Perceptions About High Blood Pressure Among Mexican American Adults Diagnosed With Hypertension

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Hypertension affects approximately 73 million Americans. Clients and providers working together to control the disease can help prevent life-threatening illnesses. Patient perceptions about their illness can influence health behaviors, but little is known about the perceptions of Mexican American adults in relation to hypertension. This descriptive study used semistructured interviews to elicit Patient Explanatory Models of hypertension among 15 hypertensive Mexican American adults. Findings revealed that personal models of cause, treatment, and outcomes were often vague. This information can be useful for planning individual education and treatment that provides meaningful care. Key words: explanatory models, hypertension, Mexican American

Hypertension is a major risk factor for stroke, congestive heart disease, and heart and kidney disease that affects more than 73 million adults, or one-third of all Americans. Annual direct and indirect health care costs are estimated at $69.4 billion. Hypertension and its consequences are unevenly distributed across ethnic groups.

Mexican American levels of hypertension are comparable or lower than non-Hispanic whites; however, Mexican Americans with hypertension are less likely to have their blood pressure treated and controlled compared to whites and African Americans. Approximately 29% of Mexican American men and 31% of Mexican American women have hypertension. Although the general health of Americans has improved, Mexican Americans have not benefited equally. Cultural values and beliefs rooted in the traditional explanations of cause and treatment of illness may increase barriers to awareness and control of hypertension among Mexican Americans. These values and beliefs can influence health actions taken.

PURPOSE

Mexican American perceptions of their illness do not always match the biomedical view of health care providers. Health care providers need to understand the patient’s view to provide meaningful care. The purpose of this study was to obtain perceptions of hypertensive Mexican American adults about their
hypertension using Kleinman’s Patient Explanatory Model as a framework.

BACKGROUND

Setting

The Ministerio de Salud (Health Ministry) is a partnership for health between the University of the Incarnate Word School of Nursing and St Philip of Jesus parish. Located just south of downtown San Antonio, Texas, the community served is 92% Hispanic. This south section of San Antonio fares worse than both the county as a whole and the state for health indicators related to obesity, diabetes, heart disease, hypertension, and lack of insurance.6

The Ministerio de Salud performs health promotion, screenings, referrals, and disease management activities at various sites in the community with a special focus on the unmet health needs of the elderly. Between July 2006 and June 2007, 606 seniors were surveyed about their medications, with 77% taking medication for hypertension. Regardless, 64% of those taking medications for hypertension continued to have blood pressures greater than 140/90. Individual counseling with clients revealed that their understanding of hypertension was often unclear, making it difficult for the staff to connect client concepts of cause and treatment to their views on hypertension therapy.

Framework

It is well documented that patients’ perceptions about their illnesses do not always match the biomedical view. Kleinman and his associates7,8 proposed changing the clinical encounter to include understanding the patient’s Explanatory Model (EM) of illness, goals of treatment, and evaluation of treatment effectiveness. Using concepts from anthropology and cross-cultural research, the model focuses on learning the patient perception in relation to 5 issues found in clinician diagnostic models, including etiology, onset of symptoms, pathophysiology, course of the illness and treatment. Patient perceptions of illness and treatment, their EM, can and does influence health behaviors. To provide meaningful care, health care providers need to understand their patients’ views and learn where there can be negotiation between the patient EM and the biomedical model.

Literature review

A large body of research over the last 20 years using the Kleinman EM has documented EMs about AIDS among low-income Latina women9; breast and cervical cancer risk among Latina and Anglo women10; overweight and obesity among African American, Euro American and Mexican American women11; and eating, weight and health among rural Mexican American women.12 Most studies of Hispanics’ EM have looked at people with diabetes, and the majority of investigations of hypertension have focused on other ethnic groups.

Explanatory models of diabetes among Hispanic adults

Luyas13 used participant observation, intensive interviews and medical record review to study the EMs of 19 low-income Mexican American women with type 2 diabetes using Kleinman’s model as a framework. The women in the study had an incomplete understanding of the cause and treatment of diabetes, such as believing that sweet or sugary foods were problematic but not recognizing the relationship of starchy foods with blood glucose levels. The biomedical view of controlling the disease through diet, weight loss, and exercise did not match their EMs. While all participants believed that diabetes should be treated by physicians, they also used various herbal remedies thought to cure the disease. Economic and family problems were seen as focal in both the onset and course of their diabetes.

Alcozer14 also used Kleinman’s framework to explore the EMs of 20 Mexican American women with type 2 diabetes. A secondary analysis of interview data revealed that personal experiences with diabetes influenced
perceptions, and that these women relied on information from both their health care providers and family to form personal EMs of diabetes. There were minimal differences in EMs based on social strata or level of acculturation.

Chesla and associates\textsuperscript{15} used a combination of Kleinman and the Personal Model of Diabetes to describe and contrast personal EMs of 116 Euro Americans and 76 Latino adults with type 2 diabetes. Using open-ended and fixed choice questions, the researchers found that both Euro Americans and Latinos gave comparable assessments as to the cause, seriousness and effect, and treatment of diabetes. Models were categorized as Experiential, Biomedical, or Psychosocial, with some differences between the groups. A larger percentage of Latinos used the Experiential Model. Differences in perceptions of personal areas of changes caused by diabetes were also found: Euro Americans identified changes in the area of exercise, and Latinos identified changes in personal fatigue and irritability.

Jezewski and Poss\textsuperscript{16} developed a culturally specific EM among Mexican American adults with type 2 diabetes who lived in colonias along the US Mexico border in El Paso, Texas based on Kleinman’s model. Twenty-two adults participated in semistructured interview and focus groups; results showed that participants’ views of the cause and treatment of diabetes included both biomedical and folk components. For example, the cause of diabetes was seen as being susto or fright, being overweight, unhealthy diet, heredity, lack of exercise, and not taking care of one’s self. Treatment included diet, exercise, and physician prescribed medication along with herbal remedies. The authors concluded that it is not sufficient for health care providers to rely on the biomedical model alone without knowledge of the individual’s EM.

Other studies of EMs about diabetes among Hispanics involved subjects from various countries of origin and included both those with and without diabetes.\textsuperscript{17-19} Findings supported previous studies in which subjects incorporated a combination of biomedical and folk models. Heredity is seen as an important cause, along with emotional or folk illnesses such as susto (fright), coraje (anger), and tristeza (sadness). Participants often identified a specific episode of strong emotion that they felt led to the onset of their diabetes. In all studies, treatment through medication prescribed by a physician was recognized as important, and the use of herbals and foods as treatment was also frequently a part of the participant’s view.

**Explanatory models of hypertension**

Blumhagen\textsuperscript{20} used Kleinman’s model as a guide to interview 117 veterans who were seen at a hypertension clinic. The subjects were primarily middle-aged white men with a high school education. A majority (72\%) of participants felt that their illness was “Hyper Tension,” or excessive tension, which then caused their elevated blood pressures. Individual participants had EMs that were inconsistent, but the inconsistencies did not seem to pose a problem to the individuals. Acute Stress, Chronic External Stress, and Chronic Internal Stress were seen as a cause of hypertension, as were physical and hereditary factors. Many identified physical symptoms of “Hyper Tension” such as dizziness and headaches, which are not part of the biomedical model of hypertension. Many participants had explanations of the cause and symptoms which included some elements of both “Hyper Tension” and the biomedical model of hypertension.

Heurtin-Roberts and Reisin\textsuperscript{21} used semi-structured interviews to examine the EMs of 60 hypertensive African American women between the ages of 45 to 70 to investigate the relationship of cultural beliefs about hypertension with compliance to prescribed medical treatment. Participants described 3 illnesses; 2 folk models, High Blood and High-pertension along with the biomedical model of High Blood Pressure. Some participants distinguished the 3 illnesses, others did not. High Blood was seen as a blood disease and High-pertension as a disease of
the nerves, much like the “Hyper Tension” found by Blumhagen\textsuperscript{20} among primarily Anglo subjects. Compliance with medically prescribed treatment was related to beliefs about illness cause. Those who identified themselves as having High-pertension were the least compliant with medical treatment as the treatment for High-pertension was described as a need for decreasing stress.

Littrell\textsuperscript{22} interviewed 15 African American women with hypertension who were between the ages of 60 and 84 to determine their EMs of hypertension. The interview guide used in the ethnographic study was adapted from Kleinman et al.\textsuperscript{7} Two EMs were identified: a psychosocial model and a physiological model. The psychosocial model, labeled the Hyper-Tense model, was similar to the “Hyper Tension” model found by Blumhagen,\textsuperscript{20} in which the cause was seen as internal and external stress. Participants identified symptoms associated with hypertension such as dizziness, headache, red eyes, and visual problems. The belief that people could tell when their blood pressure is elevated by these symptoms led over half of the participants to implement a variety of self-treatments. Treatment for hypertension described by participants clustered in 3 sectors: biomedical, popular culture, and folk culture strategies. The author noted that these participants did not always discuss these alternative treatments with their health care providers.

Ailinger\textsuperscript{23} looked at folk beliefs among immigrant Hispanics using Kleinman as the conceptual framework. Interviews were conducted with a sample of 330 households who had immigrated primarily from countries in Central and South America and Cuba. Interview questions focused on perceptions of the etiology, cause, and treatment of high blood pressure. Sample questions presented respondents with choices, and included specific questions about both scientific and folk categories. 

\textit{Colera} (anger) and \textit{Susto} (fright) were seen as etiological factors in hypertension. Treatment included consumption of various drinks and foods. Whether the subjects were diagnosed with hypertension was not reported.

Dela Cruz and Galang\textsuperscript{24} examined the EMs of Filipino Americans with hypertension. Twenty-seven participants born in the Philippines and living in California participated in focus groups to elicit beliefs about cause, course and treatment of hypertension. The illness beliefs and practices described by subjects reflected the biomedical model. Though participants described the use of home remedies and complementary approaches such as acupuncture, they also stated that medications and lifestyle changes in diet and exercise were needed to control high blood pressure. Cultural dietary practices were seen as difficult for participants to change. Numerous sources of stress were identified, and participants described using folk remedies and religious activity for relieving stress. Similar to findings from other studies, this sample also felt they could determine when their blood pressure was high through a variety of symptoms.

Studies of personal models of cause, treatment, and course of illness for a variety of diseases reveal that people incorporate their culturally based explanations with their understanding of the biomedical model to find meaning for themselves. Studies of personal perceptions about diabetes among Hispanics reveal some common explanations that cross national origin. EMs of hypertension often include a focus on “tension” regardless of ethnic background.

No studies were found that examined the perceptions and EMs of Mexican American adults about hypertension. With the high prevalence of undertreated hypertension among Mexican American adults, it is important to explore this population’s view of the cause, course, treatment, and desired outcome of treatment of this condition as a point for negotiating treatment. This study was undertaken to describe the EM of high blood pressure among Mexican American adults in South Central Texas diagnosed with hypertension.
METHODOLOGY AND DESIGN

Methodology

A modified ethnographic qualitative design was used to obtain data about the subjects’ personal perceptions about the cause, onset, course, and treatment of high blood pressure. An interview guide was developed with 17 open-ended questions based on Kleinman’s original questions. Following approval of the University of the Incarnate Word Institutional Review Board and approval from the parish, participants who met the criteria of being a self-identified Mexican American adult with a diagnosis of hypertension were asked to participate. Informed consent was obtained in the individual’s preferred language, Spanish, or English. Interviews were 30 to 45 minutes in length, and were conducted at the parish hall, the Ministerio de Salud office, or in participants’ homes. Demographic data were also obtained, along with current blood pressure readings. Persons with elevated blood pressure readings at the time of interview were referred to their primary care providers.

Sample

Purposive sampling was used to include participants from different age groups and different length of diagnosis of hypertension to obtain varied data. A total of 15 Mexican American adults diagnosed with hypertension completed the interviews, 12 women and 3 men. Participants’ ages ranged from 35 to 86 years, with a mean age of 74 years. The majority (67%) were over the age of 60. Education levels ranged from seventh grade to baccalaureate degree. All stated they were bilingual. Length of time diagnosed with hypertension ranged from 1.5 to 30 years, with an average of 11 years. At the time of the interview, blood pressures ranged from 118/65 to 190/135. All were born in the United States, with 6 having parents born in Mexico. Two participants did not know where their parents were born.

Data analysis

Four researchers conducted semistructured interviews. All interviews were audio taped and transcribed verbatim. All participants elected to conduct the interviews in English. Interview recordings were transcribed and then entered into The Ethnograph, a qualitative text management program which enabled sorting and grouping of responses to the survey questions for interpretation. The demographic data and blood pressure were tabulated separately for use in the description of respondents. All subject data were maintained anonymously.

The researchers each analyzed the grouped data separately, utilizing Kleinman’s conceptualization of EMs as the guiding framework for data analysis. Data clusters were then examined as a group in an effort to establish consensus regarding the EM that emerged from the subject’s responses.

RESULTS

Etiology and onset of symptoms

Although there were various views of the cause of hypertension, the most frequently mentioned cause of high blood pressure given was the daily stressors of life, with family and work stressors seen as the main cause of their hypertension. For example, a 70-year-old woman who had a 10-year history of hypertension stated:

I think it’s our daily lives. Years ago, when my parents ... when they were young, life was very simple. Now it is very hectic. We do not take time to rest or take care of ourselves.

An 86-year-old woman also attributed stress as being the cause of her hypertension, stating:

... mostly stress and sometimes worrying about your family. Having too much to do. Too much on your shoulder, worrying about whether you are going to keep up with what you are supposed to do.
With probing, 5 of the 15 participants thought that unhealthy lifestyle of no exercise and poor diet contributed to their hypertension. While all of the participants were aware of a family history of one or more first-degree relatives with hypertension, only 2 associated heredity as a cause of their own hypertension. One person thought that it might be caused by her arthritis, another attributed it to her age, and one simply stated that she did not know.

Answers to the question of why they thought their hypertension began when it did were frequently a repeat of what they believed caused their hypertension, that is, stress of job, family, and work. A 52-year-old woman who has been treated for hypertension for less than 2 years, described the onset of her symptoms as being related to having had a stroke, with the stroke causing the elevation in blood pressure:

I always had low blood pressure, according to my checkings I do at (the grocery store). But when I had the stroke in March of last year, when I got to the hospital, my blood pressure was high, my sugar and my cholesterol.

Pathophysiology: what does it do?

When asked, “What does high blood pressure do to you?”, answers included outcomes such as heart trouble, stroke, and kidney machine. Others felt their high blood pressure caused high blood glucose. The focus was primarily on long-term outcomes, not on the day-to-day effects of high blood pressure. A 70-year-old woman with a seventh grade education described these long-term problems stating, “Well it, you know, with the high blood pressure you can shorten your life. You can have a heart attack.”

Other responses illustrate attempts to describe the pathophysiology, but were somewhat difficult to follow, including some confusion about high blood pressure, high blood glucose, and high cholesterol. An example of a response about how hypertension affects a person came from a 77-year-old woman who has a baccalaureate education and with a 5-year history of hypertension: “First of all, I get real hot and then it goes up to my brain and then causes me to feel exhausted, tired.” She was not able to elaborate on this response with more detailed information. A number of people simply answered that they did not know.

Severity and course of high blood pressure

Perceptions about how long hypertension would last varied from a short time to a lifetime. A response typical of the 5 participants who felt hypertension was a long-term problem was made by a 43-year-old man who was hypertensive (190/135) at the time of the interview: “Apparently once you get it you keep it—it is here to stay.” Most felt that their high blood pressure was not severe, or were not sure. Some responses indicated that the current blood pressure reading was what determined the evaluation of severity. “Right now it is normal” was the assessment of the severity of her hypertension by a 77-year-old woman who had had a recent stroke and who had a long history of untreated hypertension. The fact that “In the past it (systolic) was up to 200 and something, 290” was not perceived to be a part of her evaluation of severity of her hypertension.

Treatment and outcome of treatment

Participants had various perceptions of the treatment for hypertension. When asked what kind of treatment they believed they should receive for their high blood pressure, 12 participants initially stated only medication, while 3 included exercise and diet as forms of treatment for hypertension. When specifically asked if taking medication was all that needed to be done all 15 responded by adding that exercise and watching what they eat were also important. Most, however, were unable to describe specific activities for diet and exercise. Only 1 person, a 35-year-old man with a college degree, described the need to incorporate daily diet and exercise changes to aid in control of blood pressure. Three participants said, “No, pills are all the
doctors said to do.” The responses highlight the view that medication is considered the primary treatment method for control of hypertension among the participants.

Among the most important results that participants hoped to receive from treatment for hypertension, 7 stated the control of high blood pressure as an outcome, 3 wished to feel better or feel good, and 2 wanted to be able to stop taking medication for hypertension. The latter 2 were younger participants.

I figure—if I treat it now when I am young, that way when I get older then I can have a pan de dulce (Mexican sweet bread) or a taco de barbacoa (meat from beef head). Because like you know here at church a lot of people that are older they say well I can’t have a taco because their sugars and blood pressures are so out of control. That is what I’m striving for.

The relationship between eating and hypertension

When asked what foods they thought made hypertension worse, 9 of the respondents identified cholesterol, fatty and greasy foods or red meat. Five responded that salty foods were detrimental to control of hypertension. A 35-year-old who is the third generation in the US and had been diagnosed with hypertension for 17 years and hypertensive at the time of the interview (169/91) reflected what many of the respondents reported. He felt that there are a great number of foods that contribute to hypertension. “... anything that is greasy, like French fries you know and hamburgers also affect your blood pressure. Anything that is salty, like chips, it can go on and on and on.”

Three individuals did not name any foods that make hypertension worse. A 77-year-old woman second generation in the United States with a 15-year history of hypertension reported “No, not that I know of.” Her blood pressure during the interview was 132/55. A 67-year-old woman second generation in the United States with a high school education responded “No, what makes it worse is my weight.” This participant was also hypertensive during the interview (150/79). Another respondent, an 86-year-old third generation Mexican American with a high school education was also hypertensive at the time of the interview (168/71). She responded “Maybe eating a lot at night- a heavy meal at night.”

Similarly when asked about foods that help make hypertension better, 13 responded with fruits and vegetables and 2 responded that they did not know. Typical of those responding with fruits and vegetables was a 43-year-old man with an undetermined history of hypertension and hypertensive (190/135) during the interview. He answered as most did with a simple “Fresh fruits and vegetables.” The youngest respondent, a 35-year-old man, respondent gave a more extensive answer.

I think if you take fruits and vegetables. The recommended dose for me was 5. Five servings of fruits and vegetables. That way if it helps you lose weight, it will take your weight lower, causing your blood pressure to go down, causing your diabetes to go down as well.

Several participants were unaware of foods that help make hypertension better. Two women ages 44 and 63 respectively, both third generation in the US and both having completed high school said, “I have never given it much thought.” and “I should know, but I don’t.”

Interestingly, although most participants were aware of foods that they thought affect hypertension, all but 2 of the subjects were at least marginally hypertensive during the interview.

The relationship between exercise and hypertension

Of the 15 participants in the study, 7 indicated that their doctors had suggested that some kind of exercise was an intervention they should implement for helping their hypertension. However, when asked if exercise was something they were actually able to do, almost all stated that it was difficult to carry out in their lives.

Two people, both woman and over 60 years, indicated difficulties with their legs and knees due to arthritis. Four individuals
stated that their problem with doing exercises related to finding the time or making themselves get into a routine. The 35-year-old man with the EM closest to the biomedical model, gave the following response when asked what made it difficult for him to exercise: “Before, I didn’t have time; but then I told myself I need to exercise during lunch or after work, now that is what I do.”

Two women indicated that it was a lack of willpower or laziness that prevented them from doing exercises. One, an 86-year-old said, “I have other things to do and sometimes I just get lazy.”

Others indicated that they did not exercise because it was too difficult with no reason given for the difficulty. A 44-year-old woman who felt the cause of her hypertension was stress identified stress as the difficulty for getting exercise, stating: “The stress I feel doesn’t let me (exercise)–once I am home, I just want to be inside the house.”

**Psychosocial meaning**

To explore the psychosocial meaning of hypertension, participants were asked 2 questions. When asked what they feared most about hypertension, some responded that they had no fears. Having a heart attack and/or stroke were fears expressed by 9 of the participants. With further elaboration, the real fear was becoming a burden to the family. As stated by a 70-year-old woman:

“What I fear most is having a heart attack. My husband thinks it is funny, but what I say is I am not afraid of dying. I am afraid of being crippled and having somebody take care of me. That’s what is more scary.

Among the participants who stated they had no fears about high blood pressure was a 63-year-old man who completed a high school equivalency and is second generation in the United States. He has had hypertension for 26 years, and his parents and 10 siblings “probably” had hypertension. At the time of the interview, his blood pressure was 118/65. During the interview, he felt that high blood pressure does “nothing to you while you have it, but it can cause strokes and heart attacks. It damages the heart,” but when asked directly what fears he had, he stated “Nothing.” He felt that since he had no signs of hypertension, it has never affected him.

He believed that with the high blood pressure he should eat differently, but it is too hard. This gentleman, who subsequently died of a sudden myocardial infarction, when asked if there was anything else that it was important to know about what it is like having high blood pressure, answered:

Participant: It is a pain in the rear end.

Interviewer: How would you say so?

Participant: Just taking the medications. Waking up, know you have to wake up and take them every day. I take about a handful of medications. Not just for blood pressure but for heart conditions, diabetes . . . you name it I got it . . . I realize that my life is not in this body . . . That tells me that this is no good and dying away as I am speaking right now.

This interview reflects some common themes of vague fears or no fears, and the usual treatment being medications, even though there is a belief that diet and exercise are somehow important, but too difficult to do.

**CONCLUSIONS**

As in other studies of EMs, there was a mix of responses. In relation to cause of hypertension, answers were similar to those obtained by others in that many attributed stress as the cause of their hypertension. In addition, stress of numerous sources was also seen as something that made high blood pressure worse and also interfered with making lifestyle changes. Even when directly asked, only 1 participant spoke of what could be considered a folk belief in relation to cause. Similar to findings among other studies of Hispanic subjects Anger (Coraje) was the only folk-cause mentioned. With direct questioning, vague responses indicated that they had heard somewhere that poor eating habits, obesity and lack of activity played some role
in high blood pressure. Only 2 of the participants related their positive family history of hypertension as a contributing cause of the problem.

The type of treatment that they should receive was overwhelmingly “Take the pills.” Only 1 person described specific measures related to nutrition and activity without probing. In response to probing, usual responses were “Get more exercise” and “Eat better,” but with few specific strategies. Unlike findings in studies of EMs of Diabetes, no one offered any specific herbal remedy for high blood pressure or any special foods to treat the problem. No one talked about methods of stress reduction as a treatment, even though all said that stress was a cause. Treatment was seen as the passive taking of medication, with nothing specific for dealing with the causes related to diet and exercise other than eat less fat and exercise more. No barriers were identified for taking medications, while many barriers were mentioned related to both diet and activity. Of interest is the fact that some felt hypertension was a short-term problem, and that they would not need to take the pills for very long. Most did say that it was long-term and would require lifetime treatment.

Most participants had what could be described as poorly formed EMs of Hypertension, often responding that either they had not thought about the question before, they were surprised to be asked, or else that nobody had told them about this before. The person who had the EM closest to the biomedical model was the youngest participant who had a college degree. He had sought out information from a variety of sources, including the Internet. Older subjects and those with less formal education tended to have not sought out additional information, and frequently would answer with “I don’t really know, no one ever told me.”

Based on previous research of EMs, there is no reason to believe that the perceptions of this group of Mexican American adults about their hypertension are any different than those of non-Hispanics in the United States. The picture is one of having given little consideration to the problem. Some confused high blood pressure with high blood glucose, and others who have both health problems, have heard much more about diabetes than they have about hypertension.

There are implications for both further research and for education. Further studies should include larger samples and include subjects who are first generation in the United States and larger numbers under the age of 60. Acculturation and memory may have contributed to the responses of this particular sample. In addition, it would be useful to explore the perceptions about hypertension among non-Hispanic whites to determine if there are similar beliefs.

This small sample of Mexican Americans who were diagnosed with hypertension had perceptions about the cause, treatment, and results of treatment that showed some understanding of the biomedical model, with most not having given much consideration to the disease beyond the little they had been told by their primary care provider. Unlike the more well-known disease of diabetes, there were many blank places where people had just not given previous thought to the cause, treatment, or course of the disease. One woman said she did not think much about it (hypertension) as she was a breast cancer survivor and that was of more concern to her. Answers to questions were often hazy, and even with probing, specifics were not given. It is of interest that the majority of the participants had no recollection of having been told much, if anything, about their disease by their primary care providers.

The information obtained points to a need to provide education about hypertension, especially in relation to the importance of diet, exercise, and stress management. Recently, the Institute of Medicine has suggested that hypertension is a neglected disease that needs increased attention and that public education plays an important role in addressing this public health problem. Prior to any educational program, it is important to know each
individual's perceptions about the cause, treatment, and duration of hypertension to guide discussions and as a beginning point for meaningful management of high blood pressure. This will involve changing the clinical encounter to learn about the client's perception and to then be able to address personal EMs in the education process. For the person who associates his high blood pressure with anger, addressing ways to lessen or manage the anger is important to that person. For those who describe facing barriers to treatment, strategies to address those barriers need to be included in an education program.

REFERENCES


