



## **"It is Difficult to Get Permission During Working Hours": Qualitative Analysis Of Treatment Compliance Of Hypertension Patients With Worker Status At The Elderly Posyandu**

**Selvi Tri Ardani<sup>1</sup>, Dwi Linna Suswardanny\*<sup>2</sup>**

<sup>1\*</sup> Department of Public Health, Faculty of Health Sciences, Muhammadiyah Surakarta University

<sup>2\*</sup> Center for Chronic Disease Studies, Muhammadiyah Surakarta University

**Author's Email Correspondence ( \* ): [d.linna.suswardany@ums.ac.id](mailto:d.linna.suswardany@ums.ac.id)  
(083150637527)**

### *ABSTRACT*

*Hypertension is a major non-communicable disease that is often undiagnosed and can lead to serious complications. Pucangan Village has the highest number of hypertension cases in the Kartasura Community Health Center area, highlighting the need to improve management, especially among working patients. This study aimed to explore factors influencing medication adherence in working hypertensive patients using a descriptive qualitative approach. A total of 22 informants were involved, including 10 primary informants (5 adherent and 5 non-adherent patients) and 12 triangulation informants (10 family members and 2 Posyandu cadres/officers). Data were collected through in-depth interviews and analyzed qualitatively through transcription, reduction, coding, categorization, and theme development, with validity ensured by source triangulation. The results show that Posyandu serves as an initial screening point, with referrals to health centers for further care. Medication adherence is influenced by workload, time constraints, patient perceptions, and irregular medication use, while family support and the role of Posyandu cadres are important in improving adherence.*

**Keywords :** *Hypertension ; Medication adherence; Factors influencing compliance*

### **Published by:**

**Tadulako University**

### **Address:**

Jl. Soekarno Hatta KM 9. Kota Palu, Sulawesi Tengah,  
Indonesia.

**Phone:** +62 821-9750-5707

**Email:** [preventifjournal.fkm@gmail.com](mailto:preventifjournal.fkm@gmail.com)

### **Article history :**

Received : 16 01 2026

Accepted : 23 04 2026

licensed by Creative Commons Attribution-ShareAlike 4.0 International License.



## INTRODUCTION

Hypertension is a non-communicable disease (NCD) characterized by elevated blood pressure, with systolic blood pressure exceeding 140 mmHg and diastolic blood pressure exceeding 90 mmHg. Hypertension increases the risk of cardiovascular events and damage to target organs such as the heart, brain, kidneys, and other diseases (1). In Indonesia, the proportion of the population diagnosed with hypertension by doctors is only 8.36%, which is around 23.17 million people (2). Meanwhile, based on data from the Sukoharjo Regency Health Office, the prevalence of hypertension in Sukoharjo Regency in 2020 was recorded at 110,116 cases (69.18%), consisting of 49,510 cases in men and 60,606 cases in women. The highest number of hypertension cases was found in the Kartasura Community Health Center (Puskesmas) area, with 17,825 cases (16.19%)(3). Based on data from the 2024 Community Health Center, the prevalence of hypertension in Kartasura sub-district is quite high in Pucangan Village, namely 112 cases.

Uncontrolled hypertension can cause many problems. Patients with uncontrolled blood pressure can develop kidney, heart, and brain damage if not detected early and treated. Untreated hypertension can injure and damage arteries and blood vessel walls, leading to dangerous complications (4). Complications of uncontrolled hypertension can affect several organ systems, including the heart, nerves, eyes, and kidneys. Cardiac complications can include heart failure, arrhythmia, angina, and myocardial infarction. Nerve complications can lead to stroke and encephalopathy (5). High blood pressure can cause narrowing of the blood vessels, making it difficult for the heart to receive blood (6). From these impacts, it will develop and cause several serious problems, causing death, stroke, heart attack, heart failure, kidney damage, and many other health problem (7).

Given the serious complications that can arise from uncontrolled hypertension, sustainable disease management efforts are needed through easily accessible health

services for the public, particularly the elderly. The elderly are a vulnerable group experiencing hypertension and its complications, requiring regular health monitoring, education, and support in undergoing follow-up treatment. One form of community-based health service that plays a crucial role in this effort is the elderly health post (posyandu), which is designed to bring health services closer to the elderly, tailored to their needs and local environmental conditions.

The Elderly Integrated Health Post (Posyandu) is a community-based health service aimed at the elderly to meet their health needs effectively. This service functions as a means of monitoring health conditions, providing education, and disease prevention efforts to maintain the elderly's quality of life. The elderly generally have more health problems and therefore require higher levels of healthcare utilization than younger adults. However, the utilization of elderly posyandu services is not always optimal for all elderly people, especially for those who still have work activities. Health cadres are also at the forefront of the health sector because they are able to influence the attitudes of the elderly towards innovations or health programs (8). However, the utilization of elderly posyandu services is not always optimal for all elderly, especially for those who still have work activities.

Analyzing the behavior of hypertensive patients who are employed is crucial in a health context, particularly in relation to the impact of medication adherence. Employment can create time and access barriers, which impact medication adherence and work-related checkups, resulting in limited time for follow-up visits and medical check-ups. Furthermore, employment can influence adherence to treatment, as employed patients lack sufficient time to visit healthcare facilities. A study by Tambuwun et al. (2021) found that unemployed hypertensive patients were more likely to be compliant with healthcare services, while employed hypertensive patients were more likely to be non-compliant with their medication. This impacts adherence to hypertension treatment (9).

Several studies have shown that employment status is associated with medication adherence in hypertensive patients. A study by Shierly et al. (2024), involving employees with blood pressure above the normal range, used descriptive quantitative methods and highlighted adherence issues among workers (10). These findings align with observational studies by Sinuraya et al. (2018) and Wicaksono et al. (2021) in Indonesia, which reported that unemployed or retired respondents tended to have better adherence levels than those still actively employed(11). This is thought to be related to work demands that increase the risk of forgetting to take medication, limited time for health check-ups, and difficulty accessing routine healthcare services(12). A similar pattern was also found in a study in Korea, where workers had a higher prevalence of medication non-adherence than non-workers (13).

However, this research still focuses on general perceptions of hypertension patients without specifically examining groups with specific characteristics, such as working patients or the context of community-based services. Nevertheless, the available evidence is still dominated by quantitative approaches, which generally only explain relationships between variables without being able to in-depth describe the mechanisms, experiences, and decision-making processes of working patients regarding treatment. Yet, understanding how job demands, physical condition, motivation, and environmental support influence adherence is a crucial aspect in designing effective health interventions, particularly in community-based services. Therefore, qualitative evidence regarding medication adherence in working hypertensive patients is still limited and requires further study.

Based on this description, research using a qualitative approach is needed to understand in-depth the experiences, barriers, and factors driving medication adherence in working hypertensive patients. This study aims to explore factors influencing medication adherence in working hypertensive patients at the Pucangan Elderly Posyandu (Posyandu

Lansia) within the Kartasura Community Health Center (Puskesmas) area. It is hoped that the research results can inform the development of healthcare services that are more responsive to the needs of working populations.

## **METHODS**

This research is a qualitative study with a descriptive qualitative approach that aims to explore in depth the problems and understand the facts in the field in detail, specifically related to the analysis of medication adherence in hypertensive patients with working status at the Pucangan elderly health post (Posyandu). The research location is at the elderly health post (Posyandu) in Pucangan Village, Kartasura District, Sukoharjo Regency.

The informants in this study were 22 people consisting of 10 main informants, namely hypertension patients with worker status with a total of 5 hypertension patients with compliant worker status and 5 hypertension patients with non-compliant worker status, as well as 12 triangulation informants including 5 family members of patients and 2 cadres/posyandu officers. In Pucangan Village, Kebon Baru section, RT 02 RW 03, there are 10 hypertension patients with worker status. However, the number of patients who attend the elderly posyandu activities is only around 1 to 2 people. Meanwhile, in RT 03 RW 03 there are 5 hypertension patients with worker status, and as many as 3 of them are recorded as regularly attending the elderly posyandu activities. The inclusion criteria for this study included hypertensive patients registered at the Integrated Health Service Post (Posyandu), actively working, and willing to participate in the study. Informants were selected purposively, taking into account their active employment status, to obtain a picture of the patients experiences of undergoing hypertension treatment amidst their daily work activities.

Meanwhile, exclusion criteria are certain conditions that prevent someone from being included in the study even though they have met the inclusion criteria in this study,



namely being seriously ill, not completing the interview process, or withdrawing during the study. Informants were selected using a purposive sampling technique based on suitability with the research objectives. The inclusion criteria in this study include hypertensive patients with worker status who are compliant or non-compliant in undergoing treatment, family members accompanying hypertensive patients, and cadres or officers of the Elderly Posyandu Pucangan Village. This study has obtained ethical clearance from the health research ethics committee of the Faculty of Health Sciences, Muhammadiyah University of Surakarta with No. 1699 / KEPK-FIK / XI / 2025.

Respondents were selected based on occupational characteristics, including hypertension patients who had been actively employed for at least five years and had a busy work schedule. This criterion was used to illustrate the influence of job demands on medication adherence. The entire research process was conducted ethically, ensuring the confidentiality, safety, and comfort of informants. Prior to data collection, researchers explained the purpose, benefits, and procedures of the study and obtained informed consent from informants.

Data collection was conducted through in-depth interviews and qualitatively analyzed using the Miles and Huberman interactive model, which includes transcription, data reduction, category grouping, theme formation, and drawing and verifying conclusions. The analysis process was ongoing from data collection until the end of the study. Data validity was maintained through source triangulation by comparing information from key informants, families, and Posyandu cadres/officers. All research data was stored and managed properly, while the confidentiality of informants' identities was maintained through the use of codes or initials and was used only for research purposes.

## RESULTS

Primary data were obtained through field interviews in December 2025 with 22 informants selected using purposive sampling. This study examined the informants' socioeconomic characteristics, such as age, occupation, highest education, and blood pressure levels, to identify factors influencing medication adherence in working hypertensive patients.

**Table 1.**  
**Respondent Characteristics**

Characteristics	n (22)	Percentage(%)
<b>Gender</b>		
Male	5	22.7 %
Female	17	77.3 %
<b>Age</b>		
20-45 years	10	45,5%
46-65 years	11	50,0%
>65 years	1	4.5%
<b>Highest Education</b>		
Elementary school	2	9,1%
Middle school	3	13.6%
High School	12	54,5%
College	5	22,7%
<b>Occupation</b>		
Village Official	1	4,5 %
Nurse	2	9,1 %
Midwife	1	4,5%
Accountant	1	4,5%
Private Employee	2	9,1%
Laborer	4	18,2%
Garment Worker	1	4,5%
Integrated health post officer	2	9,1%
Student	1	4,5%
Tailor	3	13,6%
Trader	4	18,2%

**Blood Pressure**

110/80-119/80 MmHg	5	22,7%
20/80-139/89 MmHg	7	31,8%
140/90-159/99 MmHg	8	36,4%
>160/100	2	9,1%

Source : Primary Data, 2025

Table 1 shows that the majority of respondents were female (77.3%), while 22.7% were male. Based on age, the majority were in the 46–65 years range (50.0%), followed by those aged 20–45 years (45.5%), and those aged >65 years (4.5%), indicating a dominance of the late productive age group. In terms of education, the majority were high school/vocational school graduates (54.5%), followed by college (22.7%), junior high school (13.6%), and elementary school (9.1%), so the majority had a secondary education level which could influence health literacy.

**Blood Pressure Checks and Referral Decisions**

Based on interviews, several informants stated that blood pressure checks are a routine activity carried out during the elderly community health post (Posyandu). This examination aims to determine the patient's blood pressure and is the initial step in determining further health services. Informants revealed that through this examination, they can determine whether blood pressure is within the normal or high range. One cadre stated, "Implementation of activities at the elderly community health post (Posyandu) usually begins with a blood pressure check. If the reading exceeds 140/90 mmHg, follow-up is necessary.

**Time constraints due to work activities reduce medication adherence.**

Based on interviews, most key informants reported that working hours were a barrier to receiving hypertension treatment and testing. "The barrier is that patients are

still working, and it is difficult to get leave during working hours, so they have to comply with work regulations." Busy working hours and long workdays, which are almost entirely spent at work, make it difficult for informants to attend integrated health posts (Posyandu) or community health centers (Puskesmas).

### **Patient Perceptions**

Interview results revealed differences in patient perceptions of hypertension and its treatment. Some informants believed that hypertension was not dangerous as long as it didn't cause symptoms, leading patients to believe that medication was not always taken regularly.

"It's very important. Because when I feel fine, I ask myself, 'Why do I keep taking medication?'" "Because I don't always have symptoms. So if I feel fine and there are no flare-ups, I don't feel the need to take medication." Some informants felt that taking medication regularly was crucial, but these patients only took medication when a flare-up occurred, and when they felt better, they felt they didn't need to take medication anymore.

### **Irregular Medication Taking**

Some informants reported not taking their hypertension medication regularly. This was due to fatigue after work, forgetfulness, or the feeling that they appeared healthy and well, leading them to skip taking their medication.

"It's important, ma'am, but frankly, I'm sometimes not consistent. I actually have a lot of medication, but I often don't take it." "In my opinion, taking my hypertension medication is important and must be done regularly, but honestly, I don't take it, ma'am, only when I have a flare-up." The informants themselves understood the importance of taking medication, but it came back to the patient's perception that taking medication regularly was only necessary when feeling unwell or when a flare-up occurred.

## **Use of Traditional Medicine**

According to interviews, several key informants<sup>1</sup> chose to use traditional medicine, which is considered an alternative treatment for hypertension and can help lower blood pressure. "Yes, I also use traditional medicine. I usually make it myself at home. I used to use twelve different ingredients, including ginger, turmeric, Javanese ginger, lemongrass, bay leaves, cinnamon, and others. But now I reduce the amount, leaving only the essential ingredients." Some informants use traditional medicine because it is considered more practical, and it has become a habit for some patients to drink it every morning. Key informant<sup>2</sup> said, "I also sometimes use traditional medicine, Ma'am. Usually, I boil bay leaves or celery leaves and drink it. I also sometimes consume cucumber, star fruit, and melon. So I only use traditional medicine occasionally, depending on whether it suits my body." Key informant 3 also said, "For traditional medicine, I usually just use simple ones, Ma'am. Usually, I drink turmeric and tamarind or other decoctions.

## **Family Support**

Based on interviews, several informants reported that family members play a role in providing support by reminding patients to take their medications and encouraging them to get checked if they are sick or their high blood pressure recurs. "Support always comes in the form of reminding them, reminding them to remember to take their medications and maintain their health." "Usually helping to prepare the medications prescribed by the clinic to take with them." "Usually helping when they have complaints. Usually, when they have complaints, we take them to the clinic for an examination."

## **The Role of Integrated Health Post (Posyandu) Staff**

Interviews revealed that Posyandu staff and cadres also play a role in patient care. Their role includes providing information and reminding patients about blood pressure checks and medication. The following are patient responses regarding the role of Posyandu staff and cadres:

"Usually, they just come to my house. Sometimes I still have to check myself. But sometimes, the staff also comes to my house to check my blood pressure. So, they're there, but there's still a lot I have to do myself."

## **DISCUSSION**

Based on the research findings in the form of interviews and documentation, followed by data analysis, the findings will be discussed in accordance with theory and previous research. For greater detail, this discussion will be presented according to the research problem.

### **Implementation and Management of Hypertension**

Implementation and Management of Hypertension at the Elderly Integrated Health Post (Posyandu)

Research findings indicate that hypertension management at the Pucangan Village Elderly Integrated Health Post (Posyandu Lansia) focuses on routine blood pressure checks, monitoring physical indicators, and providing referrals to community health centers when blood pressure is found to be above normal limits or uncontrolled. These examinations serve as an early detection mechanism and a basis for further clinical decision-making, enabling patients to receive more comprehensive treatment promptly. These findings align with research by Novitasari et al. (2025), which confirms that regular health checks play a crucial role in monitoring risk factors and preventing complications of hypertension(14). Furthermore, referral practices are consistent with Wardana et al. (2020), who stated that follow-up to a health facility is necessary when initial interventions fail to stabilize blood pressure(15). Consequently, a screening and referral system at the community level is crucial for maintaining continuity of care for hypertension patients.

On the other hand, Findings indicate that midwives and Posyandu cadres provide routine health education related to blood pressure control and medication adherence. However, its dissemination is not optimal because working patients rarely attend Posyandu

activities, creating a gap between service availability and participation. Nevertheless, cadres have implemented adaptive strategies through announcements in prayer rooms, PKK forums, and check-ups outside of Posyandu schedules to expand outreach. These findings align with Fitriyani et al. (2024) who emphasized the importance of health communication in increasing community participation. Therefore, strengthening more flexible education strategies is needed to reach working patients and support sustainable hypertension management (16).

### **Medication Adherence in Working Hypertension Patients**

Research findings indicate that medication adherence in working hypertensive patients is still suboptimal, especially when disease management must be balanced with the demands of busy work activities, including overtime on weekends. This situation prevents some patients from attending elderly community health posts (Posyandu) and contributes to irregular medication-taking habits. The "take medication when symptoms appear" pattern reflects the perception that hypertension is not a chronic condition requiring ongoing therapy, but rather needs to be addressed only when symptoms are felt. In fact, antihypertensive therapy should be taken regularly as recommended by healthcare professionals, as regular medication plays a crucial role in controlling blood pressure and preventing long-term complications (17).

Furthermore, forgetfulness, time constraints, and a low priority on health contribute to poor medication consistency. These findings align with previous research reporting that individuals who are still actively working tend to have lower adherence rates due to limited time to focus on their health (18). Another perspective also suggests that workers are more susceptible to non-adherence due to remitting symptoms, missed medication, doubts about therapy, and concerns about side effects (13). Practical implications: Efforts to improve adherence should focus on strengthening the understanding that hypertension is a chronic

disease and providing more flexible healthcare strategies to align with patients' work schedules.

### **Factors Inhibiting Medication Adherence**

The following are several factors inhibiting medication adherence in employed hypertensive patients:

#### **Work Commitment**

Work commitment is one of the main factors hindering medication adherence in employed hypertension patients. Busy work schedules limit patients' time for regular medication and health check-ups. Long working hours and short rest periods often lead to patients forgetting to take their medication. Furthermore, after returning home from work, some patients feel tired and immediately go to rest, thus failing to take their medication as scheduled. This situation contributes to irregularity in hypertension medication adherence.

This is in line with research conducted in Korea by Kim et al. (2022), which stated that increasing age, high physical demands at work, less supportive working conditions, and job instability can play a role as factors affecting work quality and contributing to low medication adherence. Workloads and physical fatigue experienced by patients can reduce attention to health management, so that treatment often becomes a lower priority than work demands(13).

These findings indicate that low medication adherence in working hypertensive patients is influenced not only by individual factors, but also by job demands, the work environment, and physical and mental fatigue. High workloads make it difficult for patients to take their medication regularly and undergo health check-ups, often leading to neglect of hypertension management. Therefore, a more adaptive and contextual approach is needed to maintain medication adherence despite time constraints.

Research in China by Wang et al. (2020) confirmed that workloads, particularly long working hours and high work pressure, are among the main factors hindering workers from

accessing healthcare services and optimally undergoing hypertension treatment. Therefore, to address these barriers, this study emphasizes the importance of a more flexible and worker-oriented healthcare approach. One key strategy highlighted is bringing healthcare services closer to workers, so that treatment does not always depend on visits to formal healthcare facilities, which require dedicated time. Empowering workers to self-manage their hypertension is key to maintaining medication adherence. Education that emphasizes the importance of adjusting medication schedules to work routines, such as taking medication at consistent, memorable times, can help workers maintain adherence despite their busy work schedules(19). Furthermore, educating patients about their condition and its treatment is also crucial. Furthermore, developing a therapy plan that includes a diet tailored to the patient's physical condition, activity level, and occupation, as well as regular medication monitoring, is crucial(20).

### **Patient Perceptions of Hypertension**

Research findings indicate that patient perceptions of hypertension also influence medication adherence. Some patients view hypertension as not a serious illness as long as it does not cause symptoms, so they tend to take medication only when symptoms arise. This pattern reflects the perception of hypertension as a temporary condition, not a chronic disease requiring ongoing therapy, resulting in irregular medication adherence and suboptimal blood pressure control.

These findings align with previous research suggesting that emotional factors can contribute to medication non-adherence. Certain emotional responses can trigger maladaptive coping mechanisms, such as denial of the condition, which ultimately reduces patient commitment to therapy(21). Consequently, strengthening health education is needed to emphasize that hypertension is often "silent" but carries the risk of complications, and therefore, regular treatment is essential even when symptoms are not present.

This phenomenon can be analyzed using the Social Cognitive Theory framework proposed by Albert Bandura. This theory states that behavioral change is influenced by the reciprocal interaction between personal, environmental, and behavioral factors (reciprocal determinism). In the context of medication adherence, patients' understanding of the risks of hypertension and the benefits of therapy are important cognitive factors in shaping medication-taking behavior. Furthermore, SCT also emphasizes the role of self-efficacy, which is an individual's belief in their ability to perform a specific action. Patients with low self-efficacy tend to feel less able to maintain a regular medication regimen(22). Especially when they are asymptomatic or when faced with the demands of work and daily activities.

### **Factors Supporting Medication Adherence**

The following are several factors supporting medication adherence in working hypertensive patients:

#### **Family Support**

Research findings indicate that family support plays a crucial role in improving medication adherence in working hypertensive patients. Family members not only serve as reminders for medication schedules but also help prepare medications to take to work, encourage patients to undergo health check-ups, and provide emotional support in the form of encouragement and motivation. For patients with busy work schedules, the presence of family as a support system is a protective factor that helps maintain medication adherence despite time constraints, and family support is crucial in ensuring adequate medication intake (23).

This is consistent with research by Pamungkas et al. (2020), which states that family support is a crucial determinant of treatment adherence. Through emotional support, health monitoring, assistance during crises, and involvement in diet management, exercise, and therapy, families can strengthen patients' sense of security and increase their confidence in continuing with their medication. The implication is that family involvement

in hypertension education and management needs to be optimized as a strategy to maintain adherence, especially among patients who are still actively working(24).

### **The Role of Elderly Posyandu Officers**

The role of elderly Posyandu officers and cadres is a supporting factor in medication adherence in hypertension patients. Posyandu officers play a role in conducting and monitoring routine blood pressure checks and providing education on hypertension management and control. Furthermore, officers and cadres remind patients to undergo regular health checks.

For hypertension patients who are employed and have limited time, Posyandu cadres provide convenience by directing patients to continue having their blood pressure checked at their home, where they have a sphygmomanometer, if they are unable to attend the elderly Posyandu. Cadres actively remind patients to take their medication regularly through educational programs, including by sharing examples of other patients who have adhered to their hypertension treatment. Strengthened by research by Shahin *et al.*, (2021) which states that health workers/posyandu cadres act as an extension of primary health centers because they interact directly with patients with long-term relationships through home visits, meetings, and elderly posyandu(25). The role of posyandu officers/cadres is to provide community-based information and care that allows for better and more intensive communication regarding hypertension self-management with patients (26).

### **CONCLUSIONS AND RECOMMENDATIONS**

The study results indicate that medication adherence in working hypertensive patients is influenced by individual factors, job demands, family support, and the role of healthcare services. Family support is a crucial factor in improving adherence. Therefore, community health centers (Puskesmas) and integrated health posts (Posyandu) are recommended to improve ongoing education and provide more flexible services.

Furthermore, community- or workplace-based approaches and further research are needed to improve adherence sustainably.

## BIBLIOGRAPHY

1. Schunk SJ, Zimmermann P. Cardiovascular Risk and Its Presentation in Chronic Kidney Disease. *J Clin Med.* 2025;14(Cvd):15–20.
2. Kemenkes. Kementrian Kesehatan. 2023 [cited 2026 Feb 4]. Apa itu Hipertensi (Tekanan Darah Tinggi). Available from: <https://ayosehat.kemkes.go.id/topik-penyakit/pencegahan-infeksi-pada-usia-produktif/hipertensi-tekanan-darah-tinggi>
3. Sukoharjo BPS. 2020. [cited 2026 Feb 4]. Profil Kesehatan Kabupaten Sukoharjo 2020. Available from: <https://sukoharjokab.bps.go.id/id/publication/2021/12/31/829d6b03969c053f10f03ba7/profil-kesehatan-kabupaten-sukoharjo-2020.html>
4. Nilsson PM, Viigimaa M, Giwercman A, Cifkova R. Hypertension and Reproduction. *Curr Hypertens Rep.* 2020;22(4):1–8.
5. Talango F, Nugroho YW, Proborini CA, Nusnun N. Upaya Pencegahan Komplikasi Hipertensi dengan Edukasi Berbasis Health Belief Model dan Mengontrol Tekanan Darah. *ABDINUSA J Pengabdian Kpd Masyarakat Bina Usada Bali.* 2024;2(1):27–34.
6. Newby D, Garfield V et al. Understanding the inter-relationships of type 2 diabetes and hypertension with brain and cognitive health: A UK Biobank study. *Diabetes, Obes Metab.* 2022;24(5):938–47.
7. WHO. 2023. 2023 [cited 2026 Feb 4]. Hypertension Indonesia 2023 country profile. Available from: <https://www.who.int/publications/m/item/hypertension-idn-2023-country-profile>
8. Ningsih ES, Aisyah S, Rohmah EN, Sandana KNS. Peningkatan Peran Kader Dalam Posyandu Lansia. *J Ilmu Multidisiplin Indones.* 2022;2(1):191–7.
9. Amanda A. T, Grace D. K, Jeini E. N. Hubungan Karakteristik Individu dengan Kepatuhan Berobat pada Penderita Hipertensi di Puskesmas Wori Kabupaten Minahasa Utara. *J KESMAS.* 2021;10(4):112.
10. Shierly GS, Sopotri N. Analisis Kepatuhan Konsumsi Obat Hipertensi pada Pekerja dengan Hipertensi di Salah Satu Perusahaan BUMN di Jakarta Tahun 2023. *J Pendidik Tambusai.* 2024;8(1):16453–9.
11. Sinuraya RK, Destiani DP, Puspitasari IM, Diantini A, Farmakologi D, Farmasi F, et al. Tingkat Kepatuhan Pengobatan Pasien Hipertensi di Fasilitas Kesehatan Tingkat Pertama di Kota Bandung Medication Adherence among Hypertensive Patients in Primary Healthcare in Bandung City. 2018;7(2):124–33.
12. Wicaksono TA, Nugraheni A, Wahyudi F, Ardhiyanto P. FACTORS ASSOCIATED WITH

- MEDICATION ADHERENCE IN HYPERTENSION IN. *J Kedokt Dipenogoro*. 2021;10(6):426-32.
13. Kim H, Lee W, Jung W. Status and Risk of Noncompliance of Adherence to Medications for Metabolic Diseases According to Occupational Characteristics. *J Clin Med*. 2022;11(3484):1-9.
  14. Novitasari F, Rachmawati D, Sepdianto TC. An Overview of Hypertension Complication Prevention in Elderly Patients at Nirwana Wreda Health Center , Blitar. *J Kesehat dr Soebandi*. 2025;13(1):57-67.
  15. Wardana I eka, Sرياتmsi A, Kusumastuti W. ANALISIS PROSES PENATALAKSANAAN HIPERTENSI (STUDI KASUS DI PUSKESMAS PURWOYOSO KOTA SEMARANG. *J Kesehat Masy*. 2020;8(1):77-86.
  16. Fitriyani S, Halim PA, Nurrachman I, Mecca C. Penyuluhan Komunikasi Kesehatan Efektif Bagi Para Kader Posyandu di Kelurahan Maleer , Kecamatan Batununggal , Kota. *J Padma*. 2024;04(02):560-71.
  17. Mutmainah N, Mila Rahmawati. HUBUNGAN ANTARA KEPATUHAN PENGGUNAAN OBAT DAN KEBERHASILAN TERAPI PADA PASIEN HIPERTENSI DI RUMAH SAKIT DAERAH SURAKARTA TAHUN 2010 CORRELATION. *J Pharm*. 2010;11(2):51-6.
  18. Soesanto E, Ramadlan I, Setyawati D, Aisah S. Factors affecting medication adherence in hypertension patients : A literature review Characteristics of the Study. *J Med Bali*. 2021;10(3):1364-70.
  19. Wang zheng wu, Wang X, Shen Y, Li S, Chen Z, Zheng C, et al. Effect of a Workplace-Based Multicomponent Intervention on Hypertension Control A Randomized Clinical Trial. *J Jama Cardio*. 2020;5(5):567-75.
  20. Sabiti FB, Fatiha CN, Timur WW, Dewi PA. Pengaruh Konseling Apoteker Terhadap Kepatuhan Obat dan Nilai Tekanan Darah pada Pasien Hipertensi The Effect of Pharmacist Counseling on Medication Adherence and Blood Pressure Values in Hypertensive Patients. *J Farm Indones*. 2023;20(2):151-7.
  21. Alfian, D S, Annisa N, Perwitasari DA. The role of illness perceptions on medication nonadherence among patients with hypertension : A multicenter study in indonesia. *J Front Pharmacol*. 2022;3(September):1-7.
  22. Yulianti T, Widayanti AW, Kristina SA, Yasin NM. Theory-based Interventions to Improve Medication Adherence Among Patients With Hypertension in Primary Healthcare and the Community : A Systematic Review. *J Prev Med Public Heal*. 2025;1(Februari):348-59.
  23. Cholifah DN, Rosyid FN. PENGARUH EDUKASI TERHADAP KEPATUHAN MINUM OBAT HIPERTENSI PADA PENDERITA HIPERTENSI Di WILAYAH KERJA PUSKESMAS KEMUSU. *J Ners*. 2026;10(1):1676-83.
  24. Pamungkas R agung, Rohimah S, Zen dini nurbaeti. *Jurnal Keperawatan Galuh , Vol.2*



- No.1 (2020) <https://jurnal.unigal.ac.id/index.php/JKG>. J Keperawatan Galuh. 2020;2(1):12-8.
25. Shahin W, Kennedy GA. The association between social support and medication adherence in patients with hypertension: A systematic review. J Pharm. 2021;19(2):1-8.
26. Lukitasari M, Nugroho DA, Rohman MS, Mardhotillah H, Natasya DE, Fitriyawati F. An Intervention Study for Impact Assessment of Health Education by Empowered Community Health Workers in Improving Treatment and Diet Adherence in Hypertension. J community Med. 2021;12(3):618-21.