

Understanding the Perception Concerning Medication and Types of Adherence Behaviour in Hypertensive Patients

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ABSTRACT

Hypertension is a significant public health problem. Despite the availability of effective treatment, non-adherence to treatment has been identified as the main cause of failure in controlling hypertension. The fragmented pattern of research related to adherence is unavoidable because it is a complex phenomenon and affects not only the health of patients but also their entire lives. The research gap in this field is the absence of the patients' perspective and a dearth of qualitative research. The aim of this study was to understand the patients' perception concerning medication and the extent that these perceptions are reflected in adherence behaviour. This is a qualitative exploratory study on hypertensive patients in a community health clinic in the state of Selangor, Malaysia. It was found that the participants perceive prescribed Western Medicine (WM) from the clinic as scientifically proven but has undesirable side effects. Therefore, Complementary and Alternative Medicine (CAM) are used to counteract the harmful effects of WM. The types of adherence behaviour found include faithful follower, self-regulator and intentional non-adherer. The reason to engage in particular adherence behaviour indicates a contextual relationship with the perception concerning the medication. Thus, it was concluded that patients acquire knowledge phenomenologically to cope with hypertension. Therefore, to improve self-management and self-efficacy in adherence with treatment, patient-tailored education and an empowerment approach should be introduced.

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INTRODUCTION

Hypertension is an important modifiable risk factor for cardiovascular disease and a significant public health problem (WHO, 2003). According to the latest Malaysian National Health and Morbidity Survey in 2006 (NHMS III, 2006), the prevalence of hypertension among adults aged 30 years and above was 42% compared to 32.9% in 1996. With the alarming increase in the prevalence of hypertension, the medical costs of hypertension and its complications impose a considerable financial burden on the local healthcare system. Despite the availability of effective treatment, non-adherence to treatment has been identified as the main cause of failure to control hypertension (WHO, 2003). Based on the researcher's experience in caring for patients in the hospital and conducting home visits for patients who are suffering from hypertension complications, it was found that the majority of them did not take medication as advised by medical personnel. To confirm this phenomenon of poor adherence, conversations with the patients' family members verified that the patients were having difficulties in following the treatment. Thus, the question arises – Why do patients engage in non-adherence behaviour?

In this study, the researchers explored patients' perceptions concerning medication and the extent that these perceptions are reflected in their adherence behaviour. The themes generated from the research will assist healthcare professionals (HCPs) in gaining insights into issues concerning

patients' adherence. Hence, therapeutic intervention can be planned to improve hypertension care.

CONCEPT OF ADHERENCE

Adherence is defined as the extent to which a person's behaviour in taking medication, following a prescribed diet and carrying out lifestyle changes corresponds with agreed recommendations from a healthcare provider (Haynes, 1979; WHO, 2003), whereas non-adherence implies disobedience or refusal to adhere to the medical advice given (Vermeire, Hearnshaw, Royen, & Denekens, 2001). To reinforce the medical view of non-adherence, the aim of medical intervention is to overcome patients' non-adherence, which is based on the assumption that, "if health care advice is based on scientific evidence that the treatment will benefit the patient, it is rational to assume that patients will follow this advice" (Russell, Daly, Hughes, Hoog, 2003, p. 282). However, adherence is a complex behavioural process that is strongly influenced by the environment in which the patient lives, and the psychological and social support system. Furthermore, adherence only occurs when a patient's illness and way of life are compatible with the prescribed treatment. Kyngas and Lahdenpera (2000) stated that adherence is not simply a matter of obeying instructions, and that a non-adherent behaviour exists at different levels and is expressed in different ways.

LITERATURE REVIEW

Studies have shown that non-adherence has several causes such as the duration of the treatment, the number of medications prescribed, and the cost and frequency of dosing (Griffith, 1990; Morris & Schulz, 1992; Pound *et al.*, 2005), as well as the adverse effects of anti-hypertensives (Johnson, William & Marshall, 1999; Svensen, Kjellgren, Ahlner, & Saljo, 2000). These constitute the key factors that determine poor adherence among hypertensive patients. Patients assess the long-term effects of medication and the value of continuing. Meanwhile, the fear of dependency on and tolerance are important points that make people reduce the prescribed doses (Donovan & Blake, 1992; Morgan, 1996; Pound *et al.*, 2005). Non-adherence tends to be higher when medical regimens are more complex (Hingson, Scotch, Sorensen, & Swazey, 1981). However, adherence behaviour shows an inconsistent relationship between social demographic factors, such as age and marital status (Conrad, 1985).

Patients who have been reproached by their doctor because of self-regulation concerning medical advice do not return to the same doctor (Robertson, 1992). Moreover, patients never reveal their thinking or behaviour if it contradicts with the doctors' advice because of their powerless position as patients, but they actively adjust their medication regimen without the doctor's knowledge (Roger *et al.*, 1998). Meanwhile, Horne and

Weinman (1999) state that patients' beliefs about their medication are strongly related to the way they use them, and that their experience of illness and subjective understanding concerning the medication greatly influence their adherence behaviour (Conrad, 1985). In addition, patients do not believe that all treatments recommended as necessary by their doctor are in their best interests (Robertson, 1992). The fragmented pattern of research concerning a complex phenomenon, such as adherence, is unavoidable because adherence affects patients' lives and not merely their health.

Most adherence research has focused on the measurement of determinants of non-adherence quantitatively. The research gap in this field is because of the lack of the patients' perspective and an absence of qualitative research (Vermire *et al.*, 2001). This is because quantitative researchers use questionnaires and are detached from the participants in collecting data. What is missing here is an understanding of the way patients think and feel about the received treatment and their impacts on their behaviour. If we wish to help patients to adhere to treatment for better disease outcome, we must understand what patients are doing and why. Thus, to fill the gap in the qualitative study, especially in the local setting (Lee, Chin, Loong, & Hejar, 2008), the aim of this study was to generate qualitative data related to the perception of patients concerning medication, the type of adherence behaviour and why patients take on a particular type of adherence behaviour.

RESEARCH QUESTIONS

The study was guided by the following research questions:

1. How do patients perceive the medication prescribed for them?
2. What types of behaviour in adherence to medication do patients engage in?
3. What makes them engage in a particular type of adherence behaviour?

METHODOLOGY

Research Philosophy

This qualitative study advocated the theoretical perspective of interpretivism. The social world is dynamic and social reality is multifaceted. Context and culture are unique to the individual. To comprehend how a patient copes with the illness experience, the researcher entered the social world of the patient by adopting the position of 'bottom-up' in which the researcher acts, as the learner rather than an expert, and the participants need to teach the researcher how to understand their world. Interpretivists consider that social actors' subjective meanings, motives, goals, choices and plans can be understood by constructing models of typical meaning used by typical actors who are engaged in typical courses of action in typical situations (Schutz, 1972; Blaikie, 2007). To achieve this, the researcher used approximation and abstraction to interpret social actors' concepts into technical concepts and interpretations that stay as close as possible to the social actors. Throughout the hermeneutic process, these generations of technical language evolve

through an iterative process of immersion in these social worlds and reflection on what is discovered (Giddens, 1976).

Participants

The participants came from the three major ethnic groups in Peninsular Malaysia, aged between 38 and 60 years. 10 Malay Muslims [Female (F) =5, Male (M) =5], 10 Chinese Buddhists (F=5, M=5) and six Indian Hindus (F=3, M=3). The education levels of the participants are Diploma (n=3), secondary school (n=10) and primary school (n= 13). The researcher selected the participants from a polyclinic sponsored by the Ministry of Health in the southern region of Selangor, Malaysia. The clinic is situated in a semi-urban township surrounded by modern residential development and villages. A purposive sampling technique was used initially, followed by theoretical sampling. The inclusion criteria were that they are registered with the clinic and aged above 38, which are applicable in the local context (NHMS III, 2006); hypertension has been diagnosed as the main disease and they have been on medication for at least one year. Previous studies (Wissen, Litchfield & Maling, 1998; Kyngas & Lahdenpera, 2000; Gascon, Sanchez-Ortuno, Llor, Skidmore, & Saturno, 2004) show that patients on one year of medication are able to relate their experiences with medication usage through routine medical consultation. Apparently, patients who have other main illnesses with a complex medication regimen may not be able to identify the exact effect of anti-hypertensives (Conrad, 1985; Svensson

et al., 2000; Bane, Hughes, Cupples, & McElnay, 2007). This study obtained ethical approval from the Faculty of Medicine and Health Sciences, Universiti Putra Malaysia.

Data Collection, Data Analysis and Trustworthiness of the Study

Of the 26 semi-structured interviews, 19 were audio-recorded, while 7 participants refused to be recorded. Although taking notes of important statements as soon as each interview is completed is considered the least effective method to use in interviews (Merriam, 1998), social processes are dynamic and responses from participants can never be predicted. Each interview lasted about one hour and was scheduled for two sessions on different dates. The interviews were transcribed and analysed concurrently after each interview to determine the theoretical shape and recognize the saturation (Mason, 2002). Before the analysis of the data, the researcher used forward and backward translation (Brislin, 1970) to achieve equivalence of meaning between two different languages. Meanwhile, the Nvivo 7 computer package was used to assist with the organization of qualitative data. The data collected were analysed using the constant comparison method. Prolonged engagement, member debriefing and member checking (Lincoln & Guba, 1985) were used in improving the credibility of the study. To enhance dependability, an audit trail was used to maintain the detailed record of how the data were collected.

FINDINGS AND DISCUSSION

Two themes were evolved from the categories of perception of medication. The first theme was Western Medicine: Scientifically proven versus undesirable side effects, and the second theme was Complementary and Alternative Medicine (CAM): Energising effect and no harmful effect. Meanwhile, three types of adherence behaviour were identified – faithful follower, self-regulator and intentional non-adherer. The participants have provided reasons for the particular type of behaviour. The findings and discussion sections were carried out concurrently. In addition, the narratives of the participants were used to illustrate the findings and as support arguments in the discussion.

Perception of Medicine

Patients do not develop a perception of treatment in a vacuum; instead, they construct the meaning of medication through the dynamic interaction between the illness experience and the perception of the treatment outcome (Donvan & Blake, 1992; Hornes & Weimann, 1999; Gabe, Bury, & Elston, 2004).

The participants mentioned two types of medication they consumed. The medication from the community health clinic is called Western Medicine (WM) while that obtained from elsewhere, such as Traditional Chinese Medicine (TCM), Traditional Medicine (TM), and dietary supplements are grouped under Complementary and Alternative Medicine (CAM). Before the researcher probed the usage of CAM, the participants

spontaneously related their experience with WM by comparing the differences between the WM and CAM. The perception of medicine was divided into two themes as follows:

Theme One: Western Medicine - Scientifically Proven versus Undesirable Side-Effects

The health belief model (Becker & Maiman, 1975) explains participants who choose to take WM are perceived as being susceptible to the severity of hypertension complications; however, faith in the doctor and confidence in WM motivate them to take preventive action. The doctor's explanation and advice concerning the illness serve as a cue for them to adhere to the medication. A 39-year-old male Indian electrical technician narrated:

WM is scientifically proven and safe to consume. I only need to take the tablet and take everywhere I go. High blood pressure can kill you anytime! So, you must get a qualified doctor to see you in the government clinic. I am confident about the medication given because the doctor already explained to me about high blood pressure and the medication he gave is to reduce my blood pressure and thereby the chances of getting a stroke or heart disease. I believe him as I also read about hypertension in the newspaper.

Dick and Lombard (1997) found that knowledge about the clarity of diagnosis and

treatment advice will influence adherence behaviour. Obviously, HCPs play an important role in influencing patients' adherence behaviour. Before the perception of invulnerability to disease complication is formed, health educators must expose the patients to the susceptibility and seriousness of an illness. This does not mean scare tactics but helping them to face reality and grasp the meaning of self-care. A positive way of doing this is by instilling the benefit of the health behaviour, through which patients internalize and understand the logic leading to the perception of personal susceptibility (Butler, 2001).

In contrast, patients also perceive that WM has side effects, and it is not natural, harmful to health in the long run, too strong and the effect is rapid. When the participants experience side effects but have a limited choice of other treatments, they seek CAM like dietary supplements to neutralise or minimise the long-term harmful effects from WM. A 54-year-old female Malay factory worker said:

I do not believe totally in WM! It is not natural and made by many chemical things that we do not understand. The most important is the side effects. I feel the side effects when the doctor said there were none, I feel tired, ankles swollen until I cannot put my shoes on for work. Many of my friends say that when you do not have a choice in taking WM, then you need to take dietary supplements like Jelly Gamat to remove the

harmful substances from WM that accumulate in your body.

The types of dietary supplement taken by patients varied according to ethnicity; the Malay participants use Teh Orang Kampung, Jelly Gamat and, Spirulina, unknown “Akar kayu” and “Jamu”. The Chinese participants take Herbalife, Ginseng, Spirulina and Chinese traditional herbs. The Indian participants did not mention the name of the CAM used but they said they use traditional Indian medicine plants or flowers.

Theme Two: Complementary and Alternative Medicine (CAM) - Energising Effect and No harmful Effect

The participants perceive that CAM is made of natural substances and that the human body can absorb it without any problem. Because of the history of Traditional Chinese Medicine (TCM) and its successful record, patients have no reason to distrust it. Moreover, TCM has energising effects compared to WM. A 55-year-old male Chinese mechanical technician who supported TCM commented:

I trust TCM, this is not just hearsay but because of its history. How can you not believe in TCM when everything is recorded with facts and evidence? From ancient times until now, how many people use TCM to heal them from many illnesses? TCM gives me energy and makes me feel steady even when exerting like going upstairs. My young colleagues ask me why

I can go up without showing any sign of tiredness or breathlessness. I did not tell them that my secret is taking TCM.

A 60-year-old Malay man, a rubber-tapper who moved from a village to stay with his son in a city, also provided evidence concerning the benefits of CAM:

I tell you a secret that I never tell the doctor, I have experienced the effects from using “SNE”, this medicine is not that strong like WM. It heals slowly with no side effects. After taking it for two years, I can help in the stall by making drinks and selling “Nasi Lemak”. The goodness of “SNE” is that I can walk around without feeling tired as when I use WM. Before this, when taking WM I was so weak and without energy to do anything.

The participants advocate CAM because they are made of natural compounds and the most important factor that influences adherence behaviour is the energizing effect, which is not found in WM. Nevertheless, the participants lack the courage to explain their use of CAM to the doctor. Humpel (2006) cautioned that concomitant use of CAM compromises the efficacy of WM, either enhancing or delaying their activity. Moreover, their use may mask a correct diagnosis and thereby endanger patients’ lives. Thus, continual use of CAM can have detrimental effects. Pollock and

Grime (2000) stated that doctors need to recognize that patients have their own way of taking medicine to suit their own social context. If HCPs can help them to use CAM, it would be safer than using them indiscriminately. This process only happens when the patients feel free to talk about their use of CAM to the doctor and the CAM practice is authorized and open. Giveon, Liberman, Klang and Kahan (2004) added that doctors should question the use of CAM as an integral part of history taking during consultation.

Types of Adherence Behaviour

Evidently, the perception of medication influences behaviour in adhering to medication. Three types of adherence behaviour are demonstrated – faithful follower, self-regulator and intentional non-adherer. The participants who trust WM take their medication faithfully, while those participants who doubt WM but uphold CAM tend to use WM to a lesser extent. Details are depicted in Table 1 below:

Using a non-judgemental way of probing, the researcher explored different

justifications behind the act of following medication. In addition to the perception of medication influencing adherence behaviour, some serendipitous reasons were found to explain the motives for particular adherence behaviour.

Reasons for Choosing a Particular Type of Adherence Behaviour

The reasons for engaging in a particular type of adherence behaviour illustrate that patients are not a blank sheet but have complex ideas in coping with the treatment, which acts as unspoken tacit knowledge in influencing decision making in adherence to medication (Conrad, 1985). Three types of adherence behaviour are illustrated below:

Faithful Follower

A faithful follower perceives that taking WM does not disrupt their daily activities, and that WM is symbolized as being the choice of educated people who are able to appreciate its scientific nature. A 39-year-old Malay, who holds a diploma and works as a renovation contractor, mentioned:

TABLE 1
Perception of medication and the types of adherence behaviour

Perception of medication	Type of adherence behaviour (number of participants)
WM is trusted and scientifically proven	i) Faithful follower
WM is harmful, CAM is natural, slow in action but no side effects	ii) Self regulator with different patterns of regulating treatment: -Deliberately reduces dosage -Alternates use with CAM -Takes medication when symptoms indicate need -Takes WM only before seeing doctor iii) Intentional non-adherer

I put my medication beside my toothpaste, every morning I take it after I brush teeth. I never forget because it is always in front of me. Therefore, before I eat breakfast, I swallow the medication. I need this medication to make myself healthy, it is easy, no need to cook or boil it. Who has time to boil medication? I simply do not follow TM, only people who are not educated take TM.

On the other hand, studies have shown that patients' characteristics such as age, sex education, occupation, income, marital status, race, religion, ethnic background, and urban versus rural living have not had a definite influence on adherence behaviour (Haynes, 1979; Kaplan & Simon, 1990). In addition, WHO (2003) has reported that nearly everyone has difficulty adhering to medical treatment, particularly when the treatment involves self-administration care. Noticeably, the meaning of the above participant who is following WM constantly perceives himself as an educated person and TM followers as non-educated people. This phenomenon can be explained as individual thinking, and reasoning on set targeted goals and activities cannot motivate behaviour until they have personal meaning, that is, until they connect the cognitive representation with the self (Kuhl, 2000).

The participants take medication as instructed not because of the fear of dying, as emphasised by HCPs, but because the

quality of their family members' life is paramount and they do not want to burden their family members with hypertension complications, such as stroke. Evidently, fear per se is not the source of motivation for health-promoting action (Cameron & Leventhal, 2003). One 48 year-old Chinese housewife recalled:

I never ask myself why I take medication everyday, when you are sick, you must take something to heal you..... if I do not take? How? I ask the doctor how long I have to take this medication, he told me I have to take it until I die, if I do not I will die early, what choice do I have? I am not scared of dying as it is better than getting a stroke, where you cannot walk or eat! I do not want to burden my family members.

Another situation that makes the participants take medication as prescribed is because their social relationships can serve to set the reference values that individuals strive to achieve (Brisstte, Scheier, & Carver, 2002; Thoits, 1986). To illustrate this, an employer regards a hypertensive patient as normal if he adheres to medication regularly. Thus, the employee will alter his behaviour so as to move himself towards the reference state. Therefore, social relationships can affect the coping skills in managing health conditions. A 52 year-old male Indian clerk stated:

Why do I take medication? I never thought of it. It is normal to take medication... Five years ago I look for this job, my boss ask me "do you take medicine for your hypertension?" I told him yes. He took me to work because he think I was normal and can do work like normal people if I take medication regularly. Now every three months I will ask for a morning from my boss to come for follow up and take medication. They all know hypertension is a common illness and if you take medicine you are ok.

A perceptible point from the second and third participants' narratives above, "I never ask myself why I take medication everyday" and "Why do I take medication? I never thought of it" imply that much of the activity of social life is routinely conducted and taken for granted, unreflective manner. It is only when enquiries are made about their behaviour by others (such as researchers) that social actors are forced to consciously search for or construct meanings and interpretation (Blaikie, 2010). This phenomenon reflects that the participants have been engaging in a particular medication taking behaviour for a long time and never questioned the rationale for their actions. However, people always have background knowledge, which is unarticulated, and many beliefs and theories that suggest a course of action are moderated information from their social network.

Self-regulator

Self-regulation is a process that is carried out independent of the input and expertise of others (Cameron & Leventhal, 1987). Self-regulation in medication taking involves a patient's conscious efforts to modify thoughts, emotions and behaviour in order to achieve a health goal within a changing environment (Britten, 1994). Participants test medication by gradually reducing doses, and using non-pharmacological treatment and TM to regulate blood pressure with the goal of detaching from WM because of its harmful effects. Below are the narratives of three self-regulators.

One 48 year-old Malay male insurance sale supervisor who is a diploma holder in business and administration commented:

I take it on alternate days, alternate weeks or alternate months, I have not been taking medication for 6 months, nothing happen! Everything is okay. I take TM sometimes. I exercise and take more vegetables to see whether it works in reducing my blood pressure. It is better, because I don't want to be dependent on WM so much.

Throughout the years of experience in taking medication, self-regulation behaviour is shaped and reshaped by the social environment. The participants use the experience of gastric bleeding and loss of hearing after long-term use of WM from their friends to determine whether to continue using WM. The social

network provides a platform for the ongoing exchange of information concerning the care treatment process (Pescosolido, 1992). A 54 year-old Chinese male construction contractor narrated:

I have seen some of my friends that take WM long-term end up with bleeding in the stomach or loss of hearing. All this is because the chemical substances in WM damage their body. I have to be careful; I will only take it when my blood pressure goes up. I know when to eat! Therefore, I keep WM as a backup measure to help me when I need it but not for long-term treatment.

Nevertheless the patient's 'self' is the primary agent of self-regulation (Cameon & Leventhal, 2003). As illustrated in this study, patients make use of their subjective judgment concerning hypertension symptoms to predict when to take medication. Baumann and Leventhal (1985) hypothesized that these 'common sense' representations of hypertension are based on the cultural and linguistic factors and on personal experience of acute illness history and that hypertension must have an acute symptom like headache. However, it would be erroneous to encourage patients to believe they can successfully treat blood pressure elevations by monitoring symptoms related to blood pressure change because hypertension can be asymptomatic.

The participants, who only take medication a few days before their appointment to see the doctor, expressed that one must know how to survive emotional hurt by a doctor when he admonishes them for their self-regulating medication regimen. A 46 year-old Chinese housewife told of her experience:

At one time, I told the doctor the truth that I did not take the medication regularly; he raised his voice and said that if I do not take the medicine, there is no point in coming to see him; he will have fewer patients to see and a reduced workload. I felt hurt. I know he is a doctor, who am I? Patients must follow what the doctors advise. From that day onwards, I normally take medicine a few days before the follow up date so that my blood pressure will be normal on the appointment date. Therefore, the doctor will not say anything but just continue treatment. You have to know how to survive with this type of condition.

Pollock and Grime (2000) argue that doctors need to accept the fact that self-regulation is inevitable, and that the problem is that patients never disclose it because of their awareness of their powerless position. Dowell and Hudson (1997) comment that patients have a powerful drive to reduce the use of WM and continue

to test and modify their medication, and that HCPs should encourage them to disclose their self-regulation behaviour in a non-judgmental manner. Svensson *et al.* (2000) agree that HCPs should work with the patients to control and decide on the treatment that is best for their lifestyle. Self-regulation behaviour is only dangerous if not communicated to HCPs. Furthermore, HCPs must recognize that patients are already in control of their treatment decision, and the fact is virtually self-evident but may be unseen by HCPs because of their traditional acute-care paradigm. It is futile for HCPs to try to control what is beyond their control – patients' lifestyle, illness and health experience, and social context. Consequently, in patient-centred care, HCPs should act as collaborators who empower patients with information, expertise and support to make the best possible treatment decision that is compatible with the lives of patients (Anderson & Funnel, 2005; Anderson & Funnel, 2010).

Intentional Non-adherer

The participants first related their non-adherence to medication due to forgetfulness, but it was later determined that they were intentionally forgoing medication because of the absence of symptoms, such as headache. Meyer, Leventhal, and Gutmann (1985) suggest that the majority of patients who first enter treatment for hypertension perceive their illness as time-limited and curable. The researchers explain that individuals evaluate illness and that its treatment largely depends on their experience of past illness.

Similarly, patients who have socialized to a paradigm of acute illness will see hypertension as symptomatic and short in duration. Therefore, they will not feel the need to cure an asymptomatic or 'non-existent' illness and intentionally not adhere to medication. An overweight 38 year-old Malay housewife said:

I put the medication in front of the cupboard and right in front of the room door. Each time I open the door I will see it. I do not know why, I just forget to take..... people said that when you have high blood pressure you will have a headache, but ... I do not have any headache, so, do I need to take medication? I do not think I am that serious!

Consequently, when first encountering the patient, HCPS are required to assess the patients' information needs concerning stages of illness representation, coping and the appraisal process in response to hypertension. By instilling health information concerning the characteristics of chronic illness, such as hypertension, strategies to monitor and evaluate disease progress could bolster positive adherence behaviour.

This study is limited to the care of hypertensive patients; the findings presented in this paper are not applicable to the understanding of a variety of chronic illnesses. Thus, the findings should only be used to hypothesize hypertension adherence

behaviour and not be generalized or used as a predictive model due to its small sample size. The results indicate a contextual relationship between the perception of medication and adherence behaviour. In addition, the rationales behind a chosen type of adherence behaviour demonstrate that individual illness experience is subjective and that knowledge acquired to cope with chronic illness like hypertension is phenomenological. The practical implication gained from insights of the study suggests that adherence is a complicated phenomenon arising not only from patient-related factors but also health system related-factors. Patients who need a long-term self-administrated care endure their treatment with stoicism. What they need is to be supported, and not to be blamed. HCPs are required to empower patients to take self-care and adherence-promoting intervention should be tailored to the patients' needs.

Moreover, this study did not look into other aspects of adherence to non-pharmacological treatment, such as reducing dietary salt intake and weight, as well as increasing physical activity, which are also important contributors in reducing blood pressure. Therefore, further exploratory research can look into patients' perspectives in adhering with non-pharmacotherapy aspects of hypertensive care in a larger sample.

CONCLUSION

This study has provided an understanding of the perceptions concerning medication and the types of adherence behaviour in

hypertensive patients. Patients perceive WM as having side effects, and this creates a barrier to accepting its effectiveness. In addition, CAM acts as an alternative treatment to reduce the harm caused by WM. The types of adherence behaviour exhibited by the participants are faithful follower, self-regulator and intentional non-adherer. The reasons for engaging in a particular type of adherence behaviour are largely dependent on the context of the participants. It is important to elicit a patient's reasons for non-adherence to medication, and thus, patient care centre can be designed to optimise patients' outcome.

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