Self-Managed Hypertension: A Phenomenological assessment of patients' Treatment behaviours in Ghana

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Introduction

Hypertension (also known as high blood pressure [HBP]) is increasingly becoming a pressing public health issue in sub-Saharan Africa (SSA), which is still battered with infectious and parasitic diseases. The rise in hypertension, which is a noncommunicable disease (NCD), in addition to infectious and parasitic diseases (communicable diseases [CD]) in the sub-region is a deviation from epidemiological transition theory since both conditions co-exist at the same time, posing a double burden of diseases [1]. Noncommunicable diseases are responsible for millions of deaths on a global scale; among these deaths, 17.9 million (44%) are attributed to cardiovascular diseases, with hypertension identified as the primary risk factor [2]. According to the World Health Organisation (WHO), the African region bears the highest burden of hypertension, with approximately 46% of adults aged 25 years and older being affected [3]. Nevertheless, a significant portion of the population with hypertension either goes undiagnosed, receives inadequate treatment, or remains untreated [4]. This situation contributed to the increasing burden of hypertension and its complications in the sub-region.

Self-management refers to the day-to-day management of chronic conditions by patients over the course of an illness [5,6]. Thus, the process in which patients take sole responsibility and make decisions for controlling their BP by adhering to a wide range of treatment strategies. The WHO concedes the value and potential contribution of self-management strategies within the healthcare system and the rapid advances being made in services, behaviours, and information that can be initiated by individuals [7]. In this regard, WHO offers up-to-date and evidence-based guidance for hypertension treatment.

Given the unique socio-cultural context of Ghanaians [8], this study was designed to provide specific insights on self-management practices deployed by Ghanaian hypertensive patients in order to aid policymakers in tailoring interventions to the local context, considering socio-cultural and related influences associated with hypertension management. This is essential for the successful implementation of future health interventions aimed at addressing hypertension and related NCDs in Ghana and the sub-Saharan African region with similar socio-cultural contexts.

Materials and Methods
Study Design and Setting

A phenomenological study design was used which was guided by the COREQ checklist for reporting qualitative research to understand the self-management strategies used by hypertensive patients attending regular treatment at Sunyani Teaching Hospital in Ghana to control their high blood pressure at home.

The Sunyani Teaching Hospital, where the study was conducted, is a tertiary and referral hospital established in 1927 by the then colonial master, the British. It is a GHS facility, not-for profit health institution and accredited National Health Insurance Scheme (NHIS) facility.

Recruitment plan

Participants in the study were recruited using the purposive sampling technique, which is a non-probability sampling technique given that our aim was to select a specific group of people, (hypertensive patients). Hypertensive patients were selected based on their willingness to participate in the study, diagnosed with hypertension and on regular treatment for the past 6 months at Sunyani Teaching Hospital, and agreed for their BP to be measured by the research team.

Instrument

Guided by the literature on hypertension self-management behaviours [9-12], an in-depth interview guide was developed by the authors for data collection.

Data Collection Procedure

Four research assistants were hired and trained for the data collection exercise. Interviews were conducted in a private, secure, and convenient place approved by the participants. Most interviews were conducted at the hospital premises and others at the patient's homes. English was intended for conducting the interviews; however, due to some participants not being able to express themselves freely in English, Twi, the major local language in Ghana, was used. All interviews were conducted face-to-face and once, with all sessions being facilitated by the research assistants and recorded using Sony digital voice recorders.

Trustworthiness

Quality of data is essential in every research project, especially for qualitative studies that explore subjective information to aid understanding and contribute to knowledge. Therefore, to ensure the rigour and trustworthiness of this phenomenological research, several strategies were used: member checking, peer debriefing, and reflexivity.

Ethical Considerations

Several ethical considerations were adhered to in this study. First, participants were briefed about the study to the extent that it did not influence their responses. The study received ethical clearance (ID: UCCIRB/CES/2020/12) from Institutional Review Board of the University of Cape Coast.

Data Analysis

Data was analysed both manually and electronically using Atlas.ti software. All the responses were manually transcribed verbatim. The transcriptions were translated into English by two hired translators, and back translation was performed to ensure correctness and reliability in linguistics. Textual data were explored several times by the researcher to identify themes and categories using Atlas.ti software. Relevant codes and quotes were identified and categorized.

Results

The study findings presented on participants' characteristics; and themes generated from the study, including self-management behaviours for hypertension care. The themes emerged from the study were made up of main and sub-themes, in addition to quotes from the sub-themes.

Description of Study Participants

In all, 26 hypertensive patients were included in the study. These participants were made up of 11 males and 15 females. Almost all the participants (22) were above 40 years, however, few (3) were between 30 to 39 year, and one was 28 years. For the participants above 40 years, the larger portion (9) were between 50 to 59, followed by those above 60 years (8), and the smallest (5) were between 40 to 49. Most of the participants (17) were married, few (3) have divorced and the rest had never married (2) or widowed (4). A substantial number of the participants (15) interviewed were diagnosed of hypertension between the ages of 50 to 59. The results also showed that only 8 of the participants had no comorbidities.

Self-Management Behaviours

Six themes of self-management behaviours were identified through thematic content analysis.

Figure 1: Self-management behaviour for hypertensive care
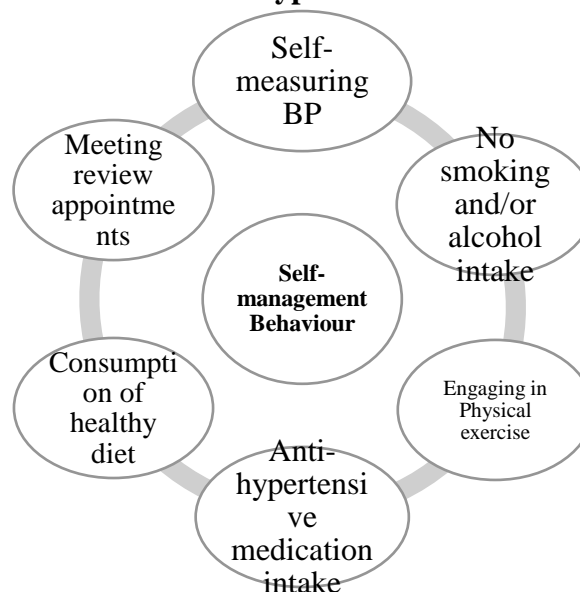
Antihypertensive medication intake

The intake of antihypertensive medication was generally perceived as the primary and most crucial behaviour in managing hypertension. However, only one participant demonstrated adequate knowledge of this behaviour. The participant indicated that:

 "*I take 2 different medications every morning and they are nofedipine 30 mg and lisinpril 10 mg*" (P15, female, 56 years)

Unfortunately, most of the participants could just described the medication by colour and shape. A patient described her medications as:

"*... I don't know the name or anything about the drugs except the colour and shape; it's white in colour and round in shape*" (P11, female, 71 years)

These are clear indications of participants' poor knowledge of antihypertensive medications. Some have been taking the medication either in the morning or evening instead of the morning only.

Consumption of healthy diet

In exploring patients' food consumption behaviour that control BP, the main issues covered by our study were knowledge and adherence to DASH diet, type of food mostly consumed, salt intake, and time of eating. It was established that participants often just eat whatever is available and do not consciously search for DASH diet, as indicated in these statements when asked about DASH diet:

"*...oh! as for my BP, I take medicine so it's okay most at times. For the food I eat, my wife either prepares it or I buy when I go work and it is clean and healthy so it will not raise my BP.*" (P26, male, 68 years)

Several participants were aware of consuming little or no salt in their diet. One important revelation was that most patients made some conscious effort to entirely avoid the use of table salt. When a participant was asked to describe the quantity of salt consumed daily, he said that:

"*...as for me, I have absolutely reduced my salt intake...however, I have no idea about the quantity of salt to use per day*". (P13, male, 62 years)

Engaging in physical exercise

Adherence to physical exercise was abysmal since several participants in our study do not engage in physical exercise consciously to control their BP. However, due to the nature of their job and household chores, it serves as physical exercise. One of such participants declared that:

"*My children have built a gym at home for me and I do exercise every morning and sometimes in the evening since I suffered stroke. It has really helped me and I don't think I will ever stop doing it. I do cycling, treadmill, and stretching.*" (P13, male, 62 years)

Meeting review appointments

In our study, it was observed that all the patients were able to meet all their review appointments timely and regularly, as scheduled by their care providers. Thus, she specifically intimated that:

"*The most important thing I can say about having a controlled BP is to make sure you don't skip any of your hospital appointment days and your medications. ...it is what has helped me to control my BP all these while*" (P20, female 44 years).

Self-measuring BP

Finding indicated self-measuring BP behaviour at home was highly recommended by medical practioners for proper BP level assessment and treatment. however, greater number of the participants were unable to measure their BP at home. One of such patients mentioned that:

"*I wish I could do that, but I don't have the BP machine at home and the distance from my house to the hospital is far so I only check my BP when I visit the hospital*" (P4, male, 28 years)

No smoking and/or use of alcohol

The study revealed that several patients had no smoking history. A larger portion of the participants had never smoked before, especially the females. Thus, almost all the female participants had never smoked, except one who smoked in her early 20s but has stopped smoking for the past 20 years. She disclosed that:

"*…yes, I have smoked before, that was my early 20s when I was in high school. For the past 20 years and over, I had never smoked and I think I will not ...even my current health condition does not permit it.*" (P6, female 49 years)

None of the participants was a known alcoholic though most of them admitted they consume alcohol, they revealed they do not abuse it.

Discussion

Achieving optimal hypertension control has been a major global challenge given the difficulties in attaining optimal BP control, driven mostly by a lack of patients' cooperation. This phenomenological study was carried out to explore and understand the self-management behaviours used by patients to control their high blood pressure. Self-management strategies, including self-management behaviours, provide the foundation on which hypertensive patients are enabled to play an active role in managing their BP.

Generally, there was poor adherence to the six self-management behaviours identified in the study. Several patients could not employ all the required self-management behaviours needed to manage their hypertension. Rather, they were more familiar with and used to those that they felt comfortable, important, and easy to practice, such as antihypertension medication intake, consumption of a healthy diet, particularly a low- or no-salt diet, and attendance at review appointments.

To achieve optimal BP control and prevent complications, most, if not all, evidence-based self-management behaviours often need to be adopted and practiced correctly to effectively deal with the condition. The inability of patients to fully employ and properly adhere to relevant self-mapping behaviours may render their treatment ineffective and cause their BP to remain uncontrolled. This suboptimal self-management practice among the study hypertensive patients was also reported by Hussien et al. (2021) in their study conducted in North-West Ethiopia. Likewise, in another qualitative study, several hypertensive patients were found to be ill-equipped to play an active and empowered role in self-care in South Africa [13]. Aside from the qualitative reports, previous quantitative studies [14-16] also observed the same trend of inadequately practiced self-management for hypertension self-care in some African countries. These studies emphasised patients' inability to properly manage their own hypertension, confirming a report that BP control remains far from adequate regardless of global location [17]. A recent publication by the WHO [18] estimated that only 1 in every 5 adults (representing 21%) with hypertension has it under control. Evidence suggests that there are several reasons for suboptimal hypertension control; the major categories of barriers include patient-related, physician-related, environmental-related, and healthcare system-related factors [19- 21]. However, particular emphasis remains on patient-related factors. The role of patients in self-management of their condition has been theoretically and empirically established. The individual and family self-management theory, chronic care model, and coping theory recognise the skills, cognitive, and behavioural efforts patients use to manage chronic conditions, such as hypertension. These theories confirm the active role of patients in applying knowledge and incorporating the psychological and social management of living with hypertension. Empirically, studies [22-25] have also demonstrated the key role played by patients in adhering to treatment recommendations, monitoring health status, and making associated care decisions, as well as managing the impact of illness. All these roles establish that patients are at the pivot of their treatment, and as such, their inability to perform such key roles may render their treatment unsuccessful.

Transitioning from deductive to inductive discussion, thus delving into the specifics of self-management behaviours employed in the study, revealed a notable observation. With the exception of attendance at review appointments and abstaining from smoking and/or alcohol use, participants utilising the remaining self-management behaviours demonstrated a deficiency in both efficiency and consistency.

Conclusion

In conclusion, this study delved into the exploration of self-management behaviours related to hypertension management, identifying six key practices: antihypertensive medication intake, adherence to a healthy diet, engagement in regular physical exercise, attendance at review appointments, refraining from smoking and/or alcohol use, and self-monitoring of blood pressure. Distinctively, medication intake emerged as the most prevalent behaviour among participants. Despite the adoption of several of these recommended behaviours, the study revealed that patients often fall short of fulfilling their role in self-management. Many individuals struggle with the complexities of self-care, leading to suboptimal disease control, a diminished quality of life, and compromised psychological well-being. Recognizing these challenges, it becomes evident that a more concerted effort is needed to bridge the existing gaps in knowledge and behaviour among hypertensive patients. Moving forward, the implementation of intensive health promotion, education awareness, and sensitizing programs is recommended. These initiatives hold the potential to address and rectify the identified knowledge and behaviour gaps. This, in turn, can contribute to an enhanced patient-centred care approach in the management of hypertension. By fostering greater understanding and empowering patients with the tools they need, we can aspire to improve overall outcomes and well-being in the realm of hypertension care.

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