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The Psychosocial Impact of Hypertension Diagnosis in Adult Patients: A Systematic Review

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ABSTRACT
Hypertension is a non-communicable disease that often progresses silently but significantly affects the psychosocial well-being of adult patients. If unmanaged, it may lead to complications and decreased quality of life. This systematic literature review aims to explore the psychosocial impact of hypertension, both at the moment of diagnosis and throughout long-term management among adult patients. The study employed a systematic review method, following the PRISMA 2020 guidelines. Five primary quantitative studies published between 2015 and 2025 were analysed. The review was structured into two focal points: (1) psychological distress experienced upon diagnosis, and (2) chronic psychosocial stress in adults living with hypertension. The results showed that individuals with high psychosocial stress had an 8.198-fold higher likelihood of being diagnosed with hypertension. Contributing factors included poor sleep quality, low physical activity, and lack of social support. Additionally, prolonged distress such as anger, depression, and past trauma was significantly associated with poor blood pressure control, nonadherence to therapy, and decreased self-care. Patients with uncontrolled hypertension had a sixfold increased risk of experiencing hypertension-related distress. These findings highlight the urgency of integrating psychosocial screening and emotional support into routine hypertension management, especially at the primary care level.

INTRODUCTION

Hypertension, or high blood pressure, is one of the most significant global health problems (Turana et al., 2021). According to the World Health Organisation (WHO), the global prevalence of hypertension in 2023 was estimated at 33% of the world's population, with two-thirds of cases occurring in developing countries (WHO, 2023). In Indonesia, data from the 2018 Basic Health Research Survey (Riskesdas) showed that the prevalence of hypertension among adults reached 34.1%, an increase from 25.8% in 2013 (Balitbangkes, 2019). This upward trend indicates that hypertension has become a serious public health issue that demands attention not only from a medical standpoint but also from a psychosocial perspective (Goorani et al., 2025).

A hypertension diagnosis in adults affects not only physical health but also has complex psychological and social consequences (Adamowicz et al., 2023). Newly diagnosed patients often experience anxiety, stress, fear of complications, and even depression in response to the realisation that hypertension is a chronic condition requiring long-term treatment and consistent lifestyle changes (Ivanušić-Pejić & Degmečić, 2022). These emotional reactions may persist, negatively impacting the patient's quality of life and treatment efficacy (Conversano et al., 2021).

Currently, the treatment and management of hypertension in Indonesia still focus on preventive efforts through health promotion and curative approaches through medication. Hypertension medication cannot cure patients with hypertension; rather, it only helps lower blood pressure for a limited time (Crisafulli et al., 2021). This condition causes many patients taking hypertension medication to experience psychological impacts, such as stress and boredom, due to the unending need to take medicine (Adamowicz et al., 2023).

As a result, many hypertensive patients stop taking their medication. This increases the risk of dangerous events such as stroke and heart attack when there is a sudden spike in blood pressure (Bai et al., 2023; Rachmawati et al., 2024). To anticipate this, a support program, particularly psychological support, is needed to improve medication adherence among patients with hypertension.

Numerous studies have shown that psychological disturbances, such as stress and depression, can reduce medication adherence and hinder essential self-care in hypertension management (Eghbali et al., 2022). Patients experiencing prolonged mental stress are more likely to disregard medical advice, skip medication doses, and fail to maintain a healthy lifestyle, resulting in uncontrolled blood pressure. Furthermore, social and demographic factors such as low social support, limited economic resources, and low educational levels further exacerbate the psychosocial burden experienced by patients (Dewi et al., 2023; Putri et al., 2021).

A lack of understanding and support regarding their condition can lead patients to feel socially isolated, stigmatised, and demotivated to adhere to treatment plans (Pathak et al., 2022). Psychosocial challenges such as depression, anxiety, and stress are increasingly recognised as critical components in hypertension management, as treatment success heavily depends on active patient engagement and the willingness to sustain long-term lifestyle changes (Isiguzo et al., 2022). Recent studies confirm that poor mental health is strongly correlated with low treatment adherence, whereas adequate social support and high self-esteem contribute to better treatment outcomes (Z Malak et al., 2023).

However, there remains a lack of context-specific evidence in Indonesia regarding how distinct psychosocial factors, such as self-efficacy, perceived stigma, or emotional resilience, affect medication adherence among hypertensive patients. Most existing studies have yet to explore these dimensions within the sociocultural context of Indonesian primary healthcare settings. Moreover, psychosocial screening and interventions have not been systematically integrated into hypertension care in Indonesia, particularly at the primary healthcare level, limiting the ability of health systems to address adherence issues holistically.

This study aims to undertake a comprehensive literature review to systematically examine the psychosocial factors associated with medication adherence among adults with hypertension in Indonesia. Conducting such a review is crucial to addressing existing gaps in the scientific literature, particularly the limited understanding of culturally and contextually specific determinants that influence adherence behaviours. By synthesising and critically appraising relevant empirical evidence, this review is expected to generate meaningful insights that can support the development of more holistic, evidence-based, and patient-centred intervention models. The results of this review may further contribute to informing health policy and facilitating the integration of psychosocial considerations into national hypertension management strategies, particularly within primary healthcare settings.

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METHOD

This study employed a quantitative Systematic Literature Review (SLR) approach to examine the psychosocial impact of hypertension diagnosis in adult patients. This SLR aims to identify, critically evaluate, and synthesise findings from primary studies that quantitatively measure psychological responses such as stress, anxiety, depression, self-perception, and quality of life following a hypertension diagnosis. The primary focus of this review was on adult populations (aged ≥18 years), with a publication date range between 2015 and 2025 to ensure data relevance and recency.

The literature search was conducted across four major academic databases: PubMed, Scopus, Google Scholar, and ScienceDirect. Search keywords included “hypertension diagnosis”, “psychosocial impact”, “emotional stress”, “mental health in hypertensive adults”, and “quality of life after diagnosis”, which were combined using Boolean operators such as AND and OR to expand the search scope. The study selection process systematically followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines (Page et al., 2021) (Fig. 1).

During the initial identification phase, a total of 403 articles were retrieved. After removing 31 duplicates, 371 articles remained for screening by title and abstract. Of these, 159 articles were excluded due to failure to meet inclusion criteria, such as employing irrelevant methodologies or lacking a suitable research focus. Subsequently, 212 articles were selected for full-text review, but 200 were excluded due to lack of full-text access, non-adult population focus, or topic irrelevance. Only 12 articles underwent an in-depth content eligibility evaluation, from which seven were eliminated for not directly addressing the impact of diagnosis, not measuring psychosocial aspects, or not providing suitable quantitative outcomes. As a result, only five studies met all inclusion criteria and were included in the final synthesis.

The selected studies were then assessed for methodological quality, considering the validity of measurement instruments, sample sizes, and the statistical analysis techniques. Data extracted from these studies included information on participant characteristics and key statistical findings regarding the psychological well-being of patients following a hypertension diagnosis. Descriptive analysis was conducted to identify general patterns and significant contributing factors in individuals’ psychosocial responses post-diagnosis.

This systematic approach provided not only a comprehensive overview of the psychosocial impact of a hypertension diagnosis in adults but also helped identify research gaps and potential directions for future psychological interventions that are more adaptive and evidence-based. However, the number of studies included in the final synthesis remains relatively limited, with only five eligible studies. This limitation stemmed from the scarcity of quantitative research specifically addressing the psychosocial consequences of a hypertension diagnosis, highlighting the need for further studies using diverse quantitative methodologies with a focused psychological perspective within the context of chronic illness, such as hypertension.

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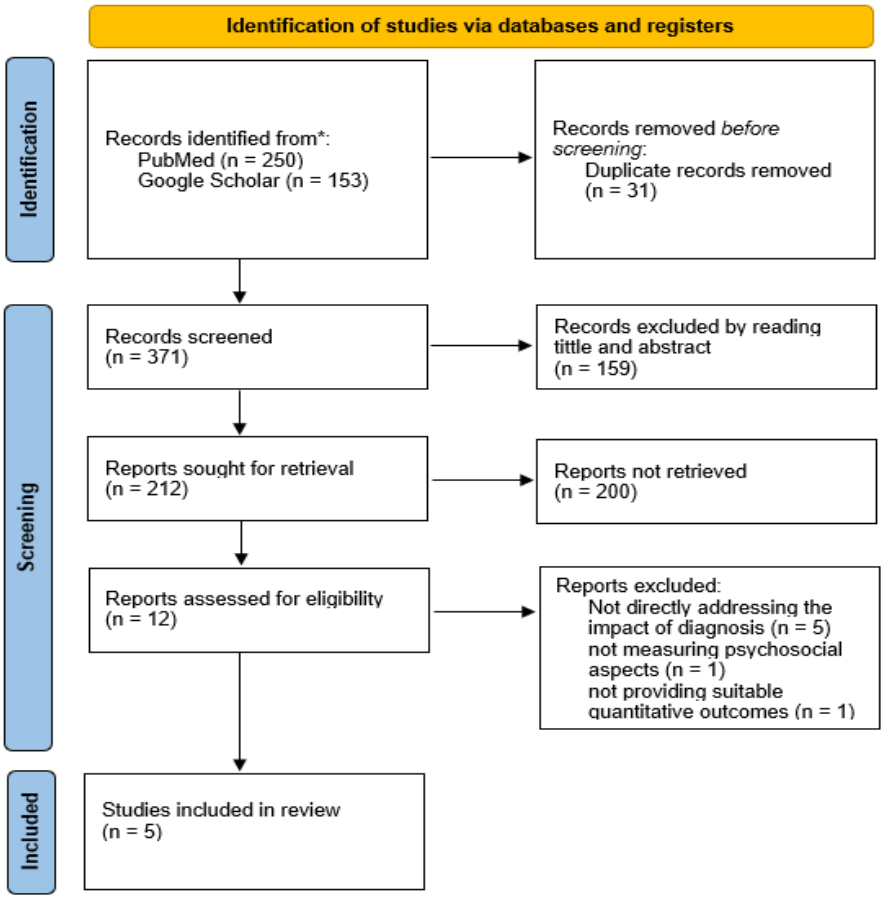

***Fig. 1** PRISMA Flow*

RESULTS AND DISCUSSION

After selection using the PRISMA method, a total of 5 articles were deemed eligible to be used as references. These articles were then extracted and presented in Table 1.

Table 1
Article Extraction Result

Author (Year)	Study Design	Methodology	Results
(Yadav et al., 2021)	Case control	Quantitative, community-based survey	Psychosocial stress (Compromised family and social support, poor quality of sleep, low physical activity, lower socioeconomic status, and a body mass index ≥23 kg/m2)was significantly associated with incident hypertension.
(Ford et al., 2016)	Longitudinal Observational	Quantitative, cohort survey from the Jackson Heart Study	A high depressive symptoms score was associated with BP progression in the age-, sex, and SES-adjusted model.
(Emrah & Esra, 2018)	Cross sectional	Quantitative, psychiatric survey using HAD-A/D	Blood pressure levels were significantly related to psychiatric complaints, life events, HAD-Anxiety (HAD-A) and HAD-Depression (HAD-D) scores ($p = 0.001$, $p = 0.000$, $p = 0.001$, $p = 0.002$, respectively).

Author (Year)	Study Design	Methodology	Results
(Alwani et al., 2023)	Cross sectional	Quantitative, primary care clinic-based survey	Patients with HTN-related distress had significantly poorer health and reported a greater number of days where they were physically or mentally unhealthy. Patients with uncontrolled blood pressure had six times the odds (95% CI: 1.69–21.77, P value = 0.006) of HTN-related distress compared to those with controlled blood pressure.
(Loke & Ching, 2022)	Cross sectional	Survey on distress and medication adherence	Blood pressure was significantly associated with depressive symptoms, anxiety, and stress symptoms. Other associated factors were physical inactivity, employment, lack of formal education, and low household income.

This study adopts a dual-focus analysis within its Systematic Literature Review (SLR) framework to account for the complexity of psychosocial dimensions experienced by adult patients with hypertension. The psychosocial impact does not occur solely upon receiving a diagnosis but also evolves progressively over time due to the chronic nature of the condition, lifestyle-related pressures, and limited social support. By dividing the findings into two thematic focuses (1) Distress and Hypertension Diagnosis, and (2) Stress on Adults with Hypertension, this review aims to explore in greater depth how an initial diagnosis may trigger acute emotional distress, and how long-term psychosocial stress continues to shape the lived experience of hypertensive patients.

Study Focus 1: Distress and Hypertension Diagnosis

Unlike previous studies that primarily emphasise the clinical aspects of hypertension management, this study explores the underexamined psychosocial impact of a hypertension diagnosis, particularly the immediate emotional and identity-related responses experienced by adults. A hypertension diagnosis is not merely a clinical event but a transformative moment that redefines how individuals perceive their bodies, future, and autonomy.

This research highlights that such a diagnosis often triggers complex psychological reactions, ranging from fear, denial, and anxiety to depressive symptoms, which have been largely overlooked in the context of medication adherence and chronic disease self-management. By framing the diagnosis as a form of social and psychological labelling, this study brings a novel perspective to understanding patient behaviour and treatment engagement.

This understanding is strongly supported by a quantitative community-based study conducted by Yadav et al. (2021), involving 180 participants from Rural Central India (90 hypertensive patients and 90 normotensive controls). The study revealed that 93.3% of hypertensive patients experienced high psychosocial stress, compared to 57.8% in the control group. Further logistic regression analysis showed that high levels of psychosocial stress increased the odds of a hypertension diagnosis by 8.2 times (AOR = 8.198; 95% CI: 2.85–23.52). These findings reinforce the notion that emotional distress is not merely a consequence of hypertension but may also act as a precipitating factor in its clinical onset. This study is also supported by research conducted in the United States, which shows that stress is a physiological response that can affect cardiovascular diseases such as hypertension (Osborne et al., 2021).

Beyond stress itself, this study highlighted additional mediating factors that strengthen the connection between psychological distress and hypertension, specifically inadequate sleep quality and limited social support. A significant 76.7% of hypertensive participants reported experiencing sleep problems, in contrast to 53.4% among non-hypertensive controls. These sleep issues are frequently triggered by

anxiety following the diagnosis and, over time, compromise the body's ability to restore itself. Viewed through a biopsychosocial lens, sleep disturbances are not merely secondary symptoms but rather play an active role in raising blood pressure through persistent stress responses and increased sympathetic nervous system activation. This study is supported by previous research indicating that short sleep duration is one of the key contributing factors to hypertension (Han et al., 2020).

Social support emerged as a significant determinant in the study. Individuals with limited social support were found to be three times more likely to have a hypertension diagnosis (AOR = 3.0; 95% CI: 1.41–6.34). Inadequate communication, lack of emotional openness, and absence of a supportive social environment intensified the psychological difficulty of coming to terms with the diagnosis. When met with stigma or apathy instead of empathy, patients were more susceptible to depressive symptoms and withdrawal from self-care behaviours. Social support influences many aspects; other studies have shown that high levels of social support positively impact medication adherence and self-confidence in hypertensive patients undergoing treatment (Zhang et al., 2021).

Physical activity level was also identified as a significant contributing factor, with patients exhibiting low activity levels being nearly three times more likely to develop hypertension (AOR = 2.92; 95% CI: 1.22–6.98). Decreased physical activity is frequently associated with psychological responses such as emotional fatigue, diminished motivation, and a sense of helplessness following a diagnosis. This finding underscores how post-diagnosis psychological distress can directly influence lifestyle choices, thereby aggravating the underlying medical condition. A narrative study revealed a link between physical activity and the body's metabolic mechanisms, which can influence vascular health, including conditions such as hypertension (Raimondo et al., 2021).

A particularly significant insight from this study is that physical markers such as BMI (≥23) did not show a meaningful association with hypertension in the rural population examined. This suggests that psychosocial factors may play a more substantial role than physical ones in certain settings, especially within communities that possess distinct social and cultural dynamics. It also reinforces the need for healthcare systems to move beyond an exclusive reliance on clinical indicators. Another study in Japan showed that a higher Body Mass Index (BMI) is associated with an increased risk of hypertension (Huang et al., 2023).

From a healthcare system standpoint, these findings suggest the need for a paradigm shift in how hypertension diagnoses are delivered. The process should go beyond rigid, technical communication. Healthcare providers must create a supportive environment that allows for psychological counselling and fosters patient comprehension through empathetic interaction. Failing to incorporate psychosocial interventions at the early stage of diagnosis increases the likelihood of unresolved emotional distress, which can, over time, accelerate disease progression and reduce the overall quality of life for patients.

Thus, adopting a biopsychosocial approach in primary healthcare settings is vital (Xiao et al., 2021). This model blends biological factors (such as blood pressure history and genetic predisposition), psychological elements (including stress, anxiety, and sleep patterns), and social influences (such as family support, employment status, and socioeconomic background) into an integrated framework of care. Under this paradigm, a hypertension diagnosis is no longer perceived as a disruption to a patient's well-being, but rather as the beginning of a comprehensive journey toward recovery both physically and emotionally.

Study Focus 2: Stress on Adults with Hypertension

Living with hypertension is not merely a medical challenge, but a continuous and dynamic process of emotional and psychological adaptation that remains underexplored in existing literature. While previous studies have focused predominantly on pharmacological management and clinical outcomes, this research draws attention to the often-overlooked psychosocial burden that adult patients face after receiving a hypertension diagnosis.

The persistent psychological pressure manifesting as chronic stress, emotional fatigue, and internalised health-related stigma not only undermines mental well-being but also exacerbates physiological dysregulation and hinders effective blood pressure control. This study offers a novel perspective by linking these psychosocial stressors directly to reduced adherence to medication and lifestyle modifications, thus highlighting the need for a more holistic, patient-centred approach in hypertension care.

One of the most compelling findings in this area is presented by Ford et al. (2016) through the longitudinal Jackson Heart Study. Tracking 1.656 individuals with normal blood pressure at baseline, the study revealed that 56% experienced blood pressure progression over five years. Psychosocial stress emerged as a major contributing factor. Participants with high anger-out scores, indicative of outward expressions of anger, faced a 20% higher risk of BP progression. Depressive symptoms were also significantly linked to increased BP levels, while higher scores on the weekly stress inventory were associated with a 21% greater risk. Another supporting study found that intense emotions and heightened anger can significantly affect vascular diseases (Choi-Kwon & Kim, 2022).

Additional support for the influence of psychological factors comes from a study by Ersoy & Saatci (2018) in Turkey, which found that 54% of hypertensive patients reported psychiatric symptoms, and 32.8% had experienced traumatic life events. Only 37.7% of the patients were able to maintain controlled blood pressure. Elevated scores on the Hospital Anxiety and Depression Scale (HAD-A and HAD-D) were strongly linked to uncontrolled BP ($p = 0.001$ and $p = 0.002$), suggesting that emotional stress directly compromises treatment outcomes. This study is supported by research conducted in South Africa, which showed a correlation between psychological trauma and an increased incidence of hypertension among women (Nguyen et al., 2022).

Additional support is provided by Alwani et al. (2023) in India, who investigated *hypertension-related distress* (HRD). Among 141 adult patients, 14% were identified with clinically relevant levels of distress, indicated by an average DSDH17-M score of ≥3. Notably, patients with uncontrolled blood pressure were six times more likely to experience distress. Another study showed that distress was strongly linked to a greater number of physically and mentally unhealthy days and an overall decline in quality of life (Särnholm & Kronish, 2024). In essence, distress should not be seen as a secondary emotional response, but as a key driver that actively contributes to disease progression.

In another study, Loke & Ching (2022) found that 28.8% of hypertensive patients in Malaysia experienced psychological distress, including depression (16.2%), anxiety (21.3%), and stress (13.9%). There was a strong association between uncontrolled blood pressure and psychological distress. Patients with elevated BP were 4.9 times more likely to experience anxiety and 6.4 times more likely to suffer from depression. Additionally, fear of hypertension-related complications such as stroke or heart failure significantly predicted anxiety, increasing the risk more than tenfold. A review study shows that anxiety is an important factor affecting hypertension (Qiu et al., 2023).

Collectively, these findings point to a key conclusion: ongoing emotional stress poses a substantial obstacle to effective hypertension control. When psychological stress is left unaddressed, patients are less likely to adhere to prescribed medications, dietary recommendations, and physical activity regimens. This perpetuates a vicious cycle where elevated blood pressure increases emotional distress, which in turn reduces motivation and impairs disease management, ultimately contributing to further rises in blood pressure.

Consequently, effective hypertension management in adults should extend beyond pharmacological treatment to incorporate psychosocial support. The use of validated screening tools, such as the HAD-A/D or DSDH17-M, enables healthcare providers to detect high-risk patients early in the treatment process. A holistic strategy must also include family engagement, community-driven initiatives, and

the integration of robust mental health services within primary care settings to disrupt the cycle of hypertension and emotional stress.

CONCLUSIONS

A key finding from this study indicated that persistent emotional stress is a major barrier to effective hypertension management, as it significantly undermines patient adherence to medication, dietary recommendations, and physical activity. Therefore, hypertension treatment strategies should go beyond pharmacological approaches and include psychosocial interventions such as early screening, family involvement, and the integration of mental health services within primary care settings. This type of research remains limited in the Indonesian context, making this study a valuable reference for health policymakers, particularly in the field of hypertension, to expand service coverage beyond clinical care and include psychosocial support as an integral component.

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