

Literature Review: Characteristics of Hypertensive Patients at Community Health Centers

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Article Info	Abstract
Article History Submitted, 2026-05-13 Accepted, 2026-06-24 Published, 2026-06-30	Hypertension is a degenerative disease that has become a global health problem with a high prevalence, particularly among adults and the elderly. This study aims to identify the characteristics of patients with hypertension at Community Health Centers through a literature review method. Article searches were conducted using the Garuda and Google Scholar databases with the keywords hypertension, characteristics, and Community Health Centers. The inclusion criteria were studies published within the last five years, written in Indonesian and English, and focusing on the characteristics of hypertensive patients at Community Health Centers. A total of 10 articles were analyzed in this review. The results show that hypertensive patients are predominantly female, aged ≥45 years, especially 46–65 years, with employment status as housewives or unemployed, and with low to moderate levels of education and low socioeconomic status. The most common risk factors include obesity, physical inactivity, unhealthy dietary patterns, family history of hypertension, and smoking habits. In conclusion, hypertension is a multifactorial disease influenced by both modifiable and non-modifiable risk factors. Therefore, promotive and preventive efforts are needed through health education, early detection, and the adoption of a healthy lifestyle to reduce the risk of hypertension in the community. Support from health policies and the enhanced role of healthcare workers are essential to strengthen the prevention and control of hypertension at the primary healthcare level in a sustainable manner across the population.
Keywords: Characteristics, hypertension, community health centers	

Introduction

Hypertension is a degenerative disease that occurs frequently and has a relatively high mortality rate, significantly affecting an individual’s quality of life and productivity (Lauren et al., 2023). Hypertension is a major global health problem, with a prevalence that continues to increase among pre-elderly and elderly populations (Kumalasari et al., 2024). In Indonesia, in 2019, the age-standardized prevalence of hypertension among individuals aged 30–79 years worldwide and in the Southeast Asia region was 33.1% and 32.4%, respectively (Kemenkes, 2023). Based on the 2023 Basic Health Research (Riskesdas), the prevalence of hypertension was 30.8% (Kemenkes, 2023).

Hypertension is often referred to as a “silent killer” because it presents no warning signs, making it highly dangerous. Individuals who feel healthy and energetic may have hypertension without being aware of it (Gianistiana et al., 2024). Hypertension is a condition commonly encountered in primary healthcare settings, with increasing risks of morbidity and mortality corresponding to rising systolic and diastolic blood pressure levels, which are major causes of heart failure, stroke, and kidney failure (Akbar & Makmun, 2025).

The causes of hypertension can be divided into two categories: non-modifiable factors such as age, gender, and family history, and modifiable factors such as smoking habits, high-cholesterol diets, and alcohol consumption behaviors (Nurhikmawati et al., 2024). Although high blood pressure cannot be cured, it can be effectively managed through lifestyle changes and medication. Therefore, it is important not only to identify and control hypertension but also to promote healthy lifestyles and preventive strategies to reduce its prevalence in the general population (Laili & Purnamasari, 2019; Theresia et al., 2023).

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Based on the description above, it is important to understand the various characteristics of patients with hypertension in order to determine appropriate prevention and control efforts.

Methods

The method used in this article is a literature review. This article aims to identify the characteristics of patients with hypertension at community health centers. The article search was conducted using the Garuda and Google Scholar databases. The keywords used were “characteristics,” “hypertension,” and “community health centers.” In the search for articles in the two databases, 107 articles related to the characteristics of hypertension patients at community health centers were found. After that, several articles without full-text access were excluded. Subsequently, an analysis of the article contents was conducted, and finally 10 articles that met the criteria were selected for review. The inclusion criteria were studies discussing the characteristics of hypertensive patients at community health centers, articles published within the last five years, and articles written in Indonesian or English. The exclusion criteria were articles that did not provide full text and were not publicly accessible.

Results and Discussion

Based on the results of the literature review of 10 articles on the characteristics of hypertensive patients at community health centers, the following data were obtained:

Table 1. Results of Journal Review

No	Study	Results
1	Characteristics of Hypertensive Patients at Jumpandang Baru Community Health Center (Akbar & Makmun, 2025)	The majority of hypertensive patients were found in the age group >60 years, female, with obesity class I nutritional status, those with a family history of hypertension, and those who were unemployed.
2	Characteristics of Hypertensive Patients at Posbindu “Beras Selawe” (Anasari & Trisnawati, 2025)	The majority of hypertensive patients were found in the 36–45 year age group, female respondents, those with a Diploma or Bachelor’s degree, and housewives. Most patients were classified as having grade 1 hypertension.
3	Characteristics of Hypertension at Jambula Community Health Center, Ternate City (Fahrudin et al., 2025)	The dominant characteristics of hypertensive patients were female, aged 46–55 years (early elderly), with prominent behavioral risk factors, particularly insufficient physical activity, low consumption of vegetables and fruits, and obesity. Most patients were classified as having stage 1 hypertension.
4	Characteristics of Hypertensive Patients at Layang Community Health Center, Makassar (Hamzah & Makmun, 2024)	The dominant characteristics of hypertensive patients were female, aged 51–60 years and >60 years, and unemployed. Grade 1 hypertension was the most commonly found classification.
5	Characteristics of Hypertensive Patients at Gunung Jati Community Health Center, Cirebon (Jamil et al., 2026)	The dominant characteristics were pre-elderly respondents (45–59 years), female, those with elementary school education or equivalent, low income (<2 million per month), non-smokers, those who did not consume coffee, those who were non-adherent to a low-salt diet, and those engaged in heavy physical activity.
6	Characteristics and Quality of Life of Hypertensive Patients at Sragen Community Health Center, Sragen Regency (Khafidhoh & Sari, 2024)	The majority of respondents were female, aged 46–65 years, with most having an income below the regional minimum wage.
7	Description of Hypertensive Outpatients at Sewo Community Health Center, Soppeng Regency (Kurniawan et al., 2024)	Most respondents had obesity as their nutritional status and had smoking habits.
8	Characteristics of Hypertensive Patients at Mandala Community Health Center, Medan Tembung District (Tumanggor et al., 2022)	Most hypertensive patients were aged 66–74 years, female, worked as civil servants, and were of Batak ethnicity.
9	Characteristics of Blood Pressure and Comfort in Hypertensive Patients (Rosadi et al., 2023)	Most respondents were adults and elderly (50%), female, and housewives (41.2%). The majority were classified as having grade 1 hypertension.
10	Profile of Hypertensive Patients at North Purwokerto Community Health Center(Yuniati, 2022)	Most respondents were female, aged 56–65 years, housewives, and had an educational background at the elementary or junior high school level. The majority had grade 1 hypertension, were obese, and had complications of diabetes mellitus.

In general, the characteristics of hypertensive patients at community health centers are predominantly female, with an age range from adulthood to the elderly (≥ 45 years), especially between 46–65 years, and many cases are even found in those aged >60 years. Most patients are housewives or unemployed, with low to moderate levels of education and low income. Clinically, the majority of patients fall into the category of grade (stage) 1 hypertension, indicating that most cases are still in the early stage but remain at risk of progressing to more severe conditions. The most commonly identified risk factors include obesity (overweight nutritional status), family history of hypertension, lack of physical activity, unhealthy dietary patterns (low fruit and vegetable intake, high salt consumption), and smoking habits (in some studies).

Age Characteristics and the Incidence of Hypertension

Age is a major risk factor for hypertension. As age increases, there is a decrease in blood vessel elasticity and an increase in arterial stiffness, causing blood pressure to rise. According to Nuraeni in (Riniasih & Mohamad, 2025), increasing age leads to changes in the arteries, making them wider and stiffer, which reduces the capacity and recoil of blood flow accommodated by the vessels. This reduction results in increased systolic pressure. Therefore, older age groups have a higher prevalence of hypertension compared to younger groups. These changes reduce cardiovascular efficiency, increase cardiac workload, and elevate the risk of heart failure, particularly among older individuals (Strait and Lakatta in (Apriliyani et al., 2024). Thus, age is a non-modifiable factor but remains important in hypertension prevention and control efforts.

Gender Characteristics and the Incidence of Hypertension

Gender is associated with differences in hypertension risk between men and women. Men tend to have a higher risk during their productive years due to lifestyle factors such as smoking and alcohol consumption. According to Bangun in (Suryatna et al., 2025), nicotine in cigarettes increases epinephrine and norepinephrine levels in the blood, contributing to irregular heart rhythms and damage to the inner lining of blood vessels, which raises blood pressure. However, in women, the risk of hypertension increases after menopause. Postmenopausal women aged over 45 years experience a higher risk of hypertension because, before menopause, they are protected by estrogen, which helps increase HDL (high-density lipoprotein) levels. Low HDL levels and high LDL (low-density lipoprotein) levels contribute to atherosclerosis, leading to hypertension (Ghost et al. in (Susanti et al., 2024).

Employment Status and the Incidence of Hypertension

Employment status can influence hypertension risk through stress levels and daily physical activity. Blood pressure may increase after work due to job stress, workload, and work environment conditions (Kurniasari & Hidayat, 2017). Lack of physical activity increases the risk of hypertension by contributing to overweight conditions. Inactive individuals also tend to have higher heart rates, causing the heart muscle to work harder with each contraction (Irwadi et al., 2023).

Educational Level and the Incidence of Hypertension

Education plays an important role in shaping knowledge and awareness about health, including hypertension. Higher levels of education tend to improve understanding of risk factors and prevention strategies, making individuals more likely to adopt healthy lifestyles and manage their blood pressure effectively (Nabila et al., 2025).

Income (Economic Status) and the Incidence of Hypertension

Economic status is one of the contributing factors to hypertension. Low economic status is associated with poorer health outcomes, often related to unhealthy lifestyles and limited income (Yelsa et al., 2025). Higher income enables better purchasing power for quality food, particularly daily nutritional intake. Conversely, low income limits access to diverse and nutritious foods, such as fruits and vegetables, which may contribute to a higher prevalence of hypertension (Yelsa et al., 2025).

Nutritional Status and the Incidence of Hypertension

Overweight and obesity have adverse metabolic effects on blood pressure, cholesterol, triglycerides, and insulin resistance. The risk of type 2 diabetes and hypertension increases significantly with higher body fat levels (Badriyah & Pratiwi, 2024). Obesity contributes to hypertension through both direct and indirect mechanisms. Directly, increased body mass raises blood volume and cardiac output. As body mass increases, the heart must work harder to supply oxygen and nutrients, thereby increasing blood pressure (Badriyah & Pratiwi, 2024).

Physical Activity and the Incidence of Hypertension

Physical activity influences neurohormonal and structural mechanisms by reducing sympathetic nerve activity and increasing arterial diameter, as well as lowering norepinephrine, renin, and systemic vascular resistance levels. Lack of physical activity results in an untrained heart, stiff blood vessels, poor circulation, and obesity, all of which contribute to hypertension (Anisa et al., 2025). This is supported by research (Indriani et al., 2022), which found a significant relationship between physical activity and hypertension incidence.

Dietary Patterns and the Incidence of Hypertension

One of the causes of hypertension is poor dietary habits, such as frequent consumption of high-sodium foods, fast foods high in fat, and low intake of fruits and vegetables (Hasanuddin et al., 2023). This is supported by research (Sistikawati et al., 2021), which found a significant relationship between dietary patterns (including caffeine intake, seafood consumption, and others) and hypertension. Therefore, dietary management is an essential component of hypertension prevention.

Smoking Habits and the Incidence of Hypertension

Smoking has negative effects on vascular health. It increases heart rate, blood pressure, and catecholamine levels, which play a major role in cardiovascular disorders. In hypertensive patients, smoking also increases the risk of other cardiovascular diseases such as coronary heart disease, stroke, heart failure, and peripheral artery disease (Mamile et al., 2024).

Conclusion and Recommendations

Based on the characteristics of hypertensive patients at community health centers, it can be concluded that hypertension is most common among women in adulthood to older age (≥ 45 years), particularly those aged 46–65 years and above. Most patients are unemployed or housewives, with low to moderate educational levels and low economic status. Various risk factors associated with hypertension include age, gender, employment status, education level, economic status, nutritional status (obesity), lack of physical activity, unhealthy dietary patterns, and smoking habits. These factors are interrelated in increasing blood pressure through physiological mechanisms such as decreased vascular elasticity, increased sympathetic nerve activity, metabolic disturbances, and unhealthy lifestyle effects. Therefore, hypertension is a multifactorial disease influenced by both modifiable and non-modifiable factors, requiring comprehensive prevention and control efforts. Healthcare professionals are expected to enhance promotive and preventive efforts through continuous health education regarding hypertension risk factors and the importance of early detection, especially among high-risk groups. In addition, the community is encouraged to increase awareness and adopt healthy lifestyles, such as reducing salt intake, increasing fruit and vegetable consumption, engaging in regular physical activity, and avoiding smoking and alcohol consumption to reduce the risk of hypertension.

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References

- Akbar, A. M., & Makmun, A. (2025). Gambaran Karakteristik Penderita Hipertensi Di Puskesmas Jumpandang Baru. JKT: Jurnal Kesehatan Tambusai, 6(2).
- Anasari, T., & Trisnawati, Y. (2025). Karakteristik Penderita Hipertensi Di Posbindu “Beras Selawe.” Jurnal Bina Cipta Husada, 21(2).
- Anisa, S. R., Debora, O., & Sulartri, A. S. (2025). Aktivitas Fisik Berhubungan Dengan Regulasi Tekanan Darah Pada Penderitanya Hipertensi Di Puskesmas Kota X. Jurnal Ilmu Kesehatan, 13(2), 265.
- Apriliyani, T., Pusparini, N. A. O., Karmilah, Rohmah, Z., Tunjung, W. A. S., & Nuriliani, A. (2024). Mekanisme Penyakit Kardiovaskular Terkait Penuaan (Mechanisms of Cardiovascular Diseases Related to Aging). Bioma: Berkala Ilmiah Biologi, 26(2), 2598–2370.
- Badriyah, L., & Pratiwi, R. I. R. (2024). Hubungan Obesitas dengan Kejadian Hipertensi dan Hiperglikemia di Indonesia. Ghidza: Jurnal Gizi Dan Kesehatan, 8(1), 33–38. <https://doi.org/10.22487/ghidza.v8i1.1021>
- Fahrudin, I. M. M., Permana, D. R., & Husen, A. H. (2025). Karakteristik Hipertensi di Puskesmas Jambula Kota Ternate. Jurnal Ilmu Kedokteran Dan Kesehatan, 12(9), 2549–4864. <http://ejurnalmalahayati.ac.id/index.php/kesehatan>

- Gianistiana, L. N., Nurhayati, I., & Rejo. (2024). Efektivitas Pemberian Air Kelapa Muda (Cocos Nucifera) Terhadap Penurunan Tekanan Darah Pada Lansia. *Journal of Language and Health*, 5(2). <http://jurnal.globalhealthsciencegroup.com/index.php/JLH>
- Hamzah, F., & Makmun, A. (2024). Penerbit: Yayasan Citra Cendekia Celebes. *Ina Journal of Health*, 4(1).
- Hasanuddin, I., Zainab, & Purnama, J. (2023). Hubungan Pola Makan dan Aktivitas Fisik Dengan Kejadian Hipertensi. *Jurnal Ners*, 7(2), 1659–1664. <http://journal.universitaspahlawan.ac.id/index.php/ners>
- Indriani, M. H., Djannah, S. N., & Ruliyandari, R. (2022). Pengaruh Aktivitas Fisik terhadap Kejadian Hipertensi. *The Indonesian Journal of Public Health*, 18(4). <https://jurnal.unimus.ac.id/index.php/jkmi,jkmi@unimus.ac.id>
- Irwadi, Fatrida, D., & Elfira, Y. (2023). Hubungan Pekerjaan, Genetik, dan Usia Klien Dengan Kejadian Hipertensi di Puskesmas Petaling Kabupaten Banyuasin Tahun 2022. *Madani: Jurnal Ilmiah Multidisiplin*, 1(7).
- Jamil, A. S., Affandi, T. T., & Cancerita, S. (2026). Gambaran Karakteristik Pasien Hipertensi di Puskesmas Gunung Jati Cirebon. *Malahayati Nursing Journal*, 8(3), 383–393. <https://doi.org/10.33024/mnj.v8i3.22245>
- Kemenkes. (2023). Prevalensi, Dampak, serta Upaya Pengendalian Hipertensi & Diabetes di Indonesia.
- Khafidhoh, Z. R. A. N., & Sari, D. K. (2024). Gambaran Karakteristik dan Kualitas Hidup Penderita Hipertensi Di Puskesmas Sragen Kabupaten Sragen. *IJOH: Indonesian Journal of Public Health*, 2(1), 110–120. <https://jurnal.academiacenter.org/index.php/IJOH><https://jurnal.academiacenter.org/index.php/IJOH>
- Kumalasari, D. N., Purwaningsih, E., Supatmi, & Pranawati, E. (2024). Gambaran Kepatuhan Kontrol Tekanan Darah Penderita Hipertensi. *Jurnal Penelitian Perawat Profesional*, 6(4). <http://jurnal.globalhealthsciencegroup.com/index.php/JPPP>
- Kurniasari, I., & Hidayat, S. (2017). Pengaruh Stres Kerja Terhadap Peningkatan Tekanan Darah Pada Pekerja. *The Indonesian Journal of Occupational Safety and Health*, 6(3).
- Kurniawan, A., Mutthalib, N. U., & Sartika. (2024). Gambaran Penderita Hipertensi Pada Pasien Rawat Jalan DiPuskesmas Sewo Kabupaten Soppeng. *Window of Public Health Journal*, 5(2), 279–287.
- Laili, N., & Purnamasari, V. (2019). Hubungan Modifikasi Gaya Hidup Dengan Kualitas Hidup Pasien Hipertensi Di UPTD PKM Adan Adan Gurah Kediri. *Jurnal ILKES (Jurnal Ilmu Kesehatan)*, 10(1).
- Lauren, G., Febriyanty, D., Wahidin, M., & Heryana, A. (2023). Faktor – Faktor Yang Berhubungan Dengan Kejadian Hipertensi Pada Pasien 45-59 Tahun Di Puskesmas Bintaro Jakarta Selatan Pada Tahun 2022. *Jurnal Kesehatan Masyarakat*, 11(3), 308–317. <https://doi.org/10.14710/jkm.v11i3.35795>
- Mamile, R., Hidayati, P. H., & Tabri, N. A. (2024). Efek Merokok Terhadap Kejadian Hipertensi: Systematic Review. *JKT: Jurnal Kesehatan Tambusai*, 5(4).
- Nabila, R. I., Herlinawati, Ariyanto, S., & Ronanarasafa. (2025). Hubungan Jenis Kelamin, Tingkat Pendidikan, dan Indeks Massa Tubuh Dengan Kejadian Hipertensi Pada Lansia di Wilayah Kerja PUSKESMAS Gunungsari Lombok Barat. *Bioscientist: Jurnal Ilmiah Biologi*, 13(1), 364. <https://doi.org/10.33394/bioscientist.v13i1.14534>
- Nurhikmawati, Afiifah, I., Syahrudin, F. I., Aspar, A., & Lestari, I. (2024). Karakteristik Pasien Hipertensi dengan Gangguan Kardiovaskular. *Fakumi Medical Journal: Jurnal Mahasiswa Kedokteran*, 4(7).
- Riniasih, W., & Mohamad, M. (2025). Hubungan Usia dengan Kejadian Hipertensi Di Desa Krangganharjo Kecamatan Toroh, Kabupaten Grobogan. *TSCD3Kep _Jurnal*, 10(01), 2775–1163. <http://ejournal.annurpurwodadi.ac.id/index.php/TSCD3Kep>
- Rosadi, E., Gusty, R. P., & Mahathir. (2023). Karakteristik Tekanan Darah dan Kenyamanan Pada Pasien Hipertensi. *JKJ: Persatuan Perawat Nasional Indonesia*, 11(3).
- Suryatna, S. Y., Suryadin, A., & Dewi, S. K. (2025). Hubungan antara Aktivitas Merokok dengan Penyakit Hipertensi pada Laki-Laki Usia 45 Tahun ke Atas. *Jurnal Riset RumpunIlmu Kesehatan*, 4(1), 01–15. <https://doi.org/10.55606/jurrikes.v4i1.4333>
- Sistikawati, H. I., Fuadah, I. W., Salsabila, N. A., Azzahra, A. F., Aesyah, A., Insyira, I.,

- Adhitama, P. F., Anggraini, R. K., & Nandini, N. (2021). Literature Review: Hubungan Pola Makan dengan Kejadian Hipertensi. *MEDIA KESEHATAN MASYARAKAT INDONESIA*, 20(1), 57–62. <https://doi.org/10.14710/mkmi.20.1.57-62>
- Susanti, N., Aghniya, S. N., Almira, S. S., & Anisa, N. (2024). Hubungan Usia, Jenis Kelamin Dengan Penyakit Hipertensi Di Klinik Utama Paru Soeroro. *PREPOTIF: Jurnal Kesehatan Masyarakat*, 8(2).
- Theresia, T. T., Lestari, S., Hutagaol, M. B., Putridwita, A. F., Amalia, A. D., & Lias, S. (2023). Gambaran Penderita Hipertensi di Puskesmas Palmerah. *Jurnal Bidang Ilmu Kesehatan*, 14(3). <http://ejournal.urindo.ac.id/index.php/kesehatan>
- Tumanggor, S. D., Aktalina, L., Yusria, A., & Ismail, W. M. (2022). Karakteristik Pasien Hipertensi Di Puskesmas Mandala Kecamatan Medan Tembung. *Jurnal Kedokteran STM (Sains Dan Teknologi Medik)*, 5(2). <https://jurnal.fk.uisu.ac.id/index.php/stm>
- Yelsa, P. L., Apriza, & Harmia, E. (2025). Hubungan Status Ekonomi dengan Kejadian Hipertensi pada Usia 45-54 Tahun di Desa Pulau Birandang Wilayah Kerja UPT Puskesmas Kampa. *Healthy: Journal of Health and Science*, 1(1), 1–6. <https://healthy.or.id>
- Yuniati, N. I. (2022). Profil Pasien Hipertensi Di Puskesmas Purwokerto Utara. *Jurnal Bina Cipta Husada*, 18.