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ORIGINAL PAPER

African Immigrant Health: The Health Promotion Beliefs of Zimbabwean Immigrants in the United States

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Abstract

To examine the health beliefs that can influence engagement in cardiovascular disease (CVD) risk reduction health promotion activities among Zimbabwe-born immigrants in the US. Focus group interviews with 37 New England-based Zimbabwean immigrants in the US conducted between January and April 2019. Focus groups were led by study investigators who were members of the Zimbabwean community. Interviews were audio-recorded and transcribed. Data were analyzed using framework analysis. Five themes emerged: (1) negative attitudes toward ill health, (2) mistrust toward western medicine, (3) stigma and taboo toward ill health, (4) a negative change in eating habits and (5) negative attitudes toward physical exercise. The participants' attitudes and beliefs may interfere with their engagement in health promotion activities aimed at reducing the burden of CVD risk in this population. Understanding these beliefs paves the way for development of culturally congruent health promotion interventions in Zimbabwean and other African immigrant populations.

Keywords Health-promotion · Beliefs · Immigrants · Qualitative · Zimbabwean · Cardiovascular disease

Introduction

An estimated three million people have emigrated from Zimbabwe to countries worldwide, including the United States (US) because of economic, social, and political instability over the past 20 years [1, 2]. Similar to African Americans and immigrants from Africa and other minoritized populations, evidence supports that immigrants from Zimbabwe are at risk for cardiovascular disease (CVD) including hypertension and obesity [3, 4]. While it is known that Zimbabwean immigrants have many risk factors for CVD, little is known about their health beliefs regarding their CVD risk. A better understanding of immigrant Zimbabwean health beliefs would improve our ability to develop culturally congruent interventions to improve CVD risk reduction health promotion activities in this population. Therefore, the purpose of this study was to examine the health beliefs that influence engagement in CVD risk reduction health promotion activities among Zimbabwe-born immigrants in the US.

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Methods

Study Design

Efforts aimed at early detection and evidence-based interventions have not reduced CVD health disparities experienced by immigrant populations [5, 6]. In 2017, the National Heart, Lung, and Blood Institute (NHLBI) convened a panel of experts to examine the current state of knowledge of CVD

disparities in at-risk populations and to propose interventions aimed at reducing risk. The panel recommended utilizing Community-Based Participatory Research (CBPR) methodology to better understand health disparities in at-risk populations [7]. CBPR can aid in the development of interventions aimed at reducing CVD risk that factor in the unique cultural beliefs of African immigrants. Given this, we conducted a community-based, qualitative study using focus group interviews with immigrants from Zimbabwe living in New England to aid in the development of interventions aimed at reducing CVD risk that factor in the unique cultural beliefs of African immigrants.

Research Team

The study PI (CMG), co-I (PNG) and RA (RSG) are members of the immigrant community. Co-Is RLP and LS are mentors to the PI, and have no connection to the community. The Research Assistant (RA) who coordinated recruitment and co-led the focus groups was a well-known, respected, and trusted member of the community.

Participants and Data Collection

We created a nine-member community advisory board (CAB) [8] to formalize our relationship with the Zimbabwean immigrant community. The CAB advised the researchers on strategies for engaging and recruiting potential participants and navigating logistical issues such as venues and times for focus group meetings. To be eligible to participate in the focus group interviews, individuals were required to be at least 18 years of age, speak English [9, 10], and have permanently resided in the US for at least one year. Participants were recruited by word of mouth from religious and social gatherings of Zimbabwean immigrants in Connecticut, Massachusetts, and New Hampshire. CAB members announced the study at meetings and community events. Individuals who were interested in the study provided their telephone numbers to the RA. To build trust within the community and to show support for the project, two CAB members became research participants and participated in the group interviews. One CAB member participated in the second focus group while the other one became a participant in the fifth focus group.

The study was guided by the Health Belief Model [11]. We developed a semi-structured interview guide based on the Health Belief Model domains of perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cue to action, and self-efficacy [11]. The guide was used to facilitate the focus group interviews. A standard demographic survey was used to collect socio-demographic data: age, gender, housing, employment status, educational attainment, duration living in the US, household income, and health insurance coverage. Information on membership in the same family or household was not collected.

Focus group interviews were held during weekends in the homes of community members between January and April in 2019. After explaining the purpose of the study and obtaining informed consent, participants completed the demographic questionnaire. After completion of the demographic questionnaires, the PI and the RA facilitated the focus groups. The interviews were audio-recorded while the proceedings, the interactions, non-verbal communications, and other observations were documented. Interviews lasted one and a half to two hours. Immediately following each focus group interview, the PI and the RA debriefed the session focusing on the proceedings, the feel of the group, verbal and non-verbal communication, follow-up questions that worked well, and those that did not work so well. These joint reflections informed how we approached the next group interviews. After the first focus group interview the RA recommended separating men from women, because the men dominated the conversation, while the women did not speak. Focus group dynamics improved by separating genders, women's participation increased, and the same themes were brought up across all groups.

Ethical Considerations

Community leaders and the Partners Human Research Committee (the ethics committee of Partners Health Care Corperation, a Boston, MA based healthcare organization) approved the study. Informed verbal consent was obtained before interviews. Only study participants and facilitators were allowed in the interview room and participants were. Transcripts from the audio recordings excluded personal identifying information, and participants were assigned a fictitious code name. All study materials were secured in a Partners Health Care encrypted computer kept in a locked office.

Data Analysis

Demographic data were summarized using descriptive statistics. Digital recordings of the focus group interviews were transcribed by a professional transcriber, checked for accuracy, and imported into NVIVO 12 (QSR International). We analyzed the data using content analysis informed by Framework Analysis [12, 13]. First, the team independently read transcripts from the first three focus group interviews and identified and coded concepts. The team then met and developed a coding schema by discussing and defining each code and categorizing them into themes. Two researchers independently coded each subsequent transcript. They met and compared their codes, discussed differences until consensus was reached and revised the coding schema to

accommodate any new codes. Finally, the themes were compared across all transcripts and reviewed by the entire research team to ensure that they were both representative and inclusive. Trustworthiness of the study was supported by peer debriefing, member checking and reflexivity [14].

Results

Five focus group interviews were conducted with 5 to 9 participants in each, which averaged 90 min in duration. Group 1 comprised of both men and women, groups 2 and 4 women only, and groups 3 and 5 had men only. In all, there were 37 participants, 14 men, and 23 women. The median age of participants was 44 years (range 27–69); the median age for women was 48 years (range 27–69), and for men, 40 years (range 29–61). Over half of the participants in the US > 15] years, were married, had a 4-year college degree or higher level of education, owned their homes, and worked full time. Seventeen of the 37 participants had an annual household income of at least $100,000. (Table 1). The results presented in this paper are those that appeared across the groups regardless of sex.

Data analysis revealed five themes that described the participants' health-related beliefs. The themes were 1. Negative attitudes toward health 2. Mistrust of Western Medicine 3. Stigma and taboo toward ill health 4. An unhealthy change in eating habits and 5. Negative attitude toward physical activity. Below we describe the themes and present corresponding exemplars (Table 2).

Negative Attitudes Toward Health

This theme is defined as the perception that one does not have a problem if they can function and do what they want and are not on medication. Participants indicated that if they were not on prescribed medication and were able to continue to do whatever they wanted; they were healthy. There was

Table 1 Demographic information

Characteristic	Women (n = 22) *Md* (Range) or # (%)	Men (n = 14) *Md* (Range) or # (%)	Total (n = 36*) *Md* (Range) or # (%)
Age	48 (27–69)	40 (29–61)	44 (27–69)
< 40 years	7 (32)	7 (50)	14 (39)
≥ 40 years	15 (68)	7 (50)	22 (61)
Years in US	18 (1–29)	16 (7–22)	
1–15 years	7 (32)	6 (43)	13 (36)
> 15 years	15 (68)	8 (57)	23 (64)
Immigration date			
On or before 2000	12 (55)	3 (21)	15 (42)
After 2000	10 (45)	11 (79)	21 (59)
Marital status			
Single	6 (27)	1 (7)	7 (19)
Married	11 (50)	11 (79)	22 (61)
Other	5 (23)	2 (14)	7 (19)
Employment			
Full time	16 (73)	12 (86)	28 (78)
Other	6 (27)	2 (14)	8 (22)
Income			
< $50,000	7 (32)	1 (7)	8 (22)
$50 K-100 K	6 (27)	5 (36)	11 (31)
> 100 K	9 (41)	8 (57)	17 (47)
Housing			
Own/live with family	13 (50)	6 (43)	19 (53)
Rent	9 (41)	8 (57)	17 (47)
Education			
HS/GED/some college	12 (55)	5 (36)	17 (47)
BS/BA	6 (27)	3 (21)	9 (25)
Graduate school	4 (18)	6 (43)	10 (28)

*Demographic information missing for one female participant

# indicates number

Table 2 Identified themes

Theme	Definition
Negative attitudes toward health	The perception that there is no problem if you can function or be active, and that going for preventive care is looking for problems
Mistrust of western medicine	A belief that western medicine especially doctors are in it for the money
Stigma and taboo toward ill health	The belief that being diagnosed with a disease is something that is to be hidden
A negative change in eating habits	The easy accessibility to western style foods high in saturated fat, salt and sugar that were not easily available in Zimbabwe
Negative attitudes toward physical activity Physical	The perception that physical activities like walking are for the poor

a strong sense that if one does not have a formal diagnosis, then one was healthy. The following quote represent participants' perceptions of health:

> I don't think it's really a concern until it's knocking at your door or somewhere else. I don't go searching for it, that's number one. I don't go to the doctor and say, doctor, can you let me know what's going on, and that's the stigma of it. For me, unless I feel sick and then I really need to be seen, but if I'm able to wake up and continue with my day, that's it. (male, group 3).

Another participant said:

> I think we consider being healthy when you don't have a disruption to your normal functions. So if you're able to wake up and go to work and do everything that you need to do, you just believe hey, I don't have any problems so I don't need to go to the doctor. (female, group 1).

Mistrust of Western Medicine

Mistrust of western medicine is the lack of confidence in medications and western medicine. Participants expressed distrust in the western health care system. They believed that physicians in the US health care system were focused on profit, ordering unnecessary tests and medications that patients did not need. For this reason, they saw no point in participating in disease screening and other health promotion activities. The following quotes are exemplars of the mistrust the participants felt.

> So, it just seems like they are in it for the money and they're just doing the bare minimum to just maybe check the box that she came for a check-up, I'm supposed to do these tests and that's it… They see dollar signs over here…So not going is probably because you don't think you're going to get anything out of it. You're just going to be billed, use insurance money, you have to take time off work so it's more of a hassle to go than a benefit. (female, group 1).

Another participant verbalized their mistrust of western medicine and said:

> But this question has to do with why also we don't believe in the health system. We have to really understand some of us that [the] health system is not here just for money because sometimes they want you to do all these other things. Do I really need to go through that? I feel fine. But because you start to feel like it's money-driven. It's insurance money… (male, group 3).

Stigma and Taboo Toward Ill Health

Stigma, a mark of disgrace, was strongly evident in participants' remarks. Being part of a small, immigrant community in which people knew each other well, exacerbated a stigma about ill health that the participants brought with them from Zimbabwe, and fueled their fear of being stigmatized by disclosing their illness. Therefore, participants expressed hesitation in discussing health issues or health-related behaviors with others as they were afraid of being "outed" as unhealthy. Participants felt it best to keep their health concerns to themselves, lest they are identified by others as having ill-health. One participant said:

> Plus, culturally being Zimbabweans as well, we have a very strong stigma associated with ill health. So, to talk about something that so far leads to a disease and ill health, probably we're going to have language that stigmatizes your health……We have strong language that stigmatizes all kinds of diseases…We shy away from having an honest conversation about those things…(male, group 3).

Another participant said:

> I think we talked about how people might have conditions, but nobody knows who has what. I think rightly so, but why is it that we are so afraid of having other people know about things like high blood pressure, diabetes…why is it that we are so secretive about everything. (female, group 4).

An Unhealthy Change in Eating Habits

Participants indicated that their eating habits had changed since they emigrated to the US; they now consumed more meat and had access to some food products that were not affordable to them in Zimbabwe. Readily available and poor-quality food made it difficult for participants to control what they ate. The participant's quote below is an exemplar of the theme of attitudes towards food. A participant said:

> "I think that the biggest problem is affordability and availability. In Zimbabwe …Sodas were for special occasions. To be allowed during Christmas …we never really had experiences of eating a whole packet of cookies or biscuits. You used to share…you get into your adulthood and you're coming here… you get a little money, you can afford, and these things here are really cheap. So, it was also making up for lost ground….So, you're eating all these things that you used to crave for back in Zimbabwe."(male, group 1).

Another participant said:

> Because growing up, I will speak for myself, we would eat meat for dinner, for the supper meal, and there wouldn't be a ton of meat on your plate, and there would not be seconds. You would get what you get, two or three pieces of meat if 'you're lucky chicken. So, the portion sizes were better and snacking… I really don't remember snacking that much. Maybe fruits. Fruits are growing in your yard. I'm eating more snacks and a whole lot of meat and not healthy meat. (female, group 4).

Negative Attitudes Towards Physical Activity

Attitude towards physical activity refers to the negative perception of physical activity. Even though participants were now eating more food, most did not indicate they had adjusted their physical activity behavior. Many described not participating in physical activities like walking as they could now drive their car anywhere. One participant described his lack of participation physical activity and said:

> We had a problem with walking because coming from Zimbabwe; I associate walking with being poor. If I can walk to the store, that means I don't have a car to drive to the store. So, I've walked all my life. I walked to school. I think I've put in my fair share of walking….As I drive and I'm looking at all these people walking to the store, they probably don't have a car. (male, group 3).

Another participant provided reasons why engaging in physical exercise was difficult for him, he said:

> I know myself that I need to be out there which becomes a personal choice whether to do it or not, it's a challenge going to the gym. These people don't know me, but in my mind, I feel like they are altogether, they're already going to judge to me for being on the treadmill or the way I look. (male group 3).

Discussion

This study provides important contributions to our knowledge because it provides an understanding of Zimbabwean immigrants' health promotion beliefs, which meaningfully contribute toward us designing culturally congruent health promotion strategies. Many participants equated being healthy with the absence of disease or the ability to function. They remarked that as long as one has no symptoms, then one does not need to seek health care. Indeed, participants viewed seeking health care while not "sick" as tempting with fate. This view is similar to the findings of participants in another study of African immigrants in Washington DC who viewed an unwanted diagnosis as a consequence of engaging in "unnecessary" physician contact [15]. This view is problematic given that the major CVD risk factors, also known as "silent killers" such as hypertension, early type 2 diabetes, and elevated lipids, are usually asymptomatic and are more common in people of African descent than other populations [5]. By deliberately avoiding contact with physicians, there is a lost opportunity to prevent or diagnose these conditions early such that by the time the disease is detected, the severity might have become worse than if the condition had been detected earlier. One study found that Ghanaian immigrants delayed medical visits until diseases were severe [16]. Another study with HIV-positive African immigrants in Washington state reported participants that only sought care when the condition was severe and in its late stages [17]. So "not looking for trouble" can delay receiving care or implementing lifestyle changes such that an ordinarily easily treatable or controllable condition can unnecessarily become life-threatening.

Several participants in our study expressed distrust of physicians and the the US health care system in general. They perceived that physicians are just motivated by making money and simply order medical tests and medications to make a profit for themselves and hospitals. Our findings are consistent with those of Opoku-Dapaah, who reported that African immigrants in North Carolina felt the health system is money-driven, with most medical interventions done to make a profit for the physicians and the system, while activities like cancer screening are performed to push Africans

into clinical research [18]. The consequences of this mistrust are lack of engagement by the immigrant communities in disease prevention strategies, early detection, and effective disease management.

Many participants described the social stigma that comes with one having ill-health known in the community. This finding is similar to those from other Zimbabwean studies. Duffy reported that participants described, for example, a diagnosis of HIV as being a "shameful event that had to be hidden" [19]. Other researchers reported that individuals with mental health problems experience high levels of stigma [20, 21]. Furthermore, several studies reported culturally situated stigma in the health care experiences of African immigrants [15, 16, 22]. Interestingly, the participants in our study did not indicate that they had experienced any stigma but indicated that their culture stigmatizes ill health. However, this is still problematic as just the fear of being stigmatized has been associated with decreased utilization of healthcare services [20], decreased preference for HIV testing [23], and decreased desire for treatment for depression [24]. For Zimbabwean immigrants, the fear of stigma could interfere with disease screening, and self-management, activities necessary in managing CVD risk factors.

Participants described consuming more meat, snacks, and drinking more sodas than they did in Zimbabwe. Food, to them, is now more readily available and cheaply accessible compared to what they had in Zimbabwe. For example, fast food and sodas in Zimbabwe are reserved for special social, traditional, and religious occasions such as weddings, birthday parties, and Christmas. Kaplan et al. similarly found that Ghanaian immigrants had easy access to large quantities of fatty foods and sodas that were inaccessible in their country of origin [16]. Zimbabwean immigrants' diet has been acculturated, which mirrors what is currently happening in Zimbabwe. Mangemba and San-Sebastian reported the Zimbabwean diet has increasingly changed to a western-style diet consisting of large portions high in fat, salt, and sugar content [25]. These changing dietary patterns observed in Zimbabwean immigrants appear to be in contrast with some immigrants from Africa who tend to maintain their traditional diet after they migrate to the US [26–28]. A western-style diet is closely associated with increased CVD risk [29]. Among African immigrants in the US, greater dietary acculturation is associated with poor self-reported health [30], and increased risk for CVD [31].

Participants in our study described being mostly physically inactive. Before migrating, they did not participate in formal physical activities but were active as they had to walk everywhere, they went. Now that they finally owned and drove cars, they saw no need to walk as walking, in this community, is associated with the perception that one could not own or afford a car, i.e., not having a car is seen as a social statement of being of lesser means. While some saw the need for physical activity, they felt intimidated by the gym and therefore avoided going. Other African immigrants including the Congolese [32] and Somali [33] similarly reported that participants tended to walk less, were embarrassed going to the gym or exercising in public, or viewed going to the gym to not be in line with their culture [32]. It is important to design interventions to encourage regular physical activity as it is essential in preventing and managing CVD risk factors.

Study Limitations

There are several limitations to our study. First, the study was conducted in one African immigrant community in New England and may not represent the views of the entire population. In addition, the sample was recruited from a tightly knit community, in which some members of the research team and the participants knew one another well and often socialized in religious and community events. This familiarity may have prevented fully open sharing and full disclosure of information related to health and health beliefs. On the other hand, strategies to ensure trust included the use of a CAB, having gender-specific focus groups, providing the opportunity to socialize with food and snacks before interviews, and using community members' homes for the group interviews. Our findings are not generalizable to all Zimbabwean or all African immigrants at large. Our use of the Health Belief Model as the theoretical foundation of the study is a limitation, as it assumes that everyone has access to equal amounts of information on the illness or disease and that cues to action are widely prevalent in encouraging people to act and that "health" actions are the main goal in the decision-making process [34]. Guided by the model, we were able to extrapolate the health beliefs of the participants. Also, the participants were English speaking, highly educated with relatively high income, their views are not likely to be representative of all the Zimbabwean immigrants. Despite these limitations, we were able to engage and access a hard-to-reach and vulnerable population not typically included in research. Future research will continue to engage the CAB in further building trust in the Zimbabwean community, and the development of culturally appropriate interventions that target physical inactivity and dietary modification.

Conclusion

Zimbabwean immigrants in the US have high rates of CVD risk factors. We conducted five focus group interviews with 37 immigrants to examine their health beliefs related to health promotion. We identified five themes related to their attitudes toward health, including negative attitudes

toward health, mistrust of Western Medicine, stigma and taboo toward illness, and negative attitudes toward food and physical activity, which likely prevent their adherence to recommendations for health promotion. Our findings are similar to those of other studies on health outcomes in African immigrants in the US. However, a notable exception is that our participants acculturated their diet, which coupled with their limited health screening and physical inactivity, puts this community at increased risk for CVD. Our knowledge of the community, the infrastructure, the relationships we have developed, and an understanding of the participants' health beliefs will allow us to develop and test culturally appropriate health promotion interventions in Zimbabwean immigrant communities in the US. In conclusion, this study contributes valuable, community-engaged insights towards reducing the risk for CVD and improving health for Zimbabwean immigrant communities in the US.

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Author contributions CMG: Conceived of the study, wrote the IRB proposal, collected and analyzed data, and initiated the manuscript. RP-L: Was instrumental in data collection plan, data analysis, and preparing the manuscript. LW: Participated in writing the proposal, supervised data collection, analysis and writing the manuscript. RSG: Was involved participant recruitment, participated interviewing, and data analysis, and writing the manuscript. PNG: Involved in the formulation of the study, participant recruitment, writing and editing the manuscript.

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Declarations

Conflict of interest The authors declare that they have no conflict of interest.

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