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Exploring experiences and perspectives of patients on hypertension management in Southern Ethiopia: a phenomenological study

Eshetu Elfios Endrias^{1*}, Temesgen Geta¹, Bemnet Desalegn², Bizuayehu Atinafu Ataro¹, Eskinder Israel², Christian Kebede¹, Melesse Belayneh³, Beker Ahmed⁴, Abdulkерim Hassen Moloro⁵ and Getachew Nigussie¹

Abstract

Background Hypertension is a significant public health challenge, particularly in low- and middle-income countries, where its management is often inadequate. Understanding patients' experiences and perspectives is crucial for improving hypertension care. Despite a growing body of literature on hypertension in Ethiopia, most studies focus on quantitative data, leaving a significant gap in qualitative insights into patient experiences and perspectives. This study uniquely contributes to the field by exploring the lived experiences of patients in Southern Ethiopia, providing context-specific evidence to inform patient-centered hypertension management strategies.

Objective This qualitative study aimed to explore the experiences and perspectives of patients with hypertension regarding their management and care at a comprehensive hospital in Southern Ethiopia.

Methods A phenomenological approach was employed to capture the experiences and perspectives of participants. In-depth interviews were conducted with 14 patients with hypertension, selected through purposive sampling. The interviews were audio-recorded, transcribed verbatim, and analyzed using OpenCode version 4.02 software to facilitate systematic coding and thematic analysis. Then, key themes and subthemes were identified from the data related to patient experiences and perspectives providing a relevant framework for understanding the complexities of hypertension management from the patients' perspectives.

Results The six key themes emerged, depicting participants' challenges, coping strategies, and interactions with the healthcare system. The themes identified are: adherence to treatment and self-care, awareness of perceived risk and health literacy, experience with the diagnosis, family support in hypertension management, stress awareness and management, and healthcare system and proximity to facilities. Participants noted obstacles to adherence, including long waiting times, forgetting medications, and stress related to their condition.

Conclusion and recommendation The findings highlight the need for specific patient-centered strategies that address the challenges faced by hypertensive patients in Southern Ethiopia, such as reducing wait times, enhancing family involvement in care, increasing adherence, and addressing stress. Strengthening healthcare services is essential for sustainable hypertension management.

Keywords Hypertension, Patient experiences, Chronic disease, Qualitative study, Ethiopia

*Correspondence:

Eshetu Elfios Endrias
eshetuef21@gmail.com

Full list of author information is available at the end of the article



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Background

Noncommunicable diseases (NCDs) represent a critical global health challenge, causing an estimated 41 million deaths every year [1]. This staggering figure amounts to 74% of all deaths worldwide, showing the profound burden that NCDs place on global mortality. Particularly concerning is the fact that 17 million of these deaths occur prematurely, before the age of 70. The overwhelming majority (86%) of these premature deaths take place in low- and middle-income countries, where healthcare systems are often ill-equipped to manage chronic diseases effectively. Cardiovascular diseases, including hypertension, heart disease and stroke, are the most prevalent among NCDs, responsible for 17.9 million deaths annually [1, 2].

Hypertension is a significant public health issue, recognized as a leading contributor to the global burden of disease [3]. It serves as a major risk factor for serious conditions such as stroke, and chronic kidney disease, all of which can lead to severe health complications and premature death. Worldwide, approximately 1.19 billion people are living with hypertension [4], a figure that indicates the widespread nature of this condition. Its high prevalence demands greater attention to prevention, early detection, and effective management to reduce the long-term health impacts [4].

In Ethiopia, studies indicate a hypertension prevalence of about 20.63%–21.81% among adults. Despite these alarming statistics, the management of hypertension remains inadequate due to various barriers within the healthcare system [5, 6]. Other barriers in hypertension treatment and control included low level of understanding, resource limitations, misunderstanding about hypertension, use of traditional medicines, physical inactivity, and expensive medications [7].

Over half of individuals with hypertension in Ethiopia still struggle to maintain adequate blood pressure control [8, 9]. Contributing factors include diabetes mellitus, which increases the complexity of management, and older age, as age-related changes make blood pressure harder to regulate. Male gender has been linked to poorer control, possibly due to lower health-seeking behavior and adherence challenges. Additionally, the presence of comorbidities like kidney disease or cardiovascular conditions further complicates treatment, requiring the need for comprehensive, patient-centered care [6, 10].

Despite the growing body of literature on hypertension in Ethiopia, there remains a gap in understanding the qualitative aspects of patient experiences and perspective regarding hypertension management. Therefore, this study aims to explore the barriers and facilitators to hypertension management from the perspectives of patients at a comprehensive hospital in

Southern Ethiopia. By integrating patient voices into the understanding of hypertension management, this research aspires to inform more effective interventions that can improve outcomes for patients living with hypertension.

Methods and methods

Study setting and participants

The research was conducted at Wolaita Sodo University Comprehensive Hospital, located in Wolaita Sodo town in Southern Ethiopia. Wolaita Sodo town is the capital city of the Wolaita zone and is located 330 km south of Addis Ababa, the capital city of Ethiopia. This facility serves a diverse population and provides a wide range of healthcare services, including specialized care for chronic diseases like hypertension. The hospital is equipped with trained healthcare providers and has established programs for hypertension management, making it an appropriate setting for exploring patient experiences and perspectives. The study participants were adults diagnosed with hypertension at Wolaita Sodo University Comprehensive Hospital, selected based on specific inclusion criteria, including age, confirmed diagnosis of hypertension, and willingness to participate in the study.

Sampling

Purposive sampling was used to recruit 14 participants. Participants were carefully selected using a maximum variation sampling approach to ensure a broad range of perspectives and uncover shared experiences across different backgrounds [11]. Participants were identified and recruited through healthcare providers at a comprehensive hospital in Southern Ethiopia. To ensure diversity, recruitment targeted both rural and urban areas, balanced gender representation, and included individuals with varying educational levels and blood pressure status (controlled vs. uncontrolled). This diversity helped capture the richness of participants' experiences while also identifying common themes across different characteristics. The research team assessed data saturation by continuing interviews until no new themes emerged, and the responses began to repeat, indicating sufficient data had been collected. To minimize potential biases, the researchers employed bracketing during data collection and analysis, ensuring that personal preconceptions did not influence the process.

Eligibility Criteria

The inclusion criteria were as follows: adults aged 18 years and older, those diagnosed with hypertension (defined as a systolic blood pressure of 140 mmHg or higher, or diastolic blood pressure of 90 mmHg or higher) for a minimum of six months and currently receiving

pharmacological or non-pharmacological treatment for hypertension. Exclusion criteria included individuals with cognitive impairments or severe mental health conditions that might interfere with their ability to provide informed consent or articulate their experiences.

Study design

This study used a phenomenological design to understand patients' experiences and perspective on hypertension management. A phenomenological approach was chosen because it provides a deeper insight into people's personal experiences, emotions, and the challenges they face beyond what numbers alone can reveal [12, 13]. It allowed us to explore how individuals live with hypertension, manage their treatments, and adapt their lifestyles to cope with the condition.

To gather meaningful information, semi-structured interviews were conducted, giving participants the freedom to express their thoughts in their own words. Open-ended questions encouraged them to talk about their understanding of hypertension, their experiences with medications and lifestyle changes, and the difficulties they face in following treatment plans. The flexibility of this method also allowed interviewers to ask follow-up questions based on the participants' responses, ensuring important but unexpected topics were not overlooked.

This design helped uncover the complex factors that affect how individuals manage hypertension, including personal motivations, family support, and access to healthcare services. By focusing on participants' stories, the study aimed to identify the barriers they encounter and the strategies they use to manage the condition.

Data collection methods, tools and procedures

Data collection for this study was conducted through in-depth semi-structured interviews, which provided a flexible yet structured approach to exploring participants' responses. Probing questions such as "Tell me more about that," "Could you elaborate further?" "I didn't quite understand that, could you repeat it?" and "What do you mean by that?" were used based on participants' responses to ensure clarity and gain an in-depth understanding of the experiences and perspectives under investigation. This method allowed the researchers to engage deeply with each participant while ensuring that key topics were covered. The interview guide was meticulously developed through a comprehensive literature review and consultations with experts in the field, resulting in a set of open-ended questions designed to elicit detailed narratives and insights. The interview used in this study was previously been published for the study aimed to explore how patients experience and perceive hypertension [14]. Few of the interview questions are: How did

you learn that you have "pressure" (high blood pressure)? Why is it important to know you have "pressure"? Since being diagnosed with "pressure," how do you take care of yourself? Other than healthcare providers, does anyone help you with taking care of your "pressure"? Tell me how you take your medication and tell me about your experiences going to the health facility.

To ensure participants felt comfortable and able to express themselves fully, the interviews were conducted in the local language, either Wolaita or Amharic. This linguistic consideration was crucial, as it facilitated more natural and authentic communication, allowing participants to share their experiences without the barrier of language. Each interview lasted between 30 to 60 min, providing ample time for participants to elaborate on their thoughts and feelings regarding hypertension management. The informed consent was read and explained to each participant in a language they understood. Participants signed the informed consent form before they were enrolled in the study. With the participants' informed consent, the interviews were audio-recorded to ensure accurate transcription and analysis.

In addition to the audio recordings, field notes were taken immediately following each interview to capture non-verbal cues and contextual information that could enrich the understanding of the participants' responses. These notes included observations about body language, emotional expressions, and the overall atmosphere of the interview setting, all of which are essential for interpreting qualitative data. Together, the audio recordings and field notes provided a comprehensive data set for analysis, enabling a richer exploration of patients' experiences and perspective with hypertension diagnosis, treatment adherence, and self-care practices.

Data analysis

The audio recordings from the interviews were transcribed to be included in the data and translated verbatim into English by the principal investigator. This meticulous transcription process is crucial for preserving participants' narratives, which can provide rich insights into their experiences with hypertension management. After transcription, the text was translated into English, allowing for a broader audience to access and understand the findings.

The interview transcripts were coded using OpenCode Software Version 4.02. Data analysis was conducted through inductive thematic analysis, following Colaizzi's descriptive phenomenological framework to capture the participants' experiences. This approach was selected because it is particularly suited for exploring participants' lived experiences in-depth, which is central to understanding the complexities of hypertension management.

Colaizzi's framework allows for a systematic and structured process to extract the essence of individual experiences while preserving the richness of participants' voices. Compared to other qualitative methods, Colaizzi's approach offers a clear and rigorous way to identify meaningful themes and patterns, ensuring the findings remain grounded in the participants' personal perspectives [15].

The analysis process was structured into several key steps to facilitate a comprehensive exploration of the participants' perspectives. Familiarization was the first step, wherein the research team read through the transcripts multiple times to immerse themselves in the data. This step is essential for developing a thorough understanding of the content and context of the participants' responses. Following this, the team engaged in the coding phase, where initial codes were generated by identifying significant phrases, keywords, and concepts that directly related to the research questions. This process involved important segments of the text that captured the essence of the participants' experiences and perspectives.

Next, in the theme development stage, the initial codes were grouped into broader themes. This grouping reflected the common experiences and perspectives shared by participants, helping to identify overarching patterns within the data. The reviewing themes phase involved critically evaluating the proposed themes to ensure they accurately represented the dataset. This step also included addressing any overlaps or gaps, which is vital for ensuring the robustness and validity of the findings.

Finally, each theme was defined and named to encapsulate its essence, leading to a cohesive understanding of participants' experiences and perspectives. Thematic analysis also illuminated the key aspects of hypertension management from the participants' viewpoints and facilitated a deeper understanding of the complex factors influencing their experiences.

Data quality assurance procedures

To ensure data quality, trained data collectors conducted the interviews. Before the main data collection, a pre-test was administered via telephone interviews with participants. This pilot phase helped identify any challenges, such as ambiguous questions or logistical issues, and tested the feasibility of the study. It also assessed participants' readiness and willingness to engage, ensuring that the data collection tools were well-prepared and reliable for the actual study.

We ensured trustworthiness through several strategies, starting with triangulation by using multiple data sources to validate the findings. Independent analysis by two or more researchers, followed by comparisons of

their results, enhanced the credibility of the study [16]. Prolonged engagement with the transcribed data through continuous reading and analysis further strengthened the depth and accuracy of the findings. The study was conducted under the supervision of an experienced qualitative researcher, ensuring dependability, which refers to the consistency of the research process, often assessed through intercoder agreement. We monitored the consistency of emerging codes across coders to maintain reliability [13].

To promote transparency, we provided a detailed description of the research process and used thick descriptions of participants and findings, supported by quotes from interviews and field notes [17]. Regular reflexive discussions within the research team helped us recognize and manage our own biases, minimizing their influence on the study. Although the researchers had prior experience in public health facilities facilitating the development of relevant research questions.

Results

Sociodemographic characteristics

The table below presents the sociodemographic characteristics of the study participants, including their age, gender, marital status, education level, employment status, place of residence, and duration since hypertension diagnosis. A total of 14 participants were included in the study, with a mean age of 51 years ($SD=5.2$) with ages ranging from 45 to 60 years. The sample was evenly distributed by gender, with 7 male and 7 female participants. Participants had a range of educational backgrounds, and their occupations varied, including farmers, teachers, and government workers. This information provides an overview of the participants' backgrounds (Table 1).

Experiences and perspective of patients on hypertension management

This study explored experiences and perspectives of patients on hypertension management through qualitative interviews. Six key themes emerged, depicting participants' challenges, coping strategies, and interactions with the healthcare system. The themes identified are: Adherence to Treatment and Self-care, Awareness of Perceived Risk and Health Literacy, Experience with the Diagnosis, Family Support in Hypertension Management, Stress Awareness and Management, and Healthcare System and Proximity to Facilities. The themes and subthemes are discussed as follows (Fig. 1).

Theme 1: adherence to treatment and self-care

Managing hypertension involves balancing prescribed medications with lifestyle changes. Participants shared their strategies for dietary modifications, physical

Table 1 Sociodemographic characteristics of study participants

| ID | Gender | Marital Status | Education Level | Occupation | Ethnicity | Residence | Duration with Hypertension (years) |
|-----|--------|----------------|---------------------|----------------------|-----------|-----------|------------------------------------|
| P01 | Male | Married | Primary | Farmer | Wolaita | Rural | 5 |
| P02 | Female | Widowed | No formal education | Housewife | Wolaita | Rural | 10 |
| P03 | Male | Single | Degree | Teacher | Amhara | Urban | 3 |
| P04 | Male | Married | Diploma | Self-employed | Wolaita | Urban | 8 |
| P05 | Male | Married | Degree | Self-employed | Wolaita | Urban | 2 |
| P06 | Female | Married | No formal education | Retired | Wolaita | Rural | 12 |
| P07 | Male | Married | Secondary | Government worker | Wolaita | Urban | 6 |
| P08 | Male | Married | Diploma | Small business owner | Wolaita | Urban | 7 |
| P09 | Female | Married | Degree | Government worker | Wolaita | Urban | 4 |
| P10 | Male | Married | Primary | Driver | Dawro | Urban | 9 |
| P11 | Male | Married | No formal education | Farmer | Wolaita | Urban | 5 |
| P12 | Male | Married | Diploma | Clerk | Wolaita | Urban | 11 |
| P13 | Female | Widowed | No formal education | Housewife | Wolaita | Rural | 13 |
| P14 | Male | Married | Degree | Accountant | Amhara | Urban | 8 |



Fig. 1 Themes on the study of exploring experiences and perspectives of patients on Hypertension Management in Southern Ethiopia: A phenomenological Study, 2024

activity, and medication adherence, along with the difficulties they face in maintaining these practices.

Sub-theme 1: dietary changes and modification

Participants emphasized the importance of reducing salt intake and increasing their consumption of vegetables. Many acknowledged that their doctors had warned them about the health risks of excess salt and sugar.

"We don't add sugar or salt anymore because the doctor warned me against it. For lunch, I usually eat a lot of vegetables, like lentils, cabbage, or carrots." – P08.

"I try to reduce salt, but it's hard since most of the foods we eat are prepared traditionally. My family doesn't like the taste without it." – P09.

"I used to enjoy sweet tea, but now I only use honey. It was hard at first, but I got used to it after a while." – P12.

Sub-theme 2: physical activity

Engaging in physical activity, particularly walking, was a common strategy among participants for managing hypertension. Many described how walking had become part of their daily routine, though some reported difficulties due to busy schedules, fatigue, or physical limitations.

"I try to walk around the neighborhood every day for about 30 min. Running the shop keeps me on my feet, but I still make sure to walk for exercise. I used to play football with friends, but now I do lighter activities because my energy levels aren't what they used to be." – P04.

"I used to walk longer distances when I was younger, but now I take shorter walks because my legs get tired more quickly." – P06.

"I walk to the market almost every day since it's a good way to stay active." – P10.

"Farming gives me enough exercise, but I still try to stretch and walk when I get a chance." – P011.

Sub-theme 3: treatment adherence

Most participants were aware of the importance of adhering to prescribed medications. While many reported taking their medication regularly, a few admitted to occasional missed doses due to forgetfulness or access issues.

"I'm usually good at remembering, but sometimes when I'm busy or distracted, I forget." – P03.

"There were times when the pharmacy didn't have my medicine, and I had to skip a few days." – P013.

"My children always remind me to take my pills. Without them, I might forget, especially on busy days." – P09.

"I know it's important, but sometimes I stop taking the medicine when I feel fine, then I realize that was a mistake." – P012.

Theme 2: awareness of perceived risk and health literacy

Participants' understanding of hypertension and its associated risks varied, but many demonstrated a strong awareness of the disease's potential complications, such as heart attacks and strokes. This awareness significantly encouraged better self-management and adherence to treatment.

"It's important because high blood pressure can cause many other problems, like heart attacks or strokes, and I've seen it happen to some of my friends." – P03.

"High blood pressure doesn't show symptoms until it's already causing damage. When the doctor explained this to me, I realized I had to take it seriously to prevent bigger problems." P05.

Participants with higher health literacy were more likely to engage actively in managing their condition through consistent medication use and lifestyle changes.

"After my diagnosis, I started researching hypertension online. Understanding that it can lead to serious conditions really motivated me to follow my treatment plan." – P09.

"My doctor explained that hypertension is often called the 'silent killer' because you don't feel sick until it's too late. That scared me into making lifestyle changes." P10.

"I joined a support group where we talk about our experiences with hypertension. Hearing others share their stories has made me more aware of how serious this condition can be." P11.

Theme 3: experience with the diagnosis

Receiving a diagnosis of hypertension elicited varied emotional reactions from participants, ranging from surprise to confusion and worry. For many, the diagnosis came as an unexpected revelation, especially for those who were asymptomatic or had only mild symptoms. The

initial shock of the diagnosis often indicated participants' previous lack of awareness about the disease, reflecting a gap in understanding hypertension as a "silent killer." Participant P01 expressed astonishment at being diagnosed, given his perception of his health:

"...but the doctor told me my blood pressure was high. My wife was with me at the time, and I was surprised because I didn't think I had any health problems."

Similarly, Participant P09, who did not associate the condition with younger age groups, noted:

"I didn't feel sick at all, so when they said I had hypertension, I was really shocked. I thought blood pressure issues were for older people."

These feelings of surprise were often coupled with confusion, particularly for those who were unfamiliar with the causes and consequences of high blood pressure. This confusion was evident in Participant P05's account:

"The headaches got so bad that I had to leave work early. My wife insisted I see a doctor. After some tests, they told me I had high blood pressure. I was confused, but the doctor explained it was causing the headaches."

Participant P10 also shared this sense of uncertainty, focusing more on the potential long-term impact of the diagnosis:

"When I first heard I had high blood pressure, I was more worried about how it would change my daily life. I wasn't sure if I would need medication forever or if I could manage it another way."

These responses indicate the broader emotional landscape participants experienced upon receiving a hypertension diagnosis. For many, the realization that they had an underlying chronic condition led to concerns not only about immediate health but also about long-term management and lifestyle changes.

Theme 4: family support in hypertension management

Family support played a critical role in participants' ability to manage their hypertension. Many described how family members contributed both emotionally and practically to their management routines, offering support in medication adherence and lifestyle modifications. For several participants, the presence of supportive family members helped reduce the burden of managing the chronic condition alone.

Participant P04 discussed how his family worked together to manage his hypertension:

"...my wife helps me a lot. She's in charge of cooking and makes sure we eat foods that are healthy for my blood pressure. My son also reminds me to take my medication and encourages me to go for walks. We all work together to manage it."

Participant P06 similarly noted how his family's support made it easier for him to stay consistent with his health management:

"My family knows how important it is to keep my blood pressure in check. My daughter bought a blood pressure monitor for me, and my husband helps me stay on track with the meals and exercises."

Participant P11 emphasized the crucial role his family played in helping him quit unhealthy habits:

"I've been trying to quit smoking for years, but after my diagnosis, my whole family encouraged me to stop. We had open conversations about it, and they've been really supportive, which has made it easier."

For others, family support extended beyond emotional encouragement, with physical involvement in exercise routines. Participant P09 shared how his spouse's participation in his walks contributed to his adherence to physical activity:

"Since the diagnosis, my husband has been walking with me every evening. It's not just good for my health, but it also makes me feel supported. I don't think I could do it alone."

Participant P10 also reflected on the importance of having someone to rely on for reminders and accountability:

"My wife checks in with me regularly, reminding me to take my medication and go to my appointments. Without her, I think I'd be less consistent with my care."

These denote that family support was not only beneficial for practical disease management, such as medication adherence and dietary control, but also fostered a sense of emotional stability and encouragement. Participants noted that with the help of their family members, they felt empowered to better manage their hypertension and maintain a healthier lifestyle. This theme depicts the importance of family involvement in chronic disease management, as supportive family dynamics can significantly improve treatment adherence and health outcomes.

Theme 5: stress awareness and management

Participants acknowledged the impact of stress on their hypertension, noting that stress often contributed to

increased blood pressure. They shared various methods for managing stress, including exercise, mindfulness, and seeking social support.

Participant P05 noted the connection between stress and blood pressure:

"I've noticed that when I'm stressed, my blood pressure tends to go up."

Participant P09 described how mindfulness helped her manage stress:

"Sometimes, when things get too much, I just sit down and focus on my breathing. It helps me calm down and keeps my blood pressure steady."

Participant P10 mentioned the role of social support in stress relief:

"I find that talking to my sister or a friend about what's bothering me really helps. It's like a weight is lifted, and I feel more at ease afterward, which keeps my blood pressure in check."

Participant P12 explained how awareness of stress triggers helped her manage it:

"Once I learned that stress was affecting my health, I started paying attention to when I felt anxious or tense. Now, I make sure to take breaks and relax before it gets out of hand."

Participant P11 indicated how physical activity served as a stress reliever:

"Whenever I feel stressed, I go for a run. It not only clears my mind but also keeps my blood pressure under control."

In addition to individual strategies, family support often influenced participants' ability to manage stress. Relatives provided emotional encouragement, practical assistance, and sometimes guided relaxation techniques, which helped in managing hypertension. These cultural aspects should be considered when designing interventions aimed at improving stress management and overall hypertension control.

Theme 6: healthcare system and proximity to healthcare facilities

Sub-theme 1: proximity to healthcare facility

Many participants found that living near healthcare facilities made accessing treatment more manageable, with proximity easing the burden of travel and time commitment.

Participant P04 shared:

"The health facility is about a 30-minute walk from my house, so it's not too far."

Participant P10 described how nearby services contributed to consistent care:

"I live just a short drive away, which means it's easy to go for my regular check-ups or pick up my medication without any major issues."

Participant P14 emphasized the convenience of living close to a clinic:

"There's a clinic right in my neighborhood. I can walk there in a few minutes, so I never have to worry about missing appointments."

Sub-theme 2: experiences with the healthcare system

Despite the relative ease of physical access, frustrations with the healthcare system itself were common, particularly concerning long wait times, which sometimes discouraged participants from seeking care as promptly as they might have otherwise.

Participant P08 voiced concern over the waiting times:

"The waiting times at the clinic can be exhausting. A more efficient system would make it easier for patients to get seen without spending hours there."

Participant P11 noted inefficiencies:

"Even if I arrive early, the slow process inside the clinic means I often end up waiting for hours just to see a doctor."

Participant P13 added that these delays often deterred them from seeking non-urgent care:

"I avoid going to the hospital unless it's absolutely necessary because I know I'll be stuck waiting all day."

Discussion

This study investigated patients' experiences and perspectives on managing hypertension at a comprehensive hospital in Southern Ethiopia, revealing critical insights into the multifaceted challenges faced by patients. Six key themes emerged from the qualitative interviews:

Participants reported a detailed relationship with treatment adherence, balancing prescribed medications and lifestyle changes. Sub-theme analysis revealed that dietary modifications, such as reducing salt intake and increasing vegetable consumption, were crucial for many. Participants expressed a strong commitment to these changes, often motivated by their healthcare providers'

warnings about hypertension-related health risks. Physical activity, particularly walking, emerged as a common strategy for managing hypertension; however, participants faced challenges due to busy schedules and physical limitations. Research has shown that both lifestyle changes such as increasing physical activity and adopting a diet rich in fruits and vegetables, while reducing salt and saturated fat and antihypertensive medications are effective in lowering blood pressure [18–20]. These interventions are crucial for managing hypertension and improving overall cardiovascular health. This depicts the importance of targeted support to enhance adherence and encourage healthier lifestyles.

The theme of awareness of perceived risk and health literacy indicated the varying degrees of understanding participants had about hypertension. Many recognized the severe complications associated with the disease, such as heart attacks and strokes, which fostered a sense of urgency in managing their health. Participants with higher health literacy demonstrated greater engagement in treatment adherence and self-care practices. This finding was supported with other researches [21]. This finding indicates the need for educational interventions to enhance health literacy, equipping patients with the knowledge necessary for effective self-management and reducing the long-term risks associated with hypertension.

Participants' experiences with their hypertension diagnosis were marked by mixed emotions, including surprise and confusion. This emotional response often stemmed from a lack of prior symptoms, leading to a delayed recognition of their health condition. Understanding the psychological impact of a diagnosis is vital for healthcare providers, as it can influence patients' willingness to adhere to treatment. Other similar studies supported this finding [22, 23]. The findings emphasize the necessity of providing supportive counseling during diagnosis to help patients navigate their emotions and reinforce the importance of ongoing management.

The role of family support emerged as a significant factor in managing hypertension. Participants with supportive family members reported feeling empowered to adhere to treatment regimens and adopt healthier lifestyles. Spouses and children played key roles in encouraging dietary changes, reminding patients to take medications, and promoting physical activity [24, 25]. This indicated the importance of involving family members in hypertension management strategies, as strengthening these support networks can enhance adherence and overall health outcomes.

Participants recognized the detrimental impact of stress on their hypertension and shared various coping strategies, including exercise, mindfulness, and

seeking social support. Many noted that unmanaged stress led to increased blood pressure levels, emphasizing the need for effective stress management techniques [26–28]. Healthcare providers should consider incorporating stress reduction programs into hypertension management plans, as addressing psychological well-being can significantly improve physical health outcomes for patients. Additionally, healthcare providers should be trained to integrate stress management counseling into routine care, helping patients manage stress as a key factor in hypertension control.

The healthcare system's accessibility, particularly the proximity to facilities, played a crucial role in participants' experiences. Most reported living near healthcare facilities, facilitating timely access to care. However, frustration with long waiting time was taken as a barrier to seeking prompt treatment. Improving organizational aspects within healthcare settings, such as appointment scheduling and patient flow, could alleviate these frustrations and encourage patients to pursue regular care [29]. These improvements are essential for optimizing patient experiences and enhancing adherence to hypertension management.

Conclusion

This study explored the experiences and perspectives of hypertension management among patients at a comprehensive hospital in Southern Ethiopia, uncovering six key themes. These findings emphasize the need for patient-centered interventions that enhance medication adherence, involve family support, and address stress. Improving health literacy, reducing systemic barriers, and fostering family involvement in care are essential for sustainable hypertension management and improved health outcomes in similar settings. Training healthcare providers to incorporate stress management counseling into routine care and developing family-oriented education programs can further enhance patient well-being. Additionally, advocating for increased investment in healthcare infrastructure is crucial to reduce waiting times, enhancing patient satisfaction and healthcare delivery. Future research should explore how traditional medicine and local beliefs about hypertension influence management strategies in Ethiopia, as understanding these cultural factors can provide valuable insights for more effective, context-specific interventions.

Strength and limitation

The study's strengths lie in its in-depth exploration of patient experiences and perspectives with hypertension management through semi-structured interviews, allowing for rich, descriptive data that captures the

complexities of individual narratives. Conducting interviews in the local language enhances cultural relevance and trust, while purposive sampling ensures diverse perspectives across demographic groups. Robust measures, such as member checking and triangulation, enhance the study's credibility, making the findings applicable to practice. Additionally, this research fills a gap in qualitative literature on experience of patients and perspectives on hypertension management in Ethiopia, offering valuable understandings that can inform targeted interventions and improve health outcomes.

While this study provides valuable insights into hypertension management, it is essential to recognize its limitations. The findings are context-specific to the hospital and region, which may limit their generalizability to other settings in Ethiopia or beyond. Additionally, social desirability bias may have influenced participants' responses, as they might have tailored their answers to align with perceived expectations or what they believed the researcher wanted to hear. This bias could have affected the authenticity of some responses, especially in a healthcare setting where patients may feel pressure to present themselves positively. Furthermore, the study relied on self-reported data, which can also be subject to recall bias or the tendency to overstate adherence to treatment recommendations.

Abbreviations

| | |
|--------|---|
| BP | Blood Pressure |
| NCD | Non-communicable disease |
| WHO | World Health Organization |
| WSUCRH | Wolaita Sodo University Comprehensive and Referral Hospital |

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Authors' contributions

EE conceived the idea for this qualitative study and authored the first draft of the manuscript. EE, TG, and BD led the data collection, transcription, and coding of interviews, collaborating closely with MB and GN on data analysis and interpretation of the findings. EI, AH, and CK contributed to the study design and provided critical input throughout the writing process. GN, BA, and BAA assisted with data interpretation. All authors participated in reading and approving the final version, reflecting a strong collaborative effort throughout the research.

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Data availability

All the necessary data are available from the corresponding author up on a reasonable request.

Declarations

Ethics approval and consent to participate

Ethical approval was obtained from the Wolaita Sodo University ethical review board with reference number of CRCSD105/02/24. The study was conducted in accordance with the principles outlined in the Declaration of Helsinki. Informed consent was obtained from all participants before the interviews, ensuring they understood the purpose of the study, their right

to confidentiality, and their right to withdraw at any time without repercussions. Participants were assigned unique identifiers to protect their identities throughout the research process.

Consent for publication

Participants provided informed and written consent for the publication of anonymized data from this study.

Competing interests

The authors declare no competing interests.

Author details

¹School of Nursing, College of Health Science and Medicine, Wolaita Sodo University, Wolaita Sodo, Ethiopia. ²School of Public Health, College of Health Science and Medicine, Wolaita Sodo University, Wolaita Sodo, Ethiopia. ³Department of Public Health, School of Public Health, College of Medicine and Health Science, Bahir Dar University, Bahir Dar, Ethiopia. ⁴Department of Midwifery, College of Health Science and Medicine, Arsi University, Asela, Ethiopia. ⁵School of Nursing, College of Health Science and Medicine, Samara University, Samara, Ethiopia.

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