

## HYPERTENSION SELF-CARE MANAGEMENT DURING COVID-19 PANDEMIC CRISIS IN THE MERANAO TRIBE: A PHENOMENOLOGICAL INQUIRY

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### Abstract

The COVID-19 crisis has been a challenging and stressful event for individuals with known underlying health problems, not to mention their higher risk of contracting the disease. This phenomenological inquiry was conducted to explore the common self-care practices of the Meranao tribe in the Province of Lanao del Sur, Philippines, concerning their management of hypertension amidst the ongoing pandemic health crisis. This study employed a descriptive-phenomenological approach. Ten known hypertensive adults participated in the study selected using purposive sampling. Data collection employed focus group discussion (FGD) and then analyzed using Colaizzi's approach. Four themes were derived which explained the common practices of the tribe in the self-care management of hypertension amidst the crisis: 1) the use of herbal remedies; 2) compliance with prescribed medications; 3) dietary control; and 4) remaining physically active. Patients' strict compliance with known scientific self-care practices in managing hypertension forms a multidimensional strategy in controlling, managing, and preventing hypertension and its related complications.

**Keywords:** hypertension, Meranao tribe, Philippines, self-care management practices, qualitative research

### Abstrak

*Studi Fenomenologi tentang Praktik Manajemen Perawatan Diri pada Pasien Hipertensi Saat Pandemi COVID-19. Krisis COVID-19 telah menjadi periode yang menantang dan menegangkan bagi individu dengan riwayat masalah kesehatan, belum lagi risiko yang lebih tinggi untuk menderita penyakit tersebut. Studi fenomenologi ini bertujuan untuk mengeksplorasi praktik perawatan diri Suku Meranao di Provinsi Lanao del Sur, Filipina yang berhubungan dengan manajemen hipertensi di tengah krisis kesehatan yang sedang berlangsung. Melalui pendekatan fenomenologi deskriptif, sebanyak 10 orang dewasa penderita hipertensi bersedia untuk menjadi partisipan penelitian ini dengan menggunakan metode purposive sampling. Data diperoleh melalui focus group discussion (FGD), dan dianalisis menggunakan pendekatan Colaizzi. Empat tema diperoleh untuk menjelaskan praktik mereka dalam manajemen perawatan diri hipertensi di tengah krisis: 1) penggunaan obat herbal; 2) kepatuhan terhadap obat yang diresepkan; 3) kontrol makanan, dan 4) tetap aktif secara fisik. Kepatuhan ketat pasien pada praktik perawatan diri secara ilmiah dalam manajemen hipertensi memainkan strategi multidimensi dalam kontrol, manajemen, dan pencegahan hipertensi serta komplikasi yang terkait.*

**Kata Kunci:** Filipina, hipertensi, praktik manajemen perawatan diri, riset kualitatif, suku Meranao

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### Introduction

Hypertension remains one of the priority global health concerns, which is expected to affect around 1.5 billion people worldwide by 2025

(Ademe & Aga, 2019; Himmelfarb, et al., 2016). It continues to be the leading cause of deaths and health problems among the Meranao people in Lanao del Sur, Philippines (Abbott, 2019). However, despite the availability of medical treat-

ments to reduce morbidity and mortality rates, self-care practices that include lifestyle modifications and compliance with prescribed medications remain the best approach to managing patients' abnormal blood pressure (Himmelfarb et al., 2016). Patients' willingness to adopt changes of self-care behaviors (e.g., weight-reduction plan, diet modification, smoking cessation, active lifestyle, and stress reduction) have proven by literature to have better clinical outcomes than medical treatment alone (Khreshah & Mohammed, 2016; Salim et al., 2019).

Moreover, the current pandemic health crisis, novel coronavirus disease 2019 (COVID-19), has affected most people's lives due to activity restrictions imposed by the national and local declarations of community quarantine in different localities. This activity restriction hampers individuals' access to their usual needs (e.g., medical services from their local government or rural health units) and their lifestyles, putting many under financial decline and food insecurity (Ravelo, 2020). Epidemiological studies have confirmed that COVID-19 patients with hypertension may have an increased risk of adverse outcomes in China (Gao et al., 2020). Furthermore, studies have found that individuals with high blood pressure who were noncompliant were at higher risk of dying from the COVID-19 (Kanwal et al., 2020).

Patients with co-morbidities (e.g., hypertension, diabetes mellitus, or heart diseases) are among the high-risk groups and constitute a higher number of fatalities among those affected by the COVID-19 because of the various associating factors (Kanwal et al., 2020; WHO, 2020). Initial reports from the most affected cities such as Wuhan, New York, and Milan confirmed higher rates of hypertension among severely ill hospitalized COVID-19 patients and reveal increased numbers of morbidity and mortality among patients with the condition (Kanwal et al., 2020). Thus, self-care management practices among patients with hypertension are crucial factors to consider, due to the abrupt lifestyle transition which these individuals with special health needs

may not easily embrace and adopt. This in turn could affect their health status and well-being (Ademe & Aga, 2019). Poor self-care management practices result in more than 80% of hypertension cases globally, especially among low- and middle-income countries, so understanding this issue is very important in addressing the treatment gaps (Kassahun et al., 2020).

Studies focused on hypertension and self-care practices among affected individuals are vital. They can provide evidence-based knowledge for developing or enhancing timely and relevant policies and practical action that can be considered in supporting their respective needs (Hu et al., 2013). With regard to this context, this study aims to explore the common practices of the Meranao tribe in Lanao del Sur in their self-care management of hypertension during the COVID-19 pandemic crisis. In-depth interviews were conducted to help develop the best strategies and preventive measures to address the self-care special needs of this population group to effectively and efficiently manage and prevent the occurrence of complications in the health crisis.

## **Methods**

**Design and Setting.** Descriptive phenomenology was employed to explore the common practices of the Meranao tribe in the self-care management of hypertension during the COVID-19 pandemic crisis. This method was first developed by Husserlian in 1962, who was primarily interested in the question of what we know as individuals, emphasizing the description of human experience (Polit & Beck, 2012). His underpinnings were those of the lived, human experience, and as such, he sought to reinstate the human world as a foundation of science that brought justice to the everyday lived experience, or simply as how things appear to us as human subjects (Christensen et al., 2017). Descriptive phenomenological studies often involve the following four steps: bracketing, intuiting, analyzing, and describing (Polit & Beck, 2012).

The study was conducted in the Province of Lanao del Sur, a remote area of the newly for-med government of Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). This remote area comprises 61.13% (Philippine Statistics Authority, 2017) of the total number of Muslims in Mindanao dominated by the people of the lake, the Meranao Tribe.

**Participants and Sampling.** The study participants were limited to ten hypertensive adults aged 30–60 who met the inclusion criteria. Purposive sampling was used to select the participants. Such sampling technique is most commonly used in the phenomenological inquiry, which selects participants based on their particular knowledge or experience of a phenomenon to share that knowledge (Straubert & Carpenter, 2011). Phenomenologists tend to rely on very small samples, typically ten or fewer participants, who must have experienced the phenomenon and be able to articulate what it was like to have lived through the experience (Polit & Beck, 2012). The inclusion criteria were that the participants: (a) were residents of any of the municipalities of Lanao del Sur; (b) were diagnosed with any hypertension regardless of co-existence of any co-morbidities; (c) were willing to participate in the study.

**Ethical Considerations.** A panel of ethics experts from Mindanao State University – College of Health Sciences reviewed and recommended the study prior to its actual conduct (approval code: CHS-18-2020). The rigor in conducting qualitative research was carefully observed throughout the process, with attention paid to credibility, trustworthiness, and auditability. The fundamentals of ethics in conducting qualitative research were also observed by securing informed consent from the participants, maintaining confidentiality and anonymity, and assuring respect for withdrawal or refusal if applicable, without giving any reason or justification. Health safety protocols set by the Inter Agency Task Force for Emerging Infectious Diseases (IATF-EID) were strictly observed and followed throughout the process for the researchers' and par-

ticipants' safety.

**Data Collection and Analysis.** The study used in-depth focus group discussion (FGD). Colaizzi's phenomenological approach was utilized in the analysis of the transcribed data. The distinctive seven-step process provides rigorous analysis. Each step stays close to the data, and the result is a concise yet all-encompassing description of the phenomenon under study validated by the participants that created it. The process includes familiarization, identifying significant statements, formulating meanings, clustering themes, developing an exhaustive description, producing the fundamental structure, and seeking verification of the fundamental structure (Morrow et al., 2015). The accurate application of Colaizzi's process of descriptive phenomenology provided a description to the body of knowledge about the aim of this study and, therefore, could be an effective strategy to establish the basis for future research (Shosha, 2012).

## Results

The literature indicates that self-care practice is essential for blood pressure control, management, and the reduction of hypertension complications (Mejia et al., 2019; Sadang et al., 2020). The key findings were presented in four main themes describing the common practices of the Meranao tribe in the self-care management of hypertension during the COVID-19 pandemic crisis.

**Theme 1: Use of herbal remedies** (e.g., calamansi juice, garlic, pineapple juice). Most of the participants explained that using any available herbal remedies in the community commonly utilized to treat high blood pressure was due to limited financial resources caused by the pandemic. Some used calamansi juice, garlic, and pineapple juice together with any other available known remedies (e.g., parsley, bacopa monnieri, or turmeric) to relieve and treat their discomforts whenever they felt they had high blood pressure.

*“Phakhak’rus’n akun so mga wata akun sa mga pito o di na sapulo ka limonsito na pag-inomun akun depende sa kabagur a kap-kagudam akun sa phakapuro a rugo akun, na aya akun uto phaginum’n (I’m asking my children to crash at least 7 to 10 pieces of calamansi and will drink this depending on the rate that I feel whenever my blood pressure rises).” (P1)*

*“Sakun na basta a phakapuro a rugo akn na aya akun puk’n na bawang (When my blood pressure rises, I eat garlic to lessen the hypertension).” (P3)*

*“So kainom sa nanas ago p’spa ako sa lasuna (I drink some pineapple juice and chew some garlic).” (P8)*

**Theme 2: Compliance with prescribed medications.** Despite the activity restrictions and lockdown of most municipalities and cities within and outside the province, some participants were lucky enough to have a stock of extra hypertensive medicine prescribed by their respective physicians and continued taking their daily and routine medication during the pandemic. However, it is perturbing that some participants chose to take their medicines irregularly only when they felt their blood pressure had risen. They had extra medicine to use during unexpected emergency situations in anticipation that the lockdown would continue for months.

*“Aya psowaan akun na paginumun akun so maintenance akun na Amlodipine, gyuto mambu e iniresita rakun o doctor akun (What I usually do is taking my maintenance medication, Amlodipine, and that was actually the one prescribed by my physician).” (P1)*

*“Sakun na basta a phakapuro a rugo akn na aya akun phaginumun a bulong na Losartan ka gyuto mambo e maintenance akun (When my blood pressure rises, I take Losartan, my maintenance that my doctor prescribed).” (P3)*

*“Igirabo tanto ko mabagur o kaphakauro o rugo akun na aya akun ka paginum ako sa Paracetamol ago so bulong akun a Losartan a iniriseta rakun sa center ka pkaluk ako oba malngan na dadn a mainom akun (Only whenever my blood pressure rises or is too high do I take Paracetamol and Losartan, which were prescribed to me at the health center because I’m afraid to run out of medicines).” (P6)*

**Theme 3: Control of dietary intake and increase fluid consumption.** The participants also considered continuing practicing their respective nutritional restrictions, especially regarding oily and salty foods. The majority preferred to eat vegetables available in their backyards than consuming comfort food (e.g., noodles or canned foods provided by their local authorities) for fear that their blood pressure would rise and become unstable. Interestingly, some participants increased their fluid consumption during the crisis, especially at mealtimes.

*“Aya akun psuwaan na p’lubatan akun so kakan akun sa mga lalana ago pakalaan akun so kainom sa ig (I’m reducing the intake of oily foods and I usually drink plenty of water).” (P3)*

*“Aya akun psuwaan na p’khan ako sa lit’ha ago paginum ako mintin sa ig igira pkan ako (I’m eating vegetables and I drink water often, especially when eating).” (P6)*

*“Pkaitoon akun so kakan sa mga lalana ago mga titimos a pang’nungkun (I minimize eating oily and salty foods).” (P8)*

**Theme 4: Staying physically active.** Many of the participants have stayed physically active during the lockdown caused by the pandemic, despite the strict implementation of social and physical distancing to prevent the spread of possible community transmissions. They considered doing routine exercises (e.g., jogging) within the vicinity of their households and/or available areas with just a few people. Some have spent

most of their time doing daily household chores instead of regular physical exercises to stay and keep active, despite the activity restrictions imposed. On the other hand, one participant expressed his thoughts about the importance of stress management by doing things that make him happy to give relief and aid the feeling of discomfort during the crisis in the self-care management of hypertension.

*“Uman gawii na phag-jogging ako sa di bu mathay na mapasad uto na p’song ako sa di akun dimbasukan. Igira dudukawan ako na p’ndukha ako pasin ago aya akun diingalubukun na so iphakapiya a ginawa akun datar o kaplulump’k (Every morning, I jog for few minutes then after I usually go to my farm. When I am tired, I take a rest, and do what makes me happy, like gardening).” (P6)*

*“Diyako dieng gagalubukan sa solud a walay ka parako pka exercise (I’m doing household chores so I can have some exercise).” (P1)*

*“Igira kapipita na diako di mag exercise sa jogging sa apya maka tlopulo ka minute (Every morning I do some exercise like jogging for at least 30 minutes).” (P8)*

## Discussion

Several herbs (e.g., *Andrographis paniculata*, *Apium graveolens*, and *Cymbopogon citratus*) are known to have antihypertensive properties, but clinical trials have not confirmed their effects on human subjects (Chrysant & Chrysant, 2017). Therefore, the popularity of traditional herbal use is increasing and common among communities, including both in developed and developing countries. There are some reasons for that popularity: 1) they are the traditional ways of caring for health; 2) they are recommended by people who claim to have been cured by such herbs which are cheaper and suitable for those looking for alternative options; 3) they are advised by local healers; and 4) they are

believed to have previously cured hypertension (Liwa et al., 2017; Nuwaha & Musinguzi, 2013).

However, medical concerns exist among experts about using traditional herbs to treat hypertension and other related medical problems. These concerns mainly because of the absence of regulation and careful supervision by the health authorities, meaning their constant use could lead to possible serious complications and interactions when combined with other traditional remedies (Chrysant & Chrysant, 2017). Studies have found that herbal medicines in hypertension and their related diseases could lead to adverse outcomes and delays in seeking appropriate treatment. Accordingly, this might increase severity and complications with the condition, drug interactions, and non-adherence to known scientific medicines or treatments in controlling the disease (Liwa et al., 2017).

Scientific evidence supports hypertensive drug therapy for patients suffering from or having been diagnosed with hypertension to reduce the chances of complications and mortality related to other underlying conditions (Sadang et al., 2020; Simces et al., 2012). Medication adherence is a strong predictor of blood pressure control and management of complications (McNamara et al., 2014). On the other hand, poor adherence to treatment management is significantly associated with higher cardiovascular morbidity and mortality rates among patients diagnosed with hypertension (Qu et al., 2019). Therefore, compliance and truthful adherence to prescribed medications for hypertensive patients are scientifically vital practices. Compliance needs to be observed in controlling and managing high blood pressure among hypertensive groups (Eugene & Bourne, 2017) and is pivotal in times of crisis.

Researchers, and the results of various systematic reviews, highlight the role of healthy and proper diets (e.g., DASH “Dietary Approaches to Stop Hypertension”) in the prevention and management of hypertension among individuals with or diagnosed to have the condition (Organia et al., 2019; Simces et al., 2012). Careful dietary

plans including eating more fruit and vegetables daily; choosing low-fat food with less sugar, oil, and salt; eating regular meals and healthy snacks; and quenching your thirst with water are vital strategies to improve your health and blood pressure (Mejia et al., 2019; Simces et al., 2012). Compared to follow-up among patients in primary care settings in Brazil, adequate fluid intake self-care practice yielded better results (Mendes et al., 2015).

Physical activities have always been scientifically associated with the control and management of abnormal blood pressure in various mechanisms; improving cardiac output, maintenance of good fluid regulation, lowering heart rate, increasing capillary formation, and improving body composition (Organia et al., 2019; Sadang et al., 2020). Moreover, the physiological processes that respond to exercise and weight loss by energy expenditure during activity reduce blood pressure among hypertensive patients (Khresheh & Mohammed, 2016).

The availability of comfortable areas for physical exercise and activities is an essential predictor of hypertension self-care practice among patients with the condition (Ademe & Aga, 2019; Sadang et al., 2020). Learning to deal with and adapt to everyday life struggles, as well as seeking both professional and informal assistance for mental health issues (e.g., anxiety and depression), are vital self-care practices in the management of hypertension (Simces et al., 2012), most especially in trying situations such as the pandemic health crisis.

## Conclusion

The results of this qualitative inquiry reveal that despite the ongoing pandemic crisis and limited resources, participants were still conscious of and able to observe their usual common practices in their self-care management of hypertension. The participants focus on using herbal remedies, medication compliance, diet restrictions, and staying active. However, despite the availability of allopathic treatment in the mar-

ket, hypertension may remain uncontrolled regardless of their lifestyle modifications combined with adequate allopathic management. Consequently, patients' compliance with scientific self-care practices in the management of hypertension is a multidimensional strategy to control, manage, and prevent hypertension and its related complications during the pandemic.

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