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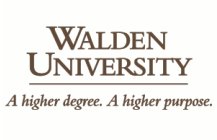

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College of Health Sciences

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Lawrence Agi

has been found to be complete and satisfactory in all respects,
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Walden University
2016

Abstract

Perceptions of Stroke Risks Among West African Male Immigrants in San Diego

by

Lawrence Agi

MS, Walden University, 2013

BA, Urban Pontifical University, Rome, 1999

LLB, Ahmadu Bello University, Zaria, 1985

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Health

Walden University

February 2016

Abstract

The incidence and knowledge of the risk factors of stroke across ethnic groups in the United States have been examined in multiple studies. However, it is not well known if the foreign-born African immigrants who constitute about 4% of the U.S. immigrant population are at a higher risk of the incidence of stroke than are other nonimmigrant population in the U. S. This ethnographic study explored the perceptions of Anglophone African male immigrants residing in San Diego on the risk factors of stroke. The theoretical framework for this study included the health belief model and the health promotion model. Data were collected through unstructured, in-depth interviews with 8 male participants. Interview transcripts were analyzed using Nvivo 10 computer software and reviewed manually. A key finding was that most of the participants reported a lack or limited knowledge of stroke disease and no knowledge of the warning signs of stroke prior to migrating to the United States, but that they acquired some knowledge after integrating into mainstream U.S. society. Other findings were that using preventive services such as engaging in periodic medical check-ups and screening for high blood pressure, diabetes, and high cholesterol were not common practices in the home countries of the participants; that the participants considered women as resource persons on health issues; and that the participants struggled with negative attributes associated with sickness and hospitals. Results of this study might encourage changes in the health behaviors and beliefs of the African-born male adults by raising their knowledge and awareness of the prevalence of stroke and preventive measures available to them in the community.

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Dedication

This work is dedicated to Late Sir Francis Agi, my father, teacher, mentor, and model who taught me the values of hard work.

Acknowledgments

I wish to acknowledge and extend my heartfelt appreciation to the individuals who gave their time and wisdom to make this dissertation a reality. First and foremost, I want to thank my dissertation committee chair, Dr. Vasileios Margaritis, my second committee member, Dr. Jeanne Connors, and the University Research Reviewer, Dr. Loretta Cain, for believing in my study and helping it to come to fruition. Dr. Margaritis provided very quick meaningful feedback and revision suggestions that made the entire dissertation process less stressful.

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Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

Introduction

The U.S. is the most ethnically and racially diverse country in the world because of immigration (Kimbrough, 2007; Sue & Sue, 2008). Approximately one-third of the U. S. population is made up of members of ethnic and racial minority groups (Schneider, 2011). The term minority has been used by the dominant culture to refer to a group that has limited access to power (Hayes, 2008). Individuals of ethnic minority cultures are: American Indian or Alaska Native (0.9%), Asian American (4.4%), Black or African American (13.2%), Hispanic or Latino (17.1%), and Native Hawaiian or other Pacific Islander (0.1%); all these persons account for about 36.3% of the population (U.S. Census Bureau, 2011). According to the U.S. Census Bureau, the percentage of ethnic and racial minority groups in the United States will reach 40% by 2030 (Thomas, 2011). Each group has their defined norms and values, which influence their understanding of disease and health care decisions (Schneider, 2011).

Global migration has changed significantly in the past century. Several decades ago, most global immigrants were from Europe, but a significant shift in this pattern has taken place (Alonso, 2011). Currently, most immigrants come from Asia, Africa, Central and South America, and Middle East nations to Australia, Canada, the United Kingdom, and the United States (Dassanayake, Gurrin, Payne, Sundararajan, & Dharmage, 2011). In 2010, there were approximately 214 million international immigrants, constituting 3.1% population of the world (Alonso, 2011). This migration has significantly changed the demographics of many countries, including that of the U.S. (Alonso, 2011;

Dassanayake et al., 2011). Immigrants from different parts of the world now account for 50% of U.S. population growth (U.S. Census of Bureau, 2011). This development has led to an increase in interest by different stakeholders in the epidemiological features of the health profile of immigrants (Dassanayake et al., 2011).

Migration has caused significant cultural interactions in migrants' new host countries (Dassanayake et al., 2011; Sue & Sue, 2008). This generated a growing interest in cultural sensitivity in an attempt to accommodate the cultural values of immigrants (Shaw, Huebner, Armin, Orzech, & James, 2008). For example, in October 1997, the U.S. Office of Management and Budget revised the standards for federal data on race and ethnicity to align with the rapidly growing diversity in the country (Shi & Singh, 2005). This development has led to an unprecedented increase of interest in the area of cultural diversity as one of the key determinants of health (Shaw et al., 2008).

While there has been an improvement in the overall health of the general U.S. population over the years, health disparities among ethnic and racial groups continue to persist. These disparities have become an issue of concern in the public health field (Gutierrez & Williams, 2014; Kimbrough, 2007; Schneider, 2011). There are significant stroke disparities in the different minority ethnic groups in the U.S. (Gutierrez & Williams, 2014). Compared to Whites, who make up the dominant majority, the severity of stroke is higher in Asians (Gezmu, Schneider, Demissie, Lin, Gizzi, 2014), Black or African Americans and Hispanics (Ellis et al., 2009; Gutierrez & Williams, 2014). The incidence of stroke in Whites in the U.S. has declined, but has increased for ethnic and racial minorities (Gezmu et al., 2014; Gutierrez & Williams, 2014). The lower

occurrence of strokes among white people has been attributed to their knowledge and awareness of risk factors and warning signs associated with stroke and seeking preventive measures among other factors (Ellis et al., 2009; Gezmu et al., 2014; Gutierrez & Williams, 2014; Howard, Labarthe, Hu, Yoon, & Howard, 2007).

It is very important to understand ethnic differences in stroke risk factors in the rapidly growing diverse U.S. society in order to plan appropriate prevention strategies (Koya & Egede, 2006). However, there is limited literature on stroke in respect of African-born immigrants in the U.S. To address this gap, I used an ethnographic approach to explore the perceptions of stroke risks among foreign-born West African male immigrants in San Diego, California.

Background

Overseas-born African immigrants constitute one of the most rapidly growing population of immigrants in the United States; at the time of this study, over one million were living in the U.S. (Gambiano, Trevelyan, & Fitzwater, 2014; Thomas, 2011; Murray, Mohammed, & Ndunduyenge, 2013; Venters & Gany, 2009; U.S. Census Bureau, 2014). One-third of this population was born in the West African countries of Ghana and Nigeria (Thomas, 2011; U.S. Census Bureau, 2014). There are several factors contributing to this growth, including the reunification of families, regional crises that have led to an increased number of refugees seeking political asylum, the U.S. Diversity Visa program, and an increase in the number of highly-skilled Africans in the American workforce accounts (Gambiano et al., 2014; Thomas, 2011).

Although the number of cases of chronic disease such as stroke among foreign-born African immigrants living in the U.S has increased, there is limited extant research on this phenomenon (Murray et al., 2013; Venters & Gany, 2009). Most of stroke-related studies focusing on Africans have been conducted in African countries and not in the U.S. (Adoukonou, Houenassi, & Houinato, 2012; Donkor et al., 2014). These studies identified a lack of community awareness and limited knowledge of the risk factors and warning signs of stroke as issues of great concern; these factors are critical to understanding the incidence of stroke in African immigrants (Adoukonou et al., 2012; Donkor et al., 2014).

One of the fundamental goals of public health research and practice is the elimination of health disparities (Shi & Singh, 2011). Health inequality among minor racial groups in the U.S. constitutes a significant financial burden to an already overstretched economy because of the astronomical cost in health care delivery (Jibaja-Weiss et al., 2011; Shi & Singh, 2011). Although there is a burgeoning amount of research on health inequality, there still significant unresolved issues (Gehlert, Sohmer, Sacks, Mininger, McClintock, & Olopade, 2008; Kimbrough, 2007). One of such issues, which have been sparsely researched on is the cultural beliefs and customs of African immigrants in the U.S. in respect of stroke risks. As I mentioned earlier on, this study is very significant because of the ongoing rapidly changing demographics of the U.S.

Problem Statement

Over the years, degenerative chronic diseases in general and cardiovascular diseases and cancer in particular have become the leading causes of mortality in the U.S. (Schneider, 2011). Stroke, a cardiovascular disease, is the second-highest cause of death around the world (Donkor, Owolabi, Bampoh, Aspelund & Gudnason, 2014) and the third leading cause of death in developed countries (George, Tong, & Yoon, 2011). In 2010, stroke accounted for the second most cause of disability-adjusted life-years (DALYs) globally (Feigin et al., 2014). An estimated six million people all over the world die annually of stroke; on average, one stroke-related death occurs every 4 minutes (Feigin et al., 2014; George et al., 2011; Go et al., 2011). Annually, stroke is estimated to cost about 63 billion dollars globally (Ellis, Wolf, & Wyse, 2009).

The incidence and burden of stroke cut across all races, cultures, and nationalities. Stroke continues to be a problem among racial minorities in the U.S.(Ellis et al., 2009; Gezmu et al., 2014; Gutierrez & Williams, 2014). African immigrants on arrival in the U.S. although with peculiar health problems most especially infectious diseases have better health profiles, and lower rates of obesity, and chronic conditions than African Americans (Dassanayake et al., 2011; Venters & Gany, 2009). However, after a while, they begin to experience adverse health outcomes such as increased risk of stroke (Dassanayake et al., 2011). This development has been attributed to environmental factors such as stressful and sedentary lifestyle, and to greater modernization (Dassanayake et al., 2011). Previous studies on African-born immigrants focus mainly on infectious diseases such as HIV and TB (Venters & Gany, 2009). More information is

needed on the acquisition of stroke risk factors, which is poorly understood among African immigrants (Adoukonou et al., 2012).

The aim of this study was to explore the extent that cultural beliefs either contribute to or prevent the incidence of stroke in the Anglophone African-born male immigrants residing in San Diego, California. Since limited research has been done on this population either nationally or locally, the current study was designed to collect formative data on the cultural health beliefs of this population with respect to stroke risks (Venters & Gany, 2009). Several prior studies about stroke have examined specific minority groups, such as the Asians/Pacific Islanders (Gezmu et al., 2014; Nguyen-Huynh & Johnston, 2005), Latinos (Ellis et al., 2009), and African Americans (Bravata, Wells, Gulanski, Kemen, Long, and Conecato, 2006; Howard et al., 2007). These and other studies have explored different contributing factors to the incidence of stroke (Schneider, 2011), but there was limited extant research on stroke and African immigrants to the United States. The previously identified contributing factors for stroke include:

- low health literacy (Ellis et al., 2009; Shaw et al., 2009),
- lower social economic status (Donkor et al., 2014; Wilkinson & Pickett, 2006),
- power differentiation (Ellis et al., 2009; Howard et al., 2007),
- lifestyle factors such as tobacco use, obesity, sedentary lifestyle, physical inactiveness, hypertension (Bravata et al., 2006; Gezmu et al., 2014; Howard et al., 2007);
- low utilization of screening services (DeStephano Flynn, & Brost, 2010);

- language barriers (Kimbrough, 2007; Nguyen et al., 2005);
- change of environment, urbanization and acculturation, and increased food intake that is high in salt and saturated fats are considered to influence the occurrence of stroke among different ethnic minority population (Gezmu et al., 2014).

There are very limited studies that have specifically focused on culture.

An essential facet of African-born immigrants is their culture (Kimbrough, 2007). Despite the role of culture in defining the identity of individuals (Purnell, 2009), limited research has examined the significance of culture as a contributor of stroke among this population. Culture plays a very crucial role in regulating the belief system of individuals, which influences their thought pattern and decisions on health issues (Sue & Sue, 2008). Also, cultural health beliefs and practices are relevant when evaluating the capacity of an individual or a group in processing, comprehending and making decisions on issues pertaining to health (Kimbrough, 2007; Purnell, 2009).

Previous research has emphasized the importance of examining men and women as separate populations. Focusing on the male population highlights the fact that the incidence of stroke is higher among men than women but there are very limited qualitative studies that are gender specific (Strobele, Muller-Riemenschneider, Nolte, Muller-Nordhorn, Bockelbrink, & Willich, 2011). Clark (2007) posited that men are different from women in their patterns of health-related needs. These differences have been attributed to: (a) physiological differences between men and women, (b) differences in health-seeking behavior, and (c) cultural views and customs (Clark, 2007).

An example of gender-based difference in medical care is the lack of physical touch between men and women unless they are family members in many cultural groups. This might make some men very uncomfortable interacting with female nurses (Clark, 2007). In some cultural groups, women are accorded lower social status, creating cultural perspectives that make men more hesitant to act on health-related information presented by female nurses who the men see as less knowledgeable than men (Clark, 2007; Maurer & Smith, 2009). In planning health education designed to improve the health of men in the community, it is thus important to understand these cultural perspectives and how best to counteract them.

Purpose of the Study

This study was designed to gain an understanding of the cultural worldviews that might prevent or contribute to the prevalence of stroke among foreign-born, Anglophone African male immigrants living in San Diego, California. There has been a tremendous increase of different groups of immigrants in the U.S. in the last decade (Thomas, 2011). Interestingly, each group has their unique worldviews and values that determine their understanding and decisions in relation to disease and health care (Schneider, 2011). As more Africans migrate to the U.S., it becomes imperative to examine the ethnic differences of their knowledge and perception of stroke so as to plan for culturally appropriate prevention strategies and their health care needs (Venters & Gany, 2009). I selected a qualitative methodology to address this research gap. I specifically used an ethnographic approach coupled with interviews to generate an improved understanding of

why stroke risks are poorly understood by West African male immigrants residing in San Diego.

Research Questions

I designed two primary research questions and three subquestions to guide this research:

Research Question 1 (RQ1): What are some of the cultural beliefs that West African-born male immigrants residing in San Diego hold that may influence or impede their health care decisions as far as stroke is concerned?

Subquestion 1 (RQ1-A): What are the perceptions of West African-born male immigrants residing in San Diego of the spiritual power of ancestors as a cause of stroke and source of healing?

Subquestion 2: (RQ1-B): What are West African-born immigrants residing in San Diego's perceived understanding of voodoo in determining their health status?

Subquestion 3 (RQ1-C): What are the perceived beliefs and customs of folk medicine and home remedies of West African-born immigrants residing in San Diego that might promote or deter the utilization of health care services in the prevention of stroke?

Research Question 2 (RQ2): How do these cultural beliefs identified by RQI influence West African-born male immigrants residing in San Diego in their understanding and knowledge of the risk factors of stroke?

Theoretical Framework

This study utilized a combination of the health promotion model (HPM) and health belief model (HBM) for its theoretical framework.

Health Promotion Model

The health promotion model is similar to health belief model in that they both focus on heath-promoting behaviors (Peterson & Bredow, 2004); however, the HPM differs from the HBM in one significant way. The HPM is a competence or approach-oriented model that focuses on the attainment of high-level wellness and self-actualization (Maurer & Smith, 2009). The HBM, on the other hand, accounts for actions taken to prevent illness (Glanz, Rimer, & Viswanath, 2008; Maurer & Smith, 2009; Polit & Beck, 2012). The HPM has undergone significant modification since its initial introduction in 1982 (Pender, Murdaugh, & Parsons, 2002).

The revised HPM consists of individual characteristics and experiences, behavior-specific cognitions and effect, and other factors that lead to the behavioral outcome (Clark, 2007; Peterson & Bredow, 2004). Pender (2000) identified behavior-specific cognitions and effects as the major motivational mechanisms for health promoting behavior. The model offers a theoretical framework that can be utilized in understanding health behaviors and in developing interventions (Polit & Beck, 2012). The main constructs of this theory are perceived benefits of action, perceived barriers to action, perceived self-efficacy, activity related effect, interpersonal influences, and situational influences (Clark, 2007; Peterson & Bredow, 2004). Pender, Murdaugh, and Parsons (2002) advocated the use of health promotion at a variety of levels and settings. It is

multidimensional, encompassing individual, family, community, environmental, and societal health (Peterson & Bredow, 2004).

An ethnographic methodology was used in this study, and I explored the multidimensional and interrelational factors associated with the perceptions of stroke risks in the English-speaking West African-born male immigrant population, the HPM will be appropriate in providing the background for the structure and questions of this study. For example, the research question about the awareness of risk factors of stroke addressed individual characteristics, such as personal biological, psychological and sociocultural factors that might influence the behavior involved (Clark, 2007). Also, prior behavior in this area is another individual characteristic. Also, one of the social changes contemplated by this study is to change the health behaviors and beliefs of the target population by raising their knowledge and awareness of stroke risks and preventive measures available to them in the community. This being the case, the study was designed to elicit information of competing demands and preferences of practices that results to commitment to action, which is one of the constructs of this model. Commitment to action is using available preventive measures in the community to prevent the incidence of stroke in this population.

Health Belief Model

I also utilized the health belief model in this study. The development of this model was accredited to Rosenstock, Hochbaum, and Kegels in the 1950s (Clark, 2007; Glanz & Bishop, 2010). It has been widely used by researchers and program developers in the field of health-promoting behaviors (Glanz & Bishop, 2010; Tavallaei & Abu

Talib, 2010). This model consists of four main constructs that predict why people will engage in health-promoting action (Glanz, Rimer, & Viswanath, 2008). First, an individual belief that one is susceptible to or at risk for a particular health problem. Second, one belief that the health problem can have severe consequences. Third, the health hazard can be prevented, and fourth, that the benefits of action outweigh the cost of barriers (Allender & Spradley, 2007; Clark, 2007; Glanz et al., 2008; Maurer & Smith, 2009).

Since the purpose of this study was to explore and explain the role of cultural beliefs and practices in the perceptions of stroke risks among West African-born male immigrants in San Diego, this model can be appropriate for the study. The Questions of this study exhibited some of the core elements of the HBM, such as, their perceptions of benefits and barriers of folk medicine and home remedies that might promote or deter their utilization of health care services in the prevention of stroke. Also, some motivating factors that might influence their understanding and knowledge of the risk factors of stroke.

Nature of the Study

This was a qualitative study because the purpose was to gain an in-depth understanding of the perception of stroke risks among foreign-born West African male immigrants in San Diego. Ethnographic methodology was used to address the research questions. An ethnographic study is a cultural understanding obtained through fieldwork and in-depth interview which requires the researcher to be present in the study participant's environment (Creswell, 2013; Polit & Beck, 2012). This methodology

focuses on understanding the human experience as it is lived by an individual, through the careful collection and analysis of qualitative materials that are narrative and subjective (Polit & Beck, 2012).

Polit and Beck (2010) posit that qualitative researchers may use multiple data sources in a single study for the purpose of validating conclusion. In this study, one-on-one qualitative interviews will be conducted, with the use of open-ended questions. In addition, reference will be made to problem statements of previous empirical studies conducted about this phenomenon. Eight participants were recruited within 1- 2 months. Participants in this study were born in the English speaking part of West Africa, male adults and residing in San Diego, California. Participants had lived in San Diego for a period of not less than 2 years and were able to write and speak English fluently. Participants had never suffered from stroke or other cardiovascular diseases.

Network or snowball sampling was employed in recruiting participants for this research study (Nieswiadomy, 2008; Sheperis et al., 2010.) This approach was carried out in stages. In the first stage, a few participants who met the selection criteria were identified and interviewed (Nieswiadomy, 2008; Sheperis et al., 2010). In the second stage, these participants were asked to identify others who fall within the criteria. This process of chain referral or snowballing continued until an adequate sample was obtained (Portney & Watkins, 2000). Networking provides a means to readily identify and easily contact potential participants (Nieswiadomy, 2008; Sheperis et al., 2010). The final sample size was determined by the principle of saturation, with recruitment halting when there were no new insights from the participants and nothing substantive added to the

data already collected, in accordance with Polit and Beck's (2012) guidelines. This process led to the production of rich and complete themes, as indicated by Polit and Beck (2012) and Sheperis et al. (2010).

Participants were interviewed with an open-ended questions format and the conversations were recorded on tape after the consent forms had been signed by the participants. The tapes were reviewed and transcribed after the interview. In addition, I took notes during the interview. Data collected were analyzed manually and through the assistance of NVivo 10, which is a computer software program designed for analyzing qualitative data (Hutchinson, Johnston, & Breckon, 2010). It is used to record, store, index, sort, and code qualitative data (Hutchinson et al., 2010). As this software plays a complementary role, a thematic analysis approach was utilized. This is a manual coding approach, which involves coding the transcribed texts line-by-line so as to discover patterns or themes in the information that was collected through interviews (Sheperis et al., 2010).

Definitions

Community: A collection of individuals in a place who are closely knit by common social system, and shared perspectives, which offers them a sense of unity (Maurer & Smith, 2009).

Culture: The acquired and shared beliefs, values, and norms of a group that influence the thoughts and actions of group members and are passed from one generation to another over time (Purnell, 2009).

Cultural Competence: An act and process that enables an individual, system or agency to develop an awareness, sensitivity, and environment that is congruent with the culture of those to whom services is offered (Hays, 2008; Purnell, 2009).

Culture-sharing group: A group of people who share common thoughts, language, communication style, customs, beliefs, values, and/or are from the same ethnic and racial group (CDC, 2011).

Fatalism: A strong belief that life is beyond the control of a person (Spector, 2009).

Folk medicine: Use of herbs, plants, minerals, and animal parts in the prevention and treatment of illness (Spector, 2009).

Spell: A magical word or a condition that brings about bad luck or evil to a person (Spector, 2009).

Taboo: A cultural injunction that prohibits the use of certain words and behaviors among a collection of individuals (Spector, 2009).

Voodoo: A combination of religious rites and African traditional beliefs that is characterized by sorcery and possession of the spirit (Spector, 2009).

Assumptions

It was assumed that participants in this study would provide honest information with regards to their cultural views that might promote or impede health-related decisions in respect of the risk factors of stroke. This assumption was very significant because the availability of credible information will provide the roadmap for understanding the perception of stroke risks among my target population. Also, the assumption was

supported by a guarantee of confidentiality, which gave little incentive to be dishonest. Further, I assumed that participants were knowledgeable of the cultural beliefs that can either contribute to or prevent the incidence of stroke among oversea-born African immigrants in San Diego, California. This assumption was based on the fact participants have lived experience because it is presumed that they are living and are part of the community. Participants had the right not to answer any question that they were not comfortable with and could withdraw from the study at any time without incurring any penalty.

Scope and Delimitations

The identified research problem is the incidence of stroke disparity in racial and minor ethnic groups including African-born immigrants in comparison to the white dominant group (Bravata et al., 2006; Ellis et al., 2009; Gezmu et al., 2014; Gutierrez & Williams, 2014). Exploring the perceptions of stroke risks of Anglophone foreign-born West African male immigrants was the main focus of this research study. The scope of the study was to determine why African male immigrants living in San Diego were utilizing or not utilizing preventive measures in the community to minimize the incidence of stroke. As African immigrants are very diverse (Immigration Policy Center, 2012), this study was limited to individuals born in Nigeria and Ghana only. These are the only two countries from the western part of Africa that has very large number of immigrants alongside Egypt, Ethiopia, and Kenya (Immigration Policy Center, 2012; U.S. Census Bureau, 2014).

In addition, the study included only English speaking population because seven out of ten African immigrants speak English fluently (Immigration Policy Center, 2012). This is due to the fact that majority of the immigrants were born in countries that were former British colonies such as Ghana, Kenya, Nigeria and South Africa (Immigration Policy Center, 2012). Male adults from 18 years above were the focus of this study. Many of the African-born immigrant male population are reluctant to seek medical care as at when due. This is attributable to an old cultural norms among African men (Rhoda Island Department of health, 2011; Spector, 2011). Formative data on the cultural health beliefs of this population in respect of stroke risks could be provided by this study. It is anticipated that the findings of this study will increase the awareness and knowledge of the stroke risks among West African male immigrants, which will bring about changes in health behaviors.

Limitations of Study

The findings of the study might not be generalizable to the larger African-born immigrant population in the U.S. because of the research design. This was a qualitative study with a small sample size designed to explore the cultural beliefs in respects of stroke risks of foreign-born West African male immigrants in San Diego, California. Also, because of the great diversity and variation among African immigrants, it might be difficult to describe a set of values that encompass all groups (Akpuaka et al., 2013). This might prevent the findings of this study to be generalizable to the larger African immigrant population in the U.S. This issue was addressed by ensuring that credible, trustworthy, quality, and in-depth information was collected from the study participants.

Qualitative methodology is subjective in nature and this accounts for one of the limitations of this study (Burns & Grove, 2011; Creswell, 2013). The findings were based on the narratives of the participants, which centers on the subjective meaning of their experiences in relation to the issue that was investigated (Creswell, 2013). In addressing this limitation, a process known as triangulation was utilized (Burns & Grove, 2011; Creswell, 2013). Triangulation entails using multiple sources of data collection, such as individual interviews, observations, and document reviews (Leech, & Onwuegbuzie, 2007). To minimize the participant's bias in this study, I focused on enhancing my knowledge instead of focusing on opinions.

Significance

Although demographic data on West African-born immigrants to the U.S. is available, there is limited information about the cultural beliefs of this group in respect of cardiovascular disease such as stroke (Adoukonou et al., 2012; Donkor et al., 2014). The potential social changes of this study include, changing the health behaviors and beliefs of the African-born male adolescents by raising their knowledge and awareness of the prevalence of stroke risks and preventive measures available to them in the community. This research might also lead to a voluntary participation in periodic health screening for hypertension, and high blood pressure. In addition, it might lead to an increase in the use of health promoting behaviors, safety practices, elimination of high-risk behaviors, and the need to seek medical attention at the very onset of any symptom.

Kagotho and Tan (2008) identified cultural barriers to screening and inadequate knowledge of the risk factors of cancer as one of the reasons of health disparity among

immigrants. The outcome of this study might elucidate existing beliefs and myths of this population that might determine their health care decisions. It is a common practice that men are encouraged to tough out pain as a sign of bravery and not to seek help until it leads to inability to work (Clark, 2007). Also, this study could create the need for an effective epidemiological surveillance system for the incidence of stroke in this community. Periodic reviews could be conducted, and the findings shared with the county authorities. This could lead to the inclusion of this population in planning health services for their needs.

The U.S. is rich in cultural diversity (Kimbrough, 2007). Immigration has become a significant contributor to population growth (Thomson, 2011). Greater diversity means health care providers will frequently deal with members of different ethnic and cultural groups (Kimbrough, 2007; Purnell, 2009). The cultural and health beliefs, values and practices of the health care providers may be completely different from that of their patients. The outcome of this study could bridge the gap between the racial and cultural divide that might pose some challenges in the provision of health care services to immigrants. Also, in line with the goal of public health, the outcome of this study could help in the designing of a culturally appropriate educational programs aimed at preventing stroke in this community.

Summary

To promote health equality in the foreign-born West African male immigrants residing in San Diego, it is very important to explore their perceptions about stroke risks. There is also the need to examine the cultural beliefs that might affect the understanding

and knowledge of the risk factors of stroke in this population. With culturally appropriate information and increased awareness of the risk factors of stroke, it is assumed that culture based perceptions and incorrect knowledge will disappear over a period of time.

The next chapter is a review of relevant literature that relates to the research topic. The outcomes of previous studies of the African foreign-born immigrants living in the U.S. and other ethnic minorities will provide a framework for this research study. In conducting a literature review, I will be able to describe the findings of previous studies in respect of stroke in African immigrant population and more importantly identify the gaps in the literature, thus justifying the need for the current research.

Chapter 2: Literature Review

Introduction

The burden of chronic diseases such as stroke continues to represent a major public health crisis in the United States. The incidence of stroke has increased rapidly in disparate U.S. populations, particularly ethnic minorities and multicultural population (Gutierrez & Williams, 2014; Joshi, Marino, Bhoi, & McCoy, 2012). Foreign-born African immigrants make up a rapidly growing group of ethnic minorities in the U.S. (Kimbrough, 2007; Murray et al., 2013). In 2009, the overall number of immigrants from the continent of Africa accounted for about 1.5 million of the total U.S. immigrant population of 38 million (Thomas, 2011). Nigerian-born individuals alone account for approximately 185,600 of the population (Terrazas, 2009). The Washington metropolitan area has been a home for the majority of this population (Akpuaka et al., 2013).

It is expected that by 2050, African-born immigrants will increase to four times of its current population (Immigration Policy Center, 2012; Thomas, 2011; Venters & Gany, 2011). These immigrants are gradually changing the demographic composition of the larger African American population. Despite the increasing interest of researchers in African immigrant population, many have failed to recognize that this is a heterogeneous population and not monolithic as conceived by many (Shaw et al., 2008). It is fallacious to make generalizations about Africans as sharing the same cultural beliefs and practices (Shaw et al., 2008). This is why this study was focused on two immigrant populations from the West African nations of Ghana and Nigeria.

This study examined members of the small but rapidly growing population of African immigrants in San Diego. It specifically focused on Nigerians and Ghanaian who were part of this community. Between 2005 to 2007, approximately 23% of the residents of San Diego County were immigrants (California Immigrant Policy Center [CIPC], 2014). At the time of this study, foreign-born immigrants from Africa constituted 2.1% of the overall immigrant population in this county (CIPC, 2014). Despite the rapid increase of this population, there are limited studies addressing the cultural perspective of stroke risk factors of this group (Donkor et al., 2014). Unfortunately, there are many barriers that the immigrant population encounters to receive health care in the U.S. (Murray et al., 2013). Challenges such as health literacy and language difficulties, (Kimbrough, 2007; Shaw et al., 2008), acculturation (Koya & Egede, 2007), cultural health beliefs, and low efficacy are likely to influence the seeking of preventive care services more than acute care services (Murray, 2013). Failure to obtain preventive care contributes to a rise in the health care costs and cause significant morbidity and mortality (Hodgson, 2005; Shaw et al., 2009).

The purpose of this study was to better understand the stroke risks from the cultural perspectives of oversea-born West African male immigrants in San Diego, California. To better understand this phenomenon, narrative interviews were conducted with 10-15 men from Ghana and Nigeria. Three themes related to cultural information were central to this study: (1) health care practices and expectations, with barriers inclusive, (2) cultural values, (3) health beliefs and customs. Health care providers who

provide services to this population who are aware of their cultural differences and perceptions are better able to provide appropriate health care services.

Conducting a literature review of this phenomenon was significant in identifying factors that have previously been found to influence the health behaviors and practices of racial and ethnic minorities in the United States. Knowledge of the behavioral trend of these groups assisted in designing appropriate interventions to meet their health needs. This chapter is divided into separate sections to provide an insight to the current literatures pertaining to the issues that are examined. In the first section, the literature search strategy is reviewed. In the second section, the theoretical framework and the rationale for choosing these theories for the study are highlighted. A review of literature on West African immigrants and their perception of risk factors of stroke comprises the third section. The last section explores the rationale for this study.

Literature Search Strategy

The main sources used to access literature for this study were the Walden University Library and McGuire Health Sciences Library at Scripps Mercy Hospital in San Diego, California. I conducted searches on the topic of incidence and knowledge of stroke among Africans and African immigrants using five different databases; I primarily examined literature from the last 15 years. These databases were PubMed (bio-medical), PsycINFO (psychological), CINAHL (nursing and allied health), Cochrane, ERIC (educational), and Dissertation Abstracts International (UMI). The search strategy was very broad to enable me to access a wide variety of articles, because the topic is sparsely studied. I also utilized Google Scholar, Google and Yahoo in conducting the literature

review. In addition, published books and periodicals related to cultural health beliefs and practices were reviewed to enhance this study.

The search terms used included *knowledge of stroke*, *incidence of stroke*, *risk factors of stroke*, *perception of risk factors of stroke*, *health literacy and stroke*, *Nigerian culture*, *Ghanaian culture*, and *culture and health.* These search terms were combined with the following key phrases in the course of the literature review: *African immigrants, West African immigrants, foreign-born African immigrants, male African immigrants, oversea-born Nigerian male immigrants, oversea-born Ghanaian immigrants, ethnic/racial minorities in the U.*S. Further, the *words health promotion model and health belief model* were combined with the previous search words and key phrases.

Since an iterative process was required for the literature review, information was collected and reviewed to provide a robust framework for this study. First, I searched PubMed, PsycINFO, CINAHL, Cochrane, and ERIC using the following search terms: *African immigrants and stroke, African male immigrants and stroke, African Immigrants and knowledge and awareness of stroke, African immigrants and perception of risk factors of stroke, health literacy, and stroke and other ethnic/racial minority groups in the U.S.* This was followed by a research on the burden of Stroke on the general U.S. population. In using the same databases, phrases such as *incidence of stroke in the U.S. and rate of stroke in the U.S.* were utilized. Further, I used search engines such as Google, Google Scholar, and Yahoo to expand my search using the same phrases and key terms. This iterative process of the literature review finished after a saturation of information was reached.

Theoretical Foundations

Health Promotion Model

I utilized the Health Promotion Model (HPM) and Health Behavioral Model (HBM) in designing the questions and framework for this study. Nola Pender developed HPM in 1982 (Clark, 2007). This model has a wide application in research, education and practice. The emphasis of this model is helping people to attain higher levels of wellness (Pender, Murdaugh, & Parsons, 2002). The main objective of the HPM is not just about prevention of diseases alone but assisting people to pursue better health profile through their behavior (Peterson & Bredow, 2004). This model assumes that individuals attempt to control their behaviors and people strive to improve their behavior and their immediate environment. Finally, the model assumes that health professionals are an integral part of this environment that brings about changes in individual's health behavior.

HPM is founded on four constructs: interpersonal and situational influences, perceived benefits of action, perceived barriers to action, and perceived self-efficacy (Maurer & Smith, 2009; Peterson & Bredow, 2004). Past behavior, cultural norms and family traditions are factors that can influence an individual's ability to participate in health-promoting behaviors (Allender & Spradley, 2007; Clark, 2007). According to this theory, individuals are likely to engage only in behaviors that they believe will yield a positive outcome, and obvious barriers can prevent individuals from engaging in health promoting behaviors (Peterson & Bredow, 2004). Finally, self-efficacy, which raises the confidence level of an individual, is likely to lead to a commitment to health promoting activity (Clark, 2007).

Researchers have utilized HPM to study different populations. Elliott-Brown, Jemmott, Mitchell, and Walton (1998) applied HPM to determine why other groups are more financially stable than black women in California. HPM has also been employed to investigate the instances and circumstances of farming accidents among children (Conway, McClune, & Nosel, 2007). Thanavaro, Thanavaro, and Delicath (2010) used the HPM constructs of individual characteristics and cognitive behaviors to develop an instrument to measure knowledge about coronary heart disease for women only.

Health Belief Model

The social psychologists Hochbaum, Rosenstock, and Kegels developed the HBM in the 1950s as a means of understanding health-seeking behaviors (Maurer & Smith, 2009; Tanner-Smith & Brown, 2010). This theory specifically emanated from work designed to identify why a very limited number of people participated in disease prevention and detection programs (Glanz & Bishop, 2010; Sahin, 2011). The HBM is centered on how an individual perceives a problem and the benefits, barriers, and factors that influence the decision to adopt a specific behavior. The major constructs of this model are perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy (Fertman & Allensworth, 2010). According to this model, the decision to act or not to act to change a health behavior results from an individual's evaluation of these constructs (Fertman & Allensworth, 2010; Sahin, 2011). This model considers other factors such as age, gender, and personality as likely motivating factors for behavioral changes.

Previous studies have used HBM to establish relationships between health beliefs and health-related behaviors and to design interventions that are culturally appropriate (Glanz et al., 2008). Strobele et al. (2011) used the HBM to examine the predictors of intention to reduce stroke risk in a sample of at-risk population, identifying knowledge of stroke, beliefs in respect of stroke, demographic variables, and self-efficacy as predictors. Yoo, Kwon, and Pfeiffer (2013) also used the HBM to determine obstacles to colorectal cancer screening among Koreans.

Hodgson (2005) adopted a community-based project known as the beauty shop stroke education project (BSSEP) to deliver stroke education to African American women who were at an elevated risk of stroke. The BSSEP was designed with the constructs of HBM. The emphasis of the intervention was to increase their knowledge and awareness of the risk factors of stroke such as alcohol consumption, smoking, lack of physical activity and diet (Hodgson, 2005). The HBM predict that they are likely to adhere to a healthy lifestyle if they feel susceptible to suffering from stroke and the disease is severe because it is very dilapidating (Hodgson, 2005).

The choice of HPM and HBM as theoretical foundations was based on the fact they provided the roadmap for designing the structure and questions for this study. Cultural worldviews, an individual's past, and the environment are factors that are capable of influencing health care beliefs. This ethnographic study was designed to explore multicultural dimensions such as the interaction between societal, organizational, and interpersonal factors in relation to perception of stroke risks in male West African immigrant population in San Diego, California. Consistent with the HBM, I explored the

perceptions, beliefs and lived-experience of West African male immigrants in respect of stroke risks. Further, since this population is understudied, one of the goals of this study was to investigate if these models can be applied to an understudied population and more importantly if the findings of this study may inform more studies of other minor ethnic groups in the U.S. in respect of the same phenomenon.

Incidence of Stroke Among African Immigrant Male Adults

Although there has been a steady decline in the incidence of stroke in the white population in the U.S since in the 1950s, racial disparity in the burden of stroke continues to persist among ethnic minorities (Ellis et al., 2009; Gezmu et al., 2014; Howard, 2013). Stroke disparity is highest in the African-American neighborhood than in the white population (Butler-Ajibade, Booth, & Burwell, 2012; Howard, 2013). Most of the available studies only focused on African descent born in the U.S. the oversea born Africans represent a small fraction of this group (Vaughan & Holloway, 2010).

Studies have documented the high prevalence of stroke among African-American men in comparison to other white male population in the U.S. (Butler-Ajibade et al., 2012). Bravata, Wells, Gulanski, Kernan, Brass, Long, & Concato (2005) analyzed a data from the third national health and nutrition survey (NHANES III) from 1988-1994, which included blacks and whites aged 40 years or older. There were 11,163 participants. Data analysis was conducted with SAS computer software. Findings showed a high prevalence of stroke among African Americans. Blacks had an elevated five risk factors that were independently linked to stroke: hypertension, diabetes, claudication, higher C-reative protein, and insufficient physical activities. While older age, myocardial infarction, and

lower high-density lipoprotein cholesterol were the three identified risk factors associated with whites (Bravata et al., 2005). According to this study, the blacks in the U.S. have a higher rate of stroke, suffer more severe stroke, and higher mortality rate of stroke than whites (Bravata et al., 2005). These ethnic disparities in stroke related issues are associated with income. From the multivariable analysis, after adjustment, income was independently associated with stroke (OR: 0.89; 95% CI: 0.82 - 0.95). Although the educational level was adjusted, it did not alter the ethnicity–stroke association and education was not independently associated with stroke (Bravata et al., 2005). The authors noted that variations in income between blacks and whites might contribute to ethnic disparities in stroke incidence and outcomes (Bravata et al., 2005).

Gillum and Mussolino (2003) conducted an epidemiologic follow-up to investigate whether racial disparity contributes to the high prevalence of stroke among blacks than whites. Data for this study was obtained from individuals who participated in the first national health and nutrition examination survey (NHANES 1). A total of 7,895 subjects both whites and blacks aged 45 to 74 years were included in the analysis (Gillum & Mussolino, 2003). Participants had never suffered from stroke at baseline. In using educational attainment and poverty index, findings showed that individuals with low socioeconomic status such as the blacks are at an elevated risk of suffering from stroke (Gillum & Mussolino, 2003).

Further, mortality statistics was used to emphasize the high incidence of stroke among blacks in the U.S. (Howard, 2013). The stroke mortality rate in the black population is higher than whites in the population aged <65 years. In this age bracket,

there is a black/white mortality ratio of 3.7 among male adults between 45 to 54 years. However, the black/white mortality ratio changes with advance in age in both female and male. Until ages ≥ 85 years, mortality rate in whites becomes lower than whites (Howard, 2013).

Dassanayake et al. (2011) conducted a literature review to investigate the risk of cardiovascular disease: myocardial infarction (MI) and stroke among immigrant populations. Studies published between 1986 and 2008 were reviewed for this study. While 58 studies were identified, only 12 satisfied the inclusion criteria. Findings indicated that there is an increasing risk of myocardial infarction among the immigrant population in different host countries (Dassanayake et al., 2011). However, among ethnic minorities in the U.S., Chinese and African immigrants have a higher rate of stroke mortality, which are associated with genetic and environmental factors (Dassanayake et al., 2011).

Wild (1997) conducted a cross-sectional analysis of death by country of birth in England and Wales, from 1970 to 1992. The author used information from death records within this time frame. The records showed that mortality rates caused by cerebrovascular disease from 1970 to 1992 were higher among Caribbean immigrant men (394 per 10,000) and women (463 per 10,000) in comparison with the U. K. men (195 per 10,000) and women (206 per 10,000) populations (Wild, 1997). However, between 1989 to 1992, the mortality rate of stroke was higher among West African immigrant men (271 per 10,000) and women (181 per 10,000) compared with the U. K. men (100 per 10,000) and women (100 per 10,000) populations.

Socioeconomic Status and Stroke

Studies have documented the association between socioeconomic status (SES) and the high prevalence of stroke (Bravata et al., 2005; George et al., 2011). Increased occurrence of stroke has been reported among those of lower SES (Howard, 2012). Kleindorfer, Lindsel, Alwell, Moomaw, Woo, Flaherty, Khatri, Adeoye, Ferioli, and Kissela (2012) investigated the interrelatedness of poverty with stroke. The data for this study was obtained through the census tract information of the U.S. Census bureau. After the inclusion and exclusion criteria had been satisfied, there were 1895 ischemic stroke cases for analysis. 22.0% were blacks, 52.2% females, and the median age was 71 years. A univariate analysis was conducted using the Median National Institutes of Health Stroke Scale and the results showed when compared with the richest category, the poorest community socioeconomic status was significantly associated with stroke by 1.5 points (95% confidence interval, 0.5-2.6; $p<0.001$). However, the scale increased to 2.2 points in after adjustment for demographics and comorbidities was made (Kleindorfer et al., 2012). The study concluded that poverty was significantly associated with stroke severity because of lack of access to care, medication, and cultural factors (Kleindorfer et al., 2012).

Redon et al. (2012) used WHO data from 35 countries in Europe and Central Asia to investigate the association of SES with stroke. Between 1990 and 2006 the mortality rates of stroke decreased in countries with very high economic standard of living, while countries whose economy were in shambles in the same period witnessed a substantial increase (Redon et al., 2012). In South Korea, decreased income of public servants was

associated with increased incidence of stroke. Result of the study indicated that poverty reduces access to health care services and increases health risks (Jun-Choi, Khang, & Cho, 2011).

Howard, Kleindorfer, Judd, McClure, Safford, Rhodes, Cushman, Moy, Soliman, Kissela, and Howard (2011) used the data from the Greater Cincinnati/Northern Kentucky stroke study to investigate the correlation of SES and the incidence of stroke among blacks and whites. The analysis included 27,744 men and women with no prior history of stroke (40.4% black), aged ≥45 years (Howard et al., 2011). The findings indicated that communities with lower SES was found to have significant correlation with higher incidence of stroke. This outcome is the same as both blacks and whites with lower SES (Howard et al., 2011).

In the U.S., ethnic and racial minorities are more vulnerable to poor health status than the larger population. They are more likely to be poor, which illustrates the relationship between poverty and health (Maurer & Smith, 2009). African Americans are more economically disadvantaged than whites. In 1999, the median family income for blacks was $33, 255 as against $53, 356 for whites (Bravata et al., 2005). This has placed them at the lower level of the socioeconomic ladder and at high risk for stroke and other chronic diseases (Butler-Ajibade et al., 2012).

Risk Factors for Stroke

In addition to genetic factors, there exist some modifiable risk factors that contribute to the high incidence of stroke among African immigrants (Donkor et al., 2014). Sacco, Ellenberg, Mohr, Tatemichi, Hier, Price, and Wolf (1998) conducted a

prospective study of 1805 stroke patients of the national institute of neurological and communicative disorders and stroke data bank. The authors used clinical history, examination, and results of laboratory test for diagnosis. They concluded that modifiable risk factors, such as hypertension, high cholesterol, diabetes, diet, and inactivity accounted for approximately 50% of stroke risk. While the remaining 50% is accounted for by other risk factors including genetics (Sacco et al. 1998).

Beckerman (2013) in an attempt to answer the question, why hypertension, also known as high blood pressure is common among African Americans arrived at the following conclusion. High incidence of high blood pressure in African Americans might be attributable to genetic composition of individuals of African ancestry. Previous studies conducted in the U.S. stated that as a result of genetic make-up, blacks in contrast to whites respond differently to drugs used in the treatment of high blood pressure (Beckerman, 2013). Further, blacks in the U.S. as a result of their genetic make-up, appear to be more sensitive to salt, which enhances the prospect of developing high blood pressure (Beckerman, 2013).

Many health scientists have concluded that modifiable health-related behaviors such as use of tobacco and alcohol, utilization of social support, safety practices, and annual medical check-ups can influence health and span of life of individuals (Mahalik, Burns, & Syzdek, 2007). Also, hypertension, high cholesterol, diabetes, poor nutrition, and lack of physical activity are risk factors that can be prevented by behavioral changes (Bravata et al., 2005; Donkor et al., 2014; Sullivan et al, 2009). Hypertension is a significant predictor of stroke (Donkor et al., 2014). Beune, Haafkens, Schuster, and

Bindels (2006) conducted a study to investigate how Ghanaian immigrants in the Netherlands perceived hypertension. This group of immigrants saw hypertension as closely associated with the stress of migration to a foreign land (Beune et al., 2008). The respondents also expressed concern about the social stigma associated with hypertension, which further aggravates the health outcome of hypertension (Beune et al., 2008).

Dassanayake et al. (2011) in a literature review of cardiovascular risks among immigrants highlighted the fact that the high incidence of stroke among African immigrant population in the U.S. is largely attributed to the prevalence of hypertension. Some other modifiable risks apart from hypertension that can perpetuate the elevation of the risk factors of stroke among native-born African immigrants are change of environment, urbanization, and acculturation, increased food consumption with high intake of salt and saturated fats may further increase the (Dassanayake et al., 2011).

Gezmu et al. (2014) in an attempt to examine stroke risk differences in four racial/ethnic groups analyzed data on 3290 stroke patients at New Jersey Neuroscience Institute at John F. Kennedy (JFK) Medical Center in Edison, New Jersey. These groups consisted of Whites (65.5%), African Americans (18.4%), South Asians (8.3%), and South Asians (7.8%). Half of the patients in the cohort were women and they were significant differences in age by ethnicity. The patient's analysis were conducted against the background of the following predictive factors of stroke; age, gender, race/ethnicity, obesity, diabetes mellitus, hypertension, and cardiac diseases (Gezmu et al., 2014). The researchers used logistic regression to evaluate the association of these risk factors with the occurrence of stroke in each of the four ethnic groups selected for the study. Findings

indicated a very strong correlation of hypertension with the occurrence of stroke in all the four ethnic groups (Gezmu et al., 2014).

Considering the disproportionate burden of stroke among racial minorities, Blixen, Perzynski, Cage, Smyth, Moore, Sila, Pundik, and Sajatovic (2014) adopted a focus group approach to gather information from10 African American men to identify the modifiable risk factors of stroke. The participants were below 65 years of age who have experienced stroke previously. One of the themes identified was stress as a contributor to stroke. Some participants stated that being identified as an African American man is itself very stressful because of stereotyping and labeling (Blixen et al., 2014). While most of the participants identified lack of knowledge of the risk factors and limited knowledge in respect of stroke-related terms as barriers (Blixen et al., 2014).

Knowledge of Risk Factors of Stroke

From the gender perspective, women generally have better knowledge of warning signs of stroke than men. Stroebele et al. (2011) conducted a literature review of all published studies from 1949 to 2008 and 20 studies out of 158 were reviewed to ascertain knowledge of stroke risk factors and warning signings from a gender perspective. The results revealed that, although there is a general lack of knowledge in both genders, men in comparison to women have less knowledge and women appears to have more knowledge of evidence-based risk factors than men (Stroebele et al., 2011). In studies conducted in the U.S. about 80% and 86% of the participants were able to name at least one risk factor associated with stroke. However, only a few participants in the majority of the studies were able to identify two risk factors (Stroebele et al., 2011).

One possible explanation for this variation is that women often take advantage of physician's office visit than men (Waller, McCaffery, & Wardle, 2004). Blocker, Romocki, and Thomas (2006) in a qualitative study interviewed 15 and 14 American women and men respectively. The result of the findings showed that women are more keen about their health than men. The women stated that most African American men tend to overlook their own needs so as to focus on the needs of the family. The women stated that it was their responsibility to motivate the men to seek preventative care (Blocker et al., 2006).

In comparison to whites, ethnic minorities in the U.S. have limited knowledge of risk factors and warning signs of stroke and are more likely to have a two-fold increased risk of stroke (Blixen et al., 2014; Donkor et al., 2014). Ellis et al. (2009) conducted a pilot study to measure the awareness of stroke among Latinos in Charleston South Carolina. The participants were 60 Latino adults selected by convenience sampling. Information on age, sex, educational level and length of residency were collected and controlled. Data was collected using closed-ended questions to examine their recognition of the four warning signs of stroke; sudden facial and arm/leg numbness, sudden vision loss, sudden difficulties in walking, and sudden acute headache (Ellis et al., 2009). Only 17% of the participants recognized all the four warning signs. Scores on each of the warning sign were all below 50% and above 35%. The results from this study suggested that knowledge of warning signs of stroke was very low in this population with an elevated risk of stroke occurrence (Ellis et al., 2009).

It is very interesting that the poor knowledge of stroke among African immigrants is not just in the U.S. alone. Ryan (2010) analyzed the 2005 health survey for England and Wales to determine stroke knowledge among British ethnic minorities. The survey demonstrated that ethnic minorities who are at risk of stroke due to increased incidence of high blood pressure fared poorly even in their knowledge of dealing with high blood pressure. The findings concluded that in the U. K. black immigrants from Africa and other minority ethnic groups because of their limited knowledge of the risk factors of stroke are very susceptible to suffering from stroke than the dominant population (Ryan, 2010). This development has made the African immigrant communities high-risk communities for stroke and other chronic diseases (Blixen et al., 2014; Ryan, 2010).

Wahab, Kayode, and Musa (2015) utilized a cross-sectional design to investigate the knowledge of risk factors of stroke of Nigerians. Having the capability of mentioning at least one well-known modifiable risk factor of stroke was the outcome measure. The result showed that only 39.8% identified at least one risk factor. Age (<55 years), level of education, urban residence, and family history of stroke were factors that were significantly associated with the ability to identify one risk factor of stroke. A similar study conducted in Ghana, West Africa reported very low community knowledge of stroke risk factors (Donkor et al., 2014).

Influence of Culture on Health Beliefs and Practices

In order to appreciate the cultural perception of health and health practices among ethnic/racial minority groups like West African immigrants, it is significant to consider the impact of culture on health and health practices. The effects of culture on health

beliefs of African immigrants have been overlooked (Kimbrough, 2007; Shaw et al., 2008). Available studies only focused on African descent born in the U.S., the oversea born Africans represent a small fraction of this group (Vaughan & Holloway, 2010). Consequently, not much is known about the correlation of culture and health beliefs and practices of West African immigrants in the U.S. (Vaughan & Holloway, 2010).

Ethnic minority cultures offer an explanation as to the cause of illness or disease, mode of treatment, and who should participate in the process (Chukwuneke, Ezeonu, Onyire, & Ezeonu, 2012; Clark, 2007). These cultural values have both direct and indirect impact on health and health beliefs (Clark, 2007). Direct effects emanate from specific culturally prescribed practices in relation to health and illness, diet and food. Many cultures have well-known practices of how to prevent illness and promote health or seek healing in the face of illness (Maurer & Smith, 2009). Food and diet plays a significant role in treating illness among Africans. For example eating tapeworms can prevent or be used in treating sore throats and measles (Simmelink, Lightfoot, Dube, Blevians, & Lum, 2013).

These cultural nuances also affect health indirectly taking into cognizance the cultural definitions of health and illness, and the cause of illness or disease (Clark, 2007). Cultural definitions of health is a parameter for determining which health conditions needs to be considered and those that should be ignored (Clark, 2007). For instance, if certain behaviors are diagnosed as mental illness by health professionals are seen as normal in the culture of the client, then the client might decline to take any action to deal

with such behaviors (Clark, 2007). Further, if health is narrowly defined in respect of one's ability to work, then minor illness might be ignored (Clark, 2007).

Many African cultures have different perceptions of what causes disease or illness (Chukwuneke et al., 2012). Based on these perceptions, they provide explanations that address causation, symptomatology, and appropriate treatment (Maurer & Smith, 2009). In the African worldview, illness is seen as a disharmony, which is primarily attributed to demons and evil spirits, and supernatural phenomena (Ehiwe, McGee, Thomson, & Filby, 2013; Olaitan, Odesina, Ademola, Fadiora, Oluwatosin, & Reichenberger, 2014; Simmelink et al., 2013).

Tenkorang, Gyimah, Maticka-Tyndale, and Adjei (2011) found that Ghanaian patients living with HIV belief in witchcraft and superstition as the cause of ailment and disease. Likewise, Donkor et al. (2014) conducted a cross-sectional study involving 63 households consisting of 693 respondents in Accra, Ghana. Data on stroke awareness was collected from respondents with a structured questionnaire. Logistics analysis was conducted to identify predictors of the outcome variables such as knowledge of the risk factors of stroke and the belief of the cause of stroke. The results showed that 26% (=180) beliefs that stroke is caused by evil spirits or witches (2014). This is why prayer and other spiritual interventions are common methods of treating illness among Africans (Vaughan & Holloway, 2010).

Since religion and spirituality plays a significant role in cultural beliefs and practices, it is easy to see the interrelatedness of culture and religion (Ehiwe et al., 2013; Vaughan & Holloway, 2009). Chukwuneke et al. (2012) found that among Nigerian

immigrants, spirituality, and traditional health practices were deeply ingrained in their health beliefs, values, and practices and this has influenced their health seeking behaviors. Cultural practices and religion have a central role in the lives of the Yorubas, a major ethnic group in Nigeria, West Africa. Although, many of them are Christians or Muslims, they never completely gave up their practice of worshiping their different local deity such as Sango, the god of thunder, and the god of river known as yemoja, and ogun, god of iron (Olaitan et al., 2014).

In a qualitative study conducted by Simmelink et al. (2013), the participants who are immigrants from East Africa stated that Christian and Islamic tenets that frown against unhealthy behaviors such as smoking, drinking of alcohol and drug use can minimize or prevent high blood pressure, hypertension, and diabetes. The participants were all in agreement on the theme of the significance of the role of prayers and religious values in promoting good health (Simmerlink et al., 2013). The findings highlighted the fact that all these practices and beliefs help in refining their perceptions of the likely cause of illness and remedies (Simmerlink et al., 2013).

Voodoo is another belief system that is an integral part of the health beliefs of African immigrants though not as profound as before due to the emergence of strong religious practices and values (Spector, 2004). Olaitan et al. (2014) found that many Africans still have a genuine fear of voodoo or juju and believe that when they are ill, they have been fixed or a spell has been cast on them. To prevent illness or ward off of demonic attack some resort to the use of pleasantly scented powder, oil, and burning of incense to keep the bad spirit away (Spector, 2004). While some seek divine protection

through prayers by placing everything in the hands of a higher power (Ehiwe et al., 2013; Simmelink et al., 2013).

The Health of West African Immigrant Population

The health of most West African immigrants on arrival in the U.S. appears to be in a better state than their U.S. counterparts (Lucas, Barr-Anderson, & Kington, 2003; Mason, Kaufman, Emch, Hogan, & Savitz, 2010; Venters & Gany, 2009). Although with peculiar health problems most especially infectious diseases, African immigrants still have better health profiles, and lower rates of obesity, and chronic conditions than African Americans (Dassanayake et al., 2011; Venters & Gany, 2009). This phenomenon known as healthy migrant effect is determined by some factors.

In 2010, approximately 70,000 refugees from East Africa settled in the U.S. (Murray et al., 2013). These refugees are from war-torn countries and most have been exposed to war trauma and experienced different types of violence including sexual violence (Simmelink et al., 2013). Prior to migration, some spent several years in refugee camps, which were not very habitable under very harsh living conditions such as limited access to clean drinking water, inadequate nutrition, diseases and ongoing violence in and around the refugee camps (Simmelink et al., 2013). As a result of this development, most of these refugees arrived in the U.S. with pre-existing physical and mental health conditions (Simmelink et al., 2013).

Unlike most East African immigrants who came to the U.S. as refugees (Murray et al., 2013; Simmelink et al., 2013), majority of Anglophone West African immigrants from Ghana and Nigeria had to undergo a stringent formal visa application process

(Vaughn & Holloway, 2010; Venters & Gray, 2009). These individuals who choose to migrate are young, educated, skilled and marketable in the labor force, essential characteristics that qualifies them to be issued a traveling visa to the U.S. (Venters & Gary, 2009). In addition, the distance between Africa and the U.S. constitutes an immigration barrier and so entry into the U.S. has to be by a legal process through visa application. This screening process makes them highly selected and healthier than other immigrant groups, such as the Latinos (Akresh and Frank 2008).

In addition to immigration status that provides possible explanation to healthy migrant effect of foreign-born West African immigrant men, other factors might highlight this development. Singh and Siahpush (2001) identified sociocultural variables as determinants of better health profiles of Immigrant men than their host counterparts. For instance, African immigrant men in comparison to U. S born blacks have a very low rate of smokers, which may be characterized by strong cultural values that frowns at smoking (Singh & Siahpush, 2001). Also, the findings of this study identified social networking and affiliation among African immigrants as contributors to better health status (Singh & Siahpush, 2001).

However, after a while, they begin to experience adverse health outcomes such as increased risk of stroke (Dassanayake et al., 2011). Dietary acculturation in the host country is one of the contributing factors to the adverse health outcome of most African immigrants (Simmelink et al., 2013). A study was conducted among Nigerian and Ethiopian immigrants by Okafor, Carter-Pokras, and Zhan (2014) to investigate the relationship between dietary acculturation and adverse health outcomes. Evidence

suggested that adopting to the dietary pattern of the host country after six months led to an increase in body mass index. The authors used baseline information from a longitudinal study of immigrants to determine health outcomes due to dietary acculturation. All 60 participants indicated that they ate low-fat, higher-fiber diets in contrast to high fat, processed food, low fiber diets in the U.S. (Okafor et al., 2014). Many of the participants lived below the federal poverty level and this limit their healthy food options. According to the findings of this study, African immigrants that reported moderate dietary changes had higher potentials of negative health outcomes than immigrants who reported minimal dietary change (Okafor et al., 2014).

Also, this negative health outcome of Anglophone immigrants after their arrival in the U.S. has been attributed to environmental factors such as stressful lifestyle and greater modernization (Dassanayake et al., 2011). Vaughn and Holloway (2010) conducted a qualitative study with the aim of understanding the health of children and families of West African immigrants. In-depth narrative interviews were used to gather information from parents. On of the themes was environmental stressor associated with acculturation. The participants named enhancing English skills, job opportunities, shelter, assimilation into the new environment and dealing with new culture as stressors for the immigrants on arrival in the U.S. (Vaughn & Holloway, 2010).

Previous studies on African-born immigrants focused mainly on infectious diseases such as HIV, and TB (Venters & Gany, 2009) and chronic disease such as cancer (Ehiwe et al., 2013; Hurtado-de-Mendoza, Song, Kigen, Jennings, Nwabukwu, & Sheppard, 2014; Odedina, Yu, Akinremi, Reams, Freedman, & Kumar, 2008). More

information needs to be gathered about the knowledge of the risk factors of stroke, which is poorly understood among African immigrants in the U.S. (Adoukonou et al., 2012).

Folk Medicine

Folk medicine is indigenous to many cultures, and it is widely utilized in the U. S and different parts of the world (Maurer & Smith, 2009; Shaw et al., 2008; Spector, 2004). Folk healers are found in different settings be it rural and urban communities, migrants to a different or new locale can often find a healer and remedies that are peculiar to their cultural group (Maurer & Smith, 2009; Spector, 2004). The services provided by the folk healer varies and may include diagnosis, prevention and treatment of ailment, interpretation of signs, prayers, use of amulets, and exorcisms (Spector, 2004). This accounts for the fact why traditional healers exert so much influence in the African immigrant communities (Olaitan et al., 2014).

The practice of folk medicine has been transmitted from one generation to another, and many are in common use today. Folk medicine is mostly herbal in nature, and the customs and rituals related to the use of these herbs are significantly different among ethnic groups (Spector, 2004). Simmerlink et al. (2013) used 2 focus groups to interview 15 African immigrants (10 men and 5 women) in respect of their perceptions and beliefs about the cause of disease and treatment. The findings indicated that many African immigrants continue with the practice of using herbal medication in the prevention and treatment of illness (Simmerlink et al., 2013). One of the participants remarked that the use of folk medicine has a placebo effect because this type of treatment is reliable and culturally significant (Simmerlink et al., 2013).

Also, studies conducted outside the U.S. highlights the role of folk medicine in the health beliefs of African immigrants. Ehiwe et al. (2013) used a qualitative approach to examine the health beliefs and knowledge and perceptions of cancer among two English speaking African immigrants in the United Kingdom. From the Nigerian and Ghanaian communities, 30 men and 23 women were recruited and focus group approach was used to collect data. One key finding from the study is that majority of the participants acknowledged the significance and role of herbal medicine in the health practices of Africans both at home and away (Ehiwe et al., 2013).

Similarly, Barimah and Teijlingen (2008) surveyed over 500 Ghanaians immigrants in Canada in respect of their beliefs of traditional medicine. Mixed method design was used in this study. In addition, three focus groups of nine participants each were used in the study. The purse of the study was to determine if the health beliefs system has changed because of their interaction with the culture of the host country. The results revealed that 75% still have very positive disposition to their country of origin beliefs in traditional medicine and practices (Barimah et al., 2008). Statistic analysis showed that the length of stay has no significant impact on their attitudes to traditional medicine. This same view was expressed in the focus groups. In fact, majority of the participants in the focus group stated that any time they visit Ghana, they bring back herbal medicines with them. They few that have changed their attitude to herbal medicine was based on hygienic premise (Barimah et al., 2008).

However, opinions varied of the effectiveness of folk medicine in the treatment of hypertension, cancer and other chronic diseases (Ehiwe et al., 2013). In similar studies,

participants expressed growing concern that the effectiveness of African herbal medicines is not scientifically proven (Olaitan et al., 2014; Simmerlink et al., 2013; Vaughn & Holloway, 2010). Since this is a significant part of the life of African immigrants that directly or indirectly determines their health, it thus become imperative to conduct more studies (Venters & Gany, 2009).

Utilization of Health Care by African Immigrant Men

Lucas et al. (2003) used information from national health interview survey from 1997- 2000 to examine the utilization of health care services by immigrant African men. The findings indicated that oversea-born black men in comparison to U.S.-born blacks were in better health and were more less likely than U.S.-born black or white men to utilize health care services. Consequently, they are at lower odds of taking advantage of preventive services (Lucas et al., 2003).

In 2011, the Rhode Island department of health over a period of 2 years conducted 5 focus groups to evaluate their attitudes toward the utilization of health care services and their perception of U.S. health care system. The groups consisted of 30 women and 15 male participants. The first two groups were only women, the third group was made up of men only, and the last two groups were mixed. The female participants expressed their willingness to utilize health care when needed but since they have no health insurance, they cannot take advantage of preventive services (RIDH, 2011). The men on the other hand, had a mixed response. The male participants stated that in Africa, many young people do not have the habit of going to the hospital. Many of them mentioned that although they have been in this country for over 15 years, they seldom go the hospital

except when they observed symptoms of an ailment (RIDH, 2011). Also, the findings suggested that oversea-born male participants decision not to utilize health care until they are sick is associated with an age-long African culture and practice.

Summary

Studies in respect of the incidence of stroke among immigrant population has helped me to realize that ethnic/racial minorities in the U.S. are very vulnerable to suffer from stroke as their counterparts born in the host country (Dassanayake et al., 2011; Donkor et al., 2014; Wahab et al., 2015) Also, many immigrants to the U.S. do not have the culture of seeking preventive services in their home country. Africans normally go the hospital for treatment only when they are seriously ill (Ehiwe et al., 2013; Wahab et al., 2015). Many Africans and other cultures in developing countries have not developed the habit of protecting health but rather attending to health when the need arises (Wahab et al., 2015). In the course of conducting the literature review, I discovered that some immigrants brought this cultural health belief and patient behavior from their native countries to the U.S. and other host countries (Barimah et al., 2008; RIDH, 2011; Shaw et al., 2008). This maladaptive health behaviors that limit these groups from participating in disease prevention programs might be corrected through research.

Considering the diverse nature of this society, it thus become imperative to conduct a comprehensive study of this subject so as to ascertain which preventive services will be appropriate for this under studied population. Before 1940 majority of the immigrants to the U.S. came from Europe; Germany, Ireland, Latvia, Austria, Hungary and the former Soviet Union. Since 1949, the demographics of migration has changed

and most immigrants are from Asia, South America and Africa (IPC, 2012; Purnell, 2009). All these immigrants brought with them their culture and thereby increasing cultural diversity in almost all the settings in the U.S. (IPC, 2012; Purnell, 2009). Understanding the cultural health beliefs and practices of West African male immigrants in relation to stroke, will help health care providers caring for this group to collaborate with community leaders of the immigrant communities in San Diego to maximize appropriate use of preventive services.

Conclusions

While it is true that Anglophone West African immigrants are integrated in the American population (Thomas, 2011), the literature review for this study has demonstrated that not much is known about their knowledge and understanding of the risk factors of stroke based on their cultural health beliefs and practices. They are very sparse studies that focused solely on adult males from Ghana and Nigeria nationally and non locally. Studies have documented that increased awareness of the risk factors of stroke among groups that are susceptible to the occurrence of stroke can promote compliance with practices that will lead to the prevention of stroke (Blixen et al., 2014; Donkor et al., 2014). Also, few studies have examined the relationship between health beliefs and health outcomes among native-born African male immigrants (Barimah et al., 2008; Simmerlink et al., 2013).

Murray et al. (2013) pointed out that notwithstanding the fact that immigrants from Africa constitute one of the largest refugee communities in San Diego, they are very few research and outreach specifically focusing on the health of this underserved

population. In this study, I attempted to fill this gap by addressing this disparity. Understanding the cultural beliefs and practices of this population might provide an insight in respect of their perceptions of the possible cause of a disease and a possible line of treatment. Knowledge that is gained from this study will contribute to developing culturally appropriate health promotion programs that will minimize the incidence of stroke in this population. It is hoped that the knowledge gained from this study will help in developing outreach programs that will encourage the study group's utilization of preventive services in San Diego.

Detailed information on the methodology of this study, which is designed to explore the perception of stroke risk factors of oversea-born Anglophone male immigrants, the study population, procedures adopted in recruiting samples will be the focus of chapter 3. In addition, the chapter will contain information on data gathering and analysis protocol, the survey instruments, approaches that will be used for the ethical protection of the study participants.

Chapter 3: Research Method

Introduction

The purpose of this study was to qualitatively explore the cause of and the mode of treatment that might prevent or contribute to the incidence of stroke among foreign-born English speaking male immigrants living in San Diego, California from a cultural perspective. In the last decade, there has been a rapid increase of different groups of immigrants in the U.S. (Thomas, 2011). One such group is the immigrant population from West Africa (Thomas, 2011; Venters & Gany, 2011). As this precedent of migration continues, it has become increasingly important to investigate the ethnic differences of their knowledge and perception of stroke risk factors so as to plan for culturally appropriate prevention strategies that will minimize the incidence of stroke in this population. It is important that health care providers who provide services to this population be aware of their cultural differences and perceptions so as to enable these individuals to benefit from the most appropriate health care services.

In this chapter, the research design and rationale was presented as the framework for conducting this study. It is becoming increasingly important that research studies be founded on sound rationale and a clear understanding of the research questions (Creswell, 2013; Speziale & Carpenter, 2007). Also, the strategies of how data will be generated, managed, and analyzed was discussed in this chapter. Further, the trustworthiness of the study with emphasis on credibility, dependability, confirmability, and transferability of the results was discussed in detail. Finally, the role of the researcher and ethical protection of study participants was discussed in the next sections of this chapter.

Research Design and Rationale

I utilized a qualitative methodology to explore the perceptions of stroke risk factors of oversea-born African male immigrants, ages 18 years and above living in San Diego, California. This study was designed to answer the following research questions:

RQ1: What are some of the cultural beliefs that West African-born male immigrants residing in San Diego hold that may influence or impede their health care decisions as far as stroke is concerned?

Three subquestions will further explore this issue. The subquestions are: Subquestion1: What are the perceptions of West African-born male immigrants of the spiritual power of ancestors as a cause of stroke and source of healing?

Subquestion2: What is the perceived understanding of voodoo in determining the health status of West African-born male immigrants living in San Diego?

Subquestion3: What are the perceived beliefs and customs of folk medicine and home remedies of Western African-born immigrants in San Diego that might promote or deter the utilization of health care services in the prevention of stroke?

RQ2: How do these cultural beliefs influence the West African-born male immigrants residing in San Diego in their understanding and knowledge of the risk factors of stroke?

The following phenomena were explored in this study: (a) knowledge of risk factors of stroke (b) health beliefs, and behaviors, (c) folk medicine and home remedies, and (d) utilization of health care services by foreign-born West African immigrants in

San Diego, California. Previous studies on African-born immigrants have shown that different cultural variables such as cultural beliefs, attitudes, and values influences the understanding of the cause of illness, and mode of treatment, and health seeking behaviors of cultural groups (Donkor et al., 2014; Ehiwe et al., 2013; Lucas et al., 2003; Simmelink et al., 2013). Since foreign-born male immigrants from West Africa have not been studied in the same context, I examined the perceptions of the risk factors of stroke in this community so as to better understand if culture supports or impede the utilization of health care services.

The choice of a qualitative design instead of a quantitative design was made because a quantitative research paradigm would not have appropriately answered the research questions. Quantitative designs are most appropriate for measuring effects through trends and frequencies and examining relationships among variables ((Creswell, 2009; Polit & Beck, 2012; Schmidt & Brown, 2009; Sheperis et al., 2010). A qualitative design, on the other hand, is used to explore and describe the meaning of a phenomenon as experienced by the participants (Creswell, 2013; Speziale & Carpenter, 2007), which was the purpose of the study. In addition, an important element of this study was that multiple perspectives exist and create meaning for the individuals studied; because this is a hallmark of qualitative research, this further motivated the choice of this methodology (Speziale & Carpenter, 2007).

A qualitative design was most appropriate because in this study, emphasis was on words rather than numbers, and on understanding and giving meanings to a phenomenon (Schmidt & Brown, 2009). Patton (2002) stated that a qualitative paradigm is often the

most appropriate methodology of inquiry for groups or topics that have been sparsely studied. Since the focus population was not well studied like other minority groups in the U. S. (Venters & Gany, 2011), it was logical to begin with a type of qualitative research method. Also, since my research questions were descriptive and exploratory questions, in contrast to quantitative research, which is deductive by design, qualitative research was the most suitable methodology because it is more inductive and exploratory (Creswell, 2013; Schmidt & Brown, 2009). Also, my choice of this approach was based on the fact that data was collected in a naturalistic setting. Interviews were conducted in the participants' local church.

An ethnographic approach was utilized in this study. Ethnography is the research tradition in the field of anthropology that holistically provides the framework for studying the meanings, patterns, and experiences of a definite cultural group (Speziale & Carpenter, 2007). The emphasis of this approach is understanding the culture of a group of people. This is based on the assumption that every human group evolves a culture that influences and dictates how the members of the group envision the world and the manner in which their experiences are structured (Paton, 2002; Polit & Beck, 2012). The goal of adopting this approach was to learn from this cultural group. Schmidt and Brown (2008) posited that ethnographers embark on fieldwork to learn about the cultural group that draws their interest.

Health care researchers have also utilized ethnographic tradition to obtain information about the health beliefs and practices of cultural groups (Polit & Beck, 2012). In exploring the cultural beliefs and practices of the West African community in

San Diego, I was able to gain an insight into their perception of the risk factors of stroke. Ethnographic investigation can enhance the understanding of behaviors associated with diseases, health, and mode of treatment (Speziale & Carpenter, 2007). Finally, the findings of ethnographic research are rich-in depth and credibility because they are founded on holistic descriptions of the culture being studied (Speziale & Carpenter, 2007; Polit & Beck, 2012).

The Role of the Researcher

The primary role of the researcher in adopting an ethnographic tradition was to learn from the group being studied (Speziale & Carpenter, 2007). To accomplish this, I assumed the role of a participant. The advantage of being a participant observant is the opportunity to access and interpret information from the outsider's perspective (Creswell, 2013; Polit & Beck, 2012). The study of a culture requires a degree of intimacy with the participants who are members of the cultural group. This intimacy can be developed over time and by being involved directly with the participants (Speziale & Carpenter, 2008). Ethnography as a method of inquiry offered me as the researcher the opportunity to conduct studies that deal directly with personal and sometimes intimate experiences of the members of the culture, as noted by Patton (2002).

I also assumed the role of an instrument. Speziale and Carpenter (2007) stated that when anthropologists refer to researcher as an instrument, they are simply highlighting the important role that ethnographic researchers play in identifying, interpreting, and analyzing the culture of the focus group. Researchers primarily become instruments through conducting interview, observation, and the recording of cultural data (Speziale &

Carpenter, 2007). As an instrument, I had opportunities to lend a voice to the population that has been under studied or sparsely studied (Sheperis et al., 2010).

Ethnographic researchers play a significant role in the research because of their position as the primary instrument for data collection and analysis (Sheperis et al., 2010). However, this process can be marred by bias. There was some potential for bias because I am an African Immigrant from the same region as the study participants. To minimize this bias, I maintained a reflective journal in order to prevent my biases from interfering with the research process, as suggested by Polit and Beck (2012) and Sheperis et al. (2010). This process helped me to acknowledge and critically reflect on how my preconceived ideas, personal biases, values, positions, and assumptions might interfere with the data collection and interpretation (Polit & Beck, 2012).

In addition, I was open to self-disclosure of biased values and beliefs as a primary step in bracketing my perceptions. In this respect, I acknowledged my own worldviews, ability to enter the participant's worldview, and high tolerance for ambiguity (Creswell, 2013; Patton, 2002; Polit & Beck, 2012). Further, to check my bias, I tried to validate the importance of the experiences of the participants by active listening and appreciating the participants' experience of the phenomenon being studied (Sheperis et al., 2010).

Methodology

Study Population

Participants for this study were recruited from the oversea-born Anglophone West African immigrants residing in San Diego, California. Considering the vastness and diversity of Africa, immigrants from Ghana and Nigeria were the focus of this study.

According to a report by Immigration Policy Center (2012) the state of California has the second highest number of African-born immigrants (155,000) after New York with approximately 166,000. Participants in this study were male adults from 18 years and older who have lived in San Diego for a period of not less than 2 years and are able to write and speak English fluently.

The participants of this study were recruited through a church and an African food shop, while other sites were excluded. This method was chosen because limited research has been conducted in respect of this population. More so, it is essential to begin research in this population by first developing a rapport with one sample group, individuals mostly from a single church, instead of recruiting many individuals all at once from multiple settings.

Table 1

Cooperating Sites and Sources of Study Participants

Types of Sites	Relationships to Researcher
Pentecostal Christian Church situated on El Cajon Boulevard	None
African food store situated on El Cajon Boulevard	None

Sampling Strategy

To isolate the participants for this study, I utilized snowball or network sampling. Snowball sampling entails using one informant to find another (Brink & Wood, 2010). By inquiring from a few participants who else to contact, the snowball gets bigger and bigger until saturation is reached (Nieswiadomy, 2008). This sampling strategy is divided into two stages. In the first stage, very few participants who satisfy the inclusion criteria are located and interviewed (Nieswiadomy, 2008; Schmidt & Brown, 2008). In the second stage, these sampled participants will in turn identify other key informants who meet the criteria for inclusion (Nieswiadomy, 2008; Schmidt & Brown, 2008). This process of chain referral or snowballing will continue until the required sample size is obtained (Brink & Wood, 2010; Portney & Watkins, 2000). Networking provides the opportunity to readily identify and contact potential study participants (Nieswiadomy, 2008).

Sample Size

The purpose of most qualitative studies is based on the assumption that meaningful experiences can be interpreted and multiple realities can be discovered and

generalization is not a priority (Creswell, 2013; Patton, 2002). This being the case, a small size was appropriate for this study. However, determining the sample size is always a contentious issue because they are no clearly defined rules to determine the sample size for qualitative studies (Sheperis et al., 2010). Polit and Beck (2012) suggested that the purpose of inquiry, the quality of data and the type of sampling strategy should be taken into consideration when determining the sample size. In addition, in lieu of the fact that my study population is homogeneous, a small sample might be adequate. Schmidt and Brown (2008) recommended 6 to 10 participants, a size peculiar to most qualitative studies, while Morse (2001) suggested only 6 participants.

Polit and Beck (2012) pointed out that informational needs should be used to determine the sample size. Hence, the guiding principle of sampling is data saturation, which entails sampling until no new information is obtained and redundancy is achieved when information is consistently repeated (Brink & Wood, 2010; Schmidt & Brown, 2008). Morse (2001) pointed out that if participants are good informants and can effectively recall and communicate their experiences, saturation can be achieved with a relatively small size. I planned on recruiting not less than 10 and probably not more than 20 participants for my study. This plan is based on the understanding that if I did not attain data saturation with 10 participants, then I would invite 10 more individuals who satisfied the inclusion criteria to participate in the study. However, after 8 participants were interviewed, data saturation was attained.

Recruitment

All the participants were recruited from within 100 miles from the city of San Diego, California. I began by adopting a *big net* approach, which is mostly peculiar to ethnographic researchers (Speziale & Carpenter, 2007). This approach involves interacting and building a rapport with the many members of the cultural group to be studied (Polit & Beck, 2012). In utilizing this approach and with the collaboration of community and religious leaders, I was able to meet key informants who served as my link to the inside or other participants. To complement this strategy, through the help and collaboration of the pastor and elders of the church, the study flyers were distributed. In addition, some of the flyers were placed in an African shop patronized by the focus population.

I embarked on the following recruitment strategies for the study participants:

1. The church where the recruitment will take place was identified.
2. The pastor and elders of the church were contacted and provided with relevant information about the study so as to solicit their cooperation (signed a letter of cooperation) and assistance in recruiting the participants.
3. After receiving Walden IRB approval (06-15-0244031), the church pastor and elders were provided with the recruitment flyers for distribution. Also, flyers were distributed in African shop patronized by the study population (see Appendix C).
4. I was contacted by potential participants through email or phone. Those who satisfied the inclusion criteria were sent consent form electronically or by

regular mail. The forms were signed and returned on the day scheduled for the interview.

5. Participants were asked to refer another key informant who meets the inclusion criteria.
6. A friendly reminder was sent to the participant either by mail or text message or phone call at least 2 days before the scheduled date for the interview.

Data Collection and Management

Prior to the recruitment of the participants and data collection, I obtained permission and approval to conduct my study from Walden University Institutional Review Board (IRB; IRB Approval #06-15-0244031). Also, before the commencement of data collection, each of the participants were required to sign an informed consent form, which includes the permission to digitally record the interviews and the outcome of the findings. Ethnographic researchers traditionally collect a variety of data, with in-depth unstructured interviews and observations as the primary methods (Polit & Beck, 2012; Schmidt & Brown, 2008). In this study, the face-to-face interviews format was utilized to obtain information from the participants.

Since my approach was conversational and interactive, I utilized unstructured in-depth interviews that lasted for about 30 minutes to an hour. To ensure that I stayed focused, I developed an interview guide that was clearly categorized and aligned with the research questions (Appendix A). I began by asking a broad question relating to the research topic such as “What is your general idea about stroke?” Subsequent questions were more focused and guided by the responses of the participants to the broad question.

To obtain rich and insightful information, I used probing and prompting questions and remarks such as “That sounds interesting, please tell me about that” and “What is like to be part of this culture?” Knapp (2007) argued that promptings entail interjecting very minimal interjections, which is a demonstration that you are attentive while encouraging the individual to keep telling the story. Despite the time limit for the interview, I deemed the participants’ responses to be sufficient if redundancy occurred and no new information added any depth to what has already been collected.

Creswell (2013) suggested that when an unstructured methodology is adopted in face-to-face interviews, it should take place in a naturalistic setting. Also, the location should be comfortable, accessible, guarantee privacy and confidentiality, and amenable to audiotape recording (Polit & Beck, 2012). Prior to the interviews, I asked the participants to make an input as to what setting will be best for them in terms of comfort, convenience, and suitability. Based on their suggestions, and in conformity with IRB guidelines, the interviews took place in the church office, and a private room in the library.

Interview data was recorded by audio recording device and subsequently transcribed instead of relying on notes. Polit and Beck (2012) caution that notes might be incomplete and is likely to be prone to researcher’s bias as a result of personal views on the issue under study. I created an atmosphere that facilitated the participants to confidently share their experiences and feelings. In addition, the contents of the audiotape were transcribed verbatim and they reflected the experiences of the participants.

All audiotapes and written or transcribed materials were carefully labeled with the date the data were collected. Further, I have back-up copies of the data. Files were created for each participant and stored on my personal computer that can be accessed through password only. All these study materials are secured and locked in a file cabinet in my office until after 5 years when they will be destroyed in accordance with Walden University guideline of handling study data (Walden University, 2010). This includes the destruction of all the instruments used in gathering data by shredding paper copies of instruments, and erasing audio tapes, or deleting electronic files (Sheperis et al., 2010).

Data Analysis

According to Nieswiadomy (2008), data analysis in qualitative studies begins with classifying and indexing the data. Researchers should be able to gain access to the data as at when needed without having to repeatedly reread the whole data set (Sheperis et al., 2010). In line with this, I developed a category scheme and the data were coded according to these themes. Since this study is descriptive in nature, data from field notes and interviews were coded into two broad descriptive categories: benefits and barriers of health care belief and practices in the prevention of stroke.

In the course of coding, it is good to be aware that categories that were not initially identified might emerge (Creswell, 2013). For easy follow-up, I used colored paper clips to code narrative content of each of the data gathered from each of the participants. In addition to the manual method of data analysis, I utilized NVivo 10 a computer-assisted qualitative data analysis software to enhance the findings of my study. This software allows researchers to download an entire data file into the program, code

each portion of the narrative and then retrieve and display text for specified codes for analysis (Leech & Onwuegbuzie, 2011).

Trustworthiness

Trustworthiness, which is an essential factor in qualitative research relates to the quality, the authenticity, and the rigor demonstrated in the research process (Schmidt & Brown, 2008). The issue of trustworthiness cuts across all the segment of the research process, ranging from the involvement of the participants, the manner the data was collected and analyzed, to the strategy used in checking the assumptions and conclusions of the researcher (Nieswiadomy, 2008; Polit & Beck, 2012). I used credibility, dependability, confirmability, and transferability to establish the trustworthiness of this study. These components of trustworthiness are considered to be synonymous to internal validity, external validity, reliability, and objectivity in quantitative studies (Speziale & Carpenter, 2007).

Credibility

To satisfy the criterion of credibility, research must demonstrate a high degree of authenticity and truthfulness. One of the strategies that I used to establish credibility of my study is data saturation, which is achieved when the participant provides no new information (Schmidt & Brown, 2008). This is where good-interviewing skills comes in handy to establish the credibility of the data. Schmidt and Brown (2008) suggested that the questions should be designed in such a way that they will ensure that the participants speak the truth and not to mislead the researcher in the course of the interview. Also, I adopted a strategy known as member checking to highlight the credibility of this study

(Creswell, 2013). The specific descriptions or themes were discussed with each participants so as to validate their accuracy.

Dependability

There can be no dependability without credibility (Speziale & Carpenter, 2007). Credibility is enhanced when coding checks show that there is agreement among the concepts and themes in the data analysis (Schmidt & Brown, 2009). Also, peer debriefing is another quality enhancement strategy that was adopted. This approach involves meeting with peers to review the various aspects of the inquiry (Creswell, 2013; Polit & Beck, 2012). To this extent, I sought the services of an external auditor to ascertain the rigor of the research method with emphasis as to whether all-important themes are identified and if the data collected adequately portray the phenomenon. Also, to determine if there is any evidence of research bias.

Transferability

Irrespective of the fact that qualitative research is not about generalization, it is necessary that the findings of the study should help other people understand the phenomenon in similar situations and this is what transferability is all about (Schmidt & Brown, 2008; Speziale & Carpenter, 2007). Transferability simply means that to what extent can the findings of the study be transferred to different setting (Schmidt & Brown, 2008). To enhance transferability, I provided sufficient descriptive data in the research report, which will enable consumers to evaluate the extent to which the data is applicable to other contexts (Polit & Beck, 2012). Also, I provided a rich description of the research

process so that it can be replicated and this strategy will support transferability (Sheperis et al., 2010).

Confirmability

Confirmability is founded on the assumption that results of the study genuinely reflect the perspective of the participants within the context of their naturalistic setting (Sheperis et al., 2010). Since subjectivity is inherent in qualitative methodologies because the researcher is the instrument for data collection, analysis, and interpretation, confirmability directly address whether or not the biases and subjectivity interfered with the gathering, analyzing, and interpretation of the data (Schmidt & Brown, 2008; Sheperis et al., 2010). To enhance confirmability, I maintained an ongoing reflexive journal in the course of the inquiry and the peer consultant , explored how my biases may or may not interfere with the research process and findings. In addition, I intermittently explored the reflexive journal myself in order to explore how my own perspective might influence the data collection and analysis.

Ethical Procedures

To ensure that no harm was done to the participants in this study, I took some specific measures that embraced ethical research practices. Prior to conducting this study, I completed a Web-based training course by the National Institutes of Health (NIH) entitled “Protecting Human Research Participants.” I obtained IRB approval from Walden University before recruiting study participants. Also participation was voluntary and only male adults 18 years and older who are mentally competent were recruited for this study. I made sure that the rights of the research participants were protected through

informed consent. Appendix B contained the consent form that was utilized in the study. The following elements of informed consent were addressed in the consent form. I identified myself and presented my credential as a doctoral student with the requisite approval from Walden University to conduct the study.

My goal was to choose an unbiased sample and as such the selection process of the participants was clearly described. In addition, the purpose of the study was described and verbally explained to the participants. Participants were assured of confidentiality and anonymity. In line with this, identification number was created for each of the participants. All identifying information from the information collected as contained on the paper instruments, and audiotapes were removed. Further, the right to decline participation or withdrawal at any time without penalty was addressed in the form. Also, the benefits and risks were explained when recruiting the participants. This was done in addition to the benefits and risks that was provided on the on consent forms.

To protect the confidentiality of the participants, they were given pseudo names. Further, I ensured that the external reviewer/auditor did not have access to the personal information of the participants. The main roster with the real names of the participants will be kept separate from other de-identified data. Upon the completion of the interview process, the recorded interviews were transcribed verbatim. The field notes, recording device, and the transcribed notes are secured and locked in a file cabinet in my office until after 5 years when they will be destroyed in accordance with Walden University guidelines for handling study data. No conflicts of interest were known to exist. Data were collected outside my work and social environment.

Summary

In Chapter 3, the research tradition and methodology were discussed. Evaluating the perspective of a population and disease deepens our understanding of the complex interaction of human culture and social organization with the physical environment and health beliefs and practices in shaping disease patterns and societal responses to health threats (Schneider, 2011). Qualitative research design and an ethnographic approach were used to gather data from African-born male adult immigrants about their perception of stroke risk factors. It was a face-to-face interview with an open-ended format designed with due consideration of the main constructs of HPM and HBM. After obtaining the consent of the participants, the interviews were recorded digitally and transcribed verbatim. Data were analyzed both manually and through computer software. The individual themes that were generated were clustered. Through this process, the major themes that run across the information gathered from all the participants were identified.

The research findings, which will be focused on each research question will be presented in Chapter 4. In this chapter, the mass information gathered will be summarized to help me to determine whether the findings adequately answered the research questions. I will ensure that that the published findings are accurate and will report both significant and non-significant results. Also, public health practitioners, and care providers can use the results of this study to enhance their understanding of how culture might influence the perception of African men in respect of stroke risk factors. The planning for culturally designed preventive strategies that will minimize the incidence of stroke in this population can incorporate the findings of this study.

Chapter 4: Results

Introduction

This study was designed to explore the health beliefs and practices, the knowledge and perceptions of the risk factors of stroke among English-speaking African male adult immigrants form Ghana and Nigeria living in San Diego. In comparison with women, men have poor health outcome (Blocker et al., 2006; Stroebele et al., 2011). One of the factors associated with poor health outcomes in men is masculinity, which is connected with strength, independence, a reluctance in seeking help, and denial of vulnerability. Health-seeking behaviors such as regular visits to doctor's office and treatment for minimal symptoms are often considered as signs of helplessness or weakness, which does not befit the male ego (Courtenary, 2000).

In this study, I specifically reviewed the depth of the awareness of the participant's knowledge and perceptions of the risk factors of stroke and the cultural health beliefs and practices of this population in respect of stroke. The primary research question guiding this research was, "What is the general perception of African males about stroke?" To answer this question, I used face-to-face, unstructured, and open-ended individual interviews to collect data from eight participants. The data collected was analyzed through manual coding and Nvivo 10.

Each interview produced statements that I collated into a list of units of meanings, categories, and themes were simultaneously extracted and clustered. Themes associated with each participants were combined and eight central themes were identified:

- cultural beliefs of the cause of stroke,

- prevention of stroke,
- self-identity barrier,
- awareness/knowledge of stroke,
- awareness of the warning sign of stroke,
- knowledge of the risk factors of stroke,
- individuals access preventive health care services to prevent stroke, and
- men seek the opinion of their wives on health issues.

This chapter consists of interview analysis, which highlights the setting, demographics of the participants, data collection and analysis methodologies. Further, major themes that were common to all the participants are discussed and reviewed. This chapter also includes a discussion of the measures adopted to ensure the trustworthiness of this study.

Setting

None of the participants made reference during the interviews to any personal or organizational conditions that influenced their perceptions of the risk factors of stroke. However, one participant mentioned that his family just arrived from Nigeria a couple of months prior. At the time of the study, he had been married for 10 years with three children. He arrived in the U.S. alone living his family back in Nigeria. After he became a citizen, he filled an immigrant application for the rest of the family, which took over two years to be granted. This information did not influence my study results because the participant travels home annually to visit with family.

Demographics

The eight participants recruited for this study were all adult men who had been residing in San Diego for 3-20 years, were aged 35-74 years, and who spoke English fluently. All of the participants were born in either Ghana or Nigeria and resided within 100 miles of the city of San Diego, California. Their careers ranged from health care professionals, cab drivers, and security workers to military personnel. All but two of the participants were married with children. Both private and public employers employed all the participants. A total number of 20 respondents initially indicated interest in the study by providing their phone numbers for a follow up call. However, five declined to participate after I contacted them to schedule their interviews for various reasons ranging from time constraints to insufficient knowledge about the subject of the research study. I excluded seven other respondents because of data saturation.

In my initial research design, I planned on using between 10 and 20 participants, but only ended up using eight because I reached data saturation with this number. This decision aligned with Creswell's (2013) observation that the emphasis of qualitative study is on the depth of the information and not the size of the sample. Sheperis et al. (2010) stated that data provided by one participant can provide sufficient insight of the phenomenon being explored. Morse (1994) suggested a sample size of at least six participants. While Creswell (2013) stated that data generated by 5-25 participants is acceptable for a qualitative study. The 8 participants provided robust information of their perceptions of the risk factors of stroke and that is why it was easy to reach saturation with this sample size. I had stated in the proposal that if saturation were not reached with

10 participants, then more individuals who satisfy the inclusion criteria will be recruited to participate in the study. Table 2 summarizes the key demographic characteristics of the participants.

Table 2

*Selected Participant Demographics (*N = *8)*

Characteristics	Frequency
Age Group	
Under 40	2
40 – 65	5
Over 65	1
Gender	
Male	8
Female	0
Marital status	
Married	6
Single	2
Divorced	0
Level of Education	
College	7
High School	1
Occupation/Profession	
Business	2
Health Care	2
College Professor	1
Law Enforcement	1
Security	1
Retiree	1
Country of Origin	
Ghana	4
Nigeria	4

Research Procedures

Data Collection

The recruitment strategy included snowball sampling. The study flyers were posted in the main entrance of the church and stacks of flyers were also placed at the cashier's bar in the African shop for two weeks. Interested participants phoned me and in that process, I asked some questions to ensure that the participants satisfied the inclusion criteria. I Initially met with three main participants who subsequently referred me to other participants until saturation was reached. Once I had made contact with 15 participants who confirmed their interests and satisfied the inclusion criteria, I retrieved the flyers from the recruiting sites.

In the course of the phone call, I scheduled a meeting with each of the participants based on their availability. The participants were each provided with a consent form to review before the day of the interview. I verbally discussed the content of the form with the participants on the day of the interview, after which they signed the forms to indicate their consent and confirm their willingness to participate in the study. This consent agreement granted me permission to digitally record the interviews and the outcome of the findings.

In gathering data for this study, I used the interview guide to facilitate the interviews. All the participants were interviewed with the face-to-face format from July 9, 2015, to August 2, 2015 at a venue designated by each of the participants as free from disturbance. This included a church office and private rooms in two public libraries in San Diego. Each interview lasted approximately for 45 minutes. Only one of the

interviews lasted for over 60 minutes. A voice recorder was used to digitally record the interviews, as agreed to by the participants and allowed by the consent form; I had a spare device incase of technical malfunction, but nothing went wrong. The interviews were transcribed and the transcripts and digital recordings are locked in a file cabinet in my office. The electronic files were encrypted so that they can only be accessed using a password only known to me. After five years, all these materials will be destroyed in line with the guidelines for the destruction of study data as provided by Walden University.

Data Analysis

I audio recorded the interviews and transcribed them verbatim before conducting a content analysis of the transcripts. I reviewed the transcripts and my interviewer notes after each session with the participants. The data for each participant were initially coded using line-by-line open coding to develop a list of codes that were relevant to the research topic. I then combined similar codes and developed them manually into themes. The individual transcripts were then downloaded onto the NVivo10 software and began reviewing for common words and phrases through the queries (i.e., frequent words & word clouds).

As themes, and linkages were explicated, similar themes specific to all participants were identified and clustered into number of major themes. The utilization of this process made it possible for the code structure to evolve inductively, which reflects the experiences of the participants in relation to the research topic. The external auditor verified the final themes for clarification and validation. The coding and analysis took place during an eight-step process:

1. Take notes in the course of the interview especially very important points.
2. Listen to audiotape and transcribe the interviews verbatim on Microsoft Word.
3. Upload transcribed interviews on NVivo 10, data analysis software.
4. Use Queries to check recurring words. Draw up a list consisting of recurring nouns and descriptive adjectives.
5. Using the words list, analyze each interview by focusing on the recurring words.
6. Employ the tree coding method to develop priori codes, which identify themes strongly expected to be relevant to the analysis.
7. Design an inclusion criteria: If codes appear in at least 2 out of the 8 interviews, then those codes will be included in the main themes.
8. Codes to be clustered into categories to address the research questions.

Trustworthiness of the Data

In qualitative research, *credibility, dependability, confirmability,* and *transferababability* are the four basic common terms used to demonstrate the trustworthiness of the data collected. In discussing the rigor of the study, I demonstrate the trustworthiness of the study in several ways.

Credibility

In qualitative methodology, credibility is recognized as one of the most essential factors in establishing trustworthiness. It serves as a road map, which demonstrates the fact that the conclusions of the study are not just believable but that they make sense (Sheperis et al., 2010). Following the interview protocol was one of the strategy used to ensure the credibility of this study because it helped to keep the interview focused on the

research questions. Credibility was also established through prolonged engagement with the participants. Sufficient time was spent in trying to gain the confidence of the participants so as to learn about their culture and the phenomenon being investigated. Through prolonged engagement, I was able to obtain depth information from the participants.

Also, to demonstrate credibility, I employed the use of member checking by providing the participants with the opportunity at the end of each interview to review their experience and interpretations. I went through the answers that were provided by the participants and they clarified and confirmed their responses for accuracy. Prior to the interview, each participant was given a copy of the consent form so as to familiarize himself with the scope of the research. On the day of the interview, the content of the consent form was carefully explained to the participants and after which they were informed and encouraged to provide honest information and that they were not obliged to answer any question that they were not comfortable with. So the use of iterative questioning such as probing and restating questions assures the credibility of the findings of this study.

Transferability

Transferability was established by providing a detailed account of the research process such as steps taken while collecting, interpreting, and reporting the data. Adherence to this process led to the discovery of some cultural values and themes that surprised me. Despite the fact that Africa is a male-dominated society, it was interesting to hear some of the married participants share their views on how men seek the opinions

of their wives on health issues. This statement was consistent with the finding that women are more health conscious than men and have more knowledge of health risks than men because of frequent visits to the hospital due to child birth and caring for family, most especially children.

Dependability

Dependability of the findings of this study was demonstrated through concise documentation of the different steps of the study. Throughout the research process the methodology of the research was noted by providing the rationale for the choice of the techniques and theoretical framework to support assertions and interpretations of the researcher. Also, in ensuring credibility, transcripts of all interviews were sent to the chair of the dissertation committee who determined that saturation has been attained. Thereafter, codes and themes were developed and sent to the chair of the committee to determine if the themes are genuinely reflective of the perspectives of the participants of the study. Further, dependability was assured through the services provided by an external auditor who checked both the process of inquiry and the interpretations of the researcher.

Confirmability

Sheperis et al. (2010) stated that researchers' biases and subjectivity can interfere with the findings of a study. To counter this, objectivity becomes paramount and this is how confirmability is established in a research study. In the course of data collection and analysis I took into consideration any potential biases or assumptions that might have an impact on the study. This was accomplished by maintaining a reflexive journal

throughout the process of gathering and analyzing the data. From the onset, I made sure that I had no personal or professional affiliation with the participants or the phenomenon being studied. Also, confirmability was established by utilizing a scientific method to analyze the data. I utilized the NVivo10 software, which cannot be influenced by my personal biases and assumptions. This software helped in developing the findings through a scientific method. This systematic method of analysis was very helpful in evaluating and analyzing each interview for interpretations, which contributed to objectivity in the final report of this study.

Presentation of Interview Data

The findings of each research questions are presented in a chronological pattern. The participant statements are provided for each theme to provide credibility to my interpretation. Rather than grouping the findings in categories such as different age groups, or country of origin, the findings are presented in one unit since the purpose of this ethnographic study is to explore from a cultural perspective the stroke risks of oversea African-born male immigrants in San Diego.

Research Question 1: Cultural Health Beliefs and Practices

The first research question asked was: What are some of the cultural beliefs that West African-born male immigrants residing in San Diego hold that may influence or impede their health care decisions as far as stroke is concerned? The focus of this question was to gain an understanding of the traditional beliefs of the cause, prevention of stroke and self-identity. I designed three subquestions to narrow down and obtain detailed information about the health beliefs and practices of this population.:

Research Question 1 (RQ1): What are some of the cultural beliefs that West African-born male immigrants residing in San Diego hold that may influence or impede their health care decisions as far as stroke is concerned?

Subquestion 1 (RQ1-A): What are the perceptions of West African-born male immigrants residing in San Diego of the spiritual power of ancestors as a cause of stroke and source of healing?

Subquestion 2: (RQ1-B): What are West African-born immigrants residing in San Diego's perceived understanding of voodoo in determining their health status?

Subquestion 3 (RQ1-C): What are the perceived beliefs and customs of folk medicine and home remedies of West African-born immigrants residing in San Diego that might promote or deter the utilization of health care services in the prevention of stroke?

Upon the completion of the coding, the following key themes emerged and will be presented in a table. Cultural beliefs of the cause of stroke; sickness does not occur naturally, voodoo as the cause of stroke and practices in the prevention of stroke, which includes, religious beliefs, prayers can prevent stroke, home and folk remedies, diet and diet restrictions. Another major theme is self-identity barrier; sickness is associated with weakness, perception of hospital, fear of diagnosis and medical terms prevent men from going to the hospital, going to hospital affects power structure, women are more exposed to health care than men, and women health are more protected than men.

Cause of Stroke

Sickness Does Not Occur Naturally

Individual's perceptions of the cause of illness will determine the type of intervention being sought. In some parts of Africa, some people still consider chronic disease as a spiritual illness, which demands spiritual intervention rather than medical treatment in the hospital (Agymang, Attah-Adjepong, Owusu-Dabo, Aikins, Addo, Edusei, Nkum, & Ogedegbe, 2012). A question was asked about the causes of illness most especially stroke in the African cosmology. In response to this question, a consistent theme that emerged among all the participants was that in Africa, many people do not consider sickness as a natural occurrence, either somebody or something is behind it. This theme is supported by remarks made by the participants.

> P1 stated that generally from the African perspective, every illness is actually a factor of something else. In Africa, we believe that nothing happens by natural cause. No illness or death is natural. it must be caused by maybe someone who doesn't like you, someone who hates you, you know, you're probably contesting a local position with someone who you share a common land boundary with probably the causal effect of any ailment or disease from the perspective of where I grew up, the way we would look at it.

Other participants shared the same sentiments. P2 expressed that "culturally, our people have a belief that for every sickness there is a curse. And so when such things happen, it is always related to another cause, such as the enemies are after you, or you have done evil things and the gods are offended". Also, P3, P4, P5, P6, P7, and P8 all

expressed the fact that they were raised in a cultural milieu where most people believed that no sickness is ever natural.

Voodoo as the Cause of Illness

While exploring the cause of illness, the concept of voodoo as the cause of illness appeared in the responses of six out of the eight participants. Voodoo is synonymous with evil spirit that cast a spell, or fixes somebody. However, participants also expressed that the belief in voodoo has declined since they migrated to the U.S. P3 stated that "many believe that witchcrafts are responsible for it. Others believe that it is sent through some kind of spiritual remote control". He further clarified it by naming it as a spell, spiritual illness. P4 describes stroke as an "attack of the spirit", which implies that the cause of stroke has something to do with supernatural power. P5 provided more input by his description of stroke as "the fight of the devil." The root cause of stroke is something diabolical through the manipulation of supernatural power by somebody else through voodoo, and juju. This is why P5 remarked that "Somebody has done it to you." P6, and P8 held the same opinion. P7 also provided a more robust insight when he stated that

> Our experiences can define or validate our belief system. As a child I suffered what is known as a mysterious sickness, we went to the best hospitals in my country but the doctors could not come out with a satisfactory diagnosis, eventually my family resorted to the use of herbs and prayers and here I am today. Yes, sickness is attributable to spiritual attack, like witches and wizards, spells, voodoo, juju and a host of others.

Prevention of Stroke

Religious Beliefs can Prevent Stroke

Traditionally, many Africans treat a disease only when they get sick. However, the concept of preventive measures is not foreign to this population. Engaging in religious beliefs was a consistent theme that emerged when the participants were asked of how stoke can be prevented through cultural health beliefs and practices. Religion plays a significant role in influencing how people choose to protect their health. Participants alluded to this fact. “Well, people turn to God for protection and some engage the services of traditional priests and some do voodoo based on the fact most sickness is diabolical “ (P1). “From a cultural perspective, the only prescription is living a righteous life. Live a righteous life” (P2). P3 remarked that Africans always turn to God because are very religious and religion is the fiber of our society. “Stress is one of the causes of stroke as they say, if I belief in God and I live a down to earth life and am very happy, how will I develop high blood pressure or hypertension” (P7).

Prayers Can Prevent Stroke

Participants expressed the role of prayers in the prevention of stroke. Most African immigrants who are Christians see prayers as an integral part of healthy living. P4 reiterated the significance of prayers, “because we believe that most sickness is a full attack. That we can usually cast the devil away. Either by prayers or by spiritual invocation”. P6 expressed the same belief pattern, “we believe that if we have to pray, we cast out the devil that is the cause of the attack. We believe it's a devilish attack, and if we pray, we cast out the devil that way, this is the belief of Africans. Up till now, most of

them do it." P3 explained that people turn to God when in a hopeless situation due to lack of money to seek medical attention.

> The system has made it easier for me so to say in terms of availability and access to health care services, which is affordable. In Ghana, you pay for medical services out of pocket because we have no health insurance in m country. No money, you pray to God to heal you.

Also, stroke can be prevented by appeasing or destroying the devil. Religion because of its tenets has the tendency to provide the believer with an ability to comprehend and interpret a situation or a sickness. "In our native place, which is very common, I suppose both now and again you can appease the devil. If there is a devil involved, you seek remedies through the native doctor and the devil or the evil spirit will be destroyed" (P5).

Home and Folk Remedies

Home and folk remedies play significant role in the prevention and treatment of ailments among different ethnic groups. These groups use a large collection of pharmacopoeias (Purnell, 2009). The word *herbs* appeared in the responses of all the participants but two participants had discrete views. P1 stated that some individuals have recourse to the use herbs as a preventive measure. P2 had a very strong opinion on this issue because it is a practice that has been passed on to him by his ancestors.

> It is high time we begin to look at the natural aspect of approach to treatment rather than this synthetic so called advanced medicine. God has given us a lot of things, all the herbs that he provided us in the world. There is so much that we

> have not discovered yet. It is only the Africans and the Asians that have discovering it. Every herb in the world has a reason. It has a power behind it... but we do not want to look at that. Because we want to call it advance but the advancement is not the reasonable advancement. We the Africans would want to look at it from our own perspectives. Herbal medicine. Herbal cure. All plants have an answer to our problem.

P6 shared similar sentiments and made reference to other home remedies when he stated that, "Our people resort to prayer, resort to taking herbs, resort to even hitting you with fire. The place that is paralyzed, they hit you with fire, burning green leaves, and even rubbing you with herbs and other things, like powder." He also identified herbs as *Agbo*, an antioxidant. "Some herbs are very effective. Because, when I was little there was a type of herb my mother used to rub it, putting my nose to inhale it. If I have headache, it will vanish within seconds." P7 subscribe to the use of herbs although they cannot cure all diseases but they have no side effects like orthodox medicines. "I prefer alternative medicine or treatment, I am for anything natural. Many people have the erroneous beliefs that herbs is for the uneducated, I beg to disagree" (P7).

P5 used to take herbs but his daughter who is a registered nurse discontinued this practice but he beliefs in it.

Discrete Views

Participants 4 and 8 provided different views about the use of herbs in the prevention of stoke. P4 works in the medical field and associates herbs with beliefs.

> With herbs, it's all about belief too. With our forefathers, grandmas and grandpas, they believed in herbs so much. Maybe they worked for them, or working for them, as par their beliefs. Herbs, this kind of sickness, of a stroke, I do not think herbs can be of a great help. Because this is has to do with how the blood runs through the vein, oxygen goes to the head, how the heart pumps blood to the brain and other things, you know. So if you just drink herbs and you are not exercising, you are not watching your diet, it might not be helpful. Like those who have suffered from stroke, like some in the hospital, they are given special diet, such as no salt, and are encouraged to exercise and be active. So drinking herbs without good diet and exercise is not sufficient.

P8 has lived in the U.S. for 20 years and he shares similar opinion with P4. He considers stroke as a medical condition that warrants a medical approach.

> There are people who believe back home that the use of herbs will cure stroke. But I don't know if because I've been away for a while now, my belief is that it is a medical condition that comes from within. It has not been proven how herbs go into the body and rejuvenate these parts of the body that are shut down by the medical condition. So that is why I have difficulty in believing it, it has not been proven. It might be there, you know. Some say go through the traditional means of massage and other stuff, it keeps the blood circulating again and so gets cured.

Diet and Dietary Restrictions

All but two of the participants identified diet and dietary restrictions as means of protecting health and preventing the incidence of stroke. They stressed the fact that we

are the products of what we eat. P2 and P7 were of the opinion that since diet is a contributing factor to stroke, diet restrictions will go a long way to prevent stroke. P4 shared the same sentiments. He identified eating of processed food and less salt that leads to hypertension. However, P3 made reference to natural food as preventive measures. “I think some more natural foods, some food that are closer to nature that are eaten as they are grown like tubas (yams) and fruits can be more helpful compared to processed food” (P3). According to P8, eating right is a motivation from staying away from the hospital on the basis of fear.

> You could go to the doctor and they say you have high blood pressure and high blood pressure leads to this and that, so the doctors create an environment of fear. So for some, they don't want to deal with that. So this is why most of them now, most of the new arrivers or most of the Africans don't feel it is necessary to go see the doctor, they believe that if they eat the right food and take care of themselves, that it will be okay.

Self-Identity Barrier

Sickness Is Associated With Weakness

It is presumed that many African immigrant men are very hesitant in going to the hospital for check up or treatment in comparison to women, situations that accounts for why women has better longevity than men (Venters & Gany, 2011). A male perspective of sickness is one of the contributing factors and this was one of the themes that emerged from the data collected. This theme is supported by comments made by some of the participants. Sickness is associated with weakness. “The man is seen as stronger than the

woman and takes a lot of responsibilities. I see sickness as something that reduces that which makes a man a strong one" (P3). "Sickness is a sign of weakness and so suck it up and keep moving. Nobody wants a weak husband, every woman wants a strong man that can put food on the table" (P7). P6 shares this concept as he concluded that, "sickness is what reduces somebody's ability to do many things. You lose the ability to walk, work and to provide for your family, ability to think, ability to coordinate your health functions. All these makes you less a man due to your inability to provide for your family."

Perception of Hospital

Closely associated with the attitude of African immigrant men to sickness is their perception of hospital. Going to the hospital proves the point that the individual is weak. "Going to the hospital shows that one is weak and then the African male does not want to succumb to that reality of the weakness that can also be found in man" (P3). P8 provided a similar response, "When you a man... society expect you to provide for your family. So even when you are sick, people expect you to get up, go out there, and provide for your family. You cannot afford to lazy around by taking refuge in the hospital." He contended that the African society places more responsibility on the man than the woman.

> But we are in a Western world now where most household is 50/50. In my original culture, it was not 50/50, the man provide 90 to 100% of the household, what the family needs. So the family cannot afford for the man to be sick. So you say to society, "I'm too weak today, I cannot work." No. So that is how that male perception has been created in our society.

Fear of Diagnosis and Medical Terms Prevents Men From Going to the Hospital

Fear is another factor that prevents men from going to the hospital. P4 stated that "they are scared, they don't want the doctor to tell them "oh, you have this illness"….they don't want to hear it because it might make them scared, depressed and uncomfortable." P1 shared the same feeling. "In Africa we have a fear of the unknown, what does not affect you, just don't even try it in the first place. You know, because you are not sick you don't have to go to the hospital and awaken the consciousness of illness." The theme of fear was also expressed by P8. He made reference to fear of not just diagnosis but medical terms.

> People who have come to this country just a couple of years ago. So they're not used to the medical terms, especially when they go to see doctors, and medical terms that are being used. Sometimes there are medical terms that are being used bluntly that tend to create fear. You could go to the doctor and they say you have high blood pressure and high blood pressure leads to this and that, so the doctors create an environment of fear. So for some, they don't want to deal with that. So this is why most of them now, most of the new arrivers or most of the Africans don't feel it is necessary to go see the doctor.

Going to Hospital Affects Power Structure

Also, Africa is a male dominated society where the men has the final say and going to the hospital means a shift in power structure. This sentiment was expressed by some of the participants. Masculinity is a defining factor. P7 validates this by stating, "we come from a masculine environment and men have the final say but you might lose this

power when you go the hospital, where you will be ordered around." Going to the hospital shows your vulnerability as an African who is very private. P5 who is 74 years is of the view that appearing naked before a nurse who is the same age with your children can be dehumanizing.

Women Are More Aware of Health Care Than Men

One major theme that evolved form the data collected is that women have better health profile than men. Possible explanation for this is that women are more exposed to health care than men because of childbirth. The participants who are married shared this perspective. that women are more conscious of their health than men due largely to the fact they have more contacts with doctors and hospitals than men because of prenatal and antenatal visits. P1 observed that women have higher rate of childbirth in Africa, a situation that compels them to go to the hospital regularly.

> And the reason being that maybe, because when women are pregnant for the most part, they come in contact with modern medicine, they come in contact with doctors who actually tell them what to do, this is what they need to do to stay healthy. The men, I know, are not exposed to going to the hospital like the women are in Africa.

P7 also provided a similar rationale why women frequent the hospital than men. A situation that exposes them to be more aware and conscious of their health than men.

> Women go more frequently to the hospital than men because of childbirth. I am from a family of 8. Can't count how many time my mother went to the hospital due to pregnancy and labor. They have prenatal and antenatal and all kinds of

classes but I can count the number of times my dad has gone to the hospital.

Women Health Are More Protected Than Men

Most African immigrant men tend to overlook their own needs so as to focus on the needs of the family especially the health of their wives due to culturally defined roles. This cultural practice was collaborated by some of the participants. P5 stated that men can sacrifice their own health to ensure that their wives are healthy because they are home makers.

> Because the center of care is on African women, we care for women more than I take care of myself. We can easily endure sickness, but when our wife is sick, it worries us, it worries the wife. If the wife is sick, there will be nobody to cook, nobody to take care of the house... The housekeeping is the responsibility of our wife. So when our wife is sick, it disturbs the whole system of the house. That is the reason we take care of them more than ourselves.

This cultural practice and male agenda was collaborated by other participants. P1 observed that women get better attention because of gender specific roles as nurturers of the home. He sated that " the men, I know, are not exposed to going to the hospital like the women are in Africa where it's mostly women some roles are left for the women to take care of such as the home, the children. So I think that the women have some level of exposure to health risk than the men in Africa." According to P8, in Africa unlike the Western world, the man is the sole provider, which frees the woman to take of the house needs "but we are in a Western world now where most household is 50/50. In my original culture, it was not 50/50, the man provide 90 to 100% of the household, what the family

needs." P6 contended that it is not just the woman that is conscious of their health, it is the concern of the whole family because of their indispensable roles and responsibilities in the family as observers, consultants and home makers.

> Women are more conscious about their health...Not necessarily women themselves. It is the whole family, they're very conscious. If the woman who cooks, the woman who cleans the house, who is entirely the administrator of the house, who is in charge of everything. If she is sick, everybody must run round to see that she is taken care of it in time.... so that the whole house will not break down. They are very observant, they know different symptoms, such as your mouth is swelling, your eyes are read, and you don't walk right

Table 3

Themes Found in Research Question 1

Research Question	Main Themes
Cultural health beliefs and practices	Sickness does not occur naturally, Voodoo as the cause of stroke, Religious beliefs can prevent stroke Prayers can prevent stroke Home and folk remedies, Diet and diet restrictions, Sickness is associated with weakness, Fear of diagnosis and medical terms prevent men from going to the hospital, Going to hospital affects power structure, Women are more exposed to health care than men, Women health are more protected than men.

Research Question 2: Knowledge of the Risk Factors of Stroke

How do these cultural beliefs influence the West African-born male immigrants residing in San Diego in their understanding and knowledge of the risk factors of stroke? Was the second research question that was asked. The key themes for research question 2 will be presented in Table 4. The focus of this question has to do with the awareness and knowledge of the risk factors of stroke by this population. Their knowledge was viewed from the cultural perspective. The following themes emerged from the data collected: Awareness of stroke as a chronic preventable disease, perception of the risk factor of stoke, knowledge of the warning signs, and utilization of preventive services. Comments by the participants are used to support these themes.

Awareness of Stroke as a Chronic Preventable Disease

A consistent theme among all the participants was their awareness of stroke as a chronic preventable disease. All the participants unanimously agreed that stroke is a preventable disease and there are things an individual can do to prevent the occurrence of stroke. The participants all seems to have a peripheral understanding of what stroke is all about, which is closely associated with paralysis. P1 describes stroke as a "a chronic preventable disease that is so incapacitating and dilapidating". According to P4 who has a medical background, "So everything is shut down. So usually your reactions are slow, and the person might not be able to talk. It affects eyesight, the speech, and affects other parts of the brain."

The word *paralysis* appeared in the responses of the participants as the outcome of stroke. P1 knowledge and understanding was based on a family member.

My understanding of stroke has its source in personal experience of a family member, specifically my dad. He had a high blood pressure, and then after some time it degenerated to something else, which I didn't know then as what we call stroke. I came to him and discovered he was partially paralyzed. Well, initially, it was both legs and then both hands. Then, with time, he gained the use of one of the legs and one of the hands. And it also affected his speech and, not only that, he also his reasoning it tend to be different from what it used to be. That would be my closest contact I would say with stroke. Something that comes and paralyzes one and returns one back to many years before.

P2 described stroke as "a disease of paralysis". According to P6, we don't have a specific name for it but it is described in relation to paralysis. It keeps you in bed forever, if you experience the big one. It is associated with an attack by the devil in my place. It is not called an ordinary sickness, like headache or malaria caused by mosquito bite.

Apart from describing what stroke is all about. Three out of the eight participants were able to identify the name of stroke in their cultures. P3 identifies stroke as "oga agbowo gbere and it means an illness that seizes the hands and the legs. It's a way of describing the paralysis." P4 identifies it as " Ubamo" in their community. P5 identifies it as "Bamo" and this has a spiritual notation as in terms of the sickness caused by the devil.

Warning Signs

Most of the participants are not aware of the warning signs of stroke. When asked if they are aware of the warning signs of stoke, P1 said, "Not really, I think it strikes like lightening and thunder, it acts fast and swiftly." P2 stated that stroke, is a new disease in

Africa. It's a disease that tends to take over the mental and physical condition of an individual. And it always happens suddenly without warning." P4 shares in this sentiment by describing the suddenness of stroke in this way. "when you kind of hug somebody, so the spirit like ubamo grabs you suddenly."

P5 describes stroke "as a silent killer." What makes it a silent killer according to the participant is because it does not show warning signs, its not symptomatic and so not easily detectable like other chronic diseases. Further, P6 stated that "stroke is a disease that sneaks up on you without warning. It is a terrible sickness that reduces your mobility, hands, legs, speech, and sight." Only P6 appears to be aware of the warning signs of stroke. He identified "numbness of one side of the face, dizziness, seeing double, mumbling of words. Also feeling of uneasiness." All these alludes to the fact they have limited knowledge of the warning signs of stroke.

Knowledge of Risk Factors of Stroke

Despite the level of education of the participants, the findings of the study showed that most of the participants has poor levels of awareness of the risk factors of stroke. These findings similarly highlights the high incidence of stroke among African American men in the U.S. due to lack of knowledge of the risk factors of stroke to inadequate health care utilizations (Sallar et al., 2010). Comments made by the participants validated this perception. Previous studies have identified about 12 different types of risk factors of stroke: high blood pressure, stress, high cholesterol, cigarette smoking, being overweight, family history, previous stroke, insufficient physical activities, diabetes, abuse of alcohol, irregular heart attack, previous heart attack and the aging process (Sallar et al., 2010).

The question that elicited their responses was, are you aware of the risk factors of stroke? Something that might likely trigger stroke? P1 stated, “yes, I don't have an absolute like detail knowledge of it, I have a very peripheral knowledge of what can trigger stroke. My understanding of the most factor of what can trigger stroke is when you don't drink enough water to cool down the body temperature. You might come down with stroke.” P2 was able to identify three risk factors, stress, diet and condition of living. He observed that, “modern science tells us that there are many things that can cause stroke. mental problem like over working without rest, the inability to take care of your body like your feeding... The condition of living is also part of the problem of stroke.”

P3 identified two factors, too much thinking and excessive use of salt. He said, “The much I knew then had to do with thinking too much (as they say then) , and then also excessive use of salt.” P4 who has a medical background identified 5 risk factors: “Sometimes, it can develop with time though it does not run in the family. It can leave somebody with family history. People with high blood pressure so then sometimes, medically when it's okay, people need to exercise. The kind of the things you eat, the kind of food and other things. People might become diabetic even though it does not run in the family. This happens because of what they eat….” “It's not really new, it's just the awareness. It's been there for a long time, and they'd be handling it in their own way, but they really don't know what causes stroke, how it kills. So the education, like I said, is not there as to really analyze how to handle stroke” (P4).

P7 identified four risk factors; “I think change in diet, overweight, lack of exercise, high blood pressure and some other things that I cannot remember for now.”

However, when asked if many Africans living in America aware of the risk factors of stroke? He said,

> Actually, some are aware. Some are not... you know, because stroke don't just come like that. You have to be having signs and symptoms within you but, in this case, you know, some people endure... they endure. They feel, oh, this is nothing. Till it comes sudden and take life. So, once it takes life, you can't restore it again. And when you live it, the signs and symptoms going in you for a long time, then it kills like magic. And you say, oh, we just saw Emoja going to the market, going to the church, or doing this or doing that. ?Martin?, what's wrong with Emoja? Now we heard that he is dead. But he or she has been suffering these signs and symptoms for a long time. You know, without complaining. Just endure. That's how it comes.

Individuals Access Preventive Health Care Services to Prevent Stroke

All the participants stated that preventive health care services are important in preventing stroke. The study participants expressed that accessing preventive health services such as annual check up and screening for high cholesterol, hypertension, and diabetes is significant in preventing stroke. This statement was consistent with the finding that they know that stroke is a preventable disease and more so are not aware of the warning signs of stroke and so will need to act fast before it gets to late.

In the course of the interview, all the participants provided the same feedback. P1 habit of going for check up is based on personal experience.

> You know, and the reason being that lately, we are seeing that.... my father lives in Africa. And he visited here couple of years ago like few years ago he came here for health check-up and then it's like an aha moment for me when the doctor was asking "do you go for periodic check-up?" It reawakened that consciousness in him to do periodic checkup because for the reason that he doesn't go for periodic checkup has created a bigger problem for him now. If he were to go to regular check up while in Africa, we could have actually been able to avert early enough, but because he did not do that, so now we are dealing with the end result of it, so now we have to make him go for regular checkup…. So I do periodic check up because I saw what it has done to my father firsthand by not going to your doctor regularly…

P2 supported preventive health care services based on the assumption that a stitch on time saves plenty. He stated, "I think there is an adage that says prevention is better than cure. Prevention is better than cure. In any community be it civilized or primitive, the saying holds, prevention is better than cure," P3 utilizes preventive services because "the system has made it easier for me so to say in terms of availability and access to health care services, which is affordable." P4 sees it as a necessity because it helps you to discern your health status. He stated, "It's necessary. It helps you to be aware of killer diseases such as stroke, and diabetes, so that you know where you are at least." Both P5 and P6 affirm the significance of check up as a path to a healthy life. P5 sated that he is fortunate because his wife is a nurse and so no excuse for not doing it. P7 consider check up as a western ideology but he appreciates the significance. "In my country, it makes no

sense to go for check up, people go to hospitals when they are sick and not to look for sickness. It is a Western ideology and I am beginning to see the importance."

According to P8, check up is not just all about finding out your health status, it helps prevent current ailment from leading to something bigger or creating more complications for you.

> I will tell you....for me, unfortunately, I am diabetic. Sometime I discovered a couple years ago that I have cholesterol. And I know that if you don't go for medical check up regularly, and take your medications as recommended, it could lead to stroke, it could lead to heart attack, so I have personal doctors who I go to visit, take my medications, exercise.

Men Seek the Opinion of Their Wives on Health Issues

When asked who do you turn to when you have questions about your health? Three of the six participants who are married said that they will talk to their wives first.

P1 stated his reason for turning to his wife because she is very health conscious.

> Well... As a matter of fact, I always, as I told you, in my case I have my spouse who's very health conscious, so if any part of my body breaks down, the first person I'm going to ask is my wife, I don't feel good. I don't feel good. So, she's my first lifeline with respect to health advice.

P2 sees the wife as a consultant and collaborator. "When I have problems, I will first of all consult and discuss with my wife and tell her and break it down. Then she will tell me, "can we see a doctor?" Participant has an advantage because his wife is a registered nurse. For participant 6, he turns to the wife because women are not only

health conscious but they are also very observant. “They are very observant, they know different symptoms, such as your mouth is swelling, your eyes are red, you don’t walk right, and it is their responsibility to observe you.”

Table 4

Themes Found in Question 2

Research Question	Main Themes
Knowledge of the risk factors of stroke	Awareness of stroke as a preventable disease, Warning signs, Knowledge of risk factors of stroke, Individuals access preventive health care services to prevent stroke, Men seek the opinion of their wives on health issues.

Chapter Summary

The findings and the evidence of trustworthiness of the study were presented in this chapter. The demographics of the participants, the coding process, and main themes identified in the process of analysis were presented in this chapter. The results of the study are presented in a chronological order in line with the two main research questions and three subquestions. A total of 17 themes emerged from the statements of the participants and each of the themes were analyzed.

In response to the first research question, the following major themes emerged: sickness does not occur naturally, voodoo as the cause of sickness, religious beliefs and prayers can prevent stroke, home and folk remedies, diet and dietary restrictions, sickness

is associated with weakness, hospital is fro the weak, fear of diagnosis and medical terms prevent men from going to the hospital, going to the hospital affects power structure, women are more aware of health care than men, and women health are more protected than men. To elicit responses in respect to second research question, participants were asked about their knowledge of the risk factors of stroke. The following themes emerged from their responses: knowledge of stroke, warning signs, knowledge of the risk factors of stroke, individuals access preventive health care services to prevent stroke, and men seek the opinion of their wives on health care issues.

Based on the results of the study, the researcher is of the opinion that most African immigrant population brought with them to the U.S. some cultural health beliefs and practices. Some of them explained that while back in their native countries, you only go to the hospital when you are very sick and not for check up, which is like looking for illness to escape family responsibilities. A scenario that is associated with lazy men. Health screening as a preventive measure is a relatively new concept to many immigrants on arrival in the U.S. Diseases are treated when an individual becomes sick or experiences pronounced symptoms. However, over the years they have witnessed a gradual shift in perspective due to environmental influence. Some African immigrants can subscribe to screening if properly educated about it.

Further, participants reiterated the fact that beliefs and practices in voodoo was prevalent in their native countries and it is obvious some members of this community still hold on to these beliefs and practices in the U.S. Individuals often visited herbalists, native doctors, and spiritualists. Although not as common as when they were back home.

It is interesting to know that some individuals still ask family members in their home countries to consult native doctors on there behave to find out the cause of their misfortunes.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

This ethnographic study was designed to address a gap in the research literature concerning foreign-born, Anglophone African male immigrants in San Diego's knowledge of the risk factors of stroke. The study goals include both gaining an insight into the perceptions of stroke and knowledge of the risk factors of stroke by this population, and also to investigate this population's cultural beliefs and practices for use in minimizing the incidence of stroke. The study findings are important because individuals seek medical remedies based on their perceptions of the etiology of the health issue (Barimah et al., 2008; Chukwuneke et al., 2012; Murray et al., 2013; Purnell, 2009).

In the United States, ethnic minorities have the worst health outcomes for chronic diseases such as stroke (Gezmu et al., 2014; Gutierrez & Williams, 2014). Some actors known to contribute to this are limited health literacy (Ellis et al., 2009; Shaw et al., 2009), lower social economic status (Donkor et al., 2014; Wilkinson & Pickett, 2006), and power differentiation (Ellis et al., 2009; Howard et al., 2007). Further, tobacco use, obesity, sedentary lifestyle, physical inactiveness, hypertension (Bravata et al., 2006; Gezmu et al., 2014; Howard et al., 2007), low utilization of screening services (DeStephano Flynn, & Brost, 2010), language barriers (Kimbrough, 2007; Nguyen et al., 2005), change of environment, urbanization and acculturation, and diet (Gezmu et al., 2014) are considered to influence the incidence of stroke among different ethnic minority population.

A limited number of previous studies have specifically focused on culture as a contributor to the incidence of stroke among this population. Although the role that culture plays in defining the identity of individuals is well-documented (Purnell, 2009), limited attention has been given to the importance of culture as influencing the incidence of stroke among English speaking foreign-born African male immigrants. Culture plays a very crucial role in regulating the belief system of individuals, which influences their thought pattern, behaviors, and decisions on health issues (Sue & Sue, 2008). These earlier findings suggest that gaining an understanding of the cultural worldviews of minority populations is important in designing measures to prevent or reduce the incidence of stroke.

This qualitative study incorporated data collection from eight participants on their knowledge of the risk factors of stroke. I used face-to-face, unstructured interviews with eight African male immigrants to gain insight into their perspectives on this topic. The interview questions were designed in such a manner to elicit information to help deepen my understanding as well as gain new knowledge about this study group. After analyzing the data collected, a total of 17 themes emerged. Below are the themes that emerged from the interviews.

Table 5

Main Themes From the Participants

Research Question 1	Research Question 2
Sickness does not occur naturally Voodoo is the cause of stroke. Religious beliefs can prevent stroke. Prayers can prevent stroke Home and folk remedies Sickness is associated with weakness Fear of diagnosis and medical terms Prevents men from going to the hospital Going to hospital affects power structure Women are more exposed to health care than men Women are more protected than men.	Awareness of stroke as Warning signs Knowledge of risk factors of stroke. Accessing preventive health care services Men seek the opinion of their wives on health care issues.

Summary of Key Findings

The participants reported having a lack or limited knowledge of stroke as a preventable disease and no knowledge of the warning signs of stroke prior to their migrating to the U.S. However, this lack of awareness changed after their immigration to the U.S. and subsequent integration into mainstream U.S. society. A potential explanation for this initial lack of awareness is that in some parts of Africa, many people do not consider sickness to be a natural occurrence, and that when sickness occurs, either somebody or something is behind it (Agymang et al., 2012; Donkor et al., 2014). Utilizing preventive services such as periodic medical check-ups, screening for high blood pressure, diabetes, and high cholesterol are also not common practices in the home countries of the participants (Ehiwe et al., 2013). In addition, men from these countries only go to the hospitals when they are very sick and not simply when they have

symptoms of a sickness, due to the negative attributes associated with sickness and going to the hospital in these societies (RIDH, 2011; Wahab et al., 2015). These belief patterns significantly determine the type of intervention practiced when an individual becomes sick.

Despite the fact that most African communities are masculine in nature, some of the participants from Nigeria and Ghana reported that they consider women as resource persons on health issues. Most of the participants stated that they consult their wives first if they are experiencing symptoms of any kind. Potential factors behind this practice are that women typically have better health profiles than men and are more exposed to hospitals because of childbearing experiences and follow up visits to hospitals in the course of raising their children. It is mostly women who take the children to the hospital when men have to work to provide for their families.

Each of the participants concluded the interview by expressing strong opinions that raising immigrant men's awareness of stroke through educational campaigns will minimize the incidence of stroke among this population. This focus should include but not limited to change in environment, nutrition, utilization of preventive health services, availability of health care services, and physical activities. The starting point should be when immigrants newly arrive in the U.S. They also suggested that individuals from the immigrant communities should be integrated into the campaign team to help build trust and rapport with the people. They also suggested that health care providers should strive to know more and be aware of cultures of patients from other ethnic groups. These

measures are intended to avoid current problems from the current "one size fits all" mentality of U.S. health care education.

Interpretations of Findings

In this section, the findings from this study under the major theme clusters presented in Chapter 4 are interpreted. This is followed by a discussion of the findings in the context of the theoretical framework that was used as a guide for this study. The limitations of the study, recommendations, implications for social change, and conclusion will end this section.

Cause of Sickness

Many Africans are very superstitious, a quality that extends to aspects of their everyday life. These individuals do not consider any death or sickness to be a natural event (Agymang et al., 2012; Donkor et al., 2014). This belief was a consistent theme in the interviews, with all the participants stating that in Africa, many people do not consider sickness as a natural occurrence. The participants stated that they had grown up in environments where sickness and death were attributed to supernatural causes such as the wrath of god and ancestors, and the casting of a spell by somebody who does not like you. This theme aligned with Donkor et al.'s (2014) finding that in Ghana people, still share beliefs that stroke is a spiritual sickness caused by evil spirits or witches. It also aligned with Agymang et al.'s (2012) conclusion that some Africans consider chronic disease to be a spiritual illness that demands spiritual intervention rather than medical treatment in the hospital. People who perceive the causes of stroke from this cultural standpoint have an inherently limited knowledge of the risk factors of stroke. Because all

of the participants expressed this theme, the different individual demographics of the participants do not appear to have played a significant role in shaping responses.

Prevention of Stroke

Although many Africans only go the hospital when they are sick, they take measures to ensure that such sickness is prevented. The utilization of culturally motivated preventive measures is a common practice among Africans (Murray et al., 2013; Simmerlink et al., 2013). All the participants recognized stroke as a preventable chronic disease and they all provided different practices supported by different traditional belief system of how stroke can be prevented. Religion and prayer play a significant role in totality in the lives of Africans. Religion does not only determine how people protect their health but it plays a crucial role in the rituals associated with protecting health (Chukwuneke et al., 2012; Ehiwe et al., 2013; Purnell, 2009).

The role of religion and prayers in preventing stroke was a persistent theme among all the participants. Since many Africans believe that sickness is not natural, they seek supernatural protection through prayers and spiritual practices. P1 contended that people turn to God for protection and some engage the services of traditional priests and some do voodoo based on the fact most sickness is diabolical. The danger however is that in the process of praying for divine protection, they may delay seeking medical help at the onset of the warning signs of stroke, which could have been easily diagnosed and treated.

Further, religion dictates social, moral, and dietary practices that are developed over time to help an individual live a balanced life (Purnell, 2009; Sue & Sue, 2008).

Many people believe that illness can be prevented by meticulous adherence to religious tenets, and morals (Purnell, 2009). The participants reiterated this concept. According to P1 and P2 living a righteous and happy life takes away stress, which is a contributor to stroke. Also diet and dietary restrictions emerged as one of the ways stroke can be prevented. All but two of the participants identified the role of diet in the prevention of stroke. This finding is consistent with previous studies that associates stroke with poor eating habits and lack of physical activities (Okafor et al., 2014; Simmelink et al., 2013).

The use of folk medicine in the prevention of stroke resonated with six out of the eight participants. Some of the participants belated the Western and industrialized countries for down grading the significance of herbs in the prevention and treatment of sickness. In a study conducted by Simmerlink et al. (2013) the findings indicated that many African immigrants continue with the practice of using herbal medication in the prevention and treatment of illness. However, two of the participants expressed discrete views in relation to the use of herbs in preventing stroke. Length of stay in the U.S. and a profession as a medical personnel were the demographics that influenced their perceptions. This was expected because previous studies have always reported discrepancy in opinions of research participants. In studies conducted by Olaitan et al., 2014; Simmerlink et al., 2013; Vaughn and Holloway, 2010, participants expressed growing concern that the effectiveness of African herbal medicines has not been scientifically proven.

Self-Identity Barrier

Most women including African women are known to have a better health profile than men because many African immigrant men are very hesitant in going to the hospital for check-up or treatment (Venters & Gany, 2011). A male perspective of sickness and hospital is one of the contributing factors and this was one of the themes that emerged from the data collected. Five out of the eight of the participants shared the societal norm and expectation of typical African community that confers greater responsibilities on men as provider and protector of their families and sickness has no place in this concept. Accordingly, when you are sick, it is expected that you must still fulfill your duties and responsibilities as a man. In African worldview, sickness is easily associated with weakness. One of the participants commented that although, they have left their home countries, their cultures have not left them.

Closely associated with the attitude of African immigrant men to sickness is their view of hospital. Going to the hospital proves the point that the individual is weak. You only go the hospital when you are very sick and as a last resort. The participants attributed this to an old African culture and a cultural norm among male adults, which accounts for their reluctance is seeking medical assistance. Another common issue that was raised among the participants was health literacy and this has to do with not understanding the medical jargons and thus making them feel very vulnerable, which affects their masculinity.

Knowledge of Stroke

All the participants unanimously described stroke as a deadly preventive disease. Statements such as “stroke is a killer disease”, “incapacitating and dilapidating” and “a disease of paralysis” were used to describe their knowledge of stroke. To further their shallow knowledge of stroke, three of the eight participants were able to identify the name of stroke in their cultures. Three of the participants acquired their knowledge of stroke because of the history of stroke in their families but the knowledge is very limited. Poor knowledge/awareness of stroke among African immigrants has been documented by previous studies (Lutfiyya et al., 2008; Ryan, 2013). An increased awareness of the knowledge of stroke is noted to have contributed to the decline of the burden of stroke among the whites in comparison to minor racial and ethnic population in the U.S. (Blixen et al., 2014; Gezmul et al., 2014; Lutfiyya et al., 2008).

Knowledge of the Warning Signs and Risk Factors of Stroke

Sallar et al. (2010) identified 12 risk factors of stroke: high blood pressure, stress, high cholesterol, cigarette smoking, being overweight, family history, previous stroke, insufficient physical activities, diabetes, abuse of alcohol, irregular heart attack, previous heart attack and the aging process. Although the participants were all aware of stroke as a preventable chronic disease, only two of the participants appeared to have a fair understanding of the warning signs and the risk factors of stroke because they both identified four and five risk factors respectively. It was very clear that despite the educational attainment of the participants, they acknowledged their sparse knowledge of the risk factors of stroke.

This finding is in accordance with earlier studies that identified limited knowledge of the warning signs and the risk factors of stroke as one of the major contributors of stroke among African American men in the U.S. (Blixen et al., 2014; Sallar et al., 2010). Different studies have concluded that high-risk groups, such as the elderly, minority groups, or those of low socioeconomic status, often have the poorest knowledge of stroke warning signs (Howard, 2012; Kleindorfer et al., 2012; Nicol, & Thrift, 2005). In the prevention and management of stroke, timely access to medical care is very crucial (Donkor et al., 2014). However, when people have no knowledge of the warning signs and the risk factors of stroke, the opportunity of prevention is completely lost. Thus increased knowledge of the risk factors of stroke and warning signs is very central in the control of this disease (Donkor et al., 2014).

Individuals Access Preventive Health Care Services to Prevent Stroke

All of the participants stated that while in Africa they never went to the hospital except when they were sick. Medical checkups are not an integral part of health care in those days (Ehiwe et al., 2013; RIDH, 2011; Wahab et al., 2015). Africans and many individuals in developing countries have not cultivated the habit of protecting health but rather attending to health when the need arises (Wahab et al., 2015). However, all the participants of the study expressed their conviction that preventive health care services are essential in preventing stroke. They emphasized the fact that accessing preventive health services such as annual check up and screening for high cholesterol, hypertension, and diabetes is significant in preventing stroke. Their change of attitude as stated by one of the participants (P3) is because the system here in the U.S. has made it easier in terms

of availability and accessibility. P8 summed up well by stating that annual physical is not just about ascertaining one's health status but it helps to stop a diagnosed ailment from going out of proportion.

However, research on health care utilization and prevention services among immigrants has documented gender differences and culture as issues of great concern. The findings of the study conducted by the Rhode Island department of health concluded that female participants were more willing to utilize health care when needed but since they have no health insurance, they cannot take advantage of preventive services (RIDH, 2011). While the men because of an age-long African beliefs and practices only go to the hospital when they are sick even though they have been in this country for over 15 years (RIDH, 2011). Lucas et al. (2003) examined the utilization of health care services by immigrant African men and concluded that since oversea-born black men have better health profile than U.S.-born blacks, they were less likely to employ the use of health care services than U.S.-born black or white men. Thus, they are at lower odds of taking advantage of preventive services (Lucas et al., 2003).

Men Seek the Opinions of Their Wives on Health Issues

Women are seen as resource persons in health care matters. One possible explanation for this variation is that women often take advantage of physician's office visit than men (Waller et al., 2004). Five out of the six participants who are married normally consult their wives when they are symptomatic. This statement was consistent with the finding that women are more health conscious than men and have more knowledge of health risks than men (Blocker et al., 2006). The participants highlighted

their position by stating that women are more accustomed to visiting hospitals because of childbirth and caring for family, most especially children. Women have to go the hospital during pregnancy for pre-natal and ante-natal care. This was one of the new findings that emerged from the study and no known research has been conducted in respect of this issue. Something to be explored in the future.

Theoretical Model

Although different individual, interpersonal, and communal theoretical models of health-behavior can be applied to issues of stroke, HBM and HPM constitute the primary theoretical framework of this study. Any attempt to minimize the risks of disease and improve the health of the community requires designing programs that will primarily focus on health behaviors, beliefs, and environmental factors (Allender & Spradley, 2007). The constructs of these models are present in the results of this study. The participants perceived employing the use of preventive services such as screening for hypertension, cholesterol, and diabetes as beneficial in the prevention of stroke.

History of stroke in some of the families of the participants and limited knowledge of the warning signs and risk factors of stroke are cues to be proactive in seeking medical attention when needed. Cultural health beliefs and practices are ingrained in the daily lives of the African immigrant communities. They are superstitious and this can be interpreted as lack of self-efficacy. By believing that sickness does not occur naturally and that somebody is responsible, and also their perception of sickness has the prospects of limiting their understanding or confidence in going to the hospital for their health needs.

The idea of informing culturally sensitive stroke education, an essential strategy in the prevention of stroke served as the framework for developing my research questions and provided a platform for discussing my research findings, and drawing conclusions. Schneider (2011) proposed that educating the public on the warning signs of stroke is an essential aspect of the chain of survival and of better stroke care. The ethnographic approach adopted in this research made it possible for the participants to provide an in-depth and rich description of their perspectives of the risk factors of stroke. The information provided by the participants will be used in designing a culturally sensitive stroke prevention education, which will focus on raising the awareness of the knowledge and the risk factors of stroke among male African immigrant population. This represents a collaborative approach aimed at bringing about social change with the sole aim of improving the health and wellbeing of foreign-born Anglophone male immigrants in the U.S.

Limitations of the Study

Several limitations are present in this study. This is a nonrandom convenience sampling design, which is purposeful in nature and with a small sample size of 8 males from two different African countries living in San Diego. The findings of the study might not be generalizable to the larger African-born immigrant population in the United States because of the research design and sample size. The sample size involves relatively small numbers of participants, and the results may not be representative of the entire population. The findings provide an overview of the perceptions, beliefs , and practices of

the participants in relation to health. The information, therefore should not be interpreted in the context of percentages but in general terms.

Further, considering the diversity and variation among African immigrants, it might be difficult to describe a set of values that encompass all groups (Akpuaka et al., 2013). This will restrict the findings of this study to be generalizable. Also, this is the first time most of the participants have taken part in a research study. The responses provided by most of these participants were brief and concise. In respect of the credibility of the findings, obtaining more data could have been helpful. However, many of the participants provided the same information, which enhances the credibility of the findings of the study. Mot of the participants had limited knowledge of stroke prior to migrating to the U.S.

Recommendations

This study was descriptive and the findings may contribute to existing literature on how African immigrant male adults perceive the cause, prevention, and treatment of stroke. The foreign-born African immigrant men who participated in this study consider stroke as a disease that might forestall them from fulfilling their culturally designated masculine obligations to their families. Since stroke continues to persist as a major health issue particularly among minority and ethnic groups in the U.S. prospective studies are needed to obtain data on behavioral characteristics associated with stroke among foreign-born African immigrant population. This is necessary because they consist of one of the fastest growing immigrant population not just in the U. S but also in some parts of Europe (Murray et al., 2013; Vaughn & Holloway, 2010). Researchers need to explore

more the extent that African male immigrants interact with American health system and are there enough evidence to suggest that health care providers ensure that this population receives culturally appropriate health care services.

In the course of this study I came to appreciate that there exist some cultural barriers that influence an individual's willingness to seek screening tests and professional care for stroke. These cultural barriers include health beliefs about the cause and prevention of stroke, religious beliefs, gender norms, and misconceptions about Western medicine. However, some specific questions about population health determinants that correlate with the culture of African immigrant males suggest appropriate future research. Does level of education influence the perception of the risk factors of African male immigrants? Is the length of stay in the U.S. associated with the level of awareness of stroke in African immigrant male population? Does marital status play a significant role in the prevention and awareness of stroke? This research was limited to only foreign-born Anglophone male African immigrant from Ghana and Nigeria living in San Diego, California, which makes the findings applicable to this cohort. Future research in respect of how English-speaking African male immigrants perceive stroke and risk factors of stroke from a cultural stand point can be conducted in other locations in the U.S.

Implications for Social Change

Irrespective of the fact that demographic data of this population is available, there is sparse information about the cultural beliefs of this group in respect of the cause of illness, treatment, and utilization of health care services (Adoukonou et al., 2012; Donkor et al., 2014). Immigration has become a significant contributor to population growth,

which has led to the emergence of a culturally diverse society (Maurer & Smith, 2009). Greater diversity implies health care providers will frequently deal with members of different ethnic and cultural groups (Kimbrough, 2007; Purnell, 2009). Bridging the gap between the racial and cultural divide that might pose some challenges in the provision of health care services to immigrants can be made possible through the findings of this study. The valuable insight gained from the participants, will provide opportunity to educate health professionals and community-based organizations about health related issues in San Diego County.

In recent times, the U.S. health care system has taken keen interest in issues of cultural diversity (Shaw et al., 2008). The findings that emerged from this study can be used in planning for the educational campaign or health seminars to raise the awareness of stroke in this population. Hosting of health fairs can also be a great avenue of reaching out the immigrant communities. This strategy will involve inviting an African doctor to provide health screenings and discuss health in a slow paced manner without the usual time constraints approach that is typical of physician visits. This unstructured format and the cultural familiarity will encourage the community members especially men to feel at home and to open up. The participants indicated an interest in receiving more health information about the causes of different diseases and how to prevent them. They were very optimistic that more men share the same interest.

There are many immigrants living in San Diego and this has led to the establishment of different programs and social services designed to meet the needs of the different immigrant populations (Murray et al., 2013). Health educators can incorporate

the findings of this study into the health education and prevention programs targeting African immigrants. Health awareness campaign in the early stage of resettlement can be cost-effective. The participants emphasized the significance of providing health education to new immigrants in respect of the rising incidence of stroke among racial and ethnic minorities in the United States.

Conclusion

This exploratory study was designed to understand how foreign-born West African male immigrants residing in San Diego perceive stroke from a cultural standpoint. The information collected from the study participants led to the emergence of many details such as their limited or lack of general knowledge of stroke and risk factors of stroke before migrating to the U.S. and their current awareness of stroke as a preventable disease. Other details include the perceptions of men about sickness and the negative attributes associated with going to the hospitals, women have better health profile than men and most men depend on their wives to make health care decisions and health is not a priority of most African immigrant men. This study revealed aspects of the lives of African immigrants in relation to cultural health beliefs, behaviors and practices.

The combination of previous literatures and the results of this study suggest a need for more educational campaign to raise the awareness of the risk factors of stroke in the African immigrant communities in the U.S. There is evidence that supports the fact that awareness raising programs can lead to improved knowledge of stroke, which minimizes the incidence of stroke (Ryan, 2012). It is assumed that with culturally appropriate information and increased awareness of the risk factors of stroke, culture

based perceptions and incorrect understanding will disappear over a period of time. In this study, the following areas of attention were identified:

- Health is not a priority in the African culture.
- Gender specific educational campaign focusing on African immigrant males to raise their awareness of stroke.
- Health education should begin right after the arrival of the new immigrants to the U.S.
- Individuals from the community should be integrated into the campaign team.
- Protection of future generations of African immigrants by advancing the knowledge of stroke, which include prevention strategies such as diet, avoidance of sedentary life styles, management of stress, and increased participation in physical activities.
- Information about stroke should encourage the utilization of health care prevention services more.

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Appendix A: Interview Guide/Questions

Primary research question:

What is the general perception of African males about stroke?

Participant's viewpoints on health

What is the understanding of Ghanaians/Nigerians of health and well-being?

What are the cultural beliefs of the causes of illness?

What is the place of religion, spiritual powers and voodoo in the cause, prevention, and treatment of illness in your culture? Do you subscribe to this position?

How would you explain some health words, such as stroke in your culture?

Are you aware of the risk factors of stroke?

What are the cultural beliefs and practices in respect of stroke?

Participant's viewpoints and attitude toward health care access

What is the perception of African men about illness?

How significant is access to health care for you? (*Perceived benefit*).

What does prevention mean to you?

Do you think that access to health care services will be beneficial or not to your health care in a long run (please explain)?

Will you find preventive health care services such as screening for hypertension and high blood pressure helpful? (*Health promotion model*)

Do you go to the hospital only when you are sick?

Are they other remedies like traditional medicine that are utilized in the prevention and treatment of illness such as stroke in your culture? What is your position on these remedies? (*Perceived benefit/Cues to action*).

Have your views on the use of traditional medicine changed over the years since you migrated to the U.S.?

What cultural health beliefs or practices might not encourage you to seek preventive health care services such as periodic check up? (*Perceived severity/susceptibility)*.

Health Promotion in the Community

Do you think the health care system adequately meets your needs? (Please explain) (*Health promotion model*).

If you have the opportunity, what type of services will encourage you to seek health care to prevent stroke? (*Health promotion model*).

Appendix B: Consent Form

You are invited to take part in a research study of West African male immigrants and their perceptions of stroke risks. The researcher is inviting male immigrants born in Ghana and Nigeria, 18 years and above and who live in San Diego, California to participate in this study. It is assumed that participants in this study would provide honest information with regards to their cultural views that might promote or impede health-related decisions in relation to the risk factors of stroke. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part in the study or not.

This study is being conducted by a researcher named Lawrence Agi, who is a doctoral student at Walden University.

Background Information:
The purpose of this study is to explore and understand how cultural health beliefs and practices can either lead to or prevent stroke.

Procedures:
If you agree to be in this study, you will be asked to:

- Sign this informed consent form.
- Participate in a 45 to 60 minutes face-to-face interview.
- This interview will be audio recorded.
- The interview will be conducted in the private office of the church or a private room in a public library.
- A descriptive summary of your knowledge of cultural health beliefs and practices that can either lead to or prevent stroke will be provided for you to check for accuracy.

.

Here are some sample questions:
What is the general perception of African males about stroke?
What is the understanding of Ghanaians/Nigerians of health and well-being?
What are the cultural beliefs of the causes of illness?
What is the place of religion, spiritual powers and voodoo in the cause, prevention, and treatment of illness in your culture? Do you subscribe to this position?
How would you explain some health words, such as stroke in your culture?
Are you aware of the risk factors of stroke?
What are the cultural beliefs and practices in respect of stroke?

Voluntary Nature of the Study:
Your participation in this study is completely voluntary and you have the right and should feel free to withdraw from participation at any stage of this study with no questions asked. Your decision to participate in this study or not to participate will not be shared

with anyone other than the researcher. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as being tired from sitting or becoming emotional from the discussion during the interview. Being in this study would not put you in any risk to your safety or wellbeing. By participating in this study you will contribute to the knowledge about stroke and to a better understanding of how African immigrant males deal with this disease. Findings from this study will help in preventing stroke among other African immigrants who are at high risk.

Payment:
You will not receive any payment for participating in this study; your participation is completely voluntary.

Privacy:
Any information you provide will be kept private. The researcher will not use your personal information for any purposes outside of this research. The researcher will not include your name or other information that will identify you in the study reports. Data will be kept secured in a safe place that only the researcher will access. The informed consent form, and written or transcribed materials will be destroyed by shredding and audio tapes and electronic files will be deleted approximately five years after the completion of the study.

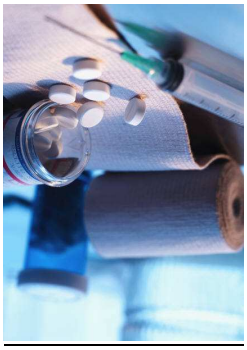
Contacts and Questions:
You may ask any questions you have now. Or you may contact the researcher later on his phone: xxxxxxxxx or by email at xxxxxxxxxxxx. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott, the Walden University representative who can discuss this with you. Her phone number is xxxxxxxxxxx. Walden University's approval number for this study is 06-25-15-0244031 and it expires on June 2016

The researcher will give you a copy of this form to keep.

Statement of Consent:
I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Printed Name of Participant: _____
Signature: _____
Date: _____

Appendix C: Recruitment Flyer



INVITATION

TO A RESEARCH STUDY

Perceptions of Stroke Risks Among West African Male Immigrants In San Diego

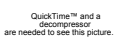
This study is being conducted by Walden University Doctoral student, Lawrence Agi. The purpose of this study is to explore the awareness of stroke risks of West African immigrant community in San Diego. If you choose to participate in this study, you will be interviewed for 45 minutes to 1 hour in respect of your knowledge of cultural health beliefs and practices that can either lead to or prevent stroke.

In order to participate in this study, you must be:

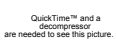
1. Male immigrant born in Ghana or Nigeria
2. 18 years of age and older.
3. Have lived in San Diego for not less than 2 years.
4. Speaks English very well.

If you are interested in participating in this study or you have any questions, please contact the researcher @ xxxxxxxxxxx or xxxxxxxxxxxxx.

Appendix D: Letter of Cooperation



Appendix E: Letter of Authorization



Appendix F: National Institutes of Health Certificates

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Lawrence Agi** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 09/20/2013

Certification Number: 1277515