A qualitative insight on complementary and alternative medicines used by hypertensive patients

Inas Rifaat Ibrahim, Mohamed Azmi Hassali, Fahad Saleem, Haydar F. Al Tukmagi

ABSTRACT

Background: The self-treatment with complementary and alternative medicines (CAMs) in chronic diseases is portraying an expanding trend worldwide. Yet, little is known concerning patients’ motives to use CAM in the control of blood pressure. Objective: This study aims to explore the self-use of CAM in the management of hypertension and explore patients’ attitudes, perceived benefits, and disclosure to the physician. Materials and Methods: A qualitative technique was adopted and face-to-face interviews, using a validated interview guide, were carried out among twenty hypertensive patients. A purposive sampling method was used to recruit patients at Al-Karama Teaching Hospital in Baghdad; the capital of Iraq; from January to April 2015. All the interviews were audio-recorded, then transcribed verbatim and examined for thematic relationships. Results: Three major themes were identified through thematic content analysis of the interviews. These encompassed patients’ understanding of CAM; experience and perceived benefits; and communication with the doctors. The use of CAM was prevalent among the majority of the respondents. The most commonly used therapies were biological-based practices (herbal remedies, special diet, vitamins, and dietary supplements); traditional therapies (Al-Hijama or cupping); and to a less extent of manipulative body-based therapies (reflexology). Factors influencing the use of CAM were traditions, social relationships, religious beliefs, low-cost therapy, and safety of natural products. Conclusion: The use of CAM was common as a practice of self-treatment among hypertensive patients in Iraq. This was underpinned by the cultural effects, social relationships, religious beliefs, and the perception that natural products are effective and safe. Understanding patients’ usage of CAM is of great importance as long as patient’s safety and interaction with the standard prescribed treatment are major concerns.

KEY WORDS: Al-hijama, complimentary alternative medicines, hypertension, Iraq

The recent decades witnessed an increased attention to the use of complementary and alternative medicines (CAMs) in the management of different health conditions. Despite available researches that addressed patient’s usage of CAM in various chronic diseases, little is known concerning hypertension. Hypertension is a chronic disorder, affecting approximately 27% of the population worldwide and accounts for 12.8% of the total deaths.[3] In Iraq (the Eastern region of the Arab world), the prevalence of hypertension is about 25% of the total population and accounts for 5% of all deaths in the country.[2] It is necessary for patients diagnosed with hypertension to achieve adequate blood pressure levels to prevent cardiovascular risk and serious renal complications.[1] The overall strategy to maintain normal blood pressure level involves standard medical treatment as well as patient self-care. Recent studies have identified the self-use of CAM among patients with hypertension to control their blood pressure and

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How to cite this article: Ibrahim IR, Hassali MA, Saleem F, Al Tukmagi HF. A qualitative insight on complementary and alternative medicines used by hypertensive patients. J Pharm Bioall Sci 2016;8:284-8.
improve the quality of life.\[4,5\] CAM is defined by the world health organization as “The sum total of the knowledge, skills, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness.”\[6\] This nondrug treatment encompasses several modalities such as biological therapies (herbal products, vitamins, and dietary supplements); cupping or “Al-Hijama” in Arabic culture; body-based therapies (massage and reflexology); mind-body therapies (meditation, prayer, and relaxation); and whole-medical system (Chinese acupuncture and homeopathy). It is generally regarded as a complementary medicine when it is used alongside standard treatments; whereas, alternative medicine when it is used instead of the standard treatment.\[7\] Some previous researches reported that hypertensive patients are attracted to use CAM alongside their conventional treatment as an attempt to control their blood pressure.\[5,3,8,9\] This surge is generally prompted by the perceived natural effect of CAM; cost and skepticism of orthodox medicines; and psychosocial and cultural factors.\[8,10\] CAM therapy, in particular, herbal products, in the Arab region is common and dated back to a long history. Several studies conducted in the Arab societies have reported the self-use of herbs and dietary supplements in the management of hypertension and cardiovascular diseases.\[11,12\] However, patients’ perspectives concerning CAM treatment is still not well understood. To the best of our knowledge, most studies in this field are quantitative in nature. Hence, this study intended to understand hypertensive patient’s point of view towards CAM through a qualitative scenario. Our study aims to understand the use of CAM among patients with hypertension; as well as, explore issues like patients’ attitudes toward CAM, perceived benefits, and patients’ disclosure to the physicians.

Materials and Methods

Study design
A qualitative method through in-depth interview was used. Two basic reasons aligned the adoption of this technique. First, to develop an understanding of issues relating to patient behavior; “The use of CAM” was used in this study. Naturalistic approach elicits information descriptive of this complex human process.\[13\] Second, no previous research is reported from Iraq to identify the use of CAM in the management of chronic diseases. The individual open-ended interview guide was used to interview patients diagnosed with hypertension. The study was conducted at the Department of Internal Medicine at Al-Karamma Teaching Hospital in Baghdad, Iraq. A purposive sampling technique was adopted to recruit the participants. Purposive sample, also known as judgment sample, involves the active selection of the most productive sample to answer the research questions.\[15\] Hypertensive patients who were able and willing to describe their treatment practice were consented for the interview. Patients’ recruitment continued until a saturation point was reached (no more emergence of new data).\[15,16\]

Participants
Adult patients diagnosed with hypertension for at least 1 year, both genders; and not too ill to communicate with the researcher were recruited for the interviews. Newly diagnosed patients were not included due to several reasons: (1) To avoid the confusion that might be understood as suggesting more therapeutic options,\[16\] (2) to prevent creating additional stress that often accompanies a new diagnosis, (3) patients with longstanding hypertension may be less adhered to the standard prescribed medicines and seek other treatment modalities.

Procedure
After explaining the study to all eligible participants, the interviews were conducted by a researcher from the field of social pharmacy. A written consent form was taken before the interview session. To elicit the information of interest, open-ended questions were arranged to shape the interview guide. The questions were adopted and developed through extensive literature review and through consultation of experts in the field of social pharmacy and qualitative research methodology. The interview covered four domains: Patient’s use of CAM; experience and perceived benefits, communication with physicians and other medical staff; and sociodemographic characteristics of the respondents [Table 1]. Each interview lasted about 30 min and was done at a time and place convenient to the patient and the researcher. All interviews were conducted in Arabic language (National language of Iraq) and were audio-recoded with patients’ permission for further analysis later. Prompts were used whenever useful to focus the interview; however, the direction of questioning was driven by patient’s response. This is useful when little is known about the phenomena of interest and exploring a breadth of information.\[17\] The interviewer reported some notes during the interview to specify the key ideas identified by the respondents. Before ending, a confirmatory dialog technique was used to prevent biasness.\[14\] That is, the researcher summarized the practices and concepts that were explicated by the patients and ask the patients if such gathered information was actually a reflection of his/her experience with CAM, and if there is any change or other addition before ending the interview. Saturation of data was reached after twenty

Table 1: Exemplar of interview questions and prompts

| Question                                                                 | Prompt                                                                                     |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Beyond your prescribed treatment, have you tried other practices (like herbs, vitamins, plant oil, Al-hijama, prayer, massages or anything else) to lower your blood pressure? If yes; which kind of such practice? What is the reason of searching such therapy? | Do you know that this therapy is classified as complementary and alternative medicines (CAM)? If yes, from where do you know this term? If you have used a CAM therapy, which therapy did you first tried? And for how long? From where did you find out information pertaining to this therapy? And from where did you get such kind of therapy? Do you think that CAM therapy is effective in lowering blood pressure? Do you think that CAM use is safe and free of side effects? Have you told your doctor, a pharmacist or a nurse about the use of CAM? If No, Why? Whom do you feel most comfortable too seek advice about CAM? Why? Is there any issues related to CAM that you would like to add? |
interviews. The study procedure was approved by Universiti Sains Malaysia and Iraqi Ministry of Health (MOH). Monetary payment or other forms of compensation were not offered.

Coding and analysis

Data were transcribed verbatim using patient’s own words and explanations into texts through thematic content analysis. The researcher reviewed the data after extensive reading and re-reading of the transcripts and repeated listening of the records. An exploratory list of codes was generated, a process known as “open-coding process.” Then, themes that best described the patient use of CAM were generated by investigating the relationships between the codes. The analysis was discussed with experts in qualitative researches for quality assurance and influence of their opinions.

Results

Characteristics of participants

Twenty adult hypertensive patients aged between 35 and 68 years were interviewed [Table 2]. Majority of respondents (11, 73.3%) reported using CAM to control their blood pressure.

Interview analysis

Content analysis of the interviews identified three major themes. These include familiarity and understanding of CAM; attitudes and perceived benefits; and disclosure to the physician. Each theme with illustrative excerpts from patients’ transcripts is described below.

Table 2: Patients’ characteristics

| Characteristics | n(%) (N = 20) |
|-----------------|--------------|
| Gender          |              |
| Male            | 14 (70.0%)   |
| Female          | 6 (30.0%)    |
| Age in years    |              |
| > 45            | 6 (30.0%)    |
| 46-55           | 5 (25.0%)    |
| 55<             | 9 (45.0%)    |
| Education       |              |
| Elementary      | 5 (25.0%)    |
| High school     | 7 (35.0%)    |
| Institute       | 5 (25.0%)    |
| College         | 3 (15.0%)    |
| Marital status  |              |
| Single          | 1 (5.0%)     |
| Married         | 15 (75.0%)   |
| widow           | 3 (15.0%)    |
| divorced        | 1 (5.0%)     |
| Monthly income in US Dollar | |
| Low (> 500)     | 4 (20.0%)    |
| Average (500-1000) | 8 (40.0%) |
| High (1000<)    | 8 (40.0%)    |
| Duration of disease in years | |
| >5              | 12 (60.0%)   |
| 5<              | 8 (40.0%)    |
| Co-morbidity    |              |
| Yes             | 9 (45.0%)    |
| No              | 11 (55.0%)   |

Theme 1: Familiarity and understanding of complementary and alternative medicine

Patients in this study were asked about the use of any treatment modality other than their prescribed standard treatment. Assortment of herbs, vitamins, dietary supplements, “Al-Hijama” (cupping in Western culture), and reflexology were among the most reported CAM.

• “I took my treatment as my doctor said but I prefer to use some herbal and vitamins with it because they make me feel better and they are good… I also tried some dietary supplements to improve my health in general” (P2)

• Yes, sometimes I drink herbs and lemon juice when I feel that my pressure is high… Also I do Hijama from time to time and I feel better after doing it” (P11).

Only a few patients (6; 30.0%) reported that they adhere to the treatment prescribed by the physician and never tried any other practice before; however, they follow some diet-restriction program.

• “No, I have not tried anything before; only my treatment prescribed by the doctor… I do not trust such products like herbs or Arabic treatments, they are not tested and I do not know what could happen with me if I used them. I took my prescribed medicines and changed my food to without salt and fat” (P4).

Patients mentioned some reasons of searching such therapy. Most of them were friend’s advice, religious issues, safe products, and cheap practice.

• “My friend advised me to do Hijama to heal from hypertension, and when I tried it I really feel good without the need to use medicines. It is mentioned in the Islam since a long time” (P6)

• “Natural products are not manufactured by the human; it is found in the nature by Allah for our benefit since the beginning of life. They are like our food, they are also cheap and not like manufactured drugs which are very expensive and may result in harm to the patients” (P1).

It was clear from the interviews that respondents in this study were not familiar with the term CAMs; rather they knew this type of therapy as herbal medicines, Arabic medicines, and prophetic medicines (treatment recommended by the prophet of Islam).

• “No, I have never heard of this name before, but what I know about this treatment is that it is called herbal medicines or Arabic medicines (P8)

• “Complementary medicine! No, I did not know this before… But I heard about Alternative medicines by TV programs and I think they are the same as herbal medicines or prophetic medicines” (P15).

Theme 2: Attitudes and perceived benefit of complementary and alternative medicine

The majority of participants tend to use a wide variety of CAM products for hypertension. Garlic, lemon, yoghurt, ginger, rosella tea, Al-Hijama, vitamins and dietary supplements were among the most commonly mentioned products [Table 3].

- 286

* Ibrahim, et al.: Complementary medicines in hypertension
However, the results do not reveal the first product used by each participant, as most of them have used several kinds of CAM at the same time and since the time of diagnosis. 

- “I used different things since I knew I have hypertension… I drink lemon, Numi-Basarah, and yoghurt and also I take some food supplements with garlic, ginger and vitamins… ‘Wait!’ I bring it with me and you can read the package” (P9).

Herbalists, pharmacists, friends and Arab culture were the main source of information regarding CAM and the way of using it in hypertension. Furthermore, respondents got such products easily from the markets, herbalists, and community pharmacies with a reasonable price.

- “I got them from the pharmacy… I prefer to ask the pharmacist about them because he knows more about the medicines and herbs” (P11)
- “Arabic medicine is known since ancient time and when I need to use it or need any advice I ask the herbalist or the pharmacist sometimes” (P12).

Within the interest of patient’s perception, patients perceived that CAM therapy is effective in lowering the high blood pressure on the basis of regular usage. Another noted perception was CAM is a safe practice and free from any side effects.

- “Yes, it is an effective treatment and give good results but you have to take it continuously… If you left it for long time, maybe you will not get any benefit of it. It needs time to lower the blood pressure” (P13)
- “I think they are safe, I made Hijama without any harmful effects… We get rid of the extra blood and the bad feeling that cause the disease… Our religion encourages us to do it. The reflexology is also good and safe because I have tried it before without any bad results” (P19).

**Theme 3: Communication with the physicians and other medical staff**

The last theme suggested that respondents did not disclose CAM practice to their doctors. In most of the cases, respondents tend to use CAM despite their standard prescribed treatment. Reasons of nondisclosure were short counseling time; fear from the doctors’ anger; and lack of CAM recognition.

- “I did not prefer to tell that to my doctor, because I do not have enough time during my visit and I am afraid of his anger if I told him that. In addition, doctors do not care about herbas and natural treatments; they prefer the manufactured medicines (P6)
- “Doctors are busy, I remember during one of my visit to my doctor, I told him that I drink lemon and ginger every day, he smiled and did not say anything then continued his talk about my condition and what should I do” (P15).

CAM users in this study preferred to consult the pharmacist about CAM related information. For some of the cases, herbalist was also preferred.

- “I buy the herbs from the pharmacy and ask the pharmacist about the preparation and use. I think the pharmacist is the best person in giving the information about the treatment and about herbal medicines because drugs were originally made from herbs” (P5)
- “I prefer to ask the pharmacist, he knows more about the treatment and vitamins or herbs… It is his job, but for the Arabic medicines, sometimes I ask the herbalist because he has the experience in dealing with it. About reflexology, I knew it from TV programs and read about it through the Internet” (P19).

**Discussion**

This qualitative analysis revealed results that were not previously available and documented from Iraq. The use of CAM to lower blood pressure in addition to allopathic treatment is prevalent. Cultural effects, social relations, religious beliefs, low-cost therapy, and safety of natural products have a noticeable influence in using CAM. Some previous researches have reported the same patients’ motives of searching CAM. [9,11,19,21] This means, patients have known about these practices through cultural and social support rather than their health-care provider.

The umbrella term “CAM” was not familiar among Iraqi hypertension patients; whereas, this type of therapy was familiar as the Arabic medicine or prophetic medicine (recommendations left by the prophet of Islam to cure from illness). Perhaps, this is due to the linguistic difference between the Arabic and Western language in nomenclatures. In addition, CAM therapy was limited to the use of food (like garlic, lemon, and yoghurt); herbal remedies (like ginger tea, rosella tea, dried lime tea, and green tea); some sort of vitamins, and Al-Hijama. The abundance of herbs and plants in the Arab territories might

| CAM products        | Total use (N = 20) | Gender | Age groups | Income levels | Educational levels |
|---------------------|--------------------|--------|------------|---------------|-------------------|
|                     | Male | Female | >45        | 46-55 | 55< | Low | Average | High | Elementary | High school | Institute | College |
| Garlic              | 10   | 7      | 3          | 2     | 5   | 1   | 2      | 7    | 3          | 2          | 2        | 3        |
| Lemon               | 9    | 4      | 5          | 4     | 3   | 2   | 3      | 2    | 4          | 2          | 4        | 2        |
| Yoghurt             | 9    | 4      | 5          | 3     | 3   | 2   | 4      | 3    | 2          | 3          | 2        | 2        |
| Rosella tea (“Kujarrat tea” in Iraqi folk) | 7    | 7      | 0          | 1     | 2   | 4   | 1      | 2    | 4          | 2          | 1        | 2        |
| Al-hijama (Cupping in Western culture) | 7    | 7      | 0          | 1     | 2   | 4   | 0      | 3    | 4          | 3          | 0        | 2        |
| Ginger              | 6    | 1      | 5          | 3     | 1   | 2   | 2      | 1    | 3          | 1          | 3        | 1        |
| Dried lime (Numi-Basrah in Iraqi folk) | 6    | 2      | 4          | 2     | 1   | 3   | 2      | 2    | 2          | 1          | 3        | 1        |
| Dietary supplements | 6    | 2      | 4          | 2     | 1   | 3   | 2      | 2    | 1          | 2          | 3        | 2        |
| Vitamins            | 6    | 3      | 3          | 1     | 3   | 2   | 2      | 1    | 1          | 3          | 2        | 0        |
| Green tea           | 4    | 2      | 2          | 3     | 1   | 0   | 1      | 2    | 1          | 2          | 0        | 0        |
| Reflexology         | 3    | 3      | 0          | 0     | 1   | 2   | 0      | 0    | 3          | 1          | 0        | 1        |
fuel the belief of using herbs for the purpose of healing. It is noticeable that herbal products are available extensively in the Arabic local markets with poor regulatory and quality control. Likewise, the use of the traditional therapy “Al-Hijama” which is very popular in Islamic society (Islam is the dominant religion in the Arab countries). It was urged by the Islamic precepts to cure from different elements. Through this therapy, the blood is drawn from different points of the human body with the use of vacuum or a special cup.[21] In contemporary society, traditional therapies based on this heritage play a pivotal role that cannot be neglected in searching health nowadays. Public’s common belief that CAM therapy is effective and safe due to its “naturalness” is highly recognized in recent researches.[10,21,23,24] Despite this popularity of CAM, patients often do not disclose such practice to their physicians or health-care providers. A lower discloser rate was noted in previous literatures.[10,28,29] The preferences in most cases were given to the pharmacist in counseling about CAM. This inevitably dictates the pharmacists the responsibility to educate the patients about CAM therapy if the proof of effectiveness is available. Yet, herbal medicines and traditional procedure-based therapies have not been evaluated for their efficacy, safety, and quality standards. Evidence from clinical trials that suggest the hypotensive effect of CAM is equivocal. In addition, CAM-drug interactions may further pose danger to the patient’s life and worsen the blood pressure. Large-scale clinical researches that investigate the certain effect of CAM should be of top priority.

Conclusion

Information from this study contributes an important insight into self-treatment and practices made by hypertensive patients. The use of CAM to lower the blood pressure was prevalent in Iraq as a result of cultural and social effects with a dominated perception that natural product is effective and safe. To prevent unnecessary danger, health-care providers should always be aware of the self-therapies made by their patients in searching good health. In addition, CAM products should be evaluated for their efficacy and safety; as well as, selling of these products should be regulated in our markets. Patient education program about the usage of CAM is warranted to prevent the potential of adverse drug reaction or CAM-drug interaction.

Acknowledgments

The authors would like to thank Dr. Manal M. Younus and Dr. Haider K. Al Jawadi (Clinical pharmacists at MOH) for their efforts in providing the needed facilities during patients’ interviews. A special thank goes to the participated patients who gave us their time and consideration.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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