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Research Article

Hypnotherapy Technique to Reduce Anxiety Levels in Elderly with Hypertension

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Abstract

Background: One of the non-pharmacological intervention that can be used is hypnotherapy. This intervention uses suggestions that will relax the client's condition so that the brain produces the hormones serotonin, endorphine, and activation of autonomic nerve responses. At the same time the neuroendocrine system will also lower levels of cortisol, glucocorticoids, gonadocorticoids, epinephrine, norepinephrine and will act directly on the alpha androgenic receptors of vascular smooth muscle, thus causing vasodilation of blood vessels, lowering total peripheral pressure and decreasing blood pressure, pulse, and breathing.

Objectives: This study is to determine the effect of hypnotherapy techniques on reducing anxiety levels in elderly families with hypertension at RT 10/RW 05 Lenteng Agung, South Jakarta.

Methods: This study employed a quantitative pre-experimental design with a one-group pre-test post-test approach to examine the effect of an intervention on anxiety levels in elderly individuals with hypertension. The study population consisted of 39 elderly individuals, with 15 participants meeting the inclusion criteria. Data were collected in 2023, and the sample was selected using total sampling, consisting of 9 women and 6 men. Participants were observed before and after the intervention to assess changes in anxiety levels.

Results: This study showed that after being given hypnotherapy technique treatment, the majority experienced a decrease in anxiety levels, namely mild anxiety as many as 11 elderly (73.3%) and respondents who experienced moderate anxiety as many as 4 elderly (46.7%)

Conclusion: The majority of elderly individuals with hypertension experienced severe anxiety before receiving hypnosis techniques. After the application of hypnosis, most experienced a reduction in anxiety to mild levels. This demonstrates that hypnosis techniques have a significant effect in reducing anxiety levels in elderly individuals with hypertension

Keywords: anxiety levels, elderly, hypnotherapy technique

Introduction

The elderly experience a natural aging process that is marked by the gradual decline of various organ functions, including the brain, heart, liver, and kidneys. This decline is due to the reduced number and ability of body cells, which in turn diminishes the capacity of tissues to maintain normal functioning, leaving the elderly more vulnerable to infections and less able to repair damage. Hypertension, a common condition in older adults, is closely linked to lifestyle and dietary habits. Factors such as poor nutrition, lack of physical activity, smoking, and alcohol consumption can significantly influence the development of hypertension. Anxiety is another key psychological factor that can exacerbate hypertension.¹

According to the World Health Organization (WHO), the prevalence of hypertension is widespread, with around 24.7% of the population in Southeast Asia and 23.3% of the population in Indonesia suffering from the condition. Globally, approximately one billion people live with hypertension, with two-thirds residing in low- to middle-income countries.² In Indonesia, data from the Ministry of Health's Research and Development Agency in 2019 shows that 32.5% of the elderly suffer from hypertension. Hypertension can be caused by several factors, including obesity, smoking, alcohol consumption, lack of physical activity, and stress or anxiety.³ Unfortunately, many elderly individuals with hypertension continue to engage in harmful habits, such as excessive salt consumption and frequent coffee drinking. These behaviors contribute to the worsening of hypertension, which can lead to severe complications such as coronary heart disease, kidney dysfunction, cognitive impairment, or stroke.⁴ Hypertension not only increases mortality rates but also places a heavy financial burden on individuals due to costly treatments and healthcare. Furthermore, it has a detrimental impact on the quality of life of those affected.⁵

Addressing the psychological aspects of hypertension, such as anxiety, is essential. Anxiety can stem from a person's knowledge (or lack thereof) about their health condition and their ability to control or cope with it.⁶ Non-pharmacological approaches like music therapy, distraction techniques, and hypnotherapy have been identified as effective methods to reduce anxiety in patients.⁷ Therapies such as hypnotherapy, which have shown potential in reducing anxiety and improving health outcomes, can be implemented in broader community settings. Public health efforts aimed at enhancing the health knowledge of the elderly and their families are crucial in promoting better hypertension management and preventing complications. By empowering communities with knowledge and encouraging healthy practices, we can improve public health outcomes and quality of life across various regions.

Methods

The study employed a quantitative research approach with a pre-experimental design. This design is not considered a true experimental design, as it lacks a control group for comparison.⁸ In pre-experimental research, an initial observation or pre-test is conducted to assess baseline conditions, allowing researchers to examine changes that occur following the intervention.⁹ The research used a one-group pre-test post-test design, aimed at demonstrating causal relationships by including a single group of subjects that is observed before and after the intervention.⁸ The target population was observed to assess their condition before the intervention and then observed again after the intervention to identify any changes that occurred.

Data collection was carried out in 2023. The study was conducted in RT 010/RW 05, Lenteng Agung. The population for this research consisted of 39 elderly individuals diagnosed with hypertension, of whom 15 met the inclusion criteria, while 24 did not meet the criteria. The inclusion criteria were established to ensure that only relevant participants were included in the study. The sampling was done using a total sampling technique, meaning all individuals who met the inclusion criteria were selected for the study. The sample consisted of 9 women and 6 men, representing the elderly individuals with

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hypertension in the study area. This research has passed the ethical test at the ethics commission of the University of Indonesia Maju with number: 3409/Sket/Ka-Dept/RE/UIMA/I/2023.

Results

Table 1. Gender of Respondents

Gender	Total	Percentage (%)
Woman	9	60.0
Man	6	40.0
Total	15	100

Based on [Table 1](#) shows the results of the gender score, there are women with a frequency of 9 people (60.0%) and men as many as 6 people (40.0%) with a total of 15 respondents from the results obtained there is a greater number of female frequencies than the number of men.

Table 2. Respondents' Anxiety Levels Before Hypnotherapy Techniques

Anxiety Levels	Total	Percentage (%)
Light	2	13,3
Moderate	5	33,3
Heavy	8	53,3
Total	15	100

Based on [Table 2](#) shows the results of anxiety level scores before hypnotherapy was given to 15 residents with hypertension. Anxiety level of respondents before being given the hypnotherapy the majority experienced a severe anxiety level of 8 people (53.3%).

Table 3. Respondents' Anxiety Levels After Hypnotherapy Techniques

Level Anxiety	Total	Percentage (%)
Light	11	73.3
Moderate	4	26.7
Total	15	100

[Table 3](#) shows the results of anxiety level scores after being given hypnotherapy techniques in the elderly. The anxiety level of respondents after being given hypnotherapy technique treatment the majority decreased their level of anxiety, namely mild anxiety as many as 11 elderly (73.3%), and respondents who experienced moderate anxiety as many as 4 elderly (46.7%)

Table 4. Differences in Average Anxiety Level Scores of Elderly with Hypertension in Pre-Test and Post-Test

Variable	Median	Std. Deviation	Maximum - Minimum	p-value
Pre-test	19	1.699	15 – 25	0,000
Post-test	13	1.187	10 - 20	

[Table 4](#) shows the average results of anxiety level scores between the pre-test and post-test using paired test analysis of t-test samples with the results obtained, namely, there is a significance of 0.000 ($P < 0.05$) which means that there is an effect of giving Hypnosis

Techniques on reducing anxiety levels in respondents who are elderly with hypertension.

Discussion

Anxiety Level Respondent Before Being Given Hypnotherapy Techniques

Based on the results of the study, it was shown that the majority of elderly respondents with hypertension experienced severe anxiety (scores 28-41) before receiving hypnotherapy, with 8 elderly individuals (53.3%) reporting severe anxiety. This finding is consistent with research conducted by MaFront Hasim (2021), which also demonstrated high levels of anxiety before the administration of hypnotherapy. In Hasim's study, one subject, Mrs. S, experienced severe anxiety with a score of 29, while another subject, Mrs. M, had moderate anxiety with a score of 27. The study confirmed that hypnotherapy techniques can effectively reduce anxiety in patients.

Degenerative conditions make the elderly more susceptible to various health issues, including anxiety and even depression. As individuals age, bodily functions decline, which can lead to an increased likelihood of developing health problems. However, older individuals who live longer may develop better-coping mechanisms and become more resilient to both physical and psychological stressors. Coping strategies, when well-developed, can help mitigate anxiety and depression. The Framingham study estimated that approximately 90% of normotensive individuals who survive to the age of 55 will eventually develop hypertension in their lifetime.¹⁰ Anxiety is an emotional response characterized by fear or apprehension about an unclear or uncertain threat.¹¹ According to the Anxiety and Depression Association of America (ADAA, 2014), it is estimated that 1 in 25 individuals in the United Kingdom experiences anxiety, with the condition being most prevalent among individuals aged 35-55, and more common in women than men.¹² Researchers suggest that severe anxiety can contribute to elevated blood pressure levels.

Anxiety Level after Hypnotherapy Technique

This study demonstrated that after receiving hypnotherapy treatment, the majority of respondents experienced a reduction in anxiety levels. Specifically, 11 elderly participants (73.3%) reported mild anxiety, while 4 participants (26.7%) experienced moderate anxiety. These findings are consistent with previous research by Moh Saifudin (2021), which employed a pre-experimental design with a one-group pre-test and post-test approach. In Saifudin's study, 46.7% of participants experienced moderate anxiety before treatment, but after treatment, 60% reported no anxiety. The Wilcoxon statistical analysis test revealed a Z value of -3.885a, with a significance level of $p = 0.000$ ($p < 0.05$), indicating a significant effect of hypnotherapy on reducing psychological anxiety in the elderly.

Hypnotherapy can alter sensations, perceptions, thoughts, feelings, or behaviors by utilizing suggestions.¹³ When the brain is influenced by suggestions, it signals the central nervous system to stimulate the Reticular Activating System (RAS), reducing its activity. This leads to the release of serotonin from specific cells in the pons and brainstem, particularly in the Bulbar Synchronizing Region (BSR). During hypnotherapy-induced relaxation, brain waves shift to the alpha range (7-14 hertz) or even deeper into theta waves (4-7 hertz), causing the brain to produce serotonin and endorphins, which create sensations of comfort and relaxation. This state improves metabolism and the autonomic nervous system response, ultimately leading to reductions in blood pressure, pulse rate, and respiratory rate.¹⁴

In a relaxed state, the neuroendocrine system reduces the secretion of cortisol, glucocorticoids, gonadocorticoids, epinephrine, and norepinephrine. This reduction affects the alpha-adrenergic receptors in vascular smooth muscles, leading to vasodilation, decreased total peripheral resistance, and consequently, lowered blood pressure.¹⁴ Sutrisno et al. (2016), as cited by Eny Pujiaty (2022), reported a significant effect of hypnotherapy on reducing high blood pressure.¹⁴ Similarly, research by Rifki et al. (2018) and

Nurprasetyo (2016) also confirmed the positive impact of hypnotherapy on lowering blood pressure in individuals with hypertension.¹⁵ According to the researchers, the reduction in anxiety levels observed in the respondents after hypnotherapy is attributed to the relaxation effects of the technique, which helps reduce muscle tension and lower blood pressure. Hypnotherapy induces a relaxed, comfortable, and calm state, which alleviates both physical and mental stress. Additionally, hypnotherapy prompts neuro-hormonal changes in the body that mimic the effects of real-life events. Moreover, elderly individuals who were taught hypnotherapy techniques were able to apply them independently, further reducing their anxiety levels.

The Effect of Hypnotherapy Techniques on Anxiety Levels

Based on the average anxiety level scores obtained from the pre-test and post-test a significance level of 0.000 ($p < 0.05$) was achieved. This indicates a significant effect of hypnotherapy on reducing anxiety levels among elderly respondents with hypertension in RT 010/RW 05, Lenteng Agung. Therefore, it can be concluded that there is a statistically significant difference in anxiety levels before and after the administration of hypnotherapy in elderly individuals with hypertension in this community. This study aligns with research conducted by Prima Trisna Aji (2022), which employed a pre-experimental design using a one-group pre-test post-test method. Aji's findings revealed that hypertensive patients had an average systolic blood pressure of 165.86 mmHg and an average diastolic blood pressure of 104.86 mmHg before hypnotherapy. After the intervention, the average systolic pressure decreased to 158.66 mmHg, and the average diastolic pressure reduced to 97.10 mmHg. This study demonstrated that hypnotherapy effectively impacts changes in blood pressure among hypertensive patients in the working area of the Puskesmas Jayengan Surakarta. Hypnotherapy offers a non-pharmacological alternative for managing high blood pressure issues in patients within this healthcare setting.¹⁶

Hypnotherapy is a technique that encourages individuals to visualize preferred images. These imagined scenarios stimulate various senses and are processed by the brainstem before being transmitted to the thalamus. Within the thalamus, excitatory signals are formatted according to the brain's language and sent to the amygdala, with a significant portion directed to the cortex, where sensory associations occur. This process allows the brain to recognize objects, triggering memory recall that leads to actual perceptions, which can, in turn, affect pain receptors and reduce pain intensity.¹⁷ In hypnotherapy, the client's mind and body are first relaxed to facilitate access to the subconscious. The subconscious mind operates automatically, often without the individual's awareness. The influence of the subconscious is approximately nine times stronger than that of the conscious mind, which explains why many individuals struggle to change despite a conscious desire to do so. In instances where there is a conflict between the conscious and subconscious desires, the subconscious typically prevails. Thus, hypnosis techniques can effectively reduce anxiety levels as they are beneficial in alleviating pain, diminishing symptoms of depression, and improving overall quality of life. Practicing hypnosis or meditation involves concentrating on specific objects, sounds, or experiences to calm the mind. Through these techniques, individuals can mitigate symptoms of stress and anxiety by envisioning a preferred place or situation that brings them comfort.

Conclusion

This study demonstrates that the application of hypnotherapy techniques significantly reduces anxiety levels in elderly individuals with hypertension. The analysis results indicate a substantial decrease in anxiety scores following the hypnotherapy intervention, as well as a positive impact on blood pressure among hypertensive patients. These findings support the utilization of hypnotherapy as an effective non-pharmacological approach to managing anxiety and hypertension, which may enhance the quality of life for seniors in the community. Therefore, hypnotherapy should be considered

as an adjunct method in holistic healthcare for hypertensive patients, particularly among the elderly population.

Conflict of Interest

Researchers stated that this study was independent, and did not involve communities and organizations.

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References

1. Yosep Kopertino Seso, Maria Getrida Simon, Theofilus Acai Ndorang. Hubungan Tingkat Kecemasan dengan Self Management Hipertensi pada Lansia di Pustu Perak. *Jurnal Ners Nainawa*. 2023 Aug 1;1(1):7–13. Available from: <https://jurnal.unikastpaulus.ac.id/index.php/jnn/article/view/2139>
2. Vera Novalia. Pengaruh Gaya Hidup dengan Kejadian Hipertensi pada Pasien Rawat Jalan di Rumah Sakit Imelda Medan. Institut Kesehatan Helvetia; 2019. Available from: <https://repository.helvetia.ac.id/id/eprint/1806/>
3. Rahmadhani M. Faktor-Faktor yang Mempengaruhi Terjadinya Hipertensi pada Masyarakat di Kampung Bedagai Kota Pinang. *Jurnal Kedokteran STM (Sains dan Teknologi Medik)*. 2021 Jan 30;4(1):52–62. Available from: <https://doi.org/10.30743/stm.v4i1.132>
4. Harahap STA, Febrian A, Prasetyo AD, Hidayat AN, Fadila N, Andreansyah R, et al. Gambaran Perilaku Masyarakat Pesisir Terhadap Kejadian Hipertensi di Desa Kuala Lama. *Community Development Journal : Jurnal Pengabdian Masyarakat*. 2023 Aug 7;4(3):5781–7. Available from: <http://journal.universitaspahlawan.ac.id/index.php/cdj/article/view/16679>
5. Sinulingga EB, Samingan S. Determinan Kejadian Hipertensi Pada Lansia Di Wilayah Kerja Uptd Puskesmas Jatimulya Kecamatan Tambun Selatan Bekasi Timur. *Jurnal Untuk Masyarakat Sehat (JUKMAS)*. 2019 Nov 1;3(1):35–51. Available from: <https://ejournal.urindo.ac.id/index.php/jukmas/article/view/593>
6. Annisa DF, Ifdil I. Konsep Kecemasan (Anxiety) pada Lanjut Usia (Lansia). *Konselor*. 2016 Jun 30;5(2):93–9. Available from: <https://ejournal.unp.ac.id/index.php/konselor/article/view/6480>
7. Nurhanifah D, Sari RT. *Manajemen Nyeri Nonfarmakologi*. Banjarmasin: UrbanGreen Central Media; 2022.
8. Nursalam. *Metodologi Penelitian Ilmu Keperawatan*. 4th ed. Jakarta: Salemba Medika; 2016.
9. Swarjana IK, SKM M. *Metodologi Penelitian Kesehatan: Edisi Terbaru*. Yogyakarta: Penerbit Andi; 2023.
10. Suling FR. *Hipertensi*. Jakarta: Fakultas Kedokteran Universitas Kristen Indonesia; 2018.
11. Agatha S, Siregar T. *Atasi Kecemasan Perawat dengan Terapi Self Healing: Mindfulness Therapy Meditation*. Sukoharjo: Pradina Pustaka; 2023.
12. Bandelow B, Michaelis S. Epidemiology of Anxiety Disorders in the 21st Century. *Dialogues Clin Neurosci*. 2015 Sep;17(3):327–35. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4610617/>

13. Silalahi ERD, Marbun BN, Purba JM. Pengaruh Hipnotherapy Terhadap Penurunan Kecemasan Literature Review. *Community Development Journal : Jurnal Pengabdian Masyarakat*. 2023 Jun 19;4(2):4132–8. Available from: <http://journal.universitaspahlawan.ac.id/index.php/cdj/article/view/15428>
14. Pujiati E, W H. Pengaruh Hipnoterapi Terhadap Penurunan Tingkat Ansietas dan Tekanan Darah pada Lansia Penderita Hipertensi di Wilayah Kerja Puskesmas Ngemplak Kecamatan Undaan Kabupaten Kudus. *Jurnal Keperawatan dan Kesehatan Masyarakat Cendekia Utama*. 2022 Mar 28;11(1):77–88. Available from: <https://jurnal.stikescendekiautamakudus.ac.id/index.php/stikes/article/view/1044>
15. Sutrisno S, Rahmawati R, Haryanto H. Pengaruh Hipnoterapi Terhadap Penurunan Tekanan Darah pada Penderita Hipertensi di Wilayah Kerja Puskesmas Penawangan Ii Kabupaten Grobogan. *The Shine Cahaya Dunia Ners*. 2016 Apr 20;1(1). Available from: <https://ejournal.annurpurwodadi.ac.id/index.php/TSCNers/article/view/23>
16. Aji PT, Rizkasari E, Pujiyanto P. Pengaruh Terapi Guided Imagery terhadap Perubahan Tekanan Darah pada Penderita Hipertensi di Wilayah Puskesmas Jayengan Surakarta. *ASJN (Aisyiah Surakarta Journal of Nursing)*. 2022;3(2):69–75. Available from: <https://doi.org/10.30787/asjn.v3i2.896>
17. Mahmud A, Sunarty K. *Mengenal Teknik-Teknik Bimbingan dan Konseling*. Makassar: Badan Penerbit Universitas Negeri Makassar; 2012.