Journal of Medical and Biomedical Sciences (2015) 4(1): 17-23

doi: http://dx.doi.org/10.4314/jmbs.v4i1.3

ORIGINAL ARTICLE

Hypertension management: Perspectives of complementary and alternative medicine practitioners

I. A. Kretchy[1], J. A. Sarkodie[2], B. A. Afrane[1], P. Debrah[2], P. Amoateng[3], B. B. N'guessan[3] and E. Ninson[1]

[1]Department of Pharmacy Practice and Clinical Pharmacy, [2]Department of Pharmacognosy and Herbal Medicine, [3]Department of Pharmacology and Toxicology, University of Ghana School of Pharmacy, College of Health Sciences

Information available on the various forms of Complementary and Alternative Medicine (CAM) used in the management of hypertension is inadequate and conflicting. The primary objective of this study was to assess the use of CAM in the management of hypertension by CAM practitioners. A qualitative study utilizing semi-structured interview guides elicited responses on CAM practices from CAM practitioners who were involved in hypertension management. All interviews were audio recorded and manually transcribed. The final interview text was processed and the content thematically analyzed. Out of the thirteen CAM practitioners interviewed, there were herbalists (4), spiritual healers (2), diet therapists (2), chiropractor (1), reflexologist (1), acupuncturist (1), Ayurveda consultant (1) and Chinese medicine practitioner (1). CAM practitioners conceptualized hypertension from either biomedical, biopsychosocial, or spiritual perspectives with the majority of them claiming to have a cure for hypertension. By this study, the CAM practitioners reported that 50-70% of their patients had hypertension and the treatments they offered included herbal products, dietary counselling, spiritual interventions, and ayuverdic therapies. Given the fact that hypertension was the main medical condition managed by CAM practitioners, it is important that they are knowledgeable in their management approach to hypertension for better therapeutic outcome.
Journal of Medical and Biomedical Sciences (2015) 4(1), 17-23

Keywords: Traditional medicine, herbal medicine, alternative medicine, CAM, hypertension, Ghana

INTRODUCTION

The interest in Complementary and Alternative Medicines (CAM) is growing and the biological based therapies are among the most popular of these CAM remedies (Kretchy *et al.,* 2014). The CAMs form part of healing beliefs and practices which are different from conventional medicine (Kim *et al.,* 2002). Complementary medicine is when these therapies are utilised alongside conventional medical practice, and alternative medicine is when they are used in place of standard conventional remedies (Kim *et al.,* 2002).

Various forms of CAMs are available, such as acupuncture, ayurveda, homeopathy, meditation, spiritual healing, chiropractic medicine, and herbal medicines (Ernst, 2005). These CAMs are widely used as preventive or curative remedies for medical conditions and serve as general health enhancers. Some studies have shown higher prevalence of CAM use among patients with chronic diseases, particularly hypertension (Bodeker and Kronenberg, 2002; Gohar *et al.,* 2008; Olisa and Oyelola, 2009; Osamor and Owumi, 2010). Globally, the burden of diseases is changing from infectious to non-communicable (Lim *et al.,* 2012). Hypertension is the main focus of this study because it is the leading risk factor in the development of cardiovascular diseases and a global cause of mortality (Lim *et al.,* 2012). In Ghana, the use of CAM has been reported among hypertensive patients although their conventional medical care providers were not informed. This occurred mainly because the pa-

Correspondence: I. A. Kretchy, Department of Pharmacy Practice and Clinical Pharmacy, University of Ghana School of Pharmacy, College of Health Sciences. Email address: iakretchy@yahoo.com

tients were afraid to let their conventional healthcare providers know of their use of CAM (Kretchy *et al.,* 2014). Issues of medication adherence and the possibility of drug - CAM interactions could cause harm to the patient as well as negatively affect the efficacy of the conventional therapies (Barracoa *et al.,* 2005).

Unlike many conventional approaches to health care, CAM therapies are provided by licensed practitioners as well as unlicensed practitioners and this may be suggestive of weak regulation over the practice. Similarly, information about CAM practices are usually obtained through the print and electronic media, health food stores, CAM practitioners and through recommendations by significant others and lay individuals (Kretchy *et al.,* 2014). Information from all these sources on the various forms of CAM used in the management of hypertension as well as other disease conditions may not be adequate. Studies, although sparse in Ghana, have been conducted on CAM use among patients with limited information from the view point of the CAM practitioners. The primary objective of this study was to assess the use of CAM in the management of hypertension by the CAM practitioners.

MATERIALS AND METHODS

Site

This is a one-on-one qualitative study utilizing semi-structured interview guides to elicit responses on CAM practices from CAM practitioners who are involved in hypertension management. The CAM practitioners were located in three communities (Accra, Ashaiman and Tema) of the Greater Accra Region of Ghana. These were CAM practitioners who had interacted with, and cared for people with hypertension in these communities. The practitioners were identified with the help of some inhabitants in the study areas as well as through radio and billboard advertisements.

Participants

In total thirteen CAM practitioners participated in this study after giving informed consent. These practitioners were conveniently identified from various practice areas such as biologically based practices, manipulative body based systems, energy medicine, mind-body medicine and whole medical systems based on the classification of CAM by the National Institute of Health (NIH) and the National Centre for Complementary and Alternative Medicine (NCCAM) in the USA (Chang *et al.,* 2007).

Ethical considerations

Permission was obtained from all participants and they gave written informed consent before the commencement of the interviews. Each respondent also approved the audio recording of the interviews a priori. To ensure both anonymity of participants and confidentiality of their information, each participant was assigned an identification code and this was used in presenting the study findings.

Study tools

The interview explored CAM practitioners' knowledge and management of hypertension, issues of credibility and patterns of practice as well as aspects of therapeutic relationships with conventional medical practitioners. All interviews lasted approximately one hour.

Data management and analysis

All interviews were audio recorded and manually transcribed. The final interview text was processed, read thoroughly and the contents thematically analyzed.

RESULTS

Characteristics of CAM practitioners

Out of the thirteen CAM practitioners, ten of them were males. Their ages ranged from 20 -60 years with seven of them in the 40 -50 years old bracket. Six of practitioners had attained education to the tertiary level. Most of the respondents were Christians (8), while two, one, and two, were Moslems, Hindu and Spiritualists (Ghanaian Traditional Religion) respectively. Of the thirteen practitioners, four were herbalists, two specialized in spiritual healing, two were diet therapists, one chiropractor, one reflexologist, an acupuncturist, an ayurveda consultant and a Chinese medicine practitioner.

The themes were generated *a posteriori* to represent the general impressions and activities of the CAM practitioners. Four themes emerged from the analysis. These are *knowledge, practice, credibility,* and *collaborations & tensions*.

Knowledge

This theme represented the knowledge participants had concerning hypertension. The nature of training and skill acquisition influenced how participants perceived the concept of hypertension.

***Training and skill acquisition*:** Generally, participants acquired skill through inheritance (3), formal education in an institution (8), spiritual vision (1) or chosen by ancestors (1). According to the Spiritual healing consultant,

> "*I was groomed from birth by my spiritual guide…… He is an avatar, a spirit being but he descends down to earth*" (*Dr MAH, Spiritual healing consultant, 55*).

The Ayurveda consultant however stated:

> *"I trained at the Yerala Ayurvedic Medical College in India after which I was awarded a bachelor's degree in Ayurvedic medicine and surgery"* (*Dr SNS, Ayurveda consultant, 32*).

***Conceptualization of hypertension*:** CAM practitioners conceptualized hypertension from three main perspectives – biomedical, biopsychosocial, and spiritual. This was based on their educational backgrounds and in relation to their practices. The specific domains where respondents communicated their knowledge of hypertension included description of hypertension in relation to the causes, symptoms and the possibility to completely cure the disease. Generally, the level of education and the areas of specialization of the practitioners were reflective in the type of responses obtained. A herbalist trained at the University said the following about hypertension,

> *"It is actually raised arterial blood pressure. Hypertension could be a secondary factor. We have essential hypertension and then there's another one which is idiopathic: we don't actually know the cause of it. We have the secondary one which is due to certain disease conditions in the system; when you have endocrine disorders, when you have genetic disorders, certain drugs too when you abuse them you also have the disease, atherosclerosis, pheochromocytoma: that's cancer of the adrenal glands and a host of other diseases can prone an individual to hypertension. As well as bad eating habits, intake of too much saturated fats, sedentary lifestyle, smoking alcoholism, lack of exercise can make one prone to hypertension"* (***Dr AT, Herbalist, 35***).

Contrarily, another herbalist with a lower level of education and who acquired or inherited knowledge and skill of the practice from his father had this to say,

> "*There's an illness in Africa named "kooko" (piles) which is caused by "amaman"(phlegm) and when this lodges itself in the blood vessels, it prevents the blood that is pumped by the heart from circulating and reaching essential parts of the body*" (***AN, Herbalist, 49***).

Responses that reflected their practice areas were as follows:

> *"In Ayurveda, imbalance of "Tridoshas" and stress lead to hypertension. Certain lifestyles such as bad dietary habits also cause hypertension"* (***Dr SNS, Ayurveda consultant, 32***).

Similarly, the spiritual healing consultant responded:

> "*Hypertension [as I mentioned earlier] can be caused by stress, focusing and thinking so much about problems and not eating the right foods….. also in the spiritual context, hypertension can result from making physical or spiritual contacts in the form of handshakes etcetera with evil spirited people*" (***Dr MAH, Spiritual healing consultant, 55***).

Practice

The participants reported that 50-70% of their patients had hypertension and treatments offered included biological based therapies (e.g, herbal products, food supplements), dietary counselling, spir-

itual interventions, and ayuverdic therapies.

> "*I have quite a lot of hypertensive patients. I could say they are 50% of my patients*" (***MDC, Herbalist, 53***).
>
> "*Currently I have a hundred and seven (107) patients in total and about 60-70% of them have hypertension*" (***Dr JHS, Acupuncturist, 57***).

The majority of the practitioners claimed to have a cure for hypertension. The prescribed remedies differed with the kind of practitioner and all practitioners emphasized some form of life style modification. Although the Ayurveda consultant claimed he could cure hypertension, but one needed to take up a lifelong allegiance to Ayurveda:

> "*Ayurveda can completely cure hypertension if only Ayurvedic diet is followed strictly and meditation exercises are practiced for a lifetime*" (***Dr SNS, Ayurveda consultant, 32***).

When practitioners were asked about the specific management therapies, a herbalist responded:

> "*We have food supplements and other herbal products, mainly herbal products that we prescribe for them. Aside that there are certain foods we ask them to eat, we counsel them about their lifestyle, their eating habits, the kinds of foods to eat; for instance when they stay away from saturated fatty acids, too much salty foods, alcoholic beverages and a host of other bad foods which are inimical to their health; we tell them to stay away from them*" (***Dr.AT, Herbalist, 35***).

The Ayurveda consultant also stated:

> "*I take them through the 'Shirodhara' therapy, the heart purification therapy, and the 'Hrudray Dhara'. I also put the hypertensive patients on an Ayurvedic diet that is a diet with restricted salt, spice and oil and I prescribe oral Ayurvedic herbal medications. I teach them meditation exercises as well as yoga"* (***Dr SNS, Ayurveda consultant, 32***).

Credibility

Some practitioners had been licensed to practice and others did not have the required licences issued by the appropriate regulatory bodies such as the Traditional Medicine Practice Council in Ghana.

> "*…we have been licensed by TMPC, which is, Traditional Medicine Practice Council and the Ministry of Health*" (***Dr AT, Herbalist, 35***).
>
> "*I have to get one more license, which I haven't been able to do due to financial constraints. Because of that I'm not able to market my products so I sell from my home*" (***Madam DC, Herbalist, 53***).

When asked whether there was scientific evidence supporting their type of therapy, the Acupuncturist responded:

> "*A lot of research has been carried out and are ongoing in Korea on the use of Korea hand acupuncture in the treatment of various diseases and I am a researcher too. This can be seen in the fact that I have been able to treat malaria with this therapy and most of the patients who came here with abnormally raised blood pressures are properly being managed. The treatment is scientific"* (***Dr JHS, Acupuncturist, 57***).

One herbalist also responded:

> "….. *The herbal preparations have been screened both at CSRPM (Centre for Scientific Research into Plant Medicine) and FDA (Food and Drug Authority). Actually you first have to take the herbal preparations to CSRPM before taking them to FDA"* (***PE, Herbalist, 50***).

Yet some practitioners had not screened their products nor were they aware of evidence based studies that supported their practices and products. For example,

> "*None that I know of. I have been in this for years without anybody asking me to register and I am not aware about any studies on my work*" (***Dr MAH, Spiritual healing consultant, 55***).

Collaboration and tensions

This theme on collaborations and tensions emerged when the kind of relationship that existed between orthodox medicine practitioners and CAM practitioners was explored. Some CAM practitioners reported having good relationships with con-

ventional medicine practitioners as stated by the chiropractor:

> "*We have a great relationship with the medical field. We also take care of some medical doctors and some of them are my patients and we refer patients to them so the relationship is great and we like to make it better*" (***Dr CB, Chiropractor, 50***).

Generally, all CAM practitioners confirmed referring patients to practitioners of orthodox medicine. They acknowledged the fact that orthodox medicine practitioners could handle certain disease conditions beyond their scope. When asked whether he referred his patients to orthodox medicine practitioners, the Chinese medicine practitioner responded:

> "*Yes, because we can't control all the problems. Also patients are referred to conventional medicine practitioners for surgery*" (***Dr W, Chinese medicine practitioner, 30***).

On the other hand one spiritual healer said:

> "… *They (orthodox medicine practitioners) believe there are spiritual ailments which we have the capacity to cure…. Hence they sometimes refer patients to seek treatment from us"* (***MU, spiritual healer, 61***).

Overall, most respondents had experienced conflicts with some orthodox medicine practitioners. Two major conflicts identified were rejection and contempt. According to the acupuncturist:

> "*I approached management at the Korle Bu teaching hospital and 37 military hospitals with Korea hand acupuncture therapy but the medical doctors disapproved it*" (***Dr JHS, Acupuncturist, 57***).

The reflexologist also said:

> "*Though I have friends who are physicians that I consult when in doubt and are ready to assist me, most physicians look down on CAM practitioners and their therapies. They are always quick to criticize alternative medicine practitioners*" (***Dr IA, Reflexologist, 33***).

In spite of the above challenge, CAM practitioners agreed that it was a good idea for an integrative approach to healthcare and were prepared to share their knowledge with orthodox medicine practitioners and also get to learn from them.

> "*It will be good to have a good relationship with orthodox practitioners because we both desire the well-being of the patient and not discrimination in the type of medicine*" (***Dr W., Chinese medicine practitioner, 30***).

DISCUSSIONS

The study has provided some information on CAM use among hypertensive patients in Ghana from the CAM practitioners' perspective. The CAM practitioners reportedly averred that 50-70% of their patients had hypertension indicating that hypertension is indeed an important public health challenge (Lim *et al.,* 2012). This implies that CAM practitioners may play an important role in primary health care in the management of hypertension. There is therefore the need for these practitioners to be knowledgeable and skilled in their treatments as well as having effective monitoring from the appropriate regulatory authorities. This could go a long way to avoid or minimise adverse interactions with orthodox medicines while maximizing the efficacy of treatment options. Some patients misunderstand the fact that hypertension is a chronic condition with no apparent cure and explore alternatives to their orthodox treatment (Kretchy *et al.,* 2014). This desire for a complete cure for hypertension by patients probably supports the assertion by the majority of CAM practitioners to have a cure for hypertension (Osamor and Owuni, 2010).

Due to globalization, CAM practices which originated from other countries and cultures were available in Ghana for the management of hypertension. The therapies available were chiropractic, Ayurveda, Chinese medicine, acupuncture, pranic healing and reflexology which originated from USA, India, China, Asia, the Philippines and Egypt respectively (Ernst and White, 2004; Keating *et al.,* 2004; Narayanaswamy, 1981). However, the traditional medicine popularly used worldwide is herbalism (WHO, 2004). From the study most of the practitioners were herbalists and similarly, the CAM of choice by most patients are the biological based products (Chagan *et al.,* 2005; Kretchy *et al.,* 2014). These

biological based therapies were perceived to be natural with less toxicity and having relatively little or no side effects. However, because most herbal medicines contain more than one active ingredient, there is a higher likelihood of herb-herb or herb-drug interactions (Izzo *et al.,* 2002).

The CAM practitioners could be easily and readily accessed by patients and this brings to the fore the issues about regulation and credibility of CAM practitioners and practices. Out of the CAM practitioners, eleven were licensed by the Traditional Medicine Practice Council (TMPC) established under the Ministry of Health in Ghana, while two herbalists practised in their homes without licenses. Although it can be assumed that most CAM practitioners conduct their activities in hygienic and ethical manner, it is apparent that their activities may not adhere strictly to standards by regulatory bodies. The Traditional Medicine Practice Council (TMPC) was established to regulate the practice of traditional medicine practitioners and license them to practice and to regulate the preparation and sale of herbal medicines (Kuete, 2006). Despite the fact that herbal medicine is the most patronized form of CAM in Ghana, globalization has led to the influx of other forms of CAM from different cultures worldwide which are equally being patronised by Ghanaians. Regulators of CAM practice must thus be abreast with current practices in order to carry out comprehensive regulatory activities.

Given the fact that hypertension was the main medical condition managed by CAM practitioners, it is important that they are knowledgeable in their approach to the management of hypertension for better therapeutic outcomes. As a result of the probable pharmacokinetic and pharmacodynamic interactions between some CAM remedies and conventional anti -hypertensive therapies, there is the need to design clinical trials to provide scientific data on the mechanism of action, efficacy and safety of these CAM products. Collaborations and conflicts were reported by the CAM practitioners as existing at different degrees with practitioners of conventional medicine. Despite the increased utilization of CAM techniques among the general public and patients with hypertension (Harris *et al.,* 2012), mainstream medicine has been slow and careful to collaborate with CAM practitioners. Yet models for integration of CAM into general healthcare have been suggested (Kreitzer and Snyder, 2002). Having a good therapeutic relationship between CAM practitioners and orthodox medical practitioners is undoubtedly valuable for incorporating integrative medicine into healthcare which would invariably enhance patient health outcomes. The findings of this study may not be generalized to reflect the views of the majority of CAM practitioners in Ghana. This is because the study approach was qualitative.

CONCLUSIONS

We believe that this work is the first to explore the issues related to the use of CAM in hypertension management by practitioners in Ghana. The study showed that the majority of care seekers of CAM were patients with hypertension. Also CAM practitioners believed they had the remedies to help these hypertensive patients and they provided care as they deemed fit per their practice.

ACKNOWLEDGEMENT

The authors are grateful to the CAM practitioners for participating in the study and the members of the various communities who directed the research team to the study locations.

COMPETING INTERESTS

The authors declare that they have no competing interests.

REFERENCES

Barracoa, D., Valenciaa, G., Riba, A.L., et al. (2005). "Complementary and alternative medicine (CAM) use patterns and disclosure to physicians in acute coronary syndromes patients". *Complement Ther Med 13: 34-40.*

Bodeker, G., Kronenberg, F. (2002). "A Public Health Agenda for Traditional, Complementary, and Alternative Medicine". *Am J Public Health 92(10): 1582–1591.*

Chagan, L., Bernstein, D., Cheng, J.W.M., Kirschenbaum, H.L., Rozenfeld, V., Caliendo, G.C., Meyer, J., Mehl, B.

(2005). "Use of biological based therapy in patients with cardiovascular diseases in a university-hospital in New York City". *BMC Complementary and Altern Med 5: 4*

Ernst, E. (2005). "Complementary/alternative medicine for hypertension: a mini-review". *Wien Med Wochenschr 155(17–18): 386–391.*

Ernst, E. & White, A. (2004). "A brief history of acupuncture". *Rheumatology 43 (5): 662-663.*

Gohar, F., Greenfield, S.M., Beevers, D.G., et al. (2008). "Self-care and adherence to medication: a survey in the hypertension outpatient clinic". *BMC Complement Altern Med 8(1): 4.*

Harris, P.E., Cooper, K.L., Relton, C., Thomas, K.J. (2012). "Prevalence of complementary and alternative medicine (CAM) use by the general population: a systematic review and update". *Int J Clin Pract 66: 915–6.*

Izzo, A.A., Borrelli, F., Capasso, R. (2002). "Herbal medicine: the risk of drug interaction". *Trends Pharmacol Sci. 23: 358– 359.*

Keating, J.C., Cleveland, C.S. & Menke, M.A. (2004). Chiropractic history; a primer, Sutherland Companies, Montezuma, Iowa.

Kim, Y-H., Lichtenstein, G., Waalen, J. (2002). "Distinguishing complementary medicine from alternative medicine". *Arch Intern Med 162(8): 943.*

Kreitzer, M.J., Snyder, M. (2002). "Healing the heart: Integrating complementary therapies and healing practices into the care of cardiovascular patients". *Prog Cardiovasc Nurs 17(2): 73—80*

Kretchy, I.A., Owusu-Daaku, F., Danquah, S. (2014). "Patterns and determinants of the use of complementary and alternative medicine: a cross-sectional study of hypertensive patients in Ghana". *BMC Complement Altern Med. 14: 44*

Kuete, V. (2006). Medicinal plant research in Africa: Pharmacology and Chemistry. Elsevier Inc. London. 851.

Lim, S.S., Vos, T., Flaxman, A.D., et al. (2012). "A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010". *The Lancet. 380 (9859): 2224-2260.*

Narayanwamy, V. (1981). "Origin and development of Ayuverda: A brief history". *Ancient Science of Life 1 (1): 1-7.*

Olisa, N.S., Oyelola, F.T. (2009). "Evaluation of use of herbal medicines among ambulatory hypertensive patients attending a secondary health care facility in Nigeria". *IJPP. 17(2): 101–105.*

Osamor, P.E., Owumi, B.E. (2010). "Complementary and alternative medicine in the management of hypertension in an urban Nigerian community". *BMC Complement Altern Med. 10: 36.*

ISSN 2026-6294