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Definition and Management of Hypertension Among Haitian Immigrants: A Qualitative Study

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Abstract

Hypertension is a major health concern among Haitian immigrants, one of the largest Caribbean immigrant groups in the United States. Yet, little is known about how Haitian immigrants define and manage hypertension. For this qualitative study, face-to-face semi-structured interviews were conducted with 31 Haitian immigrants in Miami Dade County, Florida. Results indicated that most Haitian immigrants used the Haitian Creole word *tansyon* to represent hypertension. *Tansyon* was considered as either a normal condition of the human body or a *maladi* (illness). Both traditional biomedical and alternative approaches were used to manage hypertension. The findings show that how Haitian immigrants defined hypertension shaped their beliefs about its occurrence and the resulting management strategies used. Those who believed *tansyon* was a normal body condition did not take any management measures. Awareness and understanding of Haitian immigrants' beliefs about and approaches to hypertension management can enhance culturally sensitive care and improve health outcomes.

Keywords

Haitian immigrants; hypertension; hypertension definition; hypertension management

Knowledge about the definition and management of hypertension (HTN) among Haitian immigrants is sparse. Few studies have explored HTN among Haitian immigrants^{1,2}. These studies identified hypertension as a major health concern among Haitian immigrants leading to poor health outcomes. In their study in Miami, Florida, Preston and colleagues² reviewed 88 charts of Haitian patients in multispecialty clinics at a teaching hospital. They found that

77 (85.5%) of the 88 patients had hypertension. Additionally, 63 of the 77 patients who were hypertensive were receiving treatment for hypertension. However, only 20 (26%) had the disease under control.

Odell *et al.*³ conducted a retrospective cohort study with 4,320 Haitian and 12,258 African American maternity patients in Massachusetts and found that the Haitian women were more likely to have chronic hypertension compared with the African American women. They also found that chronic hypertension and preeclampsia were the greatest risks for delivering a low birth weight infant among Haitian immigrants. Koch and colleagues¹ retrospective study of 175 Haitian immigrants in Miami, Florida found that hypertension was the single cardiovascular risk factor associated with small vessel infarction. Although studies have not fully explored the overall prevalence of hypertension among Haitian immigrants in the U.S., the findings from the aforementioned studies indicate that hypertension is a major health concern among Haitian immigrants. Therefore, investigation of factors influencing this condition among this population group is justified.

A focus on how HTN is defined and managed among Haitian immigrants is important for a number of reasons. First, these Caribbean immigrants make up the second largest black immigrant population (N=907,790 in 2011) in the U.S. with the largest concentration being in Miami Florida, followed by New York and Boston^{4,5}. Thus, health care providers in the U.S., especially those working in areas where this immigrant group is highly concentrated, are likely to have an increased frequency of encounters with Haitian immigrants who have hypertension. Second, definitions about and ways to manage HTN vary across ethnic groups⁶⁻⁹. It is necessary for researchers and clinicians to understand how each ethnic group defines and manages the disease to be effective in care provision. Third, in order to reach the Healthy People 2020 goal¹⁰ to increase the number of people with hypertension who have their blood pressure under control to 61.25%, more research is needed about the various definitions and factors associated with hypertension management. Fourth, researchers and clinicians are inspired to conduct research about and provide care for others in a manner that takes into account the context of their everyday lives, cultural values, and socioeconomic status. Yet, little is known about how these contextual factors affect Haitian immigrants' ability to manage hypertension and obtain effective care. Lack of knowledge about Haitian immigrants' health, and health promotion and disease management behaviors may be because of their constant placement in the same categories as the Blacks (as evidenced by their categorization in numerous surveys which often lead to undercounting and misunderstanding of this population), despite the fact that they have distinct history, and cultural experiences^{11,12}. The purpose of this study was to explore how Haitian immigrants defined and managed hypertension.

Theoretical framework

The transnationalism theoretical framework guided this study. According to this framework, increased emphasis on globalization, sophisticated modes of communication and transportation, and rapid technology development enable contemporary immigrants to have transnational identities encompassing their participation in social, economic, cultural, and political activities that transcend the geographical borders of both their countries of

residency and origin ¹³. In transnational theory, immigrants who have a transnational identity are called *transmigrants*, and the term *social fields* refers to the multidimensional networks and social relationships in which ideas, practices, and resources are shared ¹⁴. These social fields include familial, religious, emotional, cultural, social, economic, organizational, and political ties and networks.

Several factors have enabled Haitian immigrants to maintain transnational ties with friends and family members in their native country Haiti. First Haiti's history of colonization, cultural, political, and economic turmoil has provided a unique sense of connection for this Caribbean immigrant group with their native country. This is evident in the ongoing exchange of goods, materials, and money (called remittances) between Haitians living in Haiti and those living abroad. For example, following the devastating 7.0 earthquake that ravaged Haiti on January 12, 2010, Haitian immigrants sent an estimated \$1.3 billion U.S. dollars to Haiti ¹⁵. According to the World Bank ¹⁶, remittance in U.S. dollars represented 50% of Haiti gross domestic product.

Second, Haitian immigrants (particularly those in the United States) have unique migration experiences that propelled them to maintain ties with their native country. This is evident in their history of receiving unwelcoming treatment by the U.S. government, specifically of being placed in detention camps or deported more often than other immigrant groups ¹⁷. Despite their migration experiences, and current struggles (e.g., poverty, lack of health insurance, low-wage jobs), Haitian immigrants' transnational ties have enabled them to remain resilient, giving them of sense of belonging and unity ¹⁸.

Haitian immigrants have used transnational ties that are maintained with their home country to address health issues they experience in the U.S. For example, through transnational ties, injectable substances for their illnesses are procured in Haiti to be used by *picturists* (individuals who perform injections) ¹⁹. Haitian immigrants who lack health insurance or access to health care often use these Haitian picturist services in the U.S. ¹⁹. Thus, it is essential to consider the context of Haitian immigrants' transmigrant life when exploring their beliefs about hypertension and behaviors managing hypertension.

This framework was chosen for this study because it provided a full consideration of Haitian immigrants' everyday life activities both in the U.S. and Haiti. Prior to conducting the study, the principal investigator (PI) connected with individuals to establish rapport and obtain letters of support for the study and upon conversations it was clear that many Haitian immigrants living in Miami Dade County, Florida participated in trans-border activities. Thus such context was important to fully understand how the study participants understood and managed their disease.

Methods

Setting and sample

All of the study procedures were reviewed and approved by the first two authors' Institutional Review Board (IRB). Recruitment flyers were posted in four Haitian American churches, one barbershop, three restaurants, two boutiques, and one local resettlement

organization in Miami-Dade County. Snowball sampling was also used to recruit participants. Study participants were Haitian; 18 years of age or older; resided in Miami-Dade County, Florida; had migrated to the U.S. within the past 10 years (as indicated by the transnationalism framework); had been diagnosed with HTN by a health care provider; and provided oral and written consent for project participation. Recruitment resulted in the selection of a purposive sample of 31 Haitian immigrants (see Table 1).

Data collection

Through a back-translation process, the interview guide was translated from English to Haitian-Creole and then back to English. This process, which is a recommended approach for instrument translation to ensure equivalent meaning²⁰, was completed between the primary investigator and another Haitian-Creole native speaker. Examples of interview questions included, “Tell me about your [participant’s term for hypertension]”, “What do you think caused your [participant’s term for hypertension]?”, and “What do you do to care for your [participants’ term for hypertension]?”

For this qualitative study demographic questionnaires were administered and in-depth semi-structured interviews were conducted with 31 Haitian immigrants between July, 2010 and September, 2010. Participants were given the choice of preferred language (English or Haitian-Creole) for the interviews. All 31 participants opted for Haitian Creole. The primary investigator, who is fluent in reading, writing, and speaking Haitian Creole, conducted the interviews. Interviews were recorded with consent of participants.

Data analysis

The data were analyzed with Atlas.ti, a qualitative analysis software²¹, using the principles of Creswell²² for coding and theme identification. The audio recorded interviews and field notes were transcribed verbatim. Each of the interview transcripts was read and re-read to identify words, phrase, sentences, and concepts that best represented participants’ accounts about their experiences with hypertension, and their definition and approach to managing the disease. Using Atlas.ti, free quotations followed by codes (*in vivo* and open coding) were assigned to the previously identified words, phrases, sentences, and concepts. Codes were then compared within and between individual transcripts resulting in the emergence of themes. Saturation was reached when no new information was provided by the participants and the codes were similar across the interview transcripts leading to the themes.

A series of approaches were used to ensure the rigor and validity of this study²³. First, a recording of all the research process was kept so that all the aspects of the study were clear. Second, The PI consulted with participants to ask follow-up questions. This member checking activity enabled the PI to clarify any misunderstanding and contradictions. Third, a group of experienced researchers who were experts in both the content and methodology used in the study were consulted throughout the research study and data analysis process.

In addition, reflexivity, an important aspect of qualitative research methodology²⁴ was addressed by PI’s acknowledgement of issues of power and stratification when experiencing epistemology. The PI reflected on her position (e.g. nurse researcher, coming from a

university, woman who emigrated from Haiti) and how that may have influenced her interaction and knowledge development between herself and the participants. Thus, a journal was kept during the interviews, and these notes were used to reflect on the research process.

Results

Definition of hypertension

Participants mostly used the word *tansyon* ($n=27$) for hypertension. Definitions of *tansyon* fell into two categories: a) *tansyon* as a natural body occurrence ($n=3$) and b) *tansyon* as a *maladi* (illness) ($n=28$). Each of these categories is described below.

Tansyon as a natural body occurrence—Three participants thought of *tansyon* as a normal condition of the human body; therefore, it was not treated as an illness. The three participants who thought of *tansyon* as a natural body occurrence also reported not taking their prescribed medication. They believed that if they were not ill, there was no reason for them to take the medication. One participant commented, “Tansyon is something natural. We all have tansyon” (P27). When asked about her prescribed medications, another participant stated:

Well that is for people with hypertension, sick people. But me, I already told you that I do not believe that I am sick. I do not believe what the doctor told me. Everyone has *tansyon*. It is something normal. If I do not put in my head that I am sick, then I am not sick. (P17)

Tansyon as a malady—Participants ($n=28$) also thought of *tansyon* as a *maladi* (an illness). According to this view, *tansyon* is not a natural bodily occurrence. One participant (P6) stated: “Well hypertension is an illness” [*ebyen tansyon an se yon maladi*]. *Tansyon* was considered to be an illness caused by factors such as stress ($n=16$), everyday worries ($n=15$), getting upset (*fe kole*) ($n=8$), poor diet ($n=10$), being shocked (*fe sezisman*) ($n=23$), and family history of HTN ($n=7$).

There were differences in the beliefs regarding whether or not HTN could be cured. Fourteen participants believed that their HTN could never be cured. For example, one participant (P4) stated, “It is not something that can be cured. Hypertension does not get cured. You can help with medication, but it cannot be cured.” Others ($n=14$) thought that religious faith, absence of stress, or leaving the U.S. would help cure their HTN. Ten participants believed that God would cure their HTN. They believed that if they went to church, prayed and relied on faith, their HTN would be cured, as shown by this statement: “I don’t believe I have [HTN] for the rest of my life. I believe that one day God can take it away for me” (P8). Of the 16 participants who believed that HTN was due to stress, six thought that if the source of stress were to vanish, so would their HTN. For example, one participant (P24) responded: “I think stress causes it. Then I start to relax and the things that used to take over and make me always emotional, I think that hypertension can go away with all those things.”

Management of hypertension

All the 28 individuals who thought of *tansyon* as a maladi took measures to manage the disease. Although 14 people believed that hypertension could be cured, they still took measures to take care of their hypertension while awaiting the cure. Both traditional biomedical approaches (n=24) and alternative medicine measures (n=25) were used to manage hypertension. Traditional biomedical approaches included medications (n=24), exercise (n=1), and a low-fat diet (n=10). Alternative approaches included home-based remedies (n=25) and Haitian cultural diet (n=9). These alternative approaches were reported to be used either as complementary to (n=11) or as substitutions for (n=7) traditional biomedical approaches.

Traditional biomedical approaches to manage tansyon (as a maladi)—

Traditional biomedical approaches to HTN management varied. Participants used routine doctor visits (n=24), and prescribed blood pressure medication (n=26) to manage their tansyon. Two participants reported doing routine blood pressure checks at home, while others (n=10) checked their blood pressure at the pharmacy. In addition, participants followed a low-fat (n=13) or low-salt (n=12) diet, eating fruits and vegetables (n=31), and exercise (n=1) to manage their *tansyon*.

One factor influencing participants' ability to use the traditional biomedical system to care for their hypertension was health insurance coverage. Participants' use of routine medical visits and prescribed blood pressure medication were dependent upon whether or not they had health insurance. Some of the participants who did not have insurance coverage reported not taking medication. One of these participants reported taking some of her husband's medication. Another participant reported taking her mother's blood pressure medication. Those with insurance coverage were able to maintain their routine medical visits and refill their medication.

Some Haitian immigrants held beliefs about HTN that are similar to the traditional biomedical model. They believed that a diet high in fruit and vegetables and low in salt and fat would be helpful to them in controlling their blood pressure. Participant 31 stated: "I don't put a lot of salt in my food. And then I don't eat a lot of grease." One participant reported using one particular type of salt. She believed that this salt did not contain a lot of sodium and thus was good for her hypertension. She stated:

My doctor told me not to eat salt. And then I bought it and ate it. And then I notice the *tansyon* stays in its normal level. So I continue to buy it. The one I used to buy before did not have iodine in it. (P8)

All but one participant believed that exercise was good for hypertension. However, despite their acknowledgement of the benefits of exercise, only a few participants reported engaging in exercise. Examples of exercise reported included walking in the park and walking to and from the bus stop while coming or going to work.

Alternative approaches to manage tansyon (as a maladi)—Similar to the traditional biomedical approach, an alternative approach of HTN management included a low-fat, low sodium diet along with high intake of fruits and vegetables. Beyond that,

however, additional culturally based measures were undertaken as a dietary approach to hypertension management. For example, participants refrained from eating red meat (n=9), such as pork, beef, and goat meat, which are all traditional foods in Haitian culture. These meats were avoided because participants believed that they have too much blood (*trop san*) and thus could raise one's blood pressure. One participant stated, "I eat mostly fish and chicken. Fish is not the same as beef meat. The beef has too much blood. It has too much calories. It will bring your blood pressure up. Even it can kill you" (P31).

Other reported alternative, culturally based approaches included 5 *kob wouj* (a red five-cent piece) (n=1), baby aspirin (n=3), *fey zanmann* (n=11), papaya and papaya leaves (n=2), oil of *lwil maskreti* (Castor oil) (n=2), *fey metsyen* (n=12), *lay* (garlic) (n=12), *fey lougawou* (n=4), and *simen kontra* (n=22). These herbal remedies were either imported from Haiti or came directly from the participants' backyards where participants had planted them for easy access. As one participant stated:

Oh. I can take *metsyen* [leaf], *zanmann* [leaf], *lougawou* [leaf]. I have my garden outside. Whenever I need I just go outside, I take and boil them. When I am done drinking these leaves, I pee a lot. It lowers my blood pressure. Papaya leaf, it lowers the blood pressure more than the pill. You can get addicted to the pill. You keep taking the pill the doctor gave you, but it is not good for your intestine. (P2)

This participant reiterated that she believed culturally based herbal medicines were effective in lowering blood pressure. She discussed her preference for alternative approaches for hypertension management. She expressed that this preference was because of the potential addictive effects of prescribed medications. The 5-*kob wouj* (a red five-cent piece) was placed in the middle of the head along with the *lwil maskreti*, an oil. This was believed to lower blood pressure. Baby aspirin was believed to enhance blood circulation. *Fey zanmann* was used as a tea and also applied straight to the forehead with the oil of *maskreti*. *Fey metsyen*, *fey lougawou*, and *simen kontra* were also prepared as a tea. Papaya was blended and drunk as a juice. Papaya leaf was smeared with *lwil maskreti* and placed on the forehead to lower blood pressure. Garlic bulb was used to make tea and was also boiled along with other leaves and placed in the refrigerator to be consumed throughout the day for water intake.

Combination or complimentary approaches to manage tansyon (as a maladi)

—Alternative approaches to HTN management were used both as a replacement for (n=14) and complement to (n=11) the traditional biomedical approaches. Six participants, all with health insurance coverage, reported using only traditional biomedical approaches to manage their HTN. Those who used alternative approaches as a replacement did so because of their cultural beliefs regarding the effectiveness of herbal medicines and their lack of trust of health care providers who practice according to the traditional biomedical guidelines. For example, when asked if he took the medication prescribed by his health care provider, one participant expressed his belief that the health care provider was treating patients for HTN primarily for financial gain. He said:

No, I do not take [the medication] anymore because I came to understand. I do not go to the doctor anymore. What I realized is that the doctor is making a deal with

me. They make this deal with all of us all the time and we do not even know it. You always have the same problem and you come. He does not even tell you that the hypertension is ok. He tells you that you have to take medication. You come back again; he gives it to you again. But the attitude you need towards the hypertension to treat it, it does not tell you about it. Because he is making a clientele. You understand? (P26).

Another participant mentioned:

Sometimes you spend one or two days, you take the doctor's medication. You combine all of these together, you put garlic in it and you spend two days drinking it. I make sure I do not take it together with the doctor's medication. If you decide to make Haitian remedies, you spend the day you do not take the doctor's medication (P4).

As shown, alternative approaches were used as a complement or as a substitute for traditional biomedicine to manage HTN. Those who reported using an alternative medicine approach as a replacement for traditional biomedicine did so because they lacked trust in the traditional biomedical system. They concurrently had confidence in the effectiveness of the culturally based medicines they consumed as treatment.

Discussion

The study findings demonstrate that some Haitian immigrants do not believe that HTN is an illness and perceived it as a normal body occurrence. A recent study exploring the health beliefs, attitudes, and service utilization among Haitian immigrants²⁵ also noted that the health beliefs of this immigrant group does not necessarily fall within the traditional biomedical paradigm²⁵. This affects their approaches to self-care and disease management as seen in this study.

Some of this study findings mirror previous studies that reported the definition of and beliefs about hypertension among other ethnic groups. For example, similar to the Haitian participants in this study, the African Americans in Boutain²⁶'s study associated hypertension with worry and stress. This study is also in accord with the existing literature about factors influencing HTN management for this population. As noted in the literature review, patient-related factors such as beliefs and behaviors towards HTN and HTN medications; and access to resources^{27–28} all play a role in a participant's ability to control his or her HTN. Use of herbal medicines and the lack of trust in traditional biomedical medications and health professionals, specifically in relation to hypertension management among African-Caribbean individuals (residing in England) have been documented^{29–31}. It is therefore necessary to explore these factors when caring for various immigrant groups.

This study also supports the research showing that HTN definitions and HTN management strategies vary across cultural groups^{8,9}. This study adds to the literature by bringing to light how Haitian immigrants represent HTN, in terms of how they define and manage the disease. Their transmigrant life context was evidenced through their accounts of their active relationships and communication across Haiti and the U.S. It was also exhibited through the transfer of herbal remedies from Haiti to the U.S. for HTN management. Such transfer of

resources for the purpose of disease management has been used in other immigrant groups ³².

Limitations

One limitation of this study was the gender imbalance among participants, with only four men participating in the study. Studies that address HTN management and include a more representative distribution of Haitian male immigrants are needed. The total sample size of 31 was appropriate for this qualitative study because the goal was to have depth and breadth of information ²². Saturation was reached with this sample size when no new information was forthcoming ²². In addition, given that the majority of the participants reported a low income (\$20,000 or less); this study may not be generalized to higher income individuals. More studies are needed to explore whether definition and management of hypertension among higher income Haitian immigrants differ.

Another limitation is that the PI did not assess the time since HTN diagnosis among participants. During the interviews, only six participants mentioned having received their diagnosis in Haiti prior to their migration to the U.S. Information regarding the length of time since being diagnosed with HTN could have been used to assess the relationship between the use of herbal medicine and immigrants' length of stay in the U.S. Further research is needed to understand whether the meaning and management of hypertension changed over time for Haitian immigrants.

Research implications

This study evidenced the need for further exploration on disease management among Haitian immigrants. Specifically, studies are needed to explore the social contextual factors influencing their approaches to disease management. For example, considerations for residency status, access to services, income, and emigration experiences are needed when exploring diseases and disease management among this population. Research studies are also needed to explore the biological effect of the herbal medicines. Perhaps these herbal medicines contain important elements that are pertinent in regulating the body systems.

Clinical implications

The study findings indicated the need for health providers to be aware of and consider beliefs and approaches to hypertension management among Haitian immigrants. Although studies exploring to biological effect of the reported herbal medicines, are lacking, participants reported that these alternative approaches are effective in managing their hypertension. Thus, health providers are cautioned to provide close monitoring to patients who are using either traditional biomedical and alternative approaches combined or just the alternative approaches alone. Active on-going monitoring and education are needed when providing care to this population. Specifically teaching about the importance of physical activities, healthy diets, and self-monitoring of blood pressure is needed. Providing culturally sensitive care is critical for effective health outcomes among this population.

Policy implications

The findings behoove policy makers to explore how social economic factors (e.g. access to services, residency status) may impact this immigrant group's behavior towards disease management. For example the mere fact of having health insurance, accessible and affordable fruits and vegetables and other supplies to make healthy meals, and an accessible and safe area in the community to perform physical activities may make a major difference in this population's approaches to the management of disease.

Conclusion

This study provides insights into how Haitian immigrants define and manage hypertension. Studies that explore hypertension among Haitian immigrants acknowledge that it is poorly managed and lead to negative outcomes among this immigrant group. This study sheds light on their beliefs about hypertension and their approaches to its management. Research is needed to explore Haitian immigrants' beliefs and approaches to disease management. This study supports the need for health providers to account for Haitian immigrants' beliefs, their access to resources to care for their diseases. Additionally, health providers are advised to consider the utilization of alternative medicine and how that influences medication adherence among this immigrant group. This study provide significant implications for researches, clinicians, and policy makers to explore, provide care, make changes, accordingly in order to promote positive health outcomes among Haitian immigrants, especially those who are hypertensive.

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Table 1

Participant Demographics

Variables	Frequency (n)	Percentage (%)
Gender		
Male	4	12.9
Female	27	87.1
Age		
18–25	1	3.2
36–45	7	22.6
46–55	17	54.8
56–65	6	19.4
Marital Status		
Married	12	38.7
Divorced	1	3.2
Single	12	38.7
Separated	4	12.9
Partnered	2	6.5
Education		
1 st –5 th Grade	18	58.1
6 th –9 th Grade	7	22.6
High School	5	16.1
Missing	1	3.2
Income		
<\$10,000	4	12.9
\$11,000–\$15,000	10	32.3
\$16,000–\$20,000	6	19.4
\$21,000–\$30,000	6	19.4
\$31,000–\$40,000	1	3.2
Missing	4	12.9