind the interaction between the Hegu point and the body's response, preliminary evidence suggests that acupressure therapy on this point may be a valuable therapeutic option in achieving optimal relaxation and blood pressure regulation (Awi & Suhron, 2023; Wariin & Pranata, 2018).

Acupressure therapy, as an approach in traditional Chinese medicine that involves massaging acupuncture points on the body, has gained increasing attention in the context of modern nursing practice. The implications of acupressure therapy for nursing cover a wide range of aspects, from pain management to improving patient well-being. In particular, nursing that integrates the principles of acupressure can provide holistic and therapeutic solutions for patients with various health conditions.

One of the main implications of acupressure therapy in nursing practice is its potential in managing pain. Through the massage of acupressure points associated with pain control, nursing can provide an alternative or



adjunct to traditional pharmacological approaches. In this context, acupressure can benefit patients with chronic pain, post-surgery, or certain medical conditions that require more individualized and focused pain management.

In addition, acupressure therapy can also be used to improve aspects of a patient's physical and mental well-being. Massaging acupressure points can stimulate the autonomic nervous system, improve blood circulation, and relieve muscle tension. In a nursing context, the use of acupressure as part of holistic care can support patient recovery, especially in those with stress, fatigue, or sleep disorders.

However, the implementation of acupressure therapy in nursing also requires in-depth knowledge of acupuncture principles and adequate technical skills. Appropriate training and certification for nursing professionals is essential to ensure the safe and effective use of acupressure in the clinical setting. Therefore, an in-depth understanding of the implications of acupressure therapy for nursing not only enriches nursing practice, but also involves continuous engagement in education and professional development.

The main benefits of acupressure therapy involve improving the flow of vital energy, known as "qi," in the body. Stimulation of targeted acupressure points can relieve muscle tension, improve blood circulation, and promote the balance of organ function (Chen et al., 2019; Zubaidah et al., 2021). In addition, acupressure therapy has been shown to be effective in relieving stress and anxiety, triggering the release of endorphins as a positive response to pressure applied to specific points. In the context of general health, acupressure therapy has also been linked to an improved immune system as well as improved sleep (M. Kim, 2023; Toledo, 2016). Thus, it can be concluded that acupressure therapy is not only a holistic alternative medicine approach, but can also contribute significantly to the maintenance of health and well-being of the human body (Asgari et al., 2019).

Acupressure therapy is a complementary therapy that can be provided in the nursing care process for patients with sleep disorders. The implications of acupressure therapy in the nursing care process for elderly patients with sleep disorders include relieving stress. Elderly people who experience sleep disorders are closely related to psychological conditions such as anxiety and stress experienced by them (M. Kim, 2023; Sangani et al.,

2023). Acupressure can also improve blood circulation stimulation of certain acupressure points can improve blood circulation in the body. This can help improve blood flow to important organs such as the heart and kidneys (Kubo et al., 2023). In addition, acupressure can be a way to manage the side effects of medications. Acupressure therapy can be used as a complementary approach to reduce the side effects of medications, such as nausea or headaches (Balaji & Smitha, 2023). From this explanation, it is known that acupressure therapy has many implications in the nursing care process for elderly patients with sleep disorders.

The use of acupressure therapy as a secondary therapy in the management of elderly patients with hypertension illustrates a holistic approach involving specific acupuncture points to achieve optimal health benefits. Hypertension is a major health problem among the elderly and can require a comprehensive treatment approach. In this context, acupressure therapy can be considered as a promising alternative or complement, especially due to its non-invasive nature and its potential in reducing blood pressure (Maryati & Pertiwi, 2022).

The selection of appropriate acupressure points, which are associated with blood pressure regulation, is key in the implementation of acupressure therapy in elderly patients with hypertension. Stimulation of certain points can stimulate physiological responses that lead to a decrease in blood pressure, such as increased relaxation of blood vessels and reduced sympathetic nervous system activity (Wariin & Pranata, 2018). Thus, acupressure therapy may serve as a potential non-pharmacological method for managing blood pressure in the elderly population.

The importance of collaboration between nursing practitioners and acupressure therapists in planning and implementing interventions is an important element in the use of acupressure therapy in elderly patients with hypertension (Somoyani, 2018). Integration of acupressure therapy in the care plan should take into account the overall health condition of the elderly, including the presence of comorbidities and potential interactions with other medications. Periodic evaluation of blood pressure response, monitoring of side effects, and coordination with the medical care team are important aspects in effectively managing acupressure therapy (Maharani & Widodo, 2019).



Although acupressure therapy shows potential as a safe and applicable secondary therapy in elderly patients with hypertension, further in-depth studies are needed to confirm its effectiveness and establish more specific clinical guidelines. In the context of elderly nursing, acupressure therapy may be a valuable innovation that contributes to the delivery of more holistic and personalized care for patients with hypertension (Dewi et al., 2022).

5. CONCLUSION

Based on the results of a literature review on articles with the topic of the effect of acupressure therapy on the quality of elderly sleep, it was found that acupressure therapy had a significant effect on the quality of elderly sleep. Acupressure therapy can be used as an alternative therapy in helping to improve sleep disorders in the elderly. Acupressure points that can provide relaxation and support the improvement of elderly sleep patterns include Shenmen (HT7), Baihui (GV20), Tianzhu (BL10), Neiguan (PC6), Jueque (CV14), and Yongchun (K1). For the most significant duration in affecting the quality of sleep of the elderly is 15-30 minutes done 3 times a week for 2-8 weeks.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Declaration of Conflicting Interest

The Author(s) declare(s) that there is no conflict of interest

REFERENCES

1. Amalia, K. (2023). The Effect of Acupressure Therapy on Reducing Blood Pressure in Hypertension Patients in the Work Area of the Muntok Health Center in 2022. *Formosa Journal of Science and Technology*, 2(7), 1709–1722.
2. Ambarwati, A., Pujiati, E., Jamaludin, J., & Novitasari, D. (2023). Implementation of acupressure therapy at GB 20, LI 11, LI 4, PC 6, LV 3 points to lower blood pressure in hypertensive patients. *Cendekia International Conference on Health & Technology 2023*.
3. Arbianto, W., & Adriani, P. (2023). Pemberian Intervensi Pijat Refleksi Kaki Pada Lansia Dengan Hipertensi Yang Mengalami Masalah Gangguan Pola Tidur Di PPSLU Dewanata Cilacap. *Jurnal Ventilator: Jurnal riset ilmu kesehatan dan Keperawatan*, 1(4), 170–176. <https://doi.org/https://doi.org/10.59680/ventilator.v1i4.683>
4. Asgari, M. ., Vafael-Moghadam, A., Babamohamadi, H., Ghorbani, R., & Esmacili, R. (2019). Comparing acupressure with aromatherapy using Citrus aurantium in terms of their effectiveness in sleep quality in patients undergoing percutaneous coronary interventions: A randomized clinical trial. *Complementary Therapies in Clinical Practice*, 38(1), 1–7. <https://doi.org/https://doi.org/10.1016/j.ctcp.2019.101066>
5. Atukorala, I., & Hunter, D. (2023). A review of quality-of-life in elderly osteoarthritis. *Expert Review of Pharmacoeconomics & Outcomes Research*, 23(4), 365–381. <https://doi.org/https://doi.org/10.1080/14737167.2023.2181791>
6. Awi, K. ., & Suhron, M. (2023). Pengaruh terapi akupresur dan murottal Al-Qur'an terhadap kualitas tidur pada lansia. STIKES Ngudia Husada Madura.
7. Balaji, P., & Smitha, R. (2023). Integrated review of management of hypertension by lifestyle changes, yoga, exercise, acupressure, plant/herbal and allopathic medications and newer interventions. *Indian Journal of Integrative Medicine*, 3(1), 1–8.
8. Budiono, N., & Rivai, A. (2021). Faktor-faktor yang mempengaruhi kualitas hidup lansia. *Jurnal Ilmiah Kesehatan Sandi Husada*, 10(2), 371–379.
9. Chen, I. ., Yeh, T. ., Yeh, Y. ., Chi, M. ., Chen, M. ., Chou, K. ., Lien, Y. ., & Yuan, C. . (2019). Effects of Acupressure on Sleep Quality and Psychological Distress in Nursing Home Residents: A Randomized Controlled Trial. *JAMDA*, 20(1), 822–829. <https://doi.org/https://doi.org/10.1016/j.jamda.2019.01.003>
10. Dayuningsih, D., Listyorini, M., Tandilangan, A., Tarnoto, K., & Setianingrum, R. (2023). Terapi murottal dalam mengatasi gangguan pola tidur



- pada pasien lansia. *Journal of Telenursing (JOTING)*, 5(2), 2688–2695. <https://doi.org/https://doi.org/10.31539/joting.v5i2.7241>
11. Dewi, S., Masruroh, M., Winahyu, K., Mawarti, H., Damayanti, D., & Yuliana, D. (2022). *Terapi Komplementer: Konsep dan Aplikasi dalam Keperawatan*. Yayasan Kita Menulis.
 12. Fan, H., Lu, F., Yang, A., Dong, Y., Liu, P., & Wang, Y. (2019). A Review on the Nonpharmacological Therapy of Traditional Chinese Medicine with Antihypertensive Effects. *Evidence-based Complementary and Alternative Medicine*, 13(17), 1–7. <https://doi.org/10.1155/2019/1317842>
 13. Furqoni, A., Cita, E., & Maulana, D. (2022). Akupresur Efektif dalam Pengendalian Tekanan Darah pada Lansia dengan Hipertensi. *E-Journal STIKES YPIB Majalengka*, 10(2), 154–159.
 14. Hung, H. ., Chiang, H. ., & Wang, H. . (2021). The Impact of Gender on the Effectiveness of an Auricular Acupressure Intervention Administered to Community-Dwelling Poor Sleepers: A Cluster Randomized Controlled Trial. *The Journal of Nursing Research*, 20(3), 1–11. <https://doi.org/10.1097/JNR.0000000000000427>
 15. Juwita, D., Nulhakim, L., & Purwanto, E. (2023). Hubungan kecemasan dengan insomnia pada pralansia dan lansia hipertensi di Posyandu Lansia Desa Tengkapak Kabupaten Bulungan. *Aspiration of Health Journal*, 1(2), 240–251. <https://doi.org/https://doi.org/10.55681/aohj.v1i2.104>
 16. Kemenkes RI. (2018). *Riset Kesehatan Dasar*.
 17. Kim, B., & Park, H. (2023). The effects of auricular acupressure on blood pressure, stress, and sleep in elders with essential hypertension: a randomized single-blind sham-controlled trial. *European Journal of Cardiovascular Nursing*, 22(1), 610–619. <https://doi.org/https://doi.org/10.1093/eurjcn/zva005>
 18. Kim, M. (2023). Effects of Acupressure and Lymphatic Massage on Chronic Neck Pain, Stress and Sleep Quality in Middle-aged Women. *Journal of the Korean Society of Cosmetology*, 29(2), 411–420.
 19. Kubo, K., Yasuda, A., Yajima, H., Takayama, M., & Takakura, N. (2023). Effects of acupuncture and acupressure of the acupoint compared to the tendon on the blood circulation of human tendon in vivo. *European Journal of Applied Physiology*, 42(1), 1–11.
 20. Maharani, M., & Widodo, S. (2019). Pengaruh Terapi Akupresur Totok Punggung terhadap Tekanan Darah pada Pasien Hipertensi di Wilayah Kerja Puskesmas Bandarharjo Semarang. *Prosiding Mahasiswa Seminar Nasional Unimus*.
 21. Maryati, M., & Pertiwi, L. (2022). Terapi akupresur menurunkan tekanan darah pada lansia dengan hipertensi di Tresna Werdha Jakarta. *Jurnal Ilmiah AVICENNA*, 17(3), 226–238.
 22. Monalisa, Y., Purwanto, E., & Nulhakim, L. (2023). The Effect of Self-Acupressure Therapy on Changes in Blood Pressure in Hypertension Patients. *Indonesian Journal of Interdisciplinary Research in Science and Technology (MARCOPOLLO)*, 1(3), 151–168.
 23. Mulyasari, D., Noer, R., Sari, N., Ermawaty, E., Triharyadi, F., Tampubolon, D., & Catherine, S. (2023). Improving Health Status in The Elderly Through Health Checks and Education at Nuriah Nursing Homes in Karimun. *Pengabdian: Jurnal Abdimas*, 1(2), 75–81. <https://doi.org/10.55849/abdimas.v1i2.183>
 24. Ozdemir, A., Kavak-Buda, F., Dural, G., & Gultekin, A. (2023). The Relationship between spiritual well-being, life satisfaction and hope in elderly individuals in Turkey. *Journal of Religion and Health*, 62(5), 3123–3136. <https://doi.org/10.1007/s10943-022-01517-5>
 25. Ozer, N., & Tanriverdi, D. (2023). Determining depression, abuse, and neglect in elderly individuals. *Psychogeriatrics*, 23(4), 690–700. <https://doi.org/https://doi.org/10.1111/psyg.12979>
 26. Putri, R., & Mazarina, H. (2022). Terapi Komplementer untuk Mengatasi Hipertensi. *JAPI (Jurnal Akses Pengabdian Indonesia)*, 7, 73–78.
 27. Sangani, N., Rahimi, H., Mousavi, S., Bahrami, H., & Vagharseyyedin, S. (2023). Effect of Acupressure on Anxiety, Stress, and Depression Among the Primary Family Caregivers of the



- Patients with Stroke. *Journal of Holistic Nursing And Midwifery*, 33(2), 113–121.
28. Saputra, A., Pebriani, S., Tafdhila, T., & Syafe'i, A. (2023). Pengaruh terapi akupresur terhadap tekanan darah pada penderita hipertensi. *MANUJU: Malahayati Nursing Journal*, 5(1), 80–87.
29. Sastypratiwi, H., & Nyoto, R. D. (2020). Analisis Data Artikel Sistem Pakar Menggunakan Metode Systematic Review. *Jurnal Edukasi dan Penelitian Informatika*, 6(2), 250–257. <http://dx.doi.org/10.26418/jp.v6i2.40914>
30. Setyaningsih, E., Hayati, I., Norhapifah, H., & Wahyuni, R. (2023). Pengaruh kombinasi akupresure dan aromaterapi lavender terhadap kualitas tidur wanita menopause. *Jurnal Voice of Midwifery*, 13(1), 1–7. <https://doi.org/https://doi.org/10.35906/vom.v13i1.217>
31. Smeltzer, S. & Bare, B. (2017). Buku Ajar Keperawatan Medikal Bedah Edisi 8. *Jakarta: EGC*. <https://doi.org/10.1037/1524-9220.4.1.3>
32. Somoyani, N. K. (2018). Literature Review: Terapi Komplementer Untuk Mengurangi Mual Muntah Pada Masa Kehamilan. *Jurnal Ilmiah Kebidanan*, 8(1), 10–17.
33. Toledo, M. (2016). Sleep quality and daytime sleepiness in patients treated with adjunctive perampanel for focal seizures. *Epilepsy and Behavior*, 63, 57–62. <https://doi.org/10.1016/j.yebeh.2016.08.004>
34. Wariin, S., & Pranata, A. E. (2018). Pengaruh penekanan titik akupresur taixi (KI3), sanyinjiao (SP6) terhadap penurunan tekanan darah pada lansia dengan hipertensi di PSTW Jember. *Jurnal Kesehatan dr. Soebandi*, 6(2), 1–8.
35. World Health Organization. (2019). *Global Health Estimates*.
36. Zubaidah, Z., Maria, I., Rusdiana, R., Pusparina, I., & Norfitri, R. (2021). The effectiveness of acupressure therapy in lowering blood pressure in patients with hypertension. *Indonesian Journal of Community Health Nursing*, 6(1), 33–36.