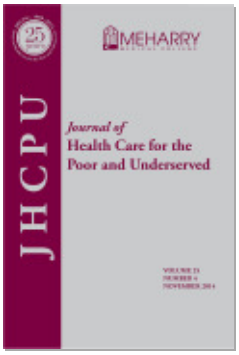
Health Literacy from the Perspective of African Immigrant Youth and Elderly: A PhotoVoice Project



Oluwatoyosi Adekeye, Jen Kimbrough, Bola Obafemi, Robert W. Strack

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Oluwatoyosi Adekeye, MBBS, MPH
Jen Kimbrough, PhD
Bola Obafemi
Robert W. Strack, PhD, MBA

Abstract: **Background**. This project examines the views of African immigrants on health, access to health resources in the U.S., and perceived barriers to a healthy wellbeing faced by the elderly immigrants in the community. **Methods**. PhotoVoice methodology was used to evaluate the views of African immigrant youths and elderly drawn from a convenience sample. Participants were trained on the use of cameras and guided by research questions while taking photographs. The photographs were analyzed, coded into themes and presented to community resource representatives at a photo exhibit. **Results**. Emergent themes were: 1) nutrition, obesity and physical activity; 2) occupational regulation and educational opportunities; 3) feeling of security and public safety; 4) ethno-racial diversity and the health care system; 5) religiosity and social well-being. **Discussion**. These results have implications for health care professionals and community agencies serving immigrant populations. A deeper look into the health issues affecting this population is essential.

Key words: Health literacy, African immigrants, PhotoVoice, elderly.

Low health literacy places affected individuals at a health disadvantage. Individuals with low health literacy lack basic knowledge about normal body and organ functions and limited understanding of the etiology, pathophysiology and consequences of various diseases.[1] In addition, they may also lack adequate knowledge on how to appropriately access the health care system and use available health resources, resulting in poorer health outcomes.[2]

Evidence suggests that low health literacy is a stronger indicator of health status than age, socioeconomic status or ethnic background.[3] Health literacy can be classi-

DR. ADEKEYE *is affiliated with the National Center for Primary Care/ Dept. Community Health and Preventive Medicine (formerly with the Department of Public Health Education/ Center for Youth, Family and Community Partnerships The University of North Carolina at Greensboro).* ***DR. KIMBROUGH*** *is affiliated with the Guilford Coalition on Adolescent Pregnancy Prevention in Greensboro, North Carolina (formerly with the Department of Public Health Education/ Center for Youth, Family and Community Partnerships, The University of North Carolina at Greensboro).* ***BOLA OBAFEMI*** *and* ***DR. STRACK*** *are affiliated with the is in the Department of Public Health Education, The University of North Carolina at Greensboro. Please address correspondence to Oluwatoyosi Adekeye, National Center for Primary Care/Dept of Community Health and Preventive Medicine, Morehouse School of Medicine, Atlanta GA 30310; (404)-756-1278; oadekeye@msm.edu.*

fied into these groups: 1. The *below basic literacy level*, which includes individuals who possess only simple literacy skills and are mostly illiterate. This literacy level is below that required to function in the health care setting. These individuals may have the abilities to locate identifiable information in short, commonplace prose texts easily, and may be able to follow written instructions in simple documents (e.g., charts or forms). 2. The *basic literacy level* includes individuals who possess the skills to carry out simple and daily literacy activities. They are able to read and understand information in short, commonplace prose texts, read and understand information in simple documents and locate easily identifiable quantitative information and use it to solve simple, one-step problems when the arithmetic operation is specified or easily inferred. 3. The *intermediate literacy level* includes those who possess skills to perform moderate literacy activities such as recognizing, reading, and understanding complex documents. They are able to read and understand moderately dense, less commonplace prose texts, are able to summarize, make simple inferences, determine cause and effect, and recognize the author's purpose. They may also be able to locate information in dense, complex documents and make simple inferences about the information. They may also be able to locate less familiar quantitative information and use it to solve problems when the arithmetic operation is not specified or easily inferred 4. The *proficient literacy level* includes those who possess skills to carry out complex and challenging literacy tasks. They are able to read lengthy, complex, abstract prose texts as well as synthesize information and make complex inferences. They can integrate, synthesize, and analyze, multiple pieces of information located in complex documents. They are able to locate more abstract quantitative information and use it to solve multistep problems when the arithmetic operations are not easily inferred and the problems are more complex.[4] Adults aged 25–39 years have the highest average level of health literacy while adults over 65 have the lowest.[5] Health literacy level increases with an increase in educational level and is lower among those who live below the poverty level. In general, individuals who speak English as a second language or are recipients of Medicaid, Medicare or have no insurance have lower rates of health literacy.[4] Overall, research has shown that individuals with the lowest health literacy levels are most often 65 years and older, male, Black or Hispanic, and/or speakers of English as a second language.[5] These factors contributed to the authors' decision to enroll participants for this study who spoke English as a second language and where over 65 years old. In this study, participants were not only made to understand the categories of health literacy, but also made to self-identify the category that that closely reflected their health literacy levels.

The immigrant population of the U.S., one of the fastest growing segments of the overall U.S. population, is particularly vulnerable to the consequences of inadequate health literacy.[6] Low health literacy reportedly costs the U.S. economy $106–$236 billion annually.[7,8]

Guilford County, an urban county[9] in North Carolina is a diverse community with an estimated immigrant population of 65,000 in 2006. This accounts for about 15% of the entire county population.[10] The state and federal census data include African immigrants in the African American population,[10] so it is difficult to ascertain the exact proportion of African immigrants living in the county; however, according to community organizations and professionals working in the area, African immigrants

make up approximately 19% (about 13,000 or 1 in 5 immigrants in Guilford county are African immigrants)[11] of the total immigrant population in Guilford County, roughly equal to the Latino population.[10] Limited studies exist on the health of African immigrants but studies on other minority groups such as older Latinos and Iranians who exhibit limited English proficiency (LEP), have been documented to experience poorer physical and mental health outcomes.[12] Older immigrants with LEP are also more likely to experience psychological distress, higher levels of anxiety, and more depressive symptoms.[12]

Purpose. The PhotoVoice study described here was designed (a) to understand health literacy levels, and health concerns from the perspective of older African immigrants, (b) to empower the African immigrant community to express their opinions, and (c) to inform and influence key community stakeholders of issues identified by the African immigrant community. African immigrant elderly and youth were selected to participate in this project as elderly immigrants have been identifies as a population most likely to have low levels of health literacy.[5] The youth participants were selected to participate in this because traditionally, in many African communities, the elderly spend a great deal of time with the youth.[13] This closeness provides the youth with an additional lens to capture the needs of the elderly from another perspective. This project filled an important gap by studying the actual views of African immigrants about health.

The PhotoVoice methodology is an effective method of bringing health and social issues to light. It is particularly helpful for people who may have low educational levels, low English proficiency or limited social power and opportunity to express their views. With PhotoVoice, people represent their ideas and perspectives through photographs, dialogue, captions and public display for policymakers to be made aware of issues and themes identified.[14]

PhotoVoice is a unique method of collecting qualitative data using a combination of photography with grassroots social action.[14] Participants are asked to represent their views of their community's needs and assets through photographs and captions. It is often used among marginalized people, to give insight into how they conceptualize their circumstances.[15] The dialogue and captions written and placed with a photograph contain much of the power to the message and provides a context that gives voice to the images. Public exhibits of the views of several PhotoVoice participants provide the means for depicting the community's assets and deficits as experienced by the community itself. PhotoVoice allows participants to record and reflect local community issues, promotes in-depth group discussions around the photos taken, and provides a unique avenue for explaining issues to policy makers.[16,17]

There is a lack of information available about the needs and health disparities experienced by African immigrants.

Methods

Site and staff selection. A predominantly African populated church with the largest African population in the Greensboro community was chosen for this study. This photovoice study, a community-based participatory research project[18] was conducted as collaboration between the university and the community. The project participants

consisted of the research team (faculty members and students) and community partners (community church administrators and parishioners).

Recruitment of participants. The church congregation was informed by the pastor of the upcoming project and members, who met the recruitment criteria, were asked to volunteer if they were interested. Eligible participants were within the ages of 13–18 years or 65 years or older. Although the project was intended to focus on the needs of the elderly, youth were asked to participate because of their relationship with the elderly.[13] Traditionally in many African communities,* the elderly spend a great deal of time with the youth. This closeness provides the youth with an additional lens to capture the needs of the elderly from another perspective. There were five female youth and five male youth participants. Among the elderly; there was one woman and four men. Most regions in Africa were represented (specifically, North Africa, West Africa, Southern Africa, and East Africa). The participants' length of stay in the U.S. at the time of study ranged from 6–17 years, and most of the participants spoke English as a second language. The research study was approved by the University of North Carolina at Greensboro's Institutional Review Board, youth 17 and younger signed informed assent forms, while their parents and other participants who were 18 years and older signed informed consent forms

Materials. Twenty single-use disposable cameras with approximately 39 exposures each were used for this study. Memo pads for taking notes, and foam core photo boards for the exhibition were procured. The photographs taken were developed and stored on a compact disc for the photo discussion forum. Subsequently the photographs chosen by the participants were printed out and mounted on foam boards for exhibition.

Data collection. The project consisted of two focus group phases; an initial general instructional session and a review focus group session. Prior to the distribution of the cameras, a general instructional session provided all participants with information on how to use a camera correctly and instructions on getting photo-release permission before taking pictures of an individual. They were specifically instructed not to take pictures depicting inappropriate or potentially illegal situations. It was important to ground the participants in the project's purpose to examine the views of African immigrants on health, health literacy, access to health resources and the perceived barriers to a healthy wellbeing. Research questions were used as a prompt to guide the study participants while taking photographs, namely:

1. What does "being healthy" mean to elderly African Immigrants?
2. What are the barriers to being healthy as African immigrant youth and elderly in the U.S.?

Study participants fall into the defined category of individuals with low health literacy. This means they are unable or inadequately equipped to obtain, communicate, process and understand health information and services in order to make appropriate health decisions. These questions were asked to determine the challenges faced by this

*Authors recognize that there are numerous cultures and sub-cultures within African communities and authors are in no way generalizing the concept of the elderly as caretakers of children. The phrase "African Communities" is used in broad terms only.

population, and to steer interventions in the right direction. Participants were asked to keep these questions in mind as a way to spark exploration of these and other questions that arose for participants. They were further engaged in a discussion about the different dimensions of health and their cultural understanding of health from their countries of origin to the concept of health as seen in the United States. Participants were allowed to collect data (take photographs) over a two week period, and a total of 616 photographs were taken by participants. On development of these photos, about 210 were discarded due to poor quality and exposure. The remaining 406 (267 from youth participants and 139 from elderly participants) photographs were projected at the review sessions where participants were asked to discuss their thoughts on the photos in audio recorded sessions, using the **SHOWeD** method of analysis: What do you **S**ee here? What is really **H**appening here? How does this relate to **O**ur lives? **W**hy does this situation, concern, or strength exist? What can we **D**o to improve the situation, or to enhance these strengths?[16] These thoughts were recorded and handwritten and were later used to develop captions with the participants for each photograph. We conducted separate discussion sessions, moderated by the researchers, and lasting about two hours each for the youth and elderly to prevent participants from censoring their ideas in the presence of people who differ greatly from them in age, status, life experiences, education or personal characteristics, which could greatly decrease the quality of our data. Sessions were held in comfortable church meeting rooms, refreshments were served and participants provided a $25 gift card each, as incentives for participating in the study.

Data analysis. The research team summarized the intent of each photo at a later meeting using the words of the participants. The transcripts were read, notes reviewed, and responses of the participants were compared and contrasted between researchers and recordings, to document emerging themes. Categories were then established, coded into themes: nutrition, obesity and physical activity; occupational regulation and educational opportunities, Feeling of security and public safety; ethno-racial diversity and the health care system; religiosity and social well-being. Some of the summarized intents of the photos served as captions for the PhotoVoice photo exhibit.

Photo exhibit. A photo exhibit was carried out where the photos taken were printed out and posted on photo boards with the captions posted underneath. Community leaders, policymakers, and office holders of very important community resources such as the health department and community library were invited. Church members, participants and the university community were all invited to the photo exhibit. This provided an opportunity for invited guests to ask questions and for researchers and participants to provide answers and education on the photos taken and the issues the photos represented.[15]

Results

Data obtained from both elderly and youth participants were analyzed and reported together. Five major themes emerged based on the analyses of the participants' photographs and the corresponding descriptions of each photograph. The themes were; 1) Nutrition, obesity and physical activity. 2) Occupational regulation and educational

opportunities. 3) Feeling of security and public safety. 4) Ethno-Racial diversity and the healthcare system. 5) Religiosity and social well-being.

Nutrition, obesity and physical activity. Nutrition, obesity and physical activity seemed a major point of concern for participants. This theme includes knowledge of healthy foods and lifestyles. It also features knowledge of obesity, its prevalence and presumed causes. Participants' photographs conveyed barriers to good nutrition such as accessibility, availability and affordability. Most participants reported learning more about important dietary characteristics necessary to maintain a healthy lifestyle upon arrival in the U.S. Participants who had dietary restrictions either for religious or other reasons (e.g., ingestion of pork by Muslims) reported paying more attention to food labels before purchase. Most participants reported that they were more accustomed to healthier diets in their countries of origin where patronage of fast food restaurants is expensive and utilized only as treats. They expressed concerns over the cost of healthy meals in the U.S., compared with their countries of origin. The abundance of fast food restaurants and vending machines containing unhealthy snacks to which obesity is partly attributed[19,20] was evident in a number of photographs taken by participants. They complained that the less healthy foods sold in fast food restaurants were significantly less expensive than healthier alternatives like vegetables, fruits and whole grain diets. They reported having to travel a considerable distance by public transportation to buy cheap healthy foods from 'farmers markets' where they were presumed cheaper

Lifestyle modifications especially physical activity was an important matter to the participants. They reported having to allocate time for exercise even though some had limited time to spare because they worked multiple jobs to support their families, while others were located in unsafe neighborhoods that were not conducive to safe outdoor exercise. They compared their U.S. experiences with physical activity with their experiences in their countries of origin where most of them reported walking to their jobs, the marketplace, and other locations daily.

Participants shared their knowledge of the importance of an active lifestyle as it relates to obesity in the U.S. A participant referred to this issue saying; "Here [in the U. S.] you need to inspire yourself to work out, to keep your heart healthy and prevent obesity." Respondents mostly connected poor nutrition and lack of an active lifestyle to the current prevalence of obesity in the U.S. especially as it affects young children. They expressed concerns on the availability and interest of children in after school physical activities. When compared with their countries of origin where children were especially engaged in activities such as soccer and basketball on a daily basis in addition to walking or riding a bicycle to and from school, they discussed the disturbing trend of indoor video game-playing many of their grandchildren have acquired since arrival in the U.S. A participant concerned about obesity especially in children stated,"Working out while you're young prevents one from being obese in old age."

Occupational regulation and educational opportunities. Another major issue during the discussion sessions was the change in profession post-immigration, whereby older participants were unable to secure jobs using their foreign degrees and licensures which are not often accepted in the U.S. Older adults are unable to go back to school either because they have to work to cater for their families or due to the cost of education. Many complained that they are forced to take other jobs, sometimes multiple jobs,

like cab driving and factory jobs even though; they are professionals and might have had jobs in their fields, from their countries of origin. A participant stated, "Some of us do not have some of the privileges we had in our countries of origin, because, even though we are college graduates we work other jobs. Our degrees are not easily accepted here and because we have families to cater for, we have no choice." They complained that sometimes this makes them feel unfulfilled and dissatisfied with their current jobs and it subsequently affects their self-esteem and overall health.

One participant expressed distress in the number of jobs and hours he had to work and complained that even when stressed, he is unable to afford vacations. He stated that in his home country, a visit to the beach is very cheap and always within walking distance: "I work so many hours every day to make money, and when I am stressed and in need of a vacation it is too expensive to visit the beach, while in my home country I used to live by the beach. When continuously stressed, an individual can develop hypertension and other health issues." The availability of suitable well-paying jobs also contributes to the affordability of health insurance which was a major issue for most participants. Finally, participants discussed the availability of opportunities in the U.S. as compared to their countries of origin. They described this as an enabling factor to good health and success: "Education is such an important part of life. There are better opportunities here in the U.S. The more educated you are the more you know about health and living a healthy lifestyle."

Feeling of security and public safety. Participants expressed mixed feelings about security in the U.S. Many reported feeling much safer in the U.S. compared to their countries of origin as security is a major problem in some of their countries of origin. Others reported that even though there was a general feeling of security here in the U.S., they still lived in less safe neighborhoods because such neighborhoods are more affordable. Participants mentioned that high security fences which were the norm in their countries of origin were uncommon here, and despite this, burglary and armed robbery occurred less often and police response was prompt. A participant referred to this issue saying "In my country of origin, houses are fenced and gated for security

reasons but here you are considerably safe without these and that increases your mental and social well-being."

Participants expressed admiration for the presence of law enforcement around the U.S. and their passion for carrying out their duties. Many commended the unbelievably fast response of emergency response teams to 911 calls. Participants mentioned the importance of public health safety measures such as fire extinguishers in homes and public buildings which they felt were very important. A participant mentioned, "It's good to know that when there's a fire you have an extinguisher. But in my country, things like this aren't commonly found in houses." (Commenting on a photograph of a fire extinguisher in a kitchen cabinet) In addition to the public health needs, participants mentioned covered street gutters which they felt served a great public health service by preventing the spread of diseases. This, they reported was sometimes available in urban cities in their countries of origin but not as commonly seen as here in the U.S. "Open drainage gutters are found in some countries in Africa, and it's not good because it increases the spread of disease," said another participant describing the good practice of concealed street gutters/sewer system in America.

Participants shared their opinions about transportation and road safety. They reported that they thought the bountiful road signs, traffic lights and regulations that guide and protect citizens plying the streets and highways was extremely useful and has a positive impact on health. They also reported that in their countries of origin, these signs were sometimes available but not commonly obeyed and without repercussions from the law. They reported that transportation in the city was sometimes problematic with the complicated bus routes and infrequent and widely spaced out bus arrival times: "Getting on the bus can be so frustrating for me. The system is complicated; I'm not sure where it may be taking me and where it stops."

Another participant made comments on the availability of road signs and laws that are enforced as opposed to what is available in some African countries: Ep "In my country, many lives are lost due to road traffic accidents. There are insufficient road signs and poor enforcement of road rules/laws. Here (U.S.), the signs are available and the rules are enforced."

Some participants reported that they enjoyed the fact that they could recycle their non-biodegradable products instead of land-fill dumping and felt it was a good practice that should be encouraged. They acknowledged that environmental pollution had a negative impact on their health and recycling would help to curb that effect.

Diversity and the health care system. Most participants considered the U.S. health care system complicated, and many shared their difficulties in navigating the system. Language barriers played a major role in this navigational difficulty. Many felt there was information overload at every hospital visit; they explained that they were over burdened by the numerous forms that had to be filled out before and after the visit. Participants talked about a lack of cultural competency on the part of the providers, they complained that they often had inadequate patient-provider time with their physicians and were unsure to what extent they could discuss health related issues with them. When probed further on what that meant, they mentioned not knowing if they could discuss the use of complementary alternative medical practices; which they consid-

ered an integral component of their healthcare, with their providers. They particularly mentioned less competent encounters with hospital front desk staff who they reported often did not pronounce their names right and did not care to take corrections. They felt they were treated differently by many of these staff, as soon as either their accents were detected or cultural mode of dressing noted. Many reported being very anxious to make hospital visits. A participant reported, "Whenever I have a hospital visit coming up, I always pray and fast for days to ensure it goes well." Participants mentioned that these cross cultural challenges often deterred them from visiting the hospitals or delaying such visits till it was absolutely necessary (Fig 2). Many of the participants acknowledged that treatment is more efficient here in the U.S. than their countries of origin, but felt uncomfortable interacting with the providers and the health care system. They expressed concerns on health insurance issues and cost of health care as a major

problem especially with few alternatives to western treatment. Ep—"Hospital visits are expensive; unfortunately there are very few ethno-medical centers. In America, I don't have access to local herbs. . . . local herbs work!" The combination of these issues over time has led to distrust of the healthcare system by many immigrants.

Religiosity and social well-being. Most participants associated good mental health with religion. Some considered the church or mosque as a place where individuals visit, with the belief that their problems will be solved. A participant mentioned, "Mental health goes hand in hand with one's spirituality. Without a healthy spiritual life, I don't think that person is healthy." They also mentioned that most of their social interactions bothered around the religious or church activities. Participants discussed cigarette smoking as an issue in the united states. Many shared that they were surprised to see the number of women and youth that smoke, since this was uncommon in their countries of origin. They did share though, that the age restriction on alcohol consumption was a great public health initiave that was either lacking or poorly enforced in many of their countries of origin. They associated cigarette smoking and alcohol consumption with increased stress levels common among people who work many hours and multiple jobs. They also acknowleged that these habits were harmful to their health. Yp—"I'm not sure if it is a healthy alternative to regular cigarettes, but the fact that they are trying to make smoking look good is just not right."—A participant discussing a photograph showing electronic cigarettes.

Cultural isolation as a barrier to social well-being was extensively discussed in this theme, where participants mentioned the need to look like and dress like Americans

to enable them appear acculturated. A participant mentioned—"Women may feel the need to assimilate the American culture by getting hair extensions. I think this is a self-esteem issue." Younger participants also mentioned the increasing isolation due to the use of iPods, phones, video games, Facebook and other social media that sometimes prevent physical interaction with others. They felt this prevented them from having adequate physical social interaction. A participant noted—"Things are a bit different here; everyone is texting, chatting on Facebook or wearing ear buds. This seriously reduces social interactions among peers" another mentioned—"Facebook can get addictive and mess up people's priorities." They all agreed on the potential effect of phones and texting on the users' life and the lives of others especially while driving: "Nobody does any work in class; instead they're on their phones." "People text all the time, even while doing important stuff; the worst is texting while driving."

Issues of discrimination were discussed; some participants expressed their feelings on the perceptions of others of them. They said it felt like some of their classmates were demeaning towards them whenever they speak with an accent, speak a different uncommon language or wear African clothes. Some of the younger participants felt school teachers were doing a great job integrating diverse cultures in class group assignments.—"*My teacher does a good job ensuring all cultures are represented in our small group assignments. I think this helps us appreciate the differences and similarities in our cultures*"

Participants acknowledged the importance of social justice and fairness to their health. They mentioned that discrimination of any sort was a source of stress and could

lead to poor physical and mental health. They applauded the level of equality offered in the U.S. especially to those with disabilities. *Ep—"There are more equal opportunities for those with disabilities in the U.S. You will never find a sign like this in most parts of Africa. Equality is of importance here but not so much in Africa."* (*Disability* Parking Sign)

Discussion

The themes discussed in the results section are common to many immigrant populations. New immigrants commonly encounter dietary acculturation issues and the participants of this study were no exception. A major issue noted in this study was the difficulty encountered by immigrants regarding availability and affordability of healthy foods and resources to provide guidance on healthy eating. A study on new and recent immigrants in Guilford County, N.C.[10] highlighted the lack of improvement in existing human services network to increase capacity to provide nutrition and health related services and resources to new and recent immigrants. To show how common this is among immigrant groups; a similar study on Hispanic immigrants in New York City showed the need for improved health literacy and dietary education for new immigrants. The study showed that new immigrants discussed healthy foods more in terms of freshness (i.e., time from harvest or slaughter) than in terms of nutritional contents.[21] In this study, participants shed light on easy access to fast foods and vending machine products and a lack of access to healthier alternatives.

The obesity epidemic in the U.S. was clearly discussed by participants, and these results were synchronous to other national data. The Centers for Disease Control and Prevention (CDC) reports that among children ages 9–13 in the U.S., 62% do not participate in any organized physical activity and 23% do not participate in any free-time physical activity outside of the school day.[22] The study participants reported the alarming rate of inactivity among the youth which was partially responsible for obesity. Participants recommended increased physical activities, such as walking to and from school if the environment is safe. The community should be encouraged to implement the Safe Routes to School Program (SRTS) to incorporate daily physical exercise into the lives of the youth and adults responsible for accompanying them. In line with the reports from study participants, engagement in physical activity as a youth, prevents obesity and other chronic diseases in old age, studies have shown that obese children are twice as likely to become obese adults.[23]

As noted in the results, many participants expressed dissatisfaction in the occupational downgrading they had received, and suggested a direct link to health and well-being. Approximately 60% of the 200 million individuals who migrate annually move from developing to developed countries, seeking better employment and economic opportunities.[24,25] Studies have documented that in the first few years post-migration, many immigrants experience occupational downgrading. This is a situation where an immigrant loses occupational status or prestige between the last job held in country of origin and the first job held in the receiving country.[26–32] Recent immigrants lack job opportunities commiserate to their qualifications and many times, these immigrants who once held prestigious white collar jobs end up as blue collar laborers.[26,29] Chiswick

found that recent immigrants earned far less than U.S.-born men with comparable levels of qualification.[26,27,30–34] This imperfect transferability and portability of human capital and skills,[26,27,30–34] has been associated with adverse health effects, such as, poor or declining self-rated health,[35–39] adverse mental health issues such as depression, anxiety, and psychological distress, [35–38,40–42] ischemic heart disease,[43] and low-birth weight deliveries.[44] Even though none of these conclusively show a direct relationship between the occupational downgrading of the overqualified and overeducated immigrant relative to current job, results from our study reinforces these associations and as such more studies are needed to investigate this matter a little further.

As the participants in this study showed, cultural competence in the health care system posed a potential barrier in accessing health services in a regular and timely manner. Lack of cultural competence in patient-provider encounters is a barrier to improved health care and a major determinant of health disparities disproportionately affecting racial and ethnic minorities.[45] Improving cultural competency of providers and the health care system has been recommended by the IOM and the National Standards for Culturally and Linguistically Appropriate services (CLAS) through the Office of Minority Health, as a major strategy to reducing health disparities.[46,47] In this study, the participants expressed their frustrations towards the health care system and providers; such perceptions could lead to mistrust and lack of compliance to medications and treatment.[48] Studies carried out among the Hispanic population have shown that health outcomes experienced by Latina women was dependent, among other factors, on the patient-provider relationships, which dictated the level of trust and disclosure made by these patients.[49] Cultural differences resulting in physicians' lack of awareness of sensitive areas of discussion or interaction also play a significant role on health outcomes and health disparities affecting the Hispanic /Latino population.[49] Some studies have also suggested that Hispanic/Latino patients are significantly less satisfied with provider interactions/communications than non-Hispanic whites, subsequently increasing the risk of lower quality of care and poor health outcomes.[50] These can be attributed to poor cultural competency among providers serving these populations and possibly low health literacy among the population served. These findings even though among the more studied Hispanic immigrant populations are not much different from the less studied African immigrant population in this study.

Health care providers including front desk staff should be encouraged to undergo adequate cultural competency training on an ongoing basis, to better foster improved patient-provider relationships; this will inevitably reduce delayed health seeking behavior and ultimately reduce health care costs, by limiting emergency room visits.

The participants in this study strongly related behavioral health (Mental health and Substance Use Disorders) to religiosity. This is not uncommon to ethnic minority groups, as further substantiated by studies that show a significant positive relationship between religiosity and mental health.[51,52] In this study, the church was the single most popular place where the older African Immigrants attended as a community resource for mental health. It should be noted that some African immigrants fled their countries of origin as refuges due to many years of civil strife. These individuals may suffer from mental health issues like post-traumatic stress disorder (PTSD) and depression, yet are

unable to seek proper mental health care due to reasons such as low health literacy, trust, acculturation and stigma. Associations were made between physical security and mental health. Participants' perception of security, as a component of mental health, brings to fore the importance of their initial reasons to migrate. Immigrants who immigrated from war torn regions or regions with a history of violence and civil rights violations, may enhance acculturation as these individuals may feel the need to seal up their past. Even though acculturation should be encouraged in a manner that is culturally acceptable, competent and encompassing, improved health literacy has to be emphasized to empower the affected population to seek proper care. More trained professionals that specialize in psychological evaluations and treatments of immigrants who deal with these issues on a daily basis should be encouraged.

Participants discussed socio-cultural and environmental issues that affected their wellbeing ranging from inability to adequately understand bus routes, to the physical social isolation due to the use of technologies such as Facebook, computer games, texting on mobile phones and listening to music on portable devices. Racism was not left out especially as it affected the youth in the form of isolation or bullying. Improving the health literacy levels of this population will enable them recognize the need to seek appropriate and timely help as needed.

Conclusion. The purpose of this project, which was to examine the views of African immigrants on health literacy, access to health resources and the perceived barriers to a healthy well-being, was achieved. Authors conclude that elderly African immigrants possess a general idea of what "being healthy" means as evidenced by the results collected. Participants understood the various levels of health literacy, were also able to identify barriers to the attainment of a healthy status and were able to express their views to key community stakeholders. From the results of this study, authors recognize that more has to be done to improve the health literacy levels of this population and as such, recommend a stronger sustainable partnership between the community social support structures and the African immigrant community. African immigrant community in the U.S. is highly understudied and needs to be connected with identified/needed resources, while extensive advocacy for culturally appropriate social and emotional supports and health care should be encouraged. We recommend that the research community and the community partners continue to work with African immigrants to identify ways to support their needs. African immigrants should be encouraged to participate in the larger community events and utilize community resources available. This will provide an essential and deeper look into the health issues affecting this population, and may further inform the larger society on the health needs of the African immigrant population while promoting interracial networking.

Limitations. A limitation of this study is that a church was used for participant recruitment. Most of the participants were Christians and as such other religions were not well represented hindering any religious issues that could be relevant to the health and wellbeing of the population.

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