INTERNATIONAL JOURNAL OF QUALITATIVE STUDIES ON HEALTH AND WELL-BEING
2022, VOL. 17, 2103943
https://doi.org/10.1080/17482631.2022.2103943

EMPIRICAL STUDIES

OPEN ACCESS

Understanding perspectives on health-promoting behaviours among older adults with hypertension

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ABSTRACT

Purpose: Health-promoting behaviours (HPBs) are considered the key to determining health among older adults with hypertension. Increasing our understanding of older adults' views on HPBs could facilitate the development of interventions aimed at improving their quality of life. This study aims to describe the perceptions of older adults with high blood pressure concerning their HPBs and associated factors.
Methods: Semi-structured interviews with 40 individuals in Thailand were used to collect the data, which were analysed using thematic analysis.
Results: The results were categorized into five main themes related to personal, social, and environmental factors. Older adults explained that their experiences with HPBs involve taking responsibility for controlling blood pressure by following a doctor's prescription, modifying their lifestyles to be healthier, sustaining social relationships, and experiencing spiritual growth through religious practices for inner peace. Older adults also identified environmental factors that influenced their engagement in HPBs depending on their residential areas.
Conclusions: The findings of this study highlight the importance of practices in which professionals support and encourage older adults to perform HPBs to maintain health and improve their well-being.

ARTICLE HISTORY
Accepted 15 July 2022

KEYWORDS
Health-promoting behaviours; older adults; hypertension; qualitative study

Introduction

Hypertension is a chronic medical condition that affects more than 1 billion people worldwide and constitutes a global health challenge (World Health Organization, 2021). It is also a major risk factor for cardiovascular diseases and stroke (Virani et al., 2021). Heart disease is the top, and stroke is the fifth leading cause of death in the USA (Ahmad & Anderson, 2021). Furthermore, there has been 57.2% increase in the number of deaths due to high blood pressure, and based on increasing age, approximately 77% of older individuals are affected by high blood pressure (Virani et al., 2021).

Therefore, the steadily growing ageing population will inevitably increase the incidence of hypertension, making this condition a crucial health concern in this age group and increasing the burden on the healthcare system (Mills et al., 2020). Health-promoting behaviours (HPBs) are beneficial to controlling blood pressure and enhancing the quality of life among older adults with high blood pressure (Li et al., 2018; Oliveros et al., 2020). Despite growing interest in promoting an appropriate lifestyle to control blood pressure, unhealthy behaviours and poor health status are still highly prevalent among older adults (Oliveros et al., 2020). The factors that influence HPBs among older adults with hypertension should be evaluated on the basis of older adults' perspectives and experiences. This can aid in developing more comprehensive and effective health promotion interventions or policies to promote health and well-being among older populations.

Background

Globally, the number of older adults has continued to increase rapidly, from 1 billion in 2019 to an expected 1.4 billion by 2030 (World Health Organization, 2021). This trend is also evident in Thailand, where the population of individuals aged 60 years and older is 11.19 million in 2021 and is predicted to reach 15.59 million by 2030 (Tantirat et al., 2020). Hypertension is a medical condition that is highly prevalent in older adults and imposes major risk factors of heart disease, stroke, and renal failure. This condition can adversely

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The resubmission manuscript has been edited language by
Taylor & Francis English Language Editing Services Date: 13-6-22

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affect the quality of life and is a leading cause of mortality (World Health Organization, 2021). Increased age and high blood pressure exponentially increase mortality risk, making it critical to address lifestyle modifications and medication adherence to control blood pressure in older populations (Mills et al., 2020; Oliveros et al., 2020).

In Thailand, hypertension affects an estimated 13.2 million people (World Health Organization, 2019), is the most common chronic disease in older Thai adults, and leads to increased mortality from stroke and cardiovascular disease (Seesawang & Thongtang, 2018). Several studies in Thailand reported that older Thai adults with hypertension have unhealthy habits and do not follow doctors' instructions to manage their blood pressure (Seesawang & Thongtang, 2019; Woodham et al., 2018). Most older adults with high blood pressure address their health according to how severe their symptoms are and only begin to adopt a healthy lifestyle to prevent serious complications from hypertension (Seesawang & Thongtang, 2018). A range of elderly groups has also been studied in residential areas, where older adults' lives are influenced by various contextual and lifestyle factors, such as individual perceptions regarding health, social support, and access to facilities (Seesawang & Thongtang, 2019). Providing suitable strategies to address health problems in older adults is of great concern. For example, the Thai government has actively supported these strategies during the past decade by establishing local elderly clubs throughout the nation to promote healthy practices (Supromin & Choonhakhlai, 2017). These clubs aim to provide the necessary psychosocial support to promote better health behaviours in older adults, encouraging them to take responsibility for their health and effectively manage health conditions, such as hypertension (Torut & Pongquan, 2012).

Modifiable health behaviours play a significant role in improving and maintaining health and well-being (Yao, 2019). Although HPBs play a role in achieving good health among the ageing population, according to a global strategy implemented by the World Health Organization (World Health Organization, 2016), specific lifestyle modifications may be necessary for older adults with hypertension (Ahmadi et al., 2019). Prior studies identified several healthy habits that promote lower blood pressure, including reducing salt intake, promoting physical activity, and managing stress (Sutipan et al., 2018). However, the management of hypertension among older adults is more challenging than that among other age groups because of multiple comorbidities, polypharmacy, and frailty (Bilen & Wenger, 2020). Furthermore, lifestyle behaviours, such as unhealthy diet, physical inactivity, and chronic stress, are major factors that influence the occurrence of hypertension among the ageing (Chotisiri et al., 2016).

Physicians recommend both antihypertensive medication and lifestyle modification to effectively control hypertension (Benjamin et al., 2019). HPBs include positive health practices in several aspects of a healthy lifestyle (e.g., physical activities, health responsibility, diet, interpersonal relationships) to promote individuals' capacity to maintain and improve their health, thus enhancing their well-being (Pender et al., 2015). Thus, healthy behaviours represent the sum of habits that older adults with high blood pressure exhibit when they aim to promote their health by controlling their behaviour and making proper choices depending on their health status (Kim et al., 2020). Older adults with hypertension who actively engage in healthy practices have lower rates of health complications and mortality compared with older people who are less engaged in healthy practices (Qu et al., 2019). Boggatz and Meinhart (2017) explored older adults' perspectives regarding HPBs and their differing views on health promotion on the basis of anticipated health outcomes and multiple determinants. They found that daily routines can promote health to maintain independent living in older Austrian people, and sports activities might help to maintain health through a combination of socializing and exercise. However, currently, varying conclusions exist about healthy behaviours in older adults, such as dynamic multiple dimensions of health, functionality, and social engagement, which are related to the cultural context (Halaweh et al., 2018; Moon et al., 2020).

A previous systematic review of studies on the self-management of older Asian adults with hypertension reported that multiple personal, organizational, and community-related factors influence individuals' ability to engage in HPBs to maintain their health (Seesawang & Thongtang, 2019). Information on how factors related to place of residence affect HPBs among older adults from their perspective is lacking, particularly in Thailand, and no prior qualitative studies have been conducted in both urban and rural areas. To fill this knowledge gap, exploring the experiences of HPBs among older adults with hypertension in relation to their areas of residence is important. It is also important to further understand older adults' HPBs and provide a basis for the development of health promotion programmes, policies, and future research. This study aimed to describe the perspectives and experiences of older adults with hypertension regarding their HPBs and the related factors affecting their engagement in healthy behaviours. The study was guided by the following research question: How do older Thai adults with hypertension describe their experiences with HPBs? This study provides healthcare professionals with a better understanding of HPBs among older Thai adults with

hypertension. It also offers guidance for the development of interventions aimed at promoting lifestyle changes and enhancing quality of life among older adults.

Methods

This study utilized a qualitative approach, which provides an in-depth understanding of the perceptions of older Thai adults regarding their HPBs (Holloway & Galvin, 2017). This data collection method is appropriate for detailed examination of individuals' experiences and views (Polit & Beck, 2017).

Setting and participants

This study was conducted in Chonburi province in eastern Thailand, which has the highest prevalence of hypertension in the country (Bureau of epidemiology in Thailand, 2014). After obtaining ethical statements and research permissions, the researcher contacted the participants through community nurses who worked in subdistrict health promotion hospitals and were responsible for elderly clubs. An elderly club is defined as a place in the local community where at least 30 older adults (aged 60 years and over) participate as club members to perform activities together to promote their health and well-being (Rojpaisarnkit & Rodjarkpai, 2021). The contact nurses facilitated connections between the researcher and the older adults. The nurses were both orally informed and in written about the purpose of the study on elderly club members. Subsequently, older adults who met the inclusion criteria and agreed to participate were contacted and interviewed at a comfortable location of their choice.

The participants were from elderly clubs in 12 communities, with eight in urban areas and four in rural areas. The definitions of urban and rural for this study were based on the national urban-rural classification in Thailand. Urban areas are inside municipalities and have a population density of more than 200 residents per square kilometre, and rural nonmunicipal areas are settlements with 200 residents or less per square kilometre (National Statistical Office (NSO), 2020). A purposive sampling strategy was used (Polit & Beck, 2017), and 40 participants from urban (n = 20) and rural (n = 20) were interviewed to reach the data saturation (Vasileiou et al., 2018). Eligible participants were elderly club members aged 60 or older who were diagnosed with hypertension and who possessed the capacity to communicate with the interviewer. Participants were excluded if they exhibited any critical symptoms of high blood pressure, such as severe headache, dizziness, blurred vision, and nausea, which might have caused problems during the interview.

The participants were older Thai adults (34 women and 6 men) aged 63 to 89 years (M = 75 years). All participants were Buddhist, and 39 were educated at the primary school level, whereas one had no formal education. Twenty-three participants were unmarried and without a partner, and 30 were living with family. Twenty-one participants had an income equal to or less than 5,000 baht/month (≤ 149 USD), and 31 were diagnosed with high blood pressure at least in the previous five years.

Data collection

The data were collected between October 2018 and March 2019. Semi-structured interviews were conducted in person and lasted between 45 and 90 minutes. Each participant was interviewed once, at either the participant's home or in an elderly club, depending on the participant's convenience. Interviews were conducted by the first author, a Thai geriatric professional with qualifications that included being a registered nurse and holding a master's degree in nursing. Considerable time was spent talking with the interviewees to develop a rapport in the first stage of the interviews, which helped the interviewees relax and feel comfortable and free to share their experiences (Holloway & Galvin, 2017). As a gerontological nurse, the interviewer was careful not to counsel or criticize and was aware of being open-minded to minimize potential bias. The aim was to create a comfortable and encouraging atmosphere to make interviewees feel respected and safe, which is important for gaining useful information (Holloway & Galvin, 2017).

The open-ended interview questions regarding HPBs among older adults were as follows: "What does HPBs mean to you?" "What encourages you or stops you from engaging in HPBs?" "How important are the influences of family, peers, and health care providers on your HPBs?" "Could you describe a situation or environment that affects you from engaging in HPBs?" "What kinds of HPBs do you prefer?" In addition, probing questions were asked to help the participants clarify, elaborate, and confirm their answers during the interviews. For instance, "Why do you think in that way?" "Could you please explain this to me?" and "Please give me an example." The interview guide was piloted before the data collection. The interviews were conducted until data saturation was reached, meaning that no new information was received in a new interview but that similar issues were repeated in the interviews (Holloway & Galvin, 2017). Each interview was audio recorded with the participant's permission, transcribed verbatim into Thai, and translated to English by a professional translator. Back-translation was conducted and verified by another Thai researcher from the research team to

prevent loss of meaning and ensure the accuracy of the translation and its meaning (Van Nes et al., 2010).

Data analysis

Data were analysed by the first author using a six-step thematic analysis, as described by Braun and Clarke (2006), and discussed (in detail) by the research group. The first step, the repeated reading of all transcripts, enabled the researcher to better understand and become familiar with the data. The researcher then generated initial codes from the data that had recurring patterns. The codes were adopted in the second step. Coding was performed systematically and inductively for all of the data with a description of their meaning and interesting features related to older Thai adults' experiences of HPBs. In the third step, specific themes were searched for in the data by analysing a broad range of themes, which involved organizing various codes, and codes with related meanings were grouped into themes and subthemes. A thematic table was created to consider the relationships between codes, which were then defined and integrated to describe the themes and subthemes. In the fourth step, the themes were reviewed by generating a thematic map of the analysis to determine their credibility on the basis of the data and using the quotes to demonstrate the themes within each subtheme. In the fifth step, the themes were defined, and brief, illuminating labels were ascribed to each theme. For the final step, the themes were described using text once the findings were finalized. The software NVivo 12, a computer-based program, was used to analyse the textual data to manage the codes defined for all transcripts. To ensure the rigour of the analytical procedure, before the findings were included in the report, they were discussed and reviewed continually by the research group until consensus was achieved. In addition, the themes were reviewed by a Thai colleague with expertise in qualitative research on older people, which helped as a peer debriefing to gain consensus on analysis accuracy.

Ethical considerations

The ethical statement for the study was provided by the University of Eastern Finland's research ethics committee (number 16/2018). All subdistrict health promotion hospitals responsible for the elderly clubs provided permission before the data collection. In addition, the researcher provided both verbal and written information regarding the aims of the study and data collection procedures, including recording the older adults' interviews. Those who agreed to participate signed an informed consent form before the data collection. All participants were clearly explained that participation was voluntary and that they could withdraw from the study at any time without giving a reason and without consequences. Confidentiality and anonymity were guaranteed by ensuring that identifying information about the participants, such as names and specific places, was removed from all materials to ensure that individuals could not be identified from the interview transcripts or publications.

Results

Five main themes related to HPBs of older Thai adults with high blood pressure emerged during the data analysis. These five themes were interrelated and connected to personal, social, and environmental factors (Figure 1). Personal factors consisted of three themes related to (1) taking responsibility for controlling their blood pressure, (2) making efforts towards achieving a healthier lifestyle, and (3) experiencing spiritual growth. Social factors referred to (4) having social relationships, and environmental factors referred to (5) identifying environmental factors for practicing HPBs. For instance, taking responsibility for controlling their hypertension depended on their physical health and following doctors' instructions. If the participants' blood pressure was controlled, this influenced and motivated them to engage in healthy habits and was linked to their experiencing spiritual growth. Personal factors were more likely an important domain for HPBs; however, participants also mentioned social relationships and environmental factors as affecting their inclination to pursue healthy lifestyles. No major differences were found between urban and rural participants.

Taking responsibility for controlling their blood pressure

During the interviews, participants spoke of taking responsibility for controlling their blood pressure, which referred to their taking control of and being responsible for keeping their blood pressure under control. Participants emphasized the importance of three important subthemes of self-management behaviours. *Following prescription instructions and attending doctor's appointments* seemed the most important obligations mentioned by all participants. The following excerpt demonstrates how the fear of disease severity can lead to active participation in HPBs:

> "I have to see my doctor every three or four months. I always go and never miss it. If I do not go to the

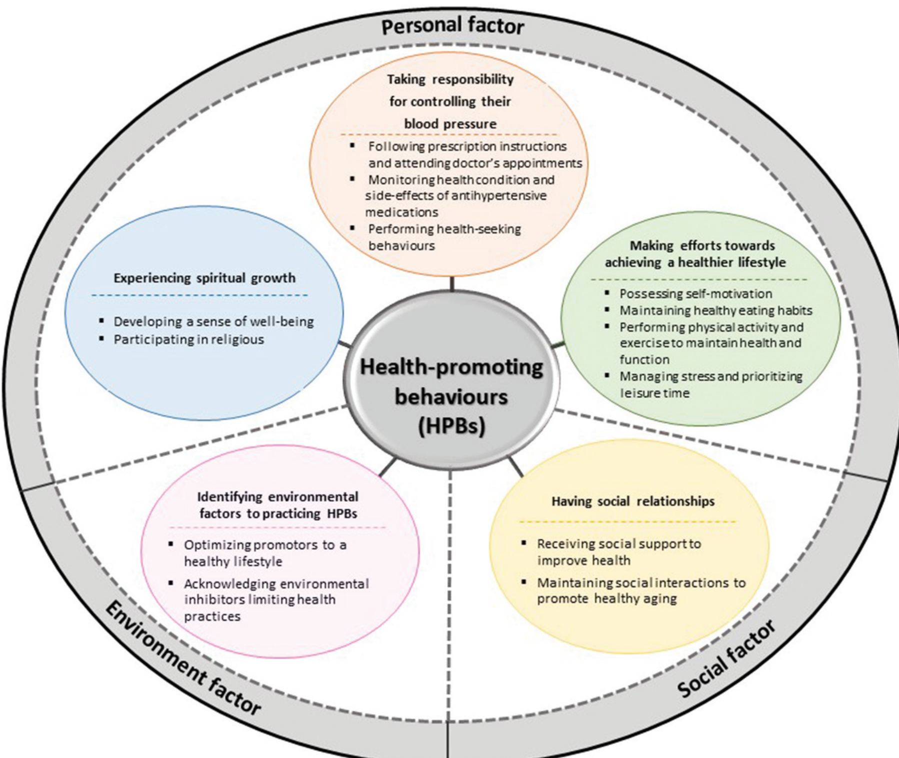

Figure 1. Themes of health-promoting behaviours among older adults with hypertension in Thailand.

> doctor, it might become even more severe or even deadly. The doctor said that I should take my medicine on time, so I followed the doctor's instructions, and I take my medication until it runs out." (Urban10, age 83 years)

Health responsibility also involves *monitoring one's health condition and the side effects of antihypertensive medications*. Most participants mentioned experiencing side effects from high blood pressure and treatment with antihypertensive drugs. They attempted to observe and monitor their symptoms by checking their blood pressure regularly:

> "The doctor said that if I get dizzy, it means that my blood pressure has increased. I keep monitoring my symptoms, which are fine, because I have not seen any problems. I have a blood pressure monitor at my home, and I use it to monitor my blood pressure every few days. The pressure was approximately 100–110 mmHg (systolic)." (Urban12, age 74 years)

In addition, *performing health-seeking behaviours* means that participants sought information about ways to deal with their illness and improve their health. These participants consulted several sources, such as family, friends, neighbours, and healthcare professionals because they wanted to stay healthy. Moreover, participants mentioned using their social networks, such as sharing self-management strategies for controlling hypertension with peers with similar conditions:

> "I talk with neighbours and exchange health information. I would have stopped taking my medicine earlier, but my neighbours said that I should not stop and should take it regularly after starting it, so I have taken my medicine ever since." (Rural10, age 74 years)

Making efforts toward achieving a healthier lifestyle

Making efforts toward achieving a healthier lifestyle was defined as attempting to maintain HPBs, which are important for encouraging healthy ageing. Participants who adopted HPBs emphasized feeling more encouraged to engage in activities related to perceived self-efficacy. Older adults who are confident in their ability to pursue healthy habits and take charge of their disease *possess self-motivation*, which is beneficial to controlling blood pressure:

> "When the doctor told me that I have hypertension, I told myself that I have to fight the disease by improving my health, you know? I must do whatever it takes to help myself be healthier and not give up." (Urban10, age 83 years)

Furthermore, the participants believed that their HPBs would result in the expected outcome of maintaining their health, enabling them to perform daily activities independently and avoid being bedridden because of their illness:

> "Sometimes I get bored with taking care of my health, but it might affect me by making me bedridden if I stopped. It would be a burden on my family." (Rural17, age 70 years)

"I want to keep myself healthy to live longer so I can be with my children and grandchildren for a long time." (Urban3, age 72 years),

All participants consistently believed that modifying their daily behaviours regarding diet, physical activity, and stress management to control their blood pressure would yield favourable health outcomes. *Maintaining healthy eating habits* is a key component in managing illness. All participants emphasized on reducing salt intake, avoiding unhealthy food, increasing their intake of fruits and vegetables, and drinking more water. These activities contribute to staying healthy according to doctors' advice:

"I usually eat on time and limit salty food, as my doctor recommended. Normally, I eat fish and vegetables, as in the slogan 'mainly fish with vegetables as medicine'." (Rural13, age 85 years)

Conversely, participants reflected on the difficulties in maintaining a healthy diet, such as not being able to prepare food themselves or the challenge of buying healthy foods that are difficult to source. Within this situational context, diverging views exist on what constitutes healthy eating:

"I usually buy food and rarely cook for myself. I eat a lot of vegetables and do not eat much meat. I should eat more fish, but there is no fish to eat. I do not drink coffee, and I eat a full meal three times per day." (Urban11, age 84 years)

Most participants believed in *performing physical activity and exercise to maintain health and function*, which enhanced their ability to engage in daily life activities. They also mentioned a variety of physical activities, such as walking, cycling, and dancing, which are believed to reduce blood pressure and help people stay fit. Importantly, some participants said that exercising regularly not only promotes health but also feels enjoyable and helps them stay social, and they have become addicted to exercise:

"Because I have high blood pressure, I started taking care of myself by participating in a Thai folk-dance group twice a week for half an hour. Exercising with others is good because, besides being physically fit, I also get to know more people, and I enjoy it. If I am not there, I usually go for a walk or do other things like housework." (Rural10, age 74 years)

"My need to exercise every day is like an exercise addiction. If I cannot do it, I feel frustrated." (Urban10, age 83 years)

Most older adults stated that *managing stress and prioritizing leisure time* were important because stressors contribute to elevated blood pressure. Participants often attempted to maintain their sleep quality and reduce tension as coping strategies for stress and blood pressure management. They also attempted to maintain peace of mind by remaining calm, not getting angry and anxious, and forgiving others:

"I sleep well and try to get enough rest. I am elderly, and I need to take care of my health and relax to avoid stress. Sometimes I read the newspaper or listen to the news on the radio, but I mostly like listening to country songs, which feels comforting." (Rural13, age 85 years)

Participants also reported that leisure time improved their sleep patterns and relaxation, which helped them avoid loneliness. Many participants mentioned enjoying themselves through activities of interest, such as reading books, watching television, gardening, and participating in community activities:

"In my free time at home, I read either dharma books or the newspaper. Sometimes I also like watching television; it helps me to not feel lonely." (Rural10, age 74 years)

Experiencing spiritual growth

Experiencing spiritual growth is perceived as important for living a meaningful life. Spirituality suggested going beyond personal ability to achieve acceptance and calm, which helped participants retain inner peace. These practices are related to religious and respect for the nature of the human life cycle. Many older adults who cope well with difficulties regarding their health conditions can be described as having spirituality. According to the participants, *developing a sense of well-being* by accepting the diagnosis, adapting one's need to manage the illness, and being confident in self-care behaviour results in satisfaction and happiness. Older adults explained that they feel pressured and worried about the complications of hypertension, particularly if a stroke causes them to become bedridden and a burden on their family. However, they reported that religious helped them accept all of these difficult situations, including the concept of death, and that it is a normal part of the cycle of life as promoted in Buddhist principles:

"I have a satisfying life and am comfortable because I have good grandchildren, am happy, and am doing well for myself. I do not panic or suffer from anything. I believe that a person is born to die, and when our time runs out, we have to die, right? I think only about this. I do not think about anything else or regret it." (Urban10, age 83 years)

Older adults were Buddhists who trusted in the dharma and *participated in religious* activities, such as accumulating merit, meditating, praying, and applying religious precepts in daily life. As a result of their practices, they achieved calm and expected spiritual experiences beyond physical well-being, which brought them happiness. They believed in the

dharma and religious doctrines that contextualize the philosophy of life and ageing in terms of spiritual growth:

> "Happiness for me is listening to dharma discussions and reading dharma books. After I read them, I understand more about human life. I remember a dharma saying that we should overcome and be free of anger. I also like to meditate and pray and to participate in religious ceremonies or events at the temple." (Urban1, age 66 years)

Having social relationships

Almost all the participants reported having social relationships, which can be described as participating in social activities and having social interactions with others. Many participants acknowledged the importance of *receiving social support aimed at improving their health* from family, friends, neighbours, and healthcare professionals as a key element of performing their HPBs. For older adults, close relationships with family members play a crucial role as the main source of social support when needed:

> "I live with my children. They take good care of me, give me money, and buy me food. I have good friends to whom I can talk about healthy living because they have hypertension like me. They keep encouraging me, which makes me feel happy and grateful to them." (Urban10, age 83 years)

Furthermore, participants were more socially connected to family, friends, and their community, which can enhance older adults' sense of connectedness to their communities. Participation in local community events was described by some participants as a helpful way of *maintaining social interactions to promote healthy ageing*. Older adults found ways to add joy to their lives by sharing various activities with others. They reflected on how social interactions can be rewarding and help them avoid isolation and loneliness:

> "I'm satisfied being a companion to friends and neighbours. We talk and share activities, which helps me avoid being lonely and isolated." (Urban6, age 74 years)

> "Sometimes I go to visit relatives, or my grandchildren come to see me. It's good to stay in contact with family. I usually participate in a traditional folk-dance group; exercise helps me meet more people and be healthy while enjoying myself." (Rural10, age years 74 years)

Additionally, being socially active was related to volunteering, which helped older adults spend their free time efficiently by doing something useful to help their community. The participants described how volunteer work increased their sense of being useful to others and having a purpose in life:

> "I am a volunteer who takes care of older people with disabilities who need help. I am glad that I can help others in our society." (Rural19, age 65 years)

Identifying environmental factors to practicing HPBs

Participants described how environmental factors affected their practice of HPBs. Identifying environmental facilitators of and barriers to practicing HPBs can explain why engaging in HPBs is easy or difficult. *Optimizing promotors of a healthy lifestyle*, such as access to community facilities and public transportation, seems to play a central role. Participants said that the location and availability of facilities, as well as motivating living environments, promoted their engagement in HPBs. Participants considered that easy access to public transportation increased the likelihood of visiting facilities, whereas a lack of access to transportation made maintaining HPBs challenging.

> "I go to the doctor on a bicycle by myself because it is nearby. The neighbours next to my house are all good. It makes me feel comfortable. I also like to exercise at the healthcare center because the weather there is good." (Rural10, age 74 years)

> "I often go out for a walk in the schoolyard, which is 100 meters from my home, and there is good weather in the morning." (Urban18, age 78 years)

In addition, some participants discussed the most important reason for the low performance of HPBs by *acknowledging environmental inhibitors that limit HPBs*. Specifically, participants mentioned two main barriers related to their living environments—experiencing age-unfriendly environments and living in a remote area—that limited the practice of healthy behaviour:

> "I rarely participate in events at the temple even though I would like to because it is located pretty far from my place. If I want to go there, I need someone to drive me." (Rural1, age 72 years)

> "I live alone, and my house is near the road and has a lot of dust. There are different floors inside that have often caused slips and falls when it's wet. I normally close the door during the day because I am afraid that someone with bad intentions might come in." (Urban19, age 89 years)

Discussion

This study analysed the experiences of older adults with hypertension regarding their HPBs and the related factors affecting their engagement in healthy practices. The findings revealed that older adults described their experiences with HPBs as comprising interconnected personal, social, and environmental factors. These factors influenced the five major themes of health responsibility, a healthier lifestyle,

spiritual growth, social relationships, and environmental factors that affect the practice of HPBs. Gholamnejad et al. (2019) suggested that older adults make decisions about their self-care behaviour to perform HPBs for personal reasons, such as perceived self-efficacy, which motivates their engagement in healthy habits. HPBs are also connected with environmental and social factors, which similarly motivate better health outcomes and a sense of well-being in older adults (Lommi et al., 2015).

This study's results indicate that older Thai adults with hypertension mostly view HPBs as positive activities that enable them to take increased control over their health outcomes. In particular, having control over blood pressure was viewed as important for maintaining health, avoiding health complications, and avoiding becoming a burden to others. The perspectives on HPBs described in this article, similar to those described in Pender et al. (2015), represent activities that people engage in to prevent or control health problems and increase their functional ability to perform daily tasks. In turn, these activities lead to an enhanced quality of life. According to previous studies, taking antihypertensive medication and implementing changes to adopt a healthy lifestyle are crucial ways to address hypertension (Bilen & Wenger, 2020; Oliveros et al., 2020). Our findings support this statement; participants reported that adherence to these two aspects of their self-care behaviour (i.e., medication adherence and lifestyle modification behaviour) allowed them to have better control over their hypertension. This report is in line with a study by Woodham et al. (2018), who found that older Thai adults with effective self-care management of their hypertension to control their blood pressure required taking medication and controlling their diet, exercise, and stress. However, Akbarpour et al. (2018) found that older adults believe that taking medication without lifestyle changes might be sufficient to control blood pressure (Burnier et al., 2020). Healthy practices, including independent daily activities (Seangpraw et al., 2019), tend to reduce health complications in older adults compared with those who are inactive and do not acquire healthy habits (Qu et al., 2019). Kim et al. (2020) suggested that HPBs are appropriate activities for enhancing health and preventing the progression of complex limitations resulting from hypertension among elderly Koreans.

Personal factors included health responsibility, a healthier lifestyle, and spiritual growth, as presented in our findings and are principal components of healthy ageing (Dev et al., 2020). Older adults accepted accountability by following physicians' prescriptions, observing their health conditions, and seeking useful information on health promotion. Li et al. (2018) confirmed that health responsibility is the most important influencing factor for health associated with quality of life among older adults with hypertension. The perceived benefits of doctors' orders stimulated older adults' awareness and adoption of HPBs (Adinkrah et al., 2020), and elderly people gained more knowledge regarding healthcare performance, reducing perceived inhibitors (Khorsandi et al., 2017). Thus, a good understanding of hypertension can motivate positive changes towards healthy behaviour in older adults as they become aware of important healthy practices that affect their health outcomes (Giena et al., 2018). According to reports in the literature, older adults with hypertension, high self-efficacy, and confidence in their control over their health tended to control their hypertension through lifestyle changes (Hou et al., 2020). In contrast, a lack of self-motivation, physical conditions, and limitations can negatively affect HPBs (Moon et al., 2020).

Elements of a healthy lifestyle, such as maintaining a healthy diet, engaging in regular physical activity, and managing stress, were key components of managing hypertension and promoting the health of the participants of this study. Consuming healthy foods, avoiding salty and fatty foods, and engaging in physical activity can help in maintaining health and functionality and prevent further health decline (Ploeg et al., 2019). Stress management was another health behaviour emphasized by the study participants. Coping strategies for avoiding stress included maintaining good sleep quality, participating in peaceful activities, engaging in positive thinking, and devoting time to relaxation, which also prevented feelings of loneliness. This finding is consistent with other studies, which suggest that insufficient sleep as a stressor leads to increased blood pressure (Moss et al., 2019), whereas adequate sleep, rest, and relaxation have positive effects on the health-related quality of life in advanced age groups (Lee & Oh, 2020). However, older adults might have difficulty managing stress-induced health issues associated with ageing because diminished independence contributes to poor stress management (Rababa et al., 2021).

Personal factors also included spiritual growth, which influenced the HPBs of the participants in this study. The participants highly valued well-being, happiness, and life satisfaction. Religious beliefs helped older adults obtain hope and peace of mind—crucial components of healthy ageing (Malone & Dadswell, 2018). Activities based on Buddhist doctrines can assist older adults in accepting illnesses and adapting to ageing (Gholamnejad et al., 2019). According to Manasatchakun et al. (2018), religious activities are a dominant source of meaning in life among older Thai people. Similarly, in older Bhutanese people, greater happiness was related to the acceptance of disease and a reduction in stress (Kohori-Segawa et al., 2020). Religious beliefs can influence spiritual

growth and promote health (Tkatch et al., 2017). Halaweh et al. (2018) also showed that a positive attitude—a vital component of ageing well—can be achieved through spiritual practices.

Social factors included interpersonal relationships that constitute important components of the promotion of healthy behaviour, such as in the present study. Most older adults in this study lived with their families, as is typical of conventional Thai culture, in which the older adults are dependent on familial support. Such a situation can influence them to adopt better HPBs (Phulkerd et al., 2021). Spending time with grandchildren is a source of joy and well-being that promotes healthy ageing (Baron et al., 2020), which is consistent with our findings. In addition, good, stable living arrangements allow older adults to access more social support and interactions, which in turn, can contribute to improved quality of life (National Statistical Office, 2018). Punyakaew et al. (2019) suggested that, in Thai culture, fostering social relationships with friends and neighbours and participating in local community activities, such as clubs for the elderly, can be a strategy for developing a better quality of life in older Thai adults. Harmony is particularly important because peaceful and happy interactions among families, friends, and neighbours promote meaningful life experiences among older adults (Shiraz et al., 2020). Participating in community activities improves health, and the enjoyment of engaging in the activities, feeling connected to others, and experiencing a sense of community and belonging helps diminish feelings of loneliness (Bosch-Farré et al., 2020; Seah et al., 2020). Limited social interactions lead to increased isolation and immobility and decreased well-being among ageing people (Dev et al., 2020).

Environmental factors may promote or inhibit engagement in HPBs among older adults. Participants highlighted the importance of living in elderly-friendly environments that enable and empower them to cultivate healthy behaviour. Environmental factors such as housing, neighbourhood, social relations, and transportation are related to healthy behaviour in older adults (Seah et al., 2020). Although living a healthy lifestyle can help older adults with high blood pressure decrease their blood pressure, a lack of easy access to community facilities can reduce individuals' performance of HPBs (Siboni et al., 2018). Consistent with a study conducted by Cerin et al. (2019), the availability of public transportation to access local services promoted HPBs, whereas a lack of access to public transportation and long distances to community services were the greatest inhibitors of social contact. Our findings also indicated that home and community provide a sense of connection, security, and familiarity, which are important in ageing and are linked to individuals' sense of autonomy. Consistent with a previous study conducted in Spain (Bosch-Farré et al., 2020), environmental factors, including housing, community facilities, and healthcare integration, can give older adults greater autonomy and motivate them to actively engage in HPBs in their local environment.

A strength of this study is that it conducted interviews in the province in Thailand, which has the highest prevalence of hypertension. Such data might better represent the experiences of HPBs among older adults with high blood pressure. However, perspectives on HPBs among older adults with hypertension might differ between men and women. A limitation of this study is that few men were included as participants in the interviews because fewer men than women participate in elderly clubs. In addition, because the participants were members of elderly clubs, participation in club activities may have helped them by providing several resources to support their engagement in healthy lifestyles. Thus, participants likely described the promoters of HPBs and not much about inhibiting factors. Moreover, given the proximity of the urban and rural communities of Chonburi province, participants might have similar lifestyles, resulting in a lack of differences in their perspectives on their HPBs.

Conclusion

The HPBs of older Thai adults with hypertension were significant in their adoption of preferred healthy practices. Medication adherence and lifestyle modifications were critical to promoting health outcomes, such as control over hypertension and improved well-being. These experiences with HPBs are associated with lifelong behaviours in advanced age. This result may reflect the importance of organizing and strengthening the healthcare system to meet the requirements of older adults with hypertension for controlling blood pressure and promoting their quality of life. If the needs of older adults are not met, they might face difficulties adopting and continuing HPBs and maintaining their health. The results show that older adults' engagement in healthy behaviour is part of a complex system and depends on personal, social, and environmental factors that might promote their ability to adopt HPBs. Encouraging older individuals to adopt healthy behaviours, particularly taking medication and modifying their lifestyle to improve their overall health and enhance their life satisfaction, is recommended. A deeper understanding of older individuals' lived experiences regarding the promotors and inhibitors of engaging in healthy practices might be useful for developing interventions

for this age group. Future studies could be designed to examine groups of older adults with different backgrounds, such as those belonging to other organized activities and non-members of elderly clubs from various regions, to identify similarities and differences in the experiences of older adults with hypertension. Area of residence affects older adults' engagement in HPBs because diverse environmental factors may create differences between urban and rural residents' HPBs. Therefore, further investigations into these factors in future studies using quantitative or mixed methods approaches are needed.

Acknowledgments

The authors thank all the participants, who shared their personal experiences, and all the contact nurses, who have helped coordinate between the respondents and the researcher.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This research was funded by the Human Resource Development Fund of Burapha university in Thailand (Grant number 002/2560).

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