

## Digital Pocketbook Education with a Nurse-Led Approach to Improve Hypertension Self-Management in Primary Care

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### ABSTRACT

Hypertension remains a major global public health problem, contributing significantly to morbidity and mortality associated with cardiovascular diseases. Effective management requires optimal self-management; however, patients' adherence and understanding remain limited in primary healthcare settings. Despite the growing use of digital health interventions, simple and accessible educational media integrated with nurse-led approaches are still underutilized in community-based settings. This community service program aimed to evaluate the effectiveness of digital pocketbook-based education using a Nurse-Led Self-Management approach in improving knowledge and self-management awareness among hypertensive patients in a primary healthcare facility (Klinik Pratama). A total of 30 participants were involved in structured educational sessions and individual mentoring. The program was implemented through three stages: preparation, implementation, and evaluation. Data were collected using a pre-test and post-test approach and analyzed descriptively to assess changes in participants' knowledge. The results showed a substantial improvement in participants' knowledge, with the proportion of participants categorized as having good knowledge increasing from 30% before the intervention to 80% after the intervention. In addition, participants demonstrated increased awareness and motivation to adhere to recommended self-management practices, including medication adherence and routine blood pressure monitoring. This study highlights that integrating digital pocketbook-based education with a nurse-led approach is a practical and scalable strategy to enhance patient engagement and self-management in primary healthcare. This model has strong potential for wider implementation in community-based chronic disease management programs.

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## INTRODUCTION

Hypertension is one of the most prevalent non-communicable diseases (NCDs) and remains a major global public health problem due to its increasing prevalence and significant contribution to morbidity and mortality associated with cardiovascular diseases. Globally, more than 1.28 billion adults are living with hypertension, making it a leading risk factor for heart disease, stroke, and kidney failure (Boima et al., 2024). In Indonesia, hypertension continues to show a rising trend and represents one of the primary contributors to chronic disease burden and mortality in the community (A. A. Sari et al., 2023).

The management of hypertension does not solely rely on pharmacological therapy but is highly dependent on patients' ability to perform effective self-management. Self-management in hypertension includes adherence to medication, dietary regulation (particularly low-sodium intake), regular physical activity, stress management, and routine blood pressure monitoring (Zhang et al., 2024). However, the implementation of self-management among patients remains suboptimal, mainly due to limited knowledge, inadequate access to health information, and insufficient support from healthcare providers (Parasuraman et al., 2025).

In the partner primary healthcare setting (Klinik Pratama), many hypertensive patients still showed limited understanding of long-term self-management, particularly regarding medication adherence, dietary control, and routine blood pressure monitoring. In addition, educational media previously used were mostly verbal and not always accessible for repeated independent learning. This condition indicates a gap between the need for continuous patient education and the availability of effective and accessible educational tools in primary healthcare.

Health education is recognized as a key strategy to improve patients' knowledge, attitudes, and behaviors in managing chronic diseases, including hypertension. Structured and continuous educational interventions have been shown to enhance patients' ability to adopt healthy behaviors and improve treatment adherence (Periyakaruppan et al., 2025). However, conventional educational approaches, such as verbal explanations or printed leaflets, often have limitations in terms of accessibility, sustainability, and patient engagement.

In this context, digital-based educational media, such as digital pocketbooks, offer a practical and innovative solution. Digital pocketbooks can be easily accessed through mobile devices, revisited at any time, and used as a continuous reference for self-management practices. In addition, digital formats are more cost-effective and environmentally friendly compared to printed materials. The flexibility and accessibility of digital media are considered essential in supporting independent learning and long-term behavior change among patients (Dhakshnamoorthy et al., 2025).

Digital health interventions, including the use of educational media and technology-based platforms, have demonstrated effectiveness in improving medication adherence, promoting healthy lifestyle changes, and achieving better blood pressure control among hypertensive patients (Aji, Baidhowy, et al., 2026). Furthermore, digital education enhances patients' self-efficacy and engagement in their own care, which ultimately contributes to improved quality of life (Chimberengwa & Naidoo, 2020). These findings highlight the importance of integrating digital innovation into community-based health education programs.

However, most existing studies focus on mobile applications or complex digital platforms, while simple and accessible educational media, such as digital pocketbooks, remain underexplored, particularly when integrated with nurse-led self-management approaches in primary healthcare settings.

The Nurse-Led Self-Management approach is a relevant and effective strategy in hypertension management, particularly in primary healthcare settings. Nurses play a crucial role as educators, counselors, and facilitators in empowering patients to manage their condition independently. This approach emphasizes patient-centered care through education, continuous support, and individualized monitoring tailored to patients' needs (Prima Trisna Aji; Yunie Armiyati; Elinda Rizkasari, 2026). The integration of nurse-led interventions with digital education has been shown to produce better outcomes in improving adherence and overall disease management.

Primary healthcare serves as the frontline in the prevention and management of non-communicable diseases, including hypertension, due to its accessibility and continuity of care within the community (Pujiyanto, 2021). Therefore, innovative community service programs that integrate digital education with a nurse-led approach are essential to enhance hypertension self-management among patients in primary healthcare settings.

Based on these considerations, this community service program aims to evaluate the effectiveness of digital pocketbook-based education using a Nurse-Led Self-Management approach at Klinik Pratama. This program is expected to improve patients' knowledge, medication adherence, and ability to manage their blood pressure independently and sustainably.

## METHOD

This community service program was conducted in a primary healthcare setting and involved 30 patients diagnosed with hypertension as participants. This study employed a pre-experimental one-group pretest-posttest design to evaluate the effectiveness of the intervention. The participants were active patients registered at the healthcare facility and were selected based on their willingness to participate in the entire series of educational and mentoring activities. This study received ethical approval from the Institutional Review Board of [Institution Name], and all participants provided informed consent before participation. The program adopted a participatory and educational approach aimed at empowering patients to improve their self-management abilities in managing hypertension.

A community-based intervention approach was applied, emphasizing patient empowerment through structured education and continuous support. This approach aligns with the concept that effective management of chronic diseases, including hypertension, requires active patient involvement and sustained behavioral changes (Yuan & Song, 2025). The integration of education and empowerment strategies is essential in improving adherence and long-term disease control in primary healthcare settings (WHO, 2023).

The implementation of the program consisted of three main stages: preparation, implementation, and evaluation.

### Preparation Stage

The preparation stage began with a preliminary assessment to identify the needs, knowledge gaps, and challenges faced by patients with hypertension, particularly related to their self-management practices. This assessment was conducted through informal interviews and observations in the primary healthcare setting. Previous studies have highlighted that inadequate knowledge and limited access to health information are major barriers to effective hypertension self-management (Sohrabi et al., 2022).

Based on the identified needs, educational materials were developed in the form of a digital pocketbook based on the Nurse-Led Self-Management approach. The content of the digital pocketbook

included comprehensive information on hypertension management, such as medication adherence, dietary modification (low-salt diet), physical activity, stress management, and routine blood pressure monitoring. The development of digital educational media is supported by evidence indicating that digital-based interventions can enhance patient engagement and improve health literacy (Eze et al., 2025).

In addition, coordination with healthcare providers was conducted to ensure the smooth implementation of the program. Educational tools, media, and evaluation instruments, including pre-test and post-test questionnaires, were prepared. The preparation stage also included scheduling the activities and ensuring participants' readiness to engage in the program.



**FIGURE 1.** Preparation and initial assessment process, including completion of questionnaires and participant data collection in a primary healthcare setting

Figure 1 illustrates the preparation stage, including participant registration, completion of assessment forms, and initial data collection before the implementation of the educational intervention.

### **Implementation Stage**

The implementation stage involved delivering structured health education using the digital pocketbook as the primary educational medium. The education sessions were conducted through interactive methods facilitated by nurses, applying a Nurse-Led Self-Management approach. Nurses played a central role as educators, facilitators, and motivators in guiding patients to understand their condition and adopt appropriate self-care behaviors.

The Nurse-Led Self-Management approach emphasizes patient-centered care, where patients are actively involved in decision-making and disease management. This approach has been shown to improve treatment adherence, self-efficacy, and health outcomes in patients with chronic diseases, including hypertension (Kim et al., 2025).

The implementation activities included health education sessions on hypertension and its management, distribution and explanation of the digital pocketbook, interactive discussions, question-and-answer sessions, and individual mentoring. The use of interactive and participatory learning

methods is considered effective in improving patient understanding and encouraging behavioral changes (Park et al., 2024).

Furthermore, individual mentoring was provided to assist participants in applying self-management strategies in their daily lives. Continuous support and guidance are essential components in achieving sustainable behavior change and improving long-term disease control (Fathurrahman et al., 2024).

This stage aimed to enhance participants' knowledge, awareness, self-efficacy, and motivation to independently manage their hypertension.

## Evaluation Stage

The evaluation stage was conducted to assess the effectiveness of the community service program in improving participants' knowledge and self-management behaviors. A pre-test and post-test design was used to measure changes in participants' understanding of hypertension management before and after the educational intervention.

The questionnaire used in this study was tested for validity and reliability before data collection. The evaluation instrument consisted of structured questionnaires assessing knowledge related to hypertension, medication adherence, lifestyle modification, and self-management practices. The use of pre-test and post-test evaluation is widely recommended in community-based interventions to assess program effectiveness (Politi et al., 2021).

In addition to quantitative assessment, qualitative observations were conducted to evaluate participants' engagement, participation, and responsiveness during the educational sessions. Documentation of activities, including photographs and field notes, was also carried out to support the evaluation process.

Data were analyzed using descriptive statistics and inferential analysis (paired t-test) to assess differences between pre-test and post-test scores (Aji, Baidhowy, et al., 2026). The results were presented in the form of percentages and comparative analysis between pre-test and post-test findings. Previous studies have shown that descriptive analysis is appropriate for community service programs focusing on practical outcomes and program impact (John Creswell, J. David, 2020).

The findings from the evaluation stage were used to determine the effectiveness of the program and to provide recommendations for future community-based interventions in hypertension management.

## RESULTS AND DISCUSSION

The community service program was successfully implemented at Klinik Pratama in March 2026 and involved 30 patients diagnosed with hypertension. All participants attended the educational session and actively engaged in the discussion and mentoring activities. The program was conducted according to the planned stages, including preparation, implementation, and evaluation.

### Participant Characteristics

A total of 30 participants were involved in this program. The characteristics of the participants are presented in Table 1.

**TABLE 1.** Participant Characteristics (n = 30)

Characteristics	Frequency (n)	Percentage (%)
Female	19	63.3%
Duration of Hypertension		
<1 year	5	16.7%
1 – 5 years	17	56.7
>5 years	8	26.6%
Education Level		
Primary school	9	30%
Secondary school	15	50%
Higher education	6	20%
Occupation		
Unemployed/Housewife	12	40%
Private worker	10	33.3%
Self-employed	8	26.7%

Based on Table 1, most participants were female (63.3%) and aged between 46–60 years (46.7%). The majority had been diagnosed with hypertension for 1–5 years (56.7%) and had a secondary education level (50%). These findings indicate that participants were predominantly middle-aged individuals with a relatively long duration of illness, requiring continuous support for effective self-management.

### Implementation of the Program

The educational intervention was delivered using a digital pocketbook based on the Nurse-Led Self-Management approach. The session was conducted interactively, allowing participants to actively engage in discussions, ask questions, and share their experiences related to hypertension management.



**FIGURE 2.** Blood pressure measurement and patient assessment during the nurse-led intervention.

Figure 2 demonstrates the clinical assessment process, including blood pressure measurement and documentation, carried out as part of the nurse-led self-management intervention in the primary healthcare setting.

Participants showed high enthusiasm during the educational session, particularly when discussing practical strategies such as medication adherence, low-salt dietary practices, and routine blood pressure monitoring. The distribution of the digital pocketbook in PDF format enabled participants to access the educational material repeatedly, supporting independent learning.



**FIGURE 3.** Nurse-led health education and patient interaction during the intervention.

Figure 3 illustrates the implementation of nurse-led education and direct patient interaction during the intervention, including blood pressure assessment and individual guidance provided in the primary healthcare setting.

### Evaluation of Knowledge Improvement

The effectiveness of the program was evaluated using a pre-test and post-test assessment. The results of participants' knowledge improvement are presented in Table 2.

**TABLE 2.** Knowledge Improvement Before and After Education (n = 30)

Category	Pre-test (%)	Post-test (%)
Good	30%	80%
Moderate	50%	20%
Poor	20%	0%

The results showed a substantial improvement in participants' knowledge following the intervention.. The proportion of participants categorized as having good knowledge increased from 30% before the intervention to 80% after the intervention. Meanwhile, participants with poor knowledge decreased from 20% to 0%, indicating the effectiveness of the educational program in improving participants' understanding of hypertension self-management. Statistical analysis indicated a significant improvement in knowledge scores between pre-test and post-test results ( $p < 0.05$ ), suggesting that the intervention had a measurable impact on participants' understanding of hypertension self-management.

### Self-Management Awareness and Participant Response

Following the intervention, participants demonstrated improved understanding of hypertension self-management, particularly in areas such as medication adherence, low-salt dietary practices, and routine blood pressure monitoring.

Although a quantitative measurement of behavioral change was not conducted, participants reported better awareness and motivation to follow recommended self-management practices. Many participants expressed increased confidence in managing their condition independently and showed greater interest in monitoring their blood pressure regularly (Purwadhani, 2021).

Participants' engagement during the program was observed to be high, as reflected by active

participation in discussions and willingness to share personal experiences. The individual mentoring component further supported participants in applying self-management strategies in their daily routines.

## DISCUSSION

The findings of this community service program demonstrate that digital pocketbook-based education using a Nurse-Led Self-Management approach was effective in improving participants' knowledge of hypertension management. The proportion of participants categorized as having good knowledge increased markedly from 30% before the intervention to 80% after the intervention, indicating that the educational strategy successfully addressed knowledge gaps among hypertensive patients.

The improvement in participants' knowledge suggests that the digital pocketbook functioned not only as an educational medium during the session but also as a reusable source of information beyond the intervention period (Fernandes et al., 2020). Unlike conventional verbal education, which is often limited by time and retention, the digital pocketbook allows patients to revisit the material at any time, reinforcing learning and supporting continuous self-management. This is particularly relevant in primary healthcare settings, where follow-up education is often constrained by limited time and the healthcare workforce (Aji & Sani, 2021).

Furthermore, the use of a digital format provided practical advantages, including ease of access through mobile devices, flexibility in learning, and cost efficiency compared to printed materials (Aji & Lazuardi, 2025). These characteristics make digital educational tools highly suitable for community-based interventions, especially in managing chronic diseases that require long-term patient engagement. Previous studies have shown that digital health interventions can significantly enhance patient understanding and engagement in self-care practices (Hudiyawati et al., 2022). While this study confirms previous findings that digital health interventions can enhance patient understanding and engagement (Hudiyawati et al., 2022), it differs from other studies that reported limited effectiveness of digital interventions due to low digital literacy among patients. This discrepancy may be explained by the simplicity and accessibility of the digital pocketbook used in this study, which is more adaptable to primary healthcare settings.

The Nurse-Led Self-Management approach also played a crucial role in the success of this program. Nurses, as frontline healthcare providers, are in a strategic position to deliver patient-centered education and provide continuous support tailored to patients' needs. This approach encourages active patient participation, enhances self-efficacy, and promotes adherence to treatment and lifestyle modification. The effectiveness of nurse-led interventions in improving outcomes among hypertensive patients has been supported by previous research (Baidhowy, 2025).

In addition to knowledge improvement, participants reported better awareness and motivation to adopt recommended self-management behaviors, such as medication adherence, low-salt dietary practices, and routine blood pressure monitoring (C. W. M. Sari et al., 2022). Although behavioral changes were not measured quantitatively, these findings indicate a positive shift in participants' readiness to manage their condition independently. Behavior change is a critical component in hypertension management, as long-term blood pressure control largely depends on patients' ability to maintain healthy habits (Aji, Baidhowy, et al., 2026).

The interactive and participatory approach used in this program also contributed to its effectiveness. Active engagement during educational sessions, including discussions and individual mentoring, enabled participants to better understand their condition and relate the information to their daily

experiences. Such approaches are known to improve learning outcomes and foster a sense of responsibility for health management (Aji, Bhadowy, et al., 2026).

However, this program had several limitations. It involved a relatively small number of participants from a single primary healthcare setting, which may limit the generalizability of the findings (Aji, Rizkasari, et al., 2026). However, this program had several limitations. In addition, this study did not include a control group, which limits the ability to attribute the observed improvements solely to the intervention. The evaluation was limited to short-term outcomes, and the findings were based on self-reported data, which may be subject to response bias. It involved a relatively small number of participants from a single primary healthcare setting, which may limit the generalizability of the findings (Aji, Rizkasari, et al., 2026). In addition, the evaluation primarily focused on short-term knowledge improvement, without assessing long-term behavioral changes or clinical outcomes such as blood pressure control. Future programs are recommended to include a larger number of participants, involve multiple healthcare settings, and incorporate long-term follow-up to evaluate the sustainability of the intervention (Rizkasari, 2025). In addition, the evaluation primarily focused on short-term knowledge improvement, without assessing long-term behavioral changes or clinical outcomes such as blood pressure control. Future programs are recommended to include a larger number of participants, involve multiple healthcare settings, and incorporate long-term follow-up to evaluate the sustainability of the intervention (Rizkasari, 2025).

Overall, the integration of digital education and nurse-led approaches represents a practical strategy to enhance patient engagement and improve hypertension self-management in primary healthcare settings. Such strategies have the potential to enhance patient empowerment and improve hypertension self-management, particularly in community-based health services.

## CONCLUSION

Digital pocketbook-based education combined with a Nurse-Led Self-Management approach is an effective and feasible strategy to improve knowledge and self-management awareness among hypertensive patients in primary healthcare settings. The intervention demonstrated a substantial increase in participants' knowledge, indicating its potential to address existing knowledge gaps.

This approach represents a practical model for community-based hypertension management. However, further studies involving larger samples, multiple settings, and long-term follow-up are required to evaluate sustained behavioral changes and clinical outcomes, including blood pressure control.

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## REFERENCES

- Aji, P. T., Baidhowy, A. S., & Rizkasari, E. (2026). Empowering Older Adults with Hypertension through Community-Based Education on Warm Water Foot Soak and Deep Breathing Relaxation. *Abdimas Umtas: Jurnal Pengabdian Kepada Masyarakat*, 9(1), 560–571. <https://doi.org/https://doi.org/10.35568/abdimas.v9i1.7668>
- Aji, P. T., Bhadowy, A. S., & Rizkasari, E. (2026). The Effect of Walking 100 Meters on Blood Pressure Changes in Hypertensive Patients in Karanganyar , Central Java. *Healthcare Nursing Journal*, 8(1), 116–123. <https://doi.org/https://doi.org/10.35568/healthcare.v8i1.7227>
- Aji, P. T., & Lazuardi, N. (2025). Peningkatan Kepatuhan Minum Obat melalui Nurse-Led Self-Management Berbasis Edukasi Tatap Muka pada Pasien Hipertensi: Laporan Kasus. *Ners Muda*, 6(3), 1–8. <https://doi.org/10.26714/nm.v6i3.20395>
- Aji, P. T., Rizkasari, E., & Rahmawati, E. (2026). The Effectiveness of Counseling-Based Self-Management Education on Stress Coping among Patients with Hypertension. *Journal Counseling Positivism*, 1(1), 1–8. <https://doi.org/https://attractivejournal.com/index.php/cp> The
- Aji, P. T., & Sani, F. N. (2021). Pengaruh Terapi Air Rebusan Daun Salam Terhadap Perubahan Teknan Darah pada Penderita Hipertensi di Wilayah Tempurejo Jumapolo Karanganyar. In *Jurnal Kesehatan* (Vol. 12, Issue 13, pp. 50–63).
- Baidhowy, A. S. prima trisna aji. (2025). Penerapan Teori Konservasi Levine Pada Pasien Dengan Acute Coronary Syndrome; Studi Kasus. *Journal Ners Muda*, 6(3), 282–294. <https://doi.org/https://doi.org/10.26714/nm.v6i3.20378>
- Boima, V., Doku, A., Agyekum, F., Tuglo, L. S., & Agyemang, C. (2024). Effectiveness of digital health interventions on blood pressure control, lifestyle behaviours and adherence to medication in patients with hypertension in low-income and middle-income countries: a systematic review and meta-analysis of randomised controll. *EClinicalMedicine*, 69, 102432. <https://doi.org/10.1016/j.eclinm.2024.102432>
- Chimberengwa, P. T., & Naidoo, M. (2020). Using community-based participatory research in improving the management of hypertension in communities: A scoping review. *South African Family Practice*, 62(1), 1–14. <https://doi.org/10.4102/safp.v62i1.5039>
- Dhakshnamoorthy, M., Viswanathan, V. kumar, Rajendran, S. S., Duraikannu, A., Parasuraman, A., Periyakaruppan, G. M., & Rajan, J. (2025). Effect of nurse-led interventions on dyspnea severity and psychological well-being among patients with chronic obstructive pulmonary disease. *Bioinformation*, 21(08), 2733–2736. <https://doi.org/10.6026/973206300212733>
- Eze, C. E., Dorsch, M. P., Coe, A. B., Lester, C. A., Buis, L. R., & Farris, K. B. (2025). eHealth Literacy and Participation in Remote Blood Pressure Monitoring Among Patients With Hypertension: Cross-Sectional Study. *Journal of Medical Internet Research*, 27, 1–10. <https://doi.org/10.2196/71926>
- Fathurrahman, S. D., Rachmawati, U., Sukihananto, S., & Wiarsih, W. (2024). Digital Health Literacy amongst Hypertensive Clients in Depok City. *Jurnal Citra Keperawatan*, 12(1), 14–22. <https://doi.org/10.31964/jck.v12i1.357>

- Fernandes, S., Silva, A., Barbas, L., Ferreira, R., Fonseca, C., & Fernandes, M. A. (2020). Theoretical contributions from orem to self-care in rehabilitation nursing. *Communications in Computer and Information Science*, 1185 CCIS(February), 1–12. [https://doi.org/10.1007/978-3-030-41494-8\\_16](https://doi.org/10.1007/978-3-030-41494-8_16)
- Hudiyawati, D., Aji, P. T., Syafriati, A., & Jumaiyah, W. (2022). Pengaruh Murotal Al-Qur ' an Terhadap Kecemasan Pada Pasien Pre- Percutaneous Coronary Intervention. *Jurnal Berita Ilmu Keperawatan*, 15(1), 8–14. <https://doi.org/https://doi.org/10.23917/bik.v15i1.17049>
- John Creswell; J. David. (2020). *Research Design Qualitative, Quantitative, and Mixed Methods Approaches*. *New Horizons in Adult Education & Human Resource Development*, 3(1), 1–6. <https://doi.org/dhuy1001@fiu.edu>
- Kim, H. J., Choi, G. W., Park, Y., Jeong, H. N., & Chang, S. J. (2025). Development of a health literacy-based hypertension self-management education program using sign language for Deaf individuals. *BMC Health Services Research*, 25(1), 1–12. <https://doi.org/10.1186/s12913-025-13726-1>
- Parasuraman, A., Rajendran, S. S., Venkatachalam, G. P., Periyakaruppan, G. M., Ramachandran, M., Dhakshnamoorthy, M., & Rajan, J. (2025). Nurse-led interventions for self-care and restitutive behaviors in hypertension: A quasi-experimental study. *Bioinformation*, 21(08), 2653–2656. <https://doi.org/10.6026/973206300212653>
- Park, G. E., Park, Y. H., Kim, K. G., Park, J. Y., Hwang, M., & Lee, S. (2024). Mobile Application for Digital Health Coaching in the Self-Management of Older Adults with Multiple Chronic Conditions: A Development and Usability Study. *Healthcare Informatics Research*, 30(4), 344–354. <https://doi.org/10.4258/hir.2024.30.4.344>
- Periyakaruppan, G. M., Rajendran, S. S., Venkatachalam, G. P., Parasuraman, A., Ramachandran, M., Ramakrishnan, G. S., & Dhakshnamoorthy, M. (2025). Effectiveness of nurse-led intervention on health risks in perimenopausal women: A mixed-methods study. *Bioinformation*, 21(08), 2421–2424. <https://doi.org/10.6026/973206300212421>
- Politi, M. T., Ferreira, J. C., & Patino, C. M. (2021). Nonparametric statistical tests: friend or foe? *Jornal Brasileiro de Pneumologia : Publicacao Oficial Da Sociedade Brasileira de Pneumologia e Tisiologia*, 47(4), 1–2. <https://doi.org/10.36416/1806-3756/e20210292>
- Prima Trisna Aji; Yunie Armiyati; Elinda Rizkasari. (2026). Meta-Heart Care: Pendekatan Keperawatan Berbasis Kecerdasan Buatan Untuk Edukasi dan Rehabilitasi Pasien Gagal Jantung Kronik. *Book of Abstract of Trend and Issue in Healthcare*, 3(1), 115–116. <https://doi.org/https://doi.org/10.5281/3t5t4x85>
- Pujianto, P. T. A. E. R. (2021). Pengaruh Terapi Guided Imagery terhadap Perubahan Tekanan Darah pada Penderita Hipertensi di Wilayah Puskesmas Jayengan Surakarta. *Aisyiyah Surakarta Journal of Nursing*, 2(1), 1–6. <https://doi.org/https://doi.org/10.30787/asjn.v3i2.896>
- Purwadhani, I. P. S. E. A. L. W. (2021). Pemberdayaan Kader Posyandu Lansia Dalam Meningkatkan Perilaku Perawatan Diri Pada Lansia Hipertensi di Puskesmas Tahinan Kabupaten Malang. *Kreativitas Pengabdian Kepada Masyarakat*, 8(7), 1–11.
- Rizkasari, P. T. A. A. S. B. Z. E. (2025). CASE REPORT: PENERAPAN SELF-MANAGEMENT KEPERAWATAN UNTUK MENCEGAH KEKAMBUHAN PADA PASIEN HIPERTENSI KRONIS. *Journal of Nursing Science Research*, 2(1), 67–75. <https://doi.org/https://doi.org/10.33862/crfdhr36>

- Sari, A. A., Carolia, N., Oktarlina, R. Z., Kedokteran, F., Lampung, U., Farmakologi, B., Kedokteran, F., Lampung, U., Ilmu, B., Keluarga, K., Kedokteran, F., & Lampung, U. (2023). Efektifitas Edukasi Self Management terhadap Kontrol Tekanan Darah Pasien Hipertensi The Effectiveness of Self Management Education on Blood Pressure Control of Hypertensive Patiens. *Medula*, 13(6), 974–979. <https://doi.org/081993433182>
- Sari, C. W. M., Yamin, A., & Santoso, M. B. (2022). The Effect of Community-Based Intervention on Self-Management of Hypertension Patients. *Jurnal Pendidikan Keperawatan Indonesia*, 8(1), 41–47. <https://doi.org/10.17509/jpki.v8i1.44362>
- Sohrabi, M., Karami, M., Mirmoeini, R. S., & Cheraghi, Z. (2022). The Relationship between Health Literacy and Hypertension Control: A Cross-Sectional Study. *Journal of Tehran University Heart Center*, 17(4), 243–248. <https://doi.org/10.18502/jthc.v17i4.11614>
- WHO. (2023). Hypertension. WHO. <https://www.who.int/news-room/fact-sheets/detail/hypertension>
- Yuan, Y., & Song, M. (2025). Effect of Remote Health Interventions on Blood Pressure Control and Quality of Life for Hypertension Self-management: A systematic review and meta-analysis. *Research in Community and Public Health Nursing*, 36(1), 150–164. <https://doi.org/10.12799/rcphn.2024.00570>
- Zhang, W., Mei, Z., Feng, Z., & Li, B. (2024). Nurse-led digital health program for home blood pressure monitoring in stroke patients: protocol for a pooled analysis of randomized controlled trials. *Frontiers in Public Health*, 12(July), 1–8. <https://doi.org/10.3389/fpubh.2024.1378144>.