8-12-2016

Our Grandmothers' Ways: Complementary and Alternative Medicine Use by the Gullah-Geechee in McIntosh County, Georgia

Roman Johnson

OUR GRANDMOTHERS' WAYS: COMPLEMENTARY AND ALTERNATIVE MEDICINE USE BY THE GULLAH-GEECHEE IN MCINTOSH COUNTY, GEORGIA

by

ROMAN JOHNSON

Under the Direction of Lia T. Bascomb, PhD

ABSTRACT

The purpose of this pilot study was to explore complementary and alternative medicine (CAM) use for diabetes management purposes among the Gullah-Geechee of McIntosh County, Georgia. Using snowball and convenience sampling, the researcher selected four adult participants, at least 60 years old, who had Type 2 diabetes, and reported using CAM for Type 2 diabetes management. Two community experts were included in the study also. In conjunction with visiting allopathic physicians, Gullah-Geechee people use several types of CAM, but do not use CAM types such as teas like life everlasting (*Gnaphalium polycephalum*) and cinnamon capsules for chronic conditions. Participants selected for this study were raised in McIntosh County, Georgia, and identified as Gullah-Geechee. The data was gathered using phenomenological interviewing. A semi-structured interview format was provided to participants' to understand their experiences using CAM for diabetes management. Interviews did not exceed an hour. Reported herbal tea use received additional consideration.

INDEX WORDS: CAM, Diabetes Management, Gullah-Geechee, Sapelo Island, Georgia, McIntosh County

OUR GRANDMOTHERS' WAYS: COMPLEMENTARY AND ALTERNATIVE MEDICINE USE BY THE GULLAH-GEECHEE IN MCINTOSH COUNTY, GEORGIA

by

ROMAN JOHNSON

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

in the College of Arts and Sciences

Georgia State University

2016

OUR GRANDMOTHERS' WAYS: COMPLEMENTARY AND ALTERNATIVE MEDICINE USE BY THE GULLAH-GEECHEE IN MCINTOSH COUNTY, GEORGIA

by

ROMAN JOHNSON

Committee Chair: Lia T. Bascomb

Committee: Jamae Morris

Akinyele Umoja

Electronic Version Approved:

Office of Graduate Studies

College of Arts and Sciences

Georgia State University

August 2016

DEDICATION

I dedicate this project to the God who heals, comforts, and promotes our highest good. In this same spirit, I dedicate this work to all the ancestors whose work, both known and unknown, made my work possible.

ACKNOWLEDGEMENTS

Thank you thesis committee members and each member of my graduate cohort whose encouragement and scholarly feedback made this project possible. Thank you to the community members of McIntosh County, Georgia for their time and willingness to offer their thoughts.

TABLE OF CONTENTS

LIST OF TABLES

1 INTRODUCTION

After Native-Americans, African-Americans have the highest rates of diabetes across all racial ethnic groups and the highest number of individuals on diabetes prescription medication in the United States (Age-Adjusted 2015; Age-Adjusted 2013). Taking prescription medication is an option for diabetes management; however, some individuals decide to forgo taking prescription medication and choose alternative medication instead (alternative medicine). Others decide to take a middle-road approach and continue to use the prescription medications while also choosing to use another approach to treating their disease (complementary medicine). Use of complementary and alternative medicine (CAM) as a solution for disease management has steadily increased in the United States (Barnes, Bloom, and Nahin 2007). CAM is often used to respond to a range of medical conditions including cancer, hypertension, HIV/AIDS, rheumatoid arthritis and diabetes (Barnes, Bloom, Nahin 2007). According to Barnes, Bloom, and Nahin (2007) over 20% of African-Americans use at least one form of CAM to treat chronic illnesses like diabetes. Recent research has examined CAM use, including herbal tea use, by the Gullah-Geechee people for diabetes management, but does not address the reasons for CAM use (Johnson-Spruill et. al. 2009).

McIntosh County, Georgia is located on the Atlantic coast of Georgia (Welcome McIntosh County 2012). Many of the Gullah-Geechee people came from the Guinea coast and the Senegambia region during the Middle Passage (Pollitzer 1999). According to Joseph Opala, a Gullah-Geechee culture expert, the Mande people of Sierra Leone, for example, were master planters of rice coming from people who grew rice in their homeland and whose diet and culinary traditions included rice dishes (Knight & Manson 2007; Twitty 2015) .

There is a Gullah-Geechee population in McIntosh County, Georgia. Sapelo Island is located in McIntosh County, Georgia and is accessible only by ferry. Most of its population is unemployed with increasing property taxes. Many fear they will have to soon leave because of high property taxes (CNN 2013). With the tide of gentrification to the island and the building of tourist hotels and spas in the nearby St. Simon's Island, many native Sapelo islanders are afraid that the rising property taxes will certainly make their lives more difficult. Sapelo Island only has 50 residents on the island, however, on the mainland of McIntosh County there are 14,333 people according to the 2010 United States Census (U.S. Census 2015).

According to Wickersham et. al. (2013), African-Americans represent 36% of the population of McIntosh County, however, it did not specify if these African-Americans identify as Gullah-Geechee. According to Bailey (2001), many Gullah-Geechee people have moved off the island of Sapelo because of high unemployment and poor educational opportunities. In McIntosh County, people are burned by both high levels of obesity and unemployment. Unemployment rates in McIntosh County are 18.8% compared to 5.6% in the state of Georgia and only 6% of people there have a bachelor's degree or higher, 33% are obese, and 23% do not have health insurance (American Community Survey 2015; Wickersham et. al. 2013). Obesity is one of the major predictors of the development of diabetes and is correlated with physical inactivity. Physical inactivity is connected to worse diabetes outcomes. According to the Centers for Disease Control, Americans living in the southern part of the United States are more likely to be less physically active. According to Wickersham et. al. (2013), there are high levels of physical inactivity among the African-American population in McIntosh County. Thirty percent of McIntosh residents reported physical inactivity. Physical inactivity is connected to obesity.

According to a 2012 study, McIntosh County reports the highest levels of obesity and lowest levels of physical activity in coastal Georgia. Obesity is one of the major predictors of the development of diabetes. Over 1 in 3 people are obese in McIntosh County. Living in an area where there are 2 physicians per every 7,000 people makes it more difficult to be seen regularly by a physician. high levels of physical activity translates to higher levels of diabetes management rates for the Gullah-Geechee. According to Johnson-Spruill et al. (2009), half of Gullah people (living in South Carolina) do not get adequate exercise, go for ophthalmologist visits, visit the dentist or the podiatrist.

According to Wickersham et. al. (2013), 80% of people in McIntosh County had diabetic screenings in 2013. In 2009, 11.4% of McIntosh County residents had been diagnosed with diabetes. In the assessment 7% of respondents reported having ever been affected by diabetes. There is only 1 dentist per 14,100 individuals. With the low numbers of physicians and dentists available, easily accessible basic health care services are limited. Food security is an issue in McIntosh County. Forty-two percent of low-income people in McIntosh County reported not having access to a grocery store. Thirty percent of the restaurants in McIntosh are fast-food restaurants. McIntosh County is 35% African-American, and 42% of respondents in the McIntosh Public Health Community Needs Assessment were African-American which is an overrepresentation in the survey. Seventy percent of people in McIntosh earn less than 35, 000 dollars per year.

1.1 Gullah-Geechee People & Sapelo Island, Georgia

Gullah-Geechee people live on the mainland and coastal islands of Georgia, North Carolina, South Carolina, and Florida (Gullah/Geechee 2015). According to Cornelia Bailey in

her autobiography which deals with growing up on Sapelo Island, *God, Dr. Buzzard, and the Bolito Man*, "Sapelo Island is south of Savannah, Georgia, and north of Jacksonville, Florida, in the Sea Islands, a chain of islands hugging the coastlines of South Carolina, Georgia, and the northern part of Florida on the Eastern Seaboard of the United States" (Bailey, 2001, p. 2). The most well-known area of the island is called South End, where an old sugar plantation house that now belongs to the University of Georgia Marine Institute called the "Big House" lies. The last Gullah-Geechee community, Hogg Hammock, lies three miles inland from the Big House. Hogg Hammock is on the southeast part of the island and was a haven for newly freed slaves after the Civil War. Thomas Spalding was the primary slave owner during the antebellum period on Sapelo Island, Georgia. He enslaved individuals to produce indigo, cotton, and rice, owned many people who are today known as Gullah-Geechee because of their particular cultural and historical trajectories (Bailey 2001). The founding mythology of the community is that a slave of Thomas Spalding, a wealthy tobacco planter on Sapelo, did not want to name himself Spalding so he took Hogg as a last name because he raised hogs for Spalding (Bailey, 2001, p. 108). Other communities that Gullah-Geechee lived in on Sapelo include Raccoon Bluff and Piney Woods, but are no longer populated today. The earliest Europeans arriving on Sapelo Islands were Spanish enslavers who brought Africans and established a mission on the island. In the late 1750s, British colonialists came and settled on the island. In 1760, it is claimed that Grey Elliott, a British colonial officer, bought the island. In 1762, the island was sold to Patrick Mackay.

In 1784, McKay's heirs sold the island to John McQueen. In 1789, the island was sold to Francois Dumoussay, a Parisian Frenchman. Dumoussay established a beef corporation, the Sapelo Company, which owned many slaves. After the Sapelo Company failed, Dumoussay sold his slaves and swaths of land. During this era, the island was divided into several parts North

End, South End, Kenan Track, Raccoon Bluff, and the Lighthouse Track. From the 1790s until 1843, there were many different slave owners on Sapelo Island. Edward Swarbreck, an owner of the North End Track/Chocolate Plantation, had slaves at the ruins at Chocolate. According to a magazine feature that examined the heritage preservationist and author, Cornelia Bailey, and the history of Sapelo Island, states that in 1802, Thomas Spalding brought the 17,650-acre island now known as Sapelo Island (Evans 2004). Thomas Spalding also gave his children, including Randolph Spalding, many of the people he enslaved. At the time of the 1860 census, Randolph and his siblings had 650 people enslaved. During the Civil War, General Robert E. Lee ordered residents of the coastal Georgia islands to abandon them. In the late 1860s, because the former plantation owners did not have a slave labor force providing free labor, they began to experience financial strain. As a result of this, they began selling their land to some of the newly freed African-Americans (Sapelo 2015). In 1912, the Spalding heirs sold all their remaining land ownings to Henry Coffin, the automobile-industrialist magnate. In 1933, Coffin sold the island to R.J. Reynolds (Van Atten 2016). When Reynolds died in 1964, his estate gave his land ownings to the State of Georgia. It is important to note that when Reynolds was owner of Sapelo, he coerced people and relocated various settlements on the island displacing many (Evans 2004). Bailey (2001), suggests that Reynolds brought electricity to the island and used that to manipulate and coerce Gullah-Geechee individuals of their land whose families had been living on Sapelo Island for centuries. Reynolds bought the mansion of slave-owner Thomas Spalding and renovated it. According to a class-action complaint against the State of Georgia by Gullah-Geechee individuals who feel they have been unfairly taxed without the requisite social services provided to them, the State of Georgia owns 97% of Sapelo Island, Georgia (Drayton et. al. v. McIntosh County, Georgia et. al. 2016).

The Gullah-Geechee people are descendants from people from West and West Central Africa (Pollitzer 2005, p.120). Thousands of enslaved West Africans were seized and shipped to slave markets in Charleston and Savannah and sold to planters in the Sea Islands (Bailey, 2000, p. 3). The many people groups that came together on the island had to speak to each other so they created a creole language made up of different African languages and English to understand each other. Bailey claims that the terms "Geechee" and "Gullah" may come from two neighboring tribes in West Africa, the Kizzi (pronounced "Geezee") who lived in modern-day Liberia and Sierra Leone, and Gola, a tribe on the Sierra Leone-Liberia border (Gomez 1998). Both of these tribes were very skilled in rice production and were brought by English planters because of their expertise. Other than rice, these groups cultivated tobacco and indigo in the New World. The Gullah-Geechee represents one African-American subgroup that has retained many of their African elements in song, dance, language, religion, and foodways (Creel 1989).

The Gullah-Geechee people have a common ancestry in rice-cultivating West and West Central Africans who arrived in Sapelo by virtue of the enslavement process, but there are differences in labeling. According to Bailey (2001), some Gullah-Geechee refer to themselves as *saltwater* Geechee people and others refer to themselves as *freshwater* Geechee. Geechee people from Sapelo refer to themselves as saltwater Geechee. Saltwater Geechee people live on islands such as Sapelo and freshwater Geechee live in mainland towns such as Brunswick and Savannah, Georgia and Charleston and Beaufort, South Carolina.

The Gullah-Geechee, like the larger African-American population in the United States, are highly susceptible to diseases such as diabetes, hypertension, and high cholesterol. Cardiovascular disease is also a major correlate of diabetes among African-Americans (African-Americans Heart Disease 2015). According to Johnson-Spruill et. al. (2009), half of Gullah

people (living in South Carolina) don't get adequate exercise, go for ophthalmologist visits, or visit the dentist or the podiatrist. According to the above author, health education programs geared at Gullah Geechee families need to be "culturally appropriate" and reflect the values and beliefs of Gullah people in order to be effective. Health services providers benefit from designing educational programs undergirded by Gullah systems of knowledge to decrease preventable diseases such as diabetes for Gullah-Geechee people. The purpose of this study is to explore use of complementary and alternative medicine for diabetes management among the Gullah-Geechee from Sapelo Island, Georgia. This study's research questions are the following: (1) How do Gullah Geechee describe their experience living with diabetes? (2) What do the Gullah Geechee in McIntosh County, Georgia do to manage their Type 2 diabetes? These questions get at the notion of cultural appropriateness because they are interested in how people's ethnic background is related to diabetes management.

1.2 The Purpose of the Study

With respect to African-Americans in general, and Gullah-Geechee people in particular, evidence of CAM use exists. Tiara Banks's study "Folk Medicine Use Among The Gullah: Bridging The Gap Between Folk Medicine and Western Medicine" (2013) explored cultural folk medicine practices, evaluated the perceived effectiveness of those folk medicine practices, and assessed the incorporation of Gullah folk medicine practices among Western trained health care providers in the Gullah community. This study is different because it explores the experiences and reasons for use of CAM broadly with respect to solely Gullah-Geechee people from McIntosh County, Georgia only. In Banks's study, only two people from Sapelo Island were examined and none were interviewed about diabetes management practices specifically. In this study, CAM is synonymous with folk medicine and traditional medicine. Debra Harley defines

indigenous medicine as "the methods, techniques, and materials that [Africans] used as a result of their heritage and relocation to the New World to heal, cure, and respond to physical, medical conditions and psychological circumstances" (Harley, 2006, p. 435). The purpose of this study is to understand how Gullah-Geechee people manage their diabetes with complementary and alternative medicine forms. Diabetes management refers to the practices that diabetes patients undertake to improve blood glucose, blood pressure, exercise habits, and nutritional habits. This research will explore diabetes management in McIntosh County, Georgia where doctor availability is scarce. Because research on the diabetes management practices amongst the Gullah-Geechee is limited, the findings in this research will contribute to the gap in health research that focuses on marginalized groups.

1.3 Historical Overview

Gullah-Geechee people in coastal Georgia are the descendants of rice cultivating groups from West and Central Africa who were familiar with the crop *Oryza glaberrima*, which is also known as African rice. Rice cultivating areas of Africa include modern day Sierra Leone, Senegal, Gambia, and Nigeria. According to Smith (1985), the area she calls the "Rice Coast," which includes Georgia, was the center of rice production in 19th century America and is the area the study participants come from. Smith (1985) claims the rice industry of colonial Georgia was huge and defined the economy of the "tidewater society" of coastal Georgia (Smith, xiii). Also, this author notes that before 1865 rice cultivation was only happening on "a coastal strip along the eastern seaboard… called the tidewater or low country--a relatively narrow belt that stretches from North Carolina to Florida…. [Both] South Carolina and Georgia [provided] the swamp land [necessary] to produce 90 percent of the rice in the United States [at that time]" (Smith 1985).

According to Linares (2002), African rice was cultivated on the continent of Africa thousands of years before the arrival of Europeans. Before the Middle Passage, this grain was a staple in the African diet used in meals throughout the continent. Today, African rice is being replaced by Asian rice (Oryza sativa), and also being hybridized with this strain of rice to produce a better type for production. African rice is native to sub-Saharan Africa and is believed to have developed from the "wild ancestor *Oryza barthii* by peoples living in the floodplains at the bend of the Niger River" about "2,000 to 3,000 years ago" (Linares 2002). Because African rice had been a familiar crop to the Africans who arrived in the New World for thousands of years before encounter white imperial nations, they already possessed a thorough knowledge of the cultivation background necessary to spur the "strange" demand, to use Smith (1985), for rice in the American enslavement society era and after.

Linares (2002) examines the history of African rice and traces its production to "an early" rice producing culture in Senegal of a people called the Jola. In what Linares (2002) claims to have happened around the middle of the 16th century, Portuguese conquistadors looking to claim new land and enslave nations introduced the Asian variety of the grain to the continent of Africa. With the arrival of the Portuguese into the continent, the beginning four centuries of enslavement commenced that would scatter several nations into a diaspora residing in the Americas (Brazil, the Caribbean, the United States, and Canada), the British territories, and areas on the continent of Africa. In 1446, Portuguese conquistadors stumbled upon the coasts of Guinea and marveled at what they saw: large swaths of land with "cotton trees…[and]...rice" (Linares 2002). The historian Peter Wood in his book, *The Black Majority*, notes that the reason for the great numbers of rice cultivating Africans, many of them Gullah-Geechee, is because of their cultivation abilities and their immunity to tropical diseases such as malaria. Malaria decimated the

Portuguese and other European raiding travelers to the continent because they lacked immunity. The immunity of these Africans to malaria contributed to their survival in the mosquito heavy areas of coastal Georgia and South Carolina. These areas were notorious to the planter class for their fertility and penchant for being the incubation for deadly diseases. Many white individuals, because of this fact, traveled to the mainland areas away from the water which carried these mosquitoes during the summer. This pattern of summer escaping contributed to Gullah-Geechee people in Georgia coastal areas being less exposed to European cultural patterns in comparison with their non-coastal counterparts.

Notwithstanding what Smith (1985) calls "absenteeism," plantation owners in the rice coast Georgia enjoyed a life where they would frequently leave their plantations to the direction of the overseers and the enslaved trained to assist the overseer. Smith distinguishes Georgia absenteeism from Caribbean slave-owners by describing Caribbean slave owners as being individuals who would visit local plantation-owning friends before altogether leaving for England permanently once they had amassed a fortune large enough to be comfortable. Instead these southern slave-owners who enjoyed urban centers like Savannah and Charleston focused their attention on other plantation owning practices to increase their profit. To become more proficient in the arts of extracting wealth from human toil, they would travel to other plantations and watch how the owners of those plantations conducted their machine (Smith 1985). The culture of the Gullah-Geechee people is linked to this kind of slave agricultural economy that places communities of individuals on the coast of South Carolina, Georgia, and North Carolina to harvest crops like rice, indigo, and tobacco. The Gullah-Geechee were possibly able to continue developing their African retentions because they were isolated from European overseers

and people in general more than other mainland African-descended communities during the early part of their enslavement in the United States.

2 LITERATURE REVIEW

2.1 Defining Complementary and Alternative Medicine (CAM)

According to the National Center for Complementary and Integrative Health (2008), complementary medicine refers to therapies used together with conventional allopathic medicine. Alternative medicine refers to therapies used instead of conventional allopathic medicine. The National Center for Complementary and Integrative Health recognizes CAM therapies that are commonly used by Americans including Ayurveda, acupuncture, acupressure, naturopathy, Chinese medicine, chiropractic medicine, massage, body movement therapies, tai chi, yoga, dietary supplements, herbal medicine, nutrition, healthy dieting, electromagnetic therapy, reiki, qigong, meditation, biofeedback, hypnosis, art, dance, music, visualization, and guided imagery.

One of the main arguments against the use of CAM is its untenable effectiveness in treating illnesses and other health conditions. For example, a study completed by scholars in the Department of Physical Medicine and Rehabilitation at the University of North Carolina, Chapel Hill analyzed the findings of Ernst et. al. (2001) and found that the evidence strength for many CAM types was low to moderate as far as their ability to treat different ailments (e.g. insomnia) (Curtis 2001). Some scientists believe that since many CAM therapies have not undergone the same peer-review processes that prescription medications go through, they should not be used and are potentially dangerous to populations because of a lack of organizational oversight (e.g. Food and Drug Administration) (NIH 2008 Report CAM). Communities like the Gullah-Geechee have been using CAM, which includes traditional medicine (also known as folk medicine), since the time of enslavement in America (Bailey 2001). This study broadens the definition of the

National Center for Complementary and Alternative Medicine to include traditional medicine. Traditional medicine is defined by the World Health Organization as "the sum of the knowledge, skills, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well in the prevention, diagnosis, improvement or treatment of physical and mental illness" (World Health Organization 2000). This definition of traditional medicine is warranted because as it currently stands the National Center for Complementary and Integrative Health doesn't address cultural forms of CAM such as use of life-everlasting for treatment of illness or use of root workers for healing services. Although my study has not found a significant level of use of these CAM types, including them in the accepted CAM modes is inclusive of the Gullah-Geechee people's historical connection to them. The World Health Organization states that in some countries traditional medicine and CAM are regarded as the same, and states that traditional medicine use is a primary source of health care in many places. Because current understandings are Eurocentric, Harley (2006) states that understandings of CAM should be expanded to include traditional remedies also known as folk medicine. Loudell Snow in her article "Sorcerers, Saints, and Charlatans: Black Folk Healers in Urban America" stated that low-income, urban African-Americans use folk medicine to cure physical and spiritual illnesses. From a folk medicine perspective, illnesses have spiritual origins. There is a gap in knowledge about African-American folk medicine users and their reasons for use. Showing the degree to which people use folk medicine, and the reasons for use among African-American populations will provide some of the necessary data for individuals and organizations wishing to understand the nature of CAM for diabetes management in McIntosh County, Georgia.

Barnes, Bloom, and Nahin (2007), through the use of data from the 2002 and 2007 National Health Interview Surveys, which explores CAM use across all racial/ethnic groups in the United States, posited that African-Americans were less likely to use CAM in comparison with non-Hispanic whites and Asian Americans. With regard to regional differences to CAM use, this research is not able to generalize with regard to African-American populations because each geographic population may have factors which make CAM use higher or lower. Future research will need to examine this area to provide information. When considering CAM use among African-Americans, cultural retentions and belief systems are important for interpreting the behavior of African-Americans (Turner 2002). Beliefs around CAM use by African-Americans may stand in opposition to biomedical explanations of illness, health, and disease (Giger, Davidhizar, and Turner 1992). Many African-Americans cite belief in a spiritual power for healing purposes. Because the Western epistemological framework does not address the invisible as a causative factor (e.g. the healing power of God), it is not completely suited to use this framework to understand the Gullah-Geechee who are heavily invested in religious beliefs about healing.

To understand the cultural symbolisms behind African-American use of CAM the ways that African culture has traveled through oral transmission has to be considered. Oral transmission is a primary way health belief systems are preserved (Brady 2001). Through oral transmission pathways, health beliefs travel through generations. In health belief systems, individuals decide what value certain health tools have (e.g. allopathic medicine). Furthermore, the health beliefs of the Gullah-Geechee are rooted in their culture. As expressed earlier, religious beliefs and confidence in the power of prayer to positively change health outcomes are indicative of Gullah-Geechee health belief. Because of the religious culture many African-

Americans inhabit, their descriptions of their health condition may be shrouded in religious language even when they may not necessarily practice the religion (Cui et. al. 2012).

Public health interventions are usually grounded in a biomedical framework and do not recognize or fully integrate alternative explanations for disease that many African-American communities have as a part of their ancestral inheritance. Many public health interventions, as they are carried out in African-American communities, do not involve the community members in their research. As a result, interventions sometimes have conclusions that create pathologies out of the different health practices that are exemplified. Typically, public health interventionists go into ethnic minority communities with assumptions grounded in the Western paradigm. Understanding that African-Americans are culturally complex and that culture informs their health behavior is essential to this project.

2.2 Diabetes Management and African-Americans

Diabetes mellitus, also known as diabetes, refers to a group of metabolic diseases that negatively impacts insulin intake (Library of Medicine 2016). Over 382 million people worldwide are living with diabetes. People of African, Middle Eastern, or South Asian descent, and those who have had a relative who has had Type 2 diabetes, are more likely to develop diabetes. In the United States, according to the U.S. Department of Health and Human Services Office of Minority Health, African-Americans are almost twice as likely to be diagnosed with diabetes compared to non-Hispanic whites (Diabetes AA 2015). Diabetes is a long-term, or chronic disease. The most common diabetes symptoms include frequent urination, intense thirst and hunger, weight gain, unusual weight loss, fatigue, cuts and bruises that do not heal, male sexual dysfunction, and numbness in hands and feet (Diabetes and African-Americans 2015). There are three types of diabetes: Type 1, Type 2, and gestational diabetes.

In Type 1 diabetes, the body does not produce enough insulin. Insulin is a key proponent in the digestion of complex sugars. Approximately 10% of all diabetes cases are Type 1 diabetes. People with Type 1 diabetes must take insulin injections and ensure proper blood glucose levels by monitoring their blood glucose and adhering to an appropriate diet. According to *SEARCH for Diabetes in Youth*, a publication by the Centers for Disease Control and Prevention, between 2001 and 2009, the prevalence of diabetes rose in the United States by 15% among children who were less than 20 years old (Petitt et. al 2014).

Type 2 diabetes is characterized by a resistance to insulin and/or a relative inadequate production of insulin by the pancreas (Facts Type 2 2015). The World Health organization reports diabetes as one of the leading causes of mortality and morbidity worldwide. In 2012, 29.1 million Americans had diabetes, or 9.3% of the population (Overall Numbers 2014). Approximately 90-95% of those affected by diabetes have diabetes mellitus, or Type 2 diabetes (CDC 2011). African-Americans and Hispanic people (13.6%) are twice as likely as whites (7.6%) to acquire diabetes. For African-Americans, this difference is related to a lack of information about diabetes prevention and treatment (American Diabetes Association 2014; Cullen and Buzek 2009).

Gestational diabetes occurs during pregnancy, and sometimes leads to complications for the mother post-pregnancy. Among African-American women, gestational diabetes is 2-4 times higher compared to non-Hispanic, Caucasian women. More gestational diabetes is linked to lower levels of income, and it can complicate the health of the mother and her child making the child more likely to become diabetic themselves (American Diabetes Association 2015).

There is a disparate effect of diabetes on racial and ethnic minority populations, and diabetes may be a serious chronic condition for African-Americans to contend with (Treatment

African-Americans 2015; Chow et al. 2012). Even though this is a problem for many African-American people, many people don't know how diabetes is caused, how to identify the symptoms, or have an understanding of how to prevent the disease (American Diabetes Association 2014). Typically, because of the foods that African-Americans consume that are often highly loaded with starchy foods, insulin deficiencies result (Kulkarni 2004). Reducing the level of starchy foods and adding more things such as herbal teas could prevent diabetes for this population. Because diabetes is one of the leading causes of physical disability and neuropathy for African-Americans, the prevention of diabetes is vitally important. Exploring the reasons for herbal tea use among African-Americans could provide valuable information to health promotion specialists who work in the field of diabetes treatment and prevention.

Diabetes management and treatment looks different for everyone. The American Diabetes Association (2015) defines diabetes management as the "the ongoing process of managing diabetes. [Diabetes management] includes meal planning, planned physical therapy, planned physical activity, blood glucose monitoring, taking diabetes medicines, handling episodes of illness and of low and high blood glucose, managing diabetes when traveling, and more. The person with diabetes designs his or her own self-management plan in consultation with a variety of health care professionals such as doctors, nurses, dietitians, pharmacists, and others".

Diabetes can be treated by changing to a nutritionally adequate diet composed of low cholesterol foods, losing weight, taking prescription medications, and increasing exercise to control blood sugar level (Diabetes 2014). The main distinguishing factor between diabetes management and treatment is lifestyle change. To treat diabetes, patients have to be committed to making lifestyle changes that can reverse the advancement of diabetes.

Project SuGAR is important because it is the first study to pinpoint diabetes mellitus genetic markers within any Gullah-Geechee population. Project SuGAR's study provides insight about diabetes management practices in African American rural populations in South Carolina. The Project SuGAR study was conducted by doctors and nurses at the Medical University of South Carolina from 1994 to 2004. This study happened in conjunction with several health centers, community organizations, and historically black colleges and universities. One of the goals of Project SuGAR was to learn about the genetic map related to diseases such as a diabetes among the Gullah in South Carolina specifically. Johnson-Spruill et. al. (2009) analyzed the findings from Project SuGAR and looked at diabetes among the Gullah-Geechee and the quality of diabetes management for this population. Project SuGAR sought to trace the DNA markers of diabetes in Gullah-Geechee families from South Carolina. According to Johnson-Spruill et al. (2009), diabetes management among the Gullah-Geechee of South Carolina was low. Only 27.7% of participants reported daily glucose monitoring. Diabetes management is an important part of health promotion. 44% reported not exercising often. 11% reported herbal remedy use. As a group, African-Americans represent the population with the highest glycemic rates (blood sugar) because of poor eating habits and not taking prescription medication regularly (Marshall 2007). As a group, African-Americans report low adherence to diabetes management plans given to them by their doctors (Huffman et. al. 2013). According to Project SuGAR, rural African-Americans when compared to other African-American groups have higher levels of high blood pressure and worse glycemic regulation rates (Johnson-Spruill et. al 2009). Also, according to that study herbal tea has been reported as a part of the diabetes management process. However, this study's findings contradict the findings of Project SuGAR because this study. Four participants reported adhering to diabetes management plans (e.g. taking prescribed medication,

consuming diabetic diet, and exercising). The Gullah-Geechee of McIntosh County, Georgia differ from Gullah-Geechee people in South Carolina in this manner.

2.3 CAM Use by African-Americans

In this section, studies that refer to CAM are referring to the National Center for Complementary and Alternative Medicine's definition of CAM (now National Center for Complementary and Integrative Medicine) which includes Ayurveda, acupuncture, acupressure, naturopathy, Chinese medicine, chiropractic medicine, massage, body movement therapies, tai chi, yoga, dietary supplements, herbal medicine, nutrition, healthy dieting, electromagnetic therapy, reiki, qigong, meditation, biofeedback, hypnosis, art, dance, music, visualization, and guided imagery. Eisenberg et al. (1998) examined trends in CAM use among Americans from 1990 to 1997. In the study, African-Americans who used CAM tended to have a chronic illness. African-Americans continue to use CAM for chronic diseases today. Some of the CAM types that these participants used in the Eisenberg et. al (1998) study included multivitamins (not prescribed by a doctor), herbal remedies, prayer, spiritual healing (e.g the laying of hands), a vegetarian diet, energy healing (e.g. the use of magnets), and meditation. Chronic illnesses such as HIV/AIDS, diabetes, rheumatoid arthritis, cancer, and other illnesses have contributed to the steady use of CAM for Americans presently (Metcalf et. al. 2009). Health care delivery experts working with marginalized populations should ask their patients about their use of CAM because knowing why CAM is being used by the population could prevent possible harmful prescription drug interactions with the alternative therapy.

Because CAM is the most widely available method of health treatment according to the World Health organization, there needs to be an assessment of populations who use CAM and an exploration of why these populations use CAM (World Health Organization 2013). Currently,

there is a joint task force by the member states of the World Health Organization to look at complementary and alternative (traditional) medicine products, providers, and systems. There are possible policy implications to my research into Gullah-Geechee people from Sapelo Island and their use of CAM. If policymakers knew more about CAM use, they could argue for more governmental funding to fund health interventions which incorporate CAM use for diabetes management. This research will examine the role CAM plays in a specific African-American community and that community's health decision making and health maintenance practices.

Cui et al. (2012) looked at the prevalence, trends, and correlates of practitioner-based CAM use among black and white low-income populations across the southeastern part of the United States, including Georgia. The authors examined several CAM types including acupuncture, going to a massage therapist for pain, going to see a traditional healer, acupuncturist, and going to see a chiropractor. According to Cui et al. (2012), complementary and alternative medicine use among southern African-Americans is correlated with higher levels of educational attainment and income. The researchers found that low-income, non-Hispanic whites use CAM more than low-income African-Americans. This research affirms that this trend in prevalence could be because of disparities in income, and possibly exposure: there are often no chiropractic or massage related facilities in low-income, African-American communities. Chiropractic, ayurvedic, and naturopathic physicians tend to be based in middle and upper class neighborhoods. The researcher believes that this is important for researchers when analyzing the health access to CAM for African-Americans. Chiropractic services, Ayurveda providers, and naturopathic physicians tend to be located more in middle and upper class neighborhoods. Many African-Americans because of low-income class status may not be familiar with CAM therapies like Ayurveda.

Keith et al. (2005) investigated racial differences and CAM use and considered the variables of age, gender, region, marital status, education, income, health status, and satisfaction with conventional health care and access measures. The NCCAM's definition of CAM includes chiropractic services. However, many low-income, African-Americans probably would not be able to afford chiropractic services (Astin 1998; Eisenberg et al. 1998; Tamhane et. al. 2014). Scholars have shown that ethnicity is closely associated with socioeconomic status, barriers to care, health status, and other predictors of conventional health care use (Chin et al. 2000; Guendelman and Wagner 2000). Income and educational attainment levels among ethnic minorities matter when it comes to CAM use. Greater income levels have a correlation with more use of CAM. Among Mexican-American women, for example, women who had higher incomes reported greater rates of using CAM. Chao and Wade (2008) looked at groups of ethnic minority women's use of CAM in the United States. The literature on ethnic minority access to CAM would be advanced by a thorough look at some of the socio-cultural factors of the African-American subgroup, the Gullah-Geechee. African-American women who went to college were three times more likely to have used CAM (Chao & Wade 2008). This phenomenon may be related to the fact that there was a more narrow definition of CAM used. Income was not associated with CAM use among African-American women in the study. Chao and Wade (2008) concluded that race and social elements is a relevant factor in CAM use in the general population. They found that social and economic structures (e.g. income level, education, literacy level, etc.) are connected to health care access. According to Su and Li (2011), having conventional restricted access to care providers is positively correlated with being a user of complementary and alternative medicine. This has implications for Gullah-Geechee people who often experience barriers to conventional care because of financial issues (Banks 2013).

Having access to a conventional care provider is positively correlated with CAM use. The economic condition of someone who could access a conventional provider would be likely to also have access to a CAM product or provider. The National Health Survey instrumentation has had a long focus on health care access for African-Americans and has typically used a mixed methods study design. There is a history of CAM use and prescription medicine use among African-Americans (Banks 2013).

Today, the use of CAM by African-Americans has historical origins in the American enslavement era (Chireau 2006). Enslaved Africans took what they learned about antebellum era medicine and Native American traditions and married it with what they knew about healing. One of the folk medicine traditions is going to see a medicine man or woman for healing. The term medicine men is synonymous with conjure men. Conjure as a folk medicine practice, expressed by Cornelia Bailey in her autobiography, *God, Dr. Buzzard, and the Bolito Man*, is distinct from the therapies defined by the National Center for Complementary and Alternative Medicine because it is rooted in supernatural beliefs. Bailey cited use of conjure for healing purposes among the Gullah Geechee on Sapelo Island, GA. Often, enslaved Africans did not have good access to medical doctors and had to rely on midwives and slave-doctors, both female and male, for their medical care. Medical physicians dealt with enslaved Africans more like cattle than humans (Washington 2006, 8). Slave doctors were often selected among the enslaved masses by a white owner because they were greatly skilled in some healing art (Odell 2012). Slave-doctors often used herbal remedies and other natural things to heal disease. Interestingly, an enslaved black man was the person responsible for curing syphilis in the southern United States in the 19th century according to Harriet Washington in her book *Medical Apartheid* (Washington 2006). Examples of folk medicine use appear in slave narratives and antebellum magazines such

as *the Adventures of Henry Bibb* and *Harper's Weekly*. There are also representations of folk medicine use by slave owning individuals and in advertisements about white plantation culture that typically represented African enslaved people as healthy and happy (Stowe 1852). According to Savitt (2002), enslaved Africans, in general, suffered many preventable diseases and work-related illnesses as a result of their harsh labor conditions.

African-Americans have a higher likelihood of using home remedies and mind-body and spiritual healing practices (Arcury et al. 2012; Lee et. al. 2000; Factor-Litvak et. al. 2001). Brown et. al. (2007) is useful because this study provides data on the prevalence and correlates of African-American CAM use on a national level. This research did not explore what factors are contributing to the increased CAM use of African-Americans between 2002 and 2007. Brown et al. (2007) examined data only from the 2002 NHIS data set. Future research is needed to confirm the validity of the bivariate relationship that having access to insurance and having a higher income is related to African-Americans being more likely to use CAM. A criticism of previous studies on CAM use by African-Americans is that they lack sensitivity to the ways individuals African-Americans describe their illness and their reasons for use of CAM. This information is essential because it informs the collective understanding about health behavior of minority populations. Instead of using the health behavior of Anglo-American populations as the standard of typical health behavior, knowing the nuances of health behavior with respect to CAM use and illness management, for example, will begin to fill this gap in knowledge.

Some evidence suggests that minority patients (African-American, Asian, Hispanic, and indigenous) are more likely to begin CAM use after being diagnosed with prostate cancer than before diagnosis (Diefenbach et. al. 2003). Barnes, Bloom, and Nahin (2007) found that adults and children were more likely to use CAM when the cost of conventional care delayed receiving

conventional care. As it relates to prevalence of diabetes and indigenous populations, the Pima Indians of Arizona have the highest rates of diabetes in the United States. More than 38% of this group has been diagnosed with diabetes in comparison with 8.7% of non-Hispanic whites (Schulz et. al. 2006). This group is also poorer in comparison with non-Hispanic whites, and therefore, potentially have less access to CAM.

Few sources have been found that examine CAM use among rural, low-income populations in Georgia. A descriptive study found that African Americans and Caucasian elders in rural Mississippi use CAM and are satisfied with the benefits of CAM (Cuellar et. al 2003). The elders reported that they used CAM as a substitute for conventional medicine because they were dissatisfied with allopathic providers, and high healthcare costs (specifically medications). They found that CAM use is associated with high conventional health costs and folklore and cultural beliefs. This challenges some of the literature that claims that alternative medicine use is positively correlated with income. The literature found suggests, however, that alternative medicine use may be more correlated with knowledge about CAM and familial community use of CAM.

Keith et. al (2005) investigated racial differences and CAM use and considered the variables region, ethnicity, and satisfaction with conventional health care and access measures. In spite of the increased use of CAM in the United States, African-Americans tend to use less CAM in comparison to other groups. According to Keith et al. (2005), ethnicity is exhibited in patterned differences based on national, cultural, religious, and racial identification and cultural factors that influence the questionnaire instrumentation design process. If a question from a cultural perspective the research participants are not familiar with, quality data might not be gathered. This is relevant to the Gullah-Geechee population because many of the population do

not have high levels of educational attainment, and may be unfamiliar with scientific terminology (e.g. glycemic regulation and control) to describe the things they deal with daily. The implications of asking respondents questions they do not understand is not receiving data at all, receiving faulty information, and/or making the respondents uncomfortable, and thereby, creating a potential harm for them.

Diabetes medication is administered to African Americans and Caucasians differently. African-American often need a diuretic before beginning a prescription regimen because of the high sodium retention in their blood, but Caucasian Americans, whose diabetes issues are typically rooted in high cholesterol related issues receive different prescriptions from doctors because of the cultural differences in health behavior and lifestyle. In a similar way, African-American and Caucasian diabetes management routines will not look the same. Health care systems and diabetes health care providers, in order to be most effective, must be culturally competent, sensitive, and safe for Black, indigenous, Latino, South Asian, and other groups who utilize their services (Cabellero and Tenzer 2007). Historically, health care systems have been antagonistic in their approach to non-white people because of cultural notions of white supremacy. African-Americans report experiences of racism within healthcare settings. Because African-American communities have indigenous African cultural elements in them, they should be understood as indigenous people. By African indigenous elements, the researcher is referring to the language, food, and living patterns that have been carried over from African groups. According to Turner (2002), the speech patterns of Gullah Geechee have loanwords from several West African languages. According to *Decolonizing Methodologies*, research should respect indigenous beliefs and worldviews (Smith et. al. 1999). Indigenous people have historically been exploited by the research and medical industries. To ensure that the research respects the people

who become part of the research, the project should be reflected in their language and from their perspective. Researchers benefit by describing diabetes management using the language of the population at hand because it could information future health workers.

This study considers the reasons why Gullah-Geechee participants in McIntosh County use CAM for diabetes management. Researchers benefit by improving care administration when they consider how culture affects health decision making practices for Gullah-Geechee people and understanding more about Gullah-Geechee diabetes management practices helps us understand this population better (Blue 2012). Things such as limited access to healthy foods contribute to the high incidence rates of diabetes among African-Americans (Jack 2012). In looking at health behavior related to African-Americans, the researcher reviewed literature about herbal tea use for diabetes management among African-Americans. In doing these things, the researcher explored the gaps in the literature.

Not all African-Americans use complementary and alternative therapies such as herbal tea, but many African-Americans report skepticism of allopathic medicine (Jones et. al. 2007). Some doubt the effectiveness of non-allopathic treatments to actually cure illness. According to Nahin, Strussman, and Bloom (2007), complementary and alternative medicine use by African-Americans is positively correlated with affordability, higher levels of educational attainment, belief in the effectiveness of complementary and alternative medicine, and having a chronic pain-related disease with persistent symptoms. African-American research participants also consumed raisins soaked in vodka and fish oils and drank alcoholic beverages to help with their rheumatoid arthritis (Tamhane et. al. 2014). According to Tamhane et al. (2014), the control group who were black women with an early form of the rheumatoid arthritis use less of the alternative therapies. CAM use was high in this cohort in general. Among rural African-

Americans, the most common complementary and alternative therapies were prayer, diet-based therapies, and natural products (Jones et. al. 2007). The previous studies have solely looked at incidence of use of natural products, such as herbal tea, but none have looked at the reasons for herbal tea use among African-American rural populations, including the community of Sapelo Island.

2.4 Herbal Tea and Type 2 Diabetes

According to Stote and Baer (2008), herbal teas have properties that help build insulin levels, and thereby help reduce Type 2 diabetes. This same journal found that anthocyanins, the chemical found in berries--reduces levels of "bad" cholesterol, and increases levels of "good" cholesterol. Increased levels of high cholesterol are correlated with increased chances of acquiring diabetes. Herbal tea has been shown to be used by Americans to treat diabetes (Premilovac et. al. 2013). Blueberry, as the main ingredient in blueberry tea, could reduce dependence on injected insulin. By collecting reasons for use of herbal tea, the research found that diabetic research participants typically doesn't use herbal tea, and when they do use any kind of herbal medicine it is brought in the store, or when harvested, used sparingly. Previous studies indicate that berries--including blueberries-- may offer significant health benefits for people with type 2 diabetes and that blueberry tea "has enabled that hormone, insulin, to improve glucose uptake" (Premilovac et. al. 2013, p. 29).

Herbal tea use is considered because it is among one of the less expensive methods of diabetes self-management. According to the European Medicines Agency, herbal teas "consist of one or more herbal substances intended for oral aqueous preparations prepared by means of decoction, infusion, or maceration. The preparation is prepared immediately before use. Herbal teas are usually supplied in bulk form or in sachets" (Glossary Herbal Tea 2010). Research

examining the effects of herbal tea use for different illnesses has been done and shown to be effective for treatment for many ailments (Chan et al. 2011). For example, chamomile tea is useful for preventing complications from diabetes, which include loss of vision and nerve and kidney damage, and hibiscus tea has been shown to lower blood pressure (Zemestani, Rafraf and Asghari-Jafarabadi 2016). The National Health Interview Survey showed that 22% of people living with diabetes use some form of herbal therapy (Shane-McWhorter 2013).

According to Cui et. al. (2011), African-Americans in southern, rural communities use herbal teas and other CAM types such as supplements, foot rubs, root preparations, massage, and dietary products for diabetes management. Miniweed tea, a concoction composed of cow dung and other elements, is consumed for decongestive purposes. Miniweed tea has been reported to be used by African-Americans in Alabama. Reducing one's blood pressure is a part of diabetes management. University of Maryland researchers have concluded that drinking peppermint tea can help lower blood pressure. Lui et. al. (2014) has shown that drinking green tea for several months can reduce blood pressure. Across the globe, people use herbal supplements in several forms to reduce blood pressure (Tabassum and Feroz 2011). Knowing about the reasons for herbal use among the Gullah-Geechee population could inform future research aimed at creating interventions that investigate CAM use among rural, southern, and African-American communities in general. The researcher is interested in knowing about any herbal teas used for diabetes management purposes by Gullah-Geechee people from McIntosh County because this information will possibly help researchers interested in diabetes management health behavior in Gullah-Geechee people who live in McIntosh County understand this particular group's health behavior more thoroughly.

2.5 Gullah-Geechee and Use of Herbal Tea as CAM

This research contributes to the field of African-American diabetes management practices, which is undeveloped, because it looks at these practices in a rural Gullah-Geechee population in McIntosh County that has never been studied. Banks (2013) did not address the specific CAM practices of Gullah-Geechee on Sapelo solely, instead focusing broadly on Gullah-Geechee people's from South Carolina, North Carolina, and Georgia familial relationship to traditional medicine use. According to Bailey (2001), Gullah-Geechee people on Sapelo in the past consulted "root doctors" who use natural objects such as dirt and animal parts to make concoctions for healing physical and mental issues in a time when there were no doctors on the island.

In the book, Cornelia Bailey tells of a time as a child when she had an aggressive fever that almost killed her. Her mother and father "tried every remedy they could find but nothing worked" (Bailey, 2001, p. 11). There was a plant called "fever bush" that her parents could have used but Bailey stated that the plant was out of season so they were unable to use that option. Fever bush, according to Bailey, is boiled as a tea and consumed to reduce the symptoms of fevers. Also, Bailey's mother tried using the "beauty berry," which has "clusters of… gorgeous bright purple berries", whose leaves were crushed, mixed with vinegar and slathered on Bailey's body to reduce her fever (Bailey, 2001, p. 11). That option did not work either. After Bailey was in a coma for a couple of days, her aunt, Mary, suggested that her mother hold garlic over her nose to take her out of know. After her aunt picked the fresh garlic from the ground and held it over Bailey's nose she came out of her coma and her fever reduced. In conversations with Ms. Bailey, she told the researcher that Gullah people, if they are not satisfied with the measures provided by the allopathic physician use things like cactus root and life-everlasting tea to help

with diabetes. My research will look broadly at CAM use and its application to the diabetes management practices of the Gullah-Geechee. There have been no ethnicity-sensitive diabetes studies about Gullah-Geechee in Georgia. Pinpointing the cultural specificities that may influence Gullah-Geechee health behavior is beneficial because the knowledge base about this population is small. The researcher wishes to show how in the words of Cornelia Bailey, "those Geechee people really did have a different way of living" (Bailey, 2001, p. 8). There has been no research found that examines enabling factors such as cost of conventional care and CAM use among the Gullah-Geechee in Sapelo.

3 RESEARCH METHODOLOGY

3.1 Purpose

The purpose of this study is to explore use of complementary and alternative medicine for diabetes management among the Gullah-Geechee from McIntosh County, Georgia. This study's research questions are the following: (1) How do Gullah Geechee describe their experience living with diabetes? (2) What do the Gullah Geechee in McIntosh County, Georgia do to manage their Type 2 diabetes?

3.2 Recruitment

Through a key informant, the researcher gained access to the population of interest. The location of the study took place in McIntosh County, Georgia. McIntosh County includes Darien, Sapelo Island, and several incorporated communities. Darien is the county seat of McIntosh County. Sapelo Island is an island surrounded by a sound that is accessible only by ferry and the terrain of the area is distinctly rural. There is only one paved road on the island and this road leads to the ferry which takes individuals to Meridian, Georgia which is the mainland of Georgia. All participation in this study was voluntary. The researcher ensured that every participant who

wanted to participate understood the informed consent form and signed the form if they agreed to participate in the study. Participants were invited to participate in research about Gullah-Geechee people from Sapelo Island, Georgia and their use of remedies for diabetes. Also, alternative medicine experts Walker Wilson and Alain Edwards were asked questions about CAM use with regard to Gullah-Geechee people. Participants who agreed to participate in the study were interviewed and asked questions about their experiences with diabetes and using remedies to help with diabetes in a public location (e.g. park) during the months of March and April 2016 either in Sapelo Island, Georgia or via phone using Google Voice. The interviews did not exceed one hour. Four participants from McIntosh County, Georgia, who identify as Gullah-Geechee, who are older than 60 years old, have Type 2 diabetes, and use remedies for diabetes were selected for this study. Recordings of interviews happened by using a digital voice recorder and when not in-person via the telephone through a password-protected Google Voice program that is audio recording capable. The researcher spoke with people from Sapelo Island, Georgia to introduce them to the project. The research was conducted over a period of three weeks.

3.3 Data Collection

Data gathering for this project began in March, upon approval of the proposal by the Georgia State University Institutional Review Board committee. The interviewing portion of the data gathering process began in late March and ended around the middle of April. One hour was allotted for each interview. A copy of the interview was given to each interviewee. The researcher asked about participants' family history of diabetes management, and if there was any CAM use in the family for diabetes management. The researcher asked Gullah-Geechee adults about their experiences with complementary and alternative medicine use in relation to diabetes management. Initially, African-American adults older than 35 years were targeted for this study

because 80% of diabetes happen to people who are least 35 years old. However, all recruited participants were older than 60 years old. The researcher contends that the sample size was appropriate for this study because the population of Sapelo is 50 individuals (City of Sapelo 2015), however, the sample size for recruitment for McIntosh County at large may have been too small. According to the American Diabetes Association, the average age of diagnosis was 53.8 in 2011 (Diabetes Public Health Resource 2015). The researcher utilized a key informant to access the population. Furthermore, the researcher utilized a snowball method of participant recruitment and relied on the study's inclusion criteria to recruit participants best suited to the study.

3.4 Analysis

Using the phenomenological approach to investigate experiences, the researcher explored Gullah-Geechee health behavior with reference to CAM use for *diabetes mellitus* because it expands the literature on the health behavior of ethnic minorities in the United States (Marmot 2006; Wagner et. al. 1996; Andersen 1995).

Through phenomenological interviewing, in a semi-structured format, the study's data was collected. Pinnegar and Daynes (2006) suggest that narrative inquiry can capture the phenomenon of the study and is also a method of collecting data. Because this study seeks to capture the *experiences* of participants and their reasons for CAM use a phenomenological methodology is appropriate for this study. According to Patton, "a phenomenological study…is one focused on the descriptions of what people experience and how is it that they experience" (Patton 1999, p. 167). The major concern of phenomenology is "how the everyday, intersubjective world is constituted" (Denzin 2005, p. 191).

According to Creswell, narrative qualitative method inquiry is concerned with analyzing text or discourses, and is specifically interested in the content found in stories (Creswell 2012, p.

54). A standard qualitative analysis was employed in this study using NVivo, which is a qualitative data analysis software program, to categorize themes and perspectives related to CAM use. In this study, NVivo is used because it is readily available in the Georgia State University Department of African-American Studies graduate lab. Ethnographic inquiry can capture stories of an individual over several points of time. The researcher was interested in capturing respondents' experiences which phenomenological approaches are particularly good at capturing. The researcher constructed a narrative based on a phenomenological approach. Narrative inquiry is typically focused on one or two individuals, collecting the stories of those individuals through interviewing, reporting individual stories, and chronically ordering those experiences. As it pertains to transcription, the researcher transcribed the audio files verbatim from a digital voice recorder or from the Google Voice recorded sound files that are taken from the interviews. After completing the transcription, the researcher extracted themes from the interview data. After finding themes in the data, the researcher used NVivo coding to help with analyzing the data. The context that the data emerges was important to analysis of the research data. Using a context chart as data analysis tool, the researcher sorted important experiences into type of experiences. After the context chart was completed, the researcher performed a partial analysis to validate themes in the data. The context chart made it easier to show the interrelationship of the data. One of the ways that data was validated was finding comments that were similar for different participants about the same theme. Seeing different participants speak about things in a similar fashion contributes to the reliability of the data.

According to Trochim (2006), ethnographic inquiry is interested in culture and employs participant observation as its most common data gathering approach. Ethnographic inquiry would have been a good suit for this study because the researcher was immersed in Gullah-

Geechee culture. Before conducting field research, the researcher explored the communities of McIntosh County by visiting cultural festival, eating at local restaurants, visiting local establishments like churches and schools, and speaking to residents of McIntosh County about local life.

3.5 Storage

The researcher ensured that each individual who participated in this study remained anonymous by assigning pseudonyms to each individual and promoted an appropriate level of confidentiality. The researcher kept the participants' records private to the degree that is legal. Only the researcher was able to access the collected data. Data may also be shared with people who ensure the study is done correctly (GSU Institutional Review Board, the Office for Human Research Protection). Pseudonyms were used in all records. The information participants provided was stored in password protected email account used only for the business of this research project and the researcher alone had access to the information. The pseudonym spread sheet was stored in the password-protected account. No personally identifiable information will appear when this study appears publically. Only the researcher can access the Google Voice sound files of the document. All software (e.g. the study email account's connection to the researcher's personal ICloud software) was cut off during the research project. The findings were summarized and reported in group form. The research data is intended to be kept by the researcher indefinitely and may be used for future research projects including scholarly article productions, books, and public lecture events.

4 DATA ANALYSIS & FINDINGS

4.1 Introduction

Six participants comprise the study's sample population. All study participants are above 60 years old. Three of the study's participants, Jerena Michaels (female), Elbert Fairley (male), and Alain Edwards (male) live in Darien which is a town in McIntosh County, Georgia. The other three participants, Robert Johnson (male), Walker Wilson (male), and Joel Bordeaux (male) live on Sapelo Island. The four diabetic study participants are Jerena Michaels, Elbert Fairley, Robert Johnson, and Joel Bordeaux. Walker Wilson (CAM distributor) and Alain Edwards (CAM community lecturer) were the community experts on CAM. This chapter will summarize the findings of this study, discuss the limitations of the study, identify what could be improved in the study, and highlight why certain decisions were made with regard to the procedures of the study.

This study's research questions sought to examine complementary and alternative medicine use among Gullah-Geechee people with Type 2 diabetes who are from McIntosh County. This research sought to address these questions by focusing on how Gullah-Geechee people describe their experiences living with diabetes and also looking at how this population manages their Type 2 diabetes. Generally, participants did not use herbal remedies as a frequent source of alternative medication in conjunction with seeking a physician for diabetes management. This finding correlates with literature that using food as a form of home remedy (healthy eating) is used by African-American rural populations like the Gullah-Geechee of McIntosh County, Georgia (Quandt et. al. 2015). This finding contradicted my original assumption that there would be more reported use of herbal medicine for diabetes management purposes in talking with community members during the Annual Cultural Day event on Sapelo Island, Georgia. The researcher held this assumption based on his reading Bailey's book *God,*

Dr. Buzzard, and the Bolito Man which talked about the presence of CAM in Sapelo Island for a variety of illnesses. There were some notable differences in terms of Gullah-Geechee people in South Carolina's level of physical exercise and rates of self-reported accounts of receiving communication from their doctor about diabetes in the literature. According to Johnson-Spruill et. al. (2009), many Gullah-Geechee diabetic individuals in South Carolina reported far lower percentages of their diabetes management, poor health services utilization (e.g. visiting the doctor as recommended), reported exercising, and self-monitoring blood glucose. However, in contrast to the study by Johnson-Spruill et. al. (2009), four out of four of the diabetic participants in this study showed levels of health care utilization, rates of self-monitoring blood glucose, and reported physical activity.

In this chapter, the analysis of the data is presented. Using phenomenological interviewing, data were collected and processed in response to the research questions in chapter 1 of this report. Both manual and qualitative coding software—Nvivo— was used to help organize themes pertinent to the research questions. To organize themes in an efficient and thorough manner, the researcher read interview manuscripts several times to identify themes found among them. The data analysis utilized thematic coding. Data integrity was achieved in this analysis through the varied formations of the interview questions and by asking respondents to elaborate in their responses at times, or provide further clarification. Data analyzed in this section came from the text of study interviews and field notes. The goals of the data collection and data analysis were to develop a base of knowledge regarding the ways Gullah-Geechee people describe their experiences living with diabetes and learn more about how Gullah-Geechee people living in McIntosh County, Georgia manage their diabetes. These goals were accomplished.

The findings in this chapter demonstrate the potential for understanding more about Gullah-Geechee diabetes-related health behavior of people living in McIntosh County, Georgia. Four participants living with Type 2 Diabetes, who identify as Gullah-Geechee, and who grew up in McIntosh County, Georgia were interviewed using a semi-structured interview format not lasting more than an hour for each interview. The two other participants included an individual who sells CAM in McIntosh County and another individual who give community lectures about CAM and its relationship to Gullah-Geechee culture.

As a result of this research, the researcher found that herbal remedies, in general, are used infrequently by the participants who were interviewed. Also, the researcher found that participants generally reported exercising often, seeing a doctor frequently, taking prescribed medication, and being satisfied with the relationship they have with their physician who they see for their diabetes management. This finding contradicts many studies that report Gullah-Geechee people in South Carolina, for example, do not report exercising often, seeing doctor frequently, taking prescribed medication, or being satisfied with their physician. Most participants reported changing from Metformin to Janumet, a diabetes medication, because Metformin had negative side effects for them. Participants reported performing physical activity/exercise, but in ways that have nothing to do with going to a gymnasium or running on a public track field: working on boats, cutting grass, and clearing the yard of debris.

Study participants were assessed using a combination of convenience and snowball sampling methods. Six sample participants were identified for this study. Four participants were diabetic. Two participants were alternative medicine sellers/ community educators about alternative medicine. Ages of the participants ranged from 60 to 80 years old. The researcher spoke to community leaders in the McIntosh County area and on Sapelo Island and they referred

the researcher to either Gullah-Geechee individuals from McIntosh County with Type 2 diabetes, or individuals related to them in some way who could help me connect with the previously mentioned population. The researcher reached out to about twenty individuals trying to connect to the community leaders and individuals who fit the study criteria of being a user of complementary and alternative medicine, Gullah-Geechee ethnic identity, and being from McIntosh County. All diabetic participants used alternative medicine in some form (e.g. physical exercise and prayer) as a part of their diabetes management process. Diabetic participants were from McIntosh County and had used some sort of alternative therapy in addition to seeking a medical doctor. Two individuals, both men, were knowledgeable about Gullah-Geechee alternative medicine traditions and were Gullah-Geechee people from McIntosh County. All participants in the study currently live in McIntosh County, Georgia and have for decades.

4.2 Research Questions

In conducting this study, the researcher was interested in exploring two questions as it relates to the subject of this research: (1) How do Gullah Geechee describe their experience living with diabetes? (2) What do the Gullah Geechee in McIntosh County, Georgia do to manage their Type 2 diabetes?

The major themes that came from the codes that emerged out of the data included descriptions of diabetes experience, diabetes management of Gullah-Geechee in McIntosh County, testing blood glucose, regulating blood pressure through taking blood pressure medication, the role of religion/prayer in diabetes coping, visiting the physician, Gullah-Geechee participants experience with diabetes medication, and frequency of use of herbal-based alternative medication.

4.3 Descriptions of Diabetes Experience

4.3.1 I'm Not That Sick[1]

In sifting through the data about diabetes experience, many participants initially described themselves as being in good health, and after some time progressed in the interview they began talking about times when they suffered with the disease, needing to change their medication because they had problems with it (Metforim), and relatives/friends who had diabetes but who had not been exercising or taking the medication as prescribed by their physicians. Diabetes experiences varied from having great difficulty with living with diabetes to reporting being in good health and not needing to take medication.

Men who participated in the study tended to say that they weren't "that sick" to emphasize not being affected in a negative way by diabetes. In general, participants were more likely to say that living with diabetes requires one to follow the guidelines given by the doctor and downplay the reach of the disease in their lives in comparison to the lives of their friends and family. An exception to this statement is the testimony of Elbert Fairley[2] who has dealt with several fainting episodes as a result of not checking his blood pressure and living with diabetes. On two different occasions, Fairley fainted while in public: once at church and once while in the city. He described his experience as being very frightening because he was very dizzy, short of breath, having a tension headache, and being unable to tell his name to the emergency care professional who was helping him with his diabetic fainting attack.

Preventing oneself from " being that sick" and being seen as helpless by others—limb amputation was a real concern for many study participants—and taking responsibility for one's fate was a recurrent theme throughout the interviews. Not being sick was related to "not wanting

[1] This section name is taken from an interview with Robert Johnson, April 2016.
[2] All participants' names used in this study are pseudonyms.

anyone to take care of [him]" for Elbert Fairley. For Fairley, taking care of himself is important and he repeatedly talked about being responsible for taking care of himself and not wanting to have to depend on others to take care of him. Fairley also said that for him trusting in God to take care of him triumphs his faith in the doctors. Robert Johnson, in speaking about his diabetes compares himself to other people who, in his opinion, have more serious complications with the disease. He reports that overall his diabetes is not something that he worries about. Robert says, "…I ask God to help me but I really ain't have it [diabetes] that bad like people having it taking two…three shots a day. I ain't never had to do no shot."

For Robert Johnson, not having to take insulin medication along with doing physical activity are things that contribute to him describing his diabetes experience as something that does not require alarm on his part. "Not doing nothing", but his "normal things" in relation to diabetes management for Robert Johnson means for him that he is able to manage his diabetes fine. Other participants, such as Elbert Fairley, speak about health belief and the relationship of prayer as a form of CAM in diabetes management. For Fairley, "the doctor is created by God" and because "God made [the doctor]….he has given [the doctor] the things to do...the doctor doesn't do no healing. God do all the healing…He takes care of me." The background to Elbert Fairley's description of having a diabetic fainting attack and the healing power of God was his account of his experience with a painful stomach ulcer. Fairley talked about struggling with the stomach ulcer which was not diabetes related and going to church and praying for healing for him. Like Fairley, many of the participants stressed that for them diabetes, although serious, is not something that one should worry about if one truly believes in the power of God.

4.3.2 "Diabetes Is A Devious Sickness Now…"[3]

Jerena Michaels stressed the importance of men going to the physician and taking medication. She said that men, in general, acted "macho" and were often not likely to go get the medical help they needed when their diabetes got really serious. Compared to the men, Jerena never downplayed the seriousness of her diabetes. She spoke about taking the time to think about what one puts in their mouth because diet is one of the biggest detriments for people living with diabetes. Two out of three men in this study described their experience with diabetes as being not "serious." Diabetes was described by the participants as being a disease that was devious because it often creates complications in people who would otherwise think they are fine. Elbert Fairley talked about being very impacted by diabetes in a way that makes him pay a lot of attention to his blood sugar. Diabetes is a devious sickness to him because it can cause blindness or other kinds of permanent eye damage. This kind of later life disability causes great concern for him. He emphasized the importance of paying attention to one's blood sugar because it is necessary to prevent diabetic attack. He talked about the necessity of checking blood sugar regularly and often. He knows when his blood sugar is at an unhealthy level when he feels faint. He asks people near him for a candy bar, or something else with a bit of sugar in it like crackers. In about five minutes, after consuming the candy bar, he recovers. Before speaking about the serious nature of diabetes, Elbert talks about the necessity of taking medication. Also, Elbert repeatedly emphasized "taking care of himself" when his blood sugar falls. Sugar is a colloquialism used by Elbert to mean diabetes. With a deep foreboding in his voice, Elbert says, "Diabetes is a devious sickness. It's dangerous. It can mess up your eyes. You can go blind. I got a cousin now he's blind as a bat. That sugar will do it to you. Like I said if you don't take care of yourself with that sugar nothing else won't matter."

[3] Sub-theme title taken from interview with Elbert Fairley, April 2016.

Consuming sugar when Elbert feels faint is a method of diabetes management that he has learned as a result of facing a bad diabetes experience. He compared himself with other people and rated himself worse because he feels like he takes a lot of medicine for it. He warned of the possibility of dialysis, which creates other health issues, and even death as a result of poorly managed diabetes. He mentioned things like eating cake and drinking sodas as being one of the biggest reasons why there has been a spike in diabetes cases that get worse for people. He highlighted the necessity of eating well to ensure a long and healthy life.

4.3.3 "If You Treat Diabetes Right, It'll Treat You Right"[4]

Participants when talking about diabetes management emphasized self-responsibility. In other words, some of the participants stated that individuals must not make decisions that would put them in harm's way. Drinking and smoking are both activities that impact blood health and creates multiple problems. One participant, Joel Bordeaux, had the following to offer about self-responsibility and diabetes management, "I am a diabetic. [Diabetes] ain't supposed to be all of that if you take care of it." Self-responsibility for the participants meant that one takes the necessary precautions to not do things that will complicate their diabetes experience such as choosing not to take medicine or engaging in behaviors like smoking and poor dieting which is what Joel Bordeaux may have meant when he said "if you treat (diabetes) right, it will treat you right." Joel Bordeaux speaks about doing things to avoid diabetes complications by referencing a relative of his who recently had an amputation and avoiding drinking and smoking because these behaviors make diabetes management for some more difficult. Joel Bordeaux says the following about diabetes, "If you don't treat it right, you know it do damage. You know they can have foot troubles and stuff like that. Leg troubles…my sister had her leg cut off…if you treat it

[4] This sub-theme is taken from my interview with Elbert Fairley.

right, it'll treat you right... if you don't treat it right you're looking for trouble… drinking and smoking and all that kind of stuff. I'm against it."

Joel Bordeaux emphasized that others should not be responsible for caring for you when you can care for yourself. There was an element of pride associated with not putting oneself in such a detrimental position as to require the help of one's family. Also, there is a warning to people who fail to take proper care of their diabetes by one participant. Amputation is commonly associated with diabetes that is poorly managed. Also, foot troubles and leg troubles were a common theme mentioned by Jerena Michaels and Elbert Fairley who also had friends or family members experience amputations or complications from diabetes that affected their legs and feet. Bordeaux even commented further in his interview about many diabetic people experiencing blindness as a result of poorly managing their diabetes. According to Elbert Fairley, as it relates to poor diabetes management and foot issues, Fairley provides a very personal account of his friend who failed to take care of himself and developed gangrene; his friend's diabetes made it harder for his body to heal which led to his leg being amputated. Elbert Fairley says the following about his friend, "I was speaking to him last week and he lost both of his legs [to] diabetes."

The researcher asked Joel Bordeaux about what people should know about diabetes because the researcher wanted him to provide his perspective about the possible issues that come from having diabetes and what could happen if poor management of diabetes could look like for a person. Joel Bordeaux lists some of the common issues that span from failing to take care of diabetes which include foot troubles, blindness, and amputations. When asked if he knew people who mismanaged their diabetes and who suffered a negative consequence as a result, Joel mentioned that he had a sister whose legs were amputated. According to Joel, if you properly

manage your diabetes by visiting the physician, taking the prescribed medication, exercising, incorporating prayer as way to improve health conditions, and eat proper foods, you will not struggle with diabetes related complications. However, if you do not do the things above, you will certainly endure unfavorable consequences. In the words of Joel Bordeaux, proper management of diabetes for diabetic individuals should look like not eating too much food with "starch and sugar. You see rice has a lot of starch [and makes] your sugar go up." Eating starchy foods like white rice and pasta causes blood glucose levels to rise unhealthily for people living with diabetes. In addition, Bordeaux named smoking cigarettes and drinking alcohol as major impediments to living a healthy life with diabetes. Smoking cigarettes and drinking alcohol have been linked to having hypertension and having hypertension can certainly complicate a diabetic person's life because it affects a person's immune system.

In analyzing the responses of the participants in relation to their perspectives about diabetes, they described individuals who failed to manage their diabetes. Some of these individuals were friends and family members. Participants tended to contrast themselves with people who failed to take precaution with their ailment. Even Elbert Fairley, who described living with diabetes as much more challenging in comparison with other people he knew, contrasted himself with other people who were not as vigilant as he was as far as taking care of his diabetes. He describes himself as a person who makes healthy eating choices like avoiding processed foods. According to Elbert Fairley, "I watch what I eat… I don't eat…sweet rolls [or drink] those regular sodas and stuff."

Most of the participants suggested that diabetes is a serious physical condition that must be handled with care. For many of the participants, their experience with diabetes included recounting of people with diabetes who had only used alternative medicine for diabetes

management. Also, the participants suggested that using alternative medicine alongside prescription medication was a wiser strategy for them. All of the participants have been living with diabetes longer than five years and one participant has been living with diabetes for thirty years. For them, learning what foods to eat and what foods not to eat has been important for them and is a way they have been able to limit bad diabetic experiences. When dissecting the data, the researcher observed that three out of four of the participants still drink soda drinks, but do so in a many that is sparing or to a point where they say they do not suffer. It is likely, however, that in the long run some of their health behaviors might complicate their lives. For example, Jerena Michaels reports having a difficult time not eating processed, sugary foods and often request divine intervention in her struggle. When she is at a restaurant and is face to face with a dessert she loves, she often exclaims, "Lord, should I or shouldn't I eat this cake?" Some of the participants seem to fixate on the things that they do not do well as it relates to their diabetes management (e.g. not exercising consistently and choosing foods they know could harm them), but Jerena Michaels knows well what her obstacles are in relation to food choices.

Their explanations for choosing self-harming behaviors revolved around feeling "alright" and not having to deal with the problems that other diabetics might face. There was a contradiction as far as the messages of the interviews went. There was a pattern in diabetic participants description of their diabetes management experience that suggested participants knew the right things to do for diabetes management (e.g. doing exercises every day at least for an hour), but they also reported engaging the harmful activities because they liked engaging in them. As participants spoke about engaging in non-assistive behavior like eating an excessive amounts of processed sugary foods, the researcher wondered why they engaged in the activities that they knew would complicate their diabetes. More importantly, were the participants thinking

about long term standards of health and how the action they were doing right now would affect them? The participants did not discuss the long term impact of either positive or negative health behaviors as it relates to diabetes, but this would be an area where future research could be produced. A question for future researchers to consider is the following for researchers working within the rural community of McIntosh County, Georgia specifically for the Gullah-Geechee population there. What health behavior interventions can be created to persuade people with health information already to make the best health choice for themselves? Diabetes management for the participants dealt with physical activity, prayer, and communicating with the doctor about medication quality and experience with diabetes.

4.4 Diabetes Management of Gullah-Geechee in McIntosh County

4.4.1 The More Exercise I Do, The Better I Do[5]

Participants mentioned things pertaining to managing diabetes such as checking blood glucose, checking A1C levels, healthy dieting (not over-eating and adhering to a low carbohydrate diet, visiting the doctor often and regularly, problems with medication/changing medication, performing physical exercise regularly, consuming CAM periodically, and praying as things that comprise their diabetes management routines.

Physical activity was the most common sort of CAM the participants reported. Physical activity included walking to a shopping area, walking miles from a person's residence and back, cutting the yard, working on a boat, and clearing debris from the yard. For rural people who do not have access to gymnasiums or tracks, performing outdoor physical activities makes sense for them because it is cost-effective and accessible. It does not cost anything to make a trek from one's residence down the road and back again. Table 4.1 lists participants reported physical activities. Most participants reported physical activity length of taking place for more than one

[5] This sub-theme is taken from my interview with Joel Bordeaux.

hour. Walking and working on the boat were reported equally as the most common type of physical activity. Jerena reported exercising more than all the other participants who each identify as male. Jerena reported walking more than other participants and Joel Bordeaux, the oldest participant, reported walking the least. Elbert reported walking 1.5 miles from his home to the interior of his community which is a very good distance for his age. Themes that emerged from data about physical activity included physical activity being something difficult to maintain consistently and knowing that having a consistent physical activity regimen as a part of their diabetes management routine was a good thing. Alongside performing physical activity, participants discussed testing blood glucose, mostly at the hospital in the presence of a physician, as another mode of physical activity. Elbert Fairley speaks about participating in regular physical activities in relation to taking blood pressure medication. Performing exercise improve blood pressure levels. Concerning taking blood pressure medication, Joel Bordeaux spoke taking his blood pressure medication in combination with doing physical activities such as cutting his yard and working on his boat. Typically, when Joel Bordeaux doing outdoor physical activities, he is doing the activity for 30 minutes to an hour. However, the time Joel Bordeaux dedicates to the physical activity project depends on what "[he] has to do… if [he] has to go pick up a can, or some paper or something." In another instance where Joel Bordeaux describes the nature and time length of his physical activity, he describes what it is like working on his boat: "I be on my boat from 4 o'clock in the morning to sometime 5 and 6 in the evening so I be good and tired. And I get a lot of exercise on the boat."

For most participants, when they performed exercise, they reported feeling better and feeling more capable of adhering to prescribed medication routines, walking more, and doing a variety of physical exercise activities. Some of these physical activities include using a push

lawn mower and cutting the yard, walking 1.5 miles from residence to another area and back, and walking while shopping. These activities are done in coordination with taking prescribed medication. Although some participants reported not exercising daily, they reported exercising for several times a week and for several hours. Most participants incorporated walking as a part of their physical routine and working on their boat. Sometimes, working on the boat for some participants takes the place of doing walking throughout the day. When Elbert Fairley was speaking about the benefit of exercising as it relates to living with diabetes, he reported speaking with his doctors about the importance of exercise. He also reported wanting to exercise more than he currently does. He reported not exercising every day, however, for him he incorporates physical activity as a part of his daily routine. The participants reported incorporating physical activity more as a part of the work they do than doing physical activity as a separate activity (e.g. going to a recreational facility). On Sapelo Island, there aren't any recreational centers/community centers where individuals can work out and start a consistent physical activity regimen.

Most of the participants claimed that they do some kind of physical activity as a part of their diabetes management process. Some of physical activities include working on the boats, cutting the grass, clearing the yard, walking two miles from the house and out into the neighborhood area and back again, walking as a part of routine, and performing household chores as a part of daily routine. Along with walking and taking prescribed medication, participants spoke about testing blood glucose both at home and in the physician's office.

Table 4.1 Participants' Reported Physical Activity

Name	Type of Physical Activity	Length of Physical Activity	Frequency of Physical Activity
Jerena Michaels	Walking	More than one hour	Daily
Robert Johnson	Working on boat and cutting the yard	More than one hour	Several times a week
Elbert Fairley	Walking	About an hour and a half Walks 1.5 miles frequently from his home to the community	N/A
Joel Bordeaux	Working on the boat	More than one hour	Once per week

Testing blood glucose was a theme that was ubiquitous in each of the interviews. According to the National Institutes of Health, testing blood glucose is defined as measuring the amount of sugar (glucose) in your blood using a blood sample. According to the Institute, "glucose is a major source of energy for most of the cells in the body, including brain cells. Carbohydrates are found in fruit, cereal, bread, pasta, and rice. They are quickly turned into glucose in the body". (Wisse 2016) Testing blood glucose can either be done at home or at a doctor's office. In order to adequately test one's blood, an individual has to refrain from eating. Individuals can test at any time of the day. During the blood test, blood is drawn using a sterile needle. Typically, a fasting blood glucose test is done to screen people with diabetes. If an individual is over 45 years old, it is recommended by health care specialists that individuals undertake a blood glucose test every three years. A blood test that is over 200 mg/dL or higher often means that you have diabetes.

Participants discussed monitoring their blood glucose levels as a method of diabetes management. They were concerned with keeping their blood glucose levels at a healthy level because for many keeping their blood glucose levels at an appropriate level was the foundation

of being on track to keeping themselves healthy. Participants were asked about the things they do to ensure that their blood glucose level stays at the level they want it to stay at. Participants spoke about having access to blood monitoring tools at the doctor and at home. Participants seemed to be comfortable using the blood glucose monitoring machine at home and tested themselves once a day. More participants reported doing a blood glucose test at the physician's office than at home. Testing blood was associated with taking participants' health in their own hands. As it relates to managing blood sugar, participants spoke about testing their blood glucose by using a home testing device that uses a strip and by going to the doctor and getting them to draw blood and test their blood that way.

Participants described taking blood pressure medicine in conjunction with taking insulin. Some participants reported taking more dosages of insulin injections than others. Some participants only needed to take blood pressure medicine and not an insulin injection. Of particular importance to this theme is the necessity of combining physical exercise and taking the blood pressure pills. Elbert Fairley spoke about taking blood pressure medicine, but not really having to take medication. In general, participants seemed to be have unfavorable views towards taking prescription medication. Taking prescription medication was seen as a hindrance towards living people's daily lives. People tended to emphasize "working on the boat" and "cutting the yard" more than taking blood pressure medication. Elbert Fairley, for example, claims that he "gets a lot of exercise on [his] boat."

Religion dominates the life of Gullah-Geechee people in McIntosh County, Georgia. Many of the participants had some kind of religious affiliation. Of the four diabetic participants, three individuals expressed that prayer is a way they mediate their health issues. Prayer is a form of alternative medicine. All of the participants in one form or another reported being religious. Half

of the participants reported serving in the church in some capacity. For Elbert Fairley, "praying" helps him when he has trouble with his diabetes. He constantly prays to help him when he has problems because he sees his faith as being one of the primary reasons for why he is healthy. In his opinion, God is the ultimate healer even more so than the doctors he visits often. Elbert, in his interview, speaks about the ways that his faith helps him when he suffers from some health ailment. Elbert says the following, "…when I do get on my knees, and I'm laying down in my bed not only diabetes but I pray to God to help my body. I had ulcers so bad I couldn't hardly walk. I…talk to Jesus and he heard me." Although Elbert was referencing stomach ulcers, he says that he prays for his body when all serious illnesses strike him. Luckily, because of the power that prayer holds according to Elbert, his stomach ulcers has never come back and his diabetes remains under control. "Prayer changes things" was a common refrain of Elbert's during the interview. In the interview with Elbert Fairley, the researcher spoke to him about communication with his doctor about diabetes health. He highlighted that although he sees his doctor for diabetes advice and takes the prescribed diabetes medication, he ultimately depends on his faith as a health management, too.

4.4.2 Visiting the Physician

All of the participants reported having to travel between 40 to 50 miles to visit a physician for basic diabetes services. Participants represented that there is no hospital in McIntosh County and that the nearest hospital is 45 minutes away in Brunwsick, Georgia. The doctor is at least 45 minutes by car from each of the participants and for participants living on the island they are only able to get to the mainland to get to the doctor in Brunswick when they ferry is available or if they have their own boat. In times of emergency, there is a helicopter that is available to islanders. It is up to the insurance company to decide if they would cover the

emergency. Individuals described that, in general, they experience a good relationship with their doctors and typically talk about things related to diabetes. Three of the diabetic study participants have been seeing the same doctor for more than a decade. Some report speaking to their physician about diabetes all the time. Generally, covering the costs of health care procedures related to their diabetes is not a problem for the study's participants because they have Medicare and/or Medicaid. Elbert Fairley talks with his doctor all the time. He talks with them about how he feels and when his health condition is challenged and when his health condition is good. All of the participants reported talking with their physician about diabetes and being satisfied with their physician. Participants reported having a physician who "treats me good" and having the same physician who works with them. None of the participants reported speaking with their physicians about CAM use for diabetes management. All four of the diabetic participants go to at least one physician in Brunswick, Georgia, the closest city to McIntosh County, Georgia where physicians can be found.

Not having physicians close by and living in a rural county that is under resourced as far as health services are concerned contributes to the health disparities than many individuals, specifically people living on Sapelo Island, face. Interviewing with Alain Edwards, the community CAM lecturer, provided some background about the health disparities in McIntosh County.

Alain Edwards spoke about the health disparities faced by people in McIntosh County as ones shaped by historical inequity and grounded his perspective about some of those health disparities in commentary about Gullah-Geechee herbal remedies and alternative medicine. Alain starts his descriptions about the old ways of the Gullah-Geechee of Sapelo Island—the old ways referring to the use of things like turpentine oil to cure colds and sour weed tea for other

ailments—and this shifts towards talking about some of the misfortune that comes with having to travel so far for medical assistance to Brunswick, Georgia. For Alain Edwards, traveling to Sapelo is a "long way" from Brunswick and if a person needs immediate care it's a very difficult trek. Alain provided an example of a tragedy that came from not being able to get to Brunwsick in time enough to save someone's life. This person's son was a wealthy man from Sapelo and even though he had resources to help, the distance from Sapelo to Brunswick was too great to save his father from the threat of a heart attack. Before individuals could get the man to the hospital, he passed away. If the man lived closer to the mainland perhaps, according to Alain, he might have not succumbed to his heart attack. Alain reported that there are emergency ambulances on the dock of the mainland that if people arrive from ferries from Sapelo they are able to use. In Darien, there are places like grocery stores where people can take their blood pressure and take diabetes tests. However, if a person wants to go to a hospital for major illnesses they must travel to Brunswick, or travel forty more minutes to Savannah, Georgia or Hinesville, Georgia.

Table 4.2 describes participants' medication type and frequency of use of medication. The dosage of the medication was also listed when that information was provided. Robert Johnson reported not currently being on any medication. Three out of four the participants switched from the Metforim prescription medication to Janumet because they had issues including nausea and diarrhea. In general, participants reported "not feeling good" when taking Metforim and this likely influenced this decision to take Janumet instead. Jerena Michaels takes both Janumet and another insulin medication that she did not name. Jerena Michaels takes both medications once per day. Elbert Fairley reported taking Janumet and an unnamed insulin medication. He takes insulin in a shot form as 12 units three times throughout the day and a

single 30 unit dosage at night. Joel Bordeaux takes both Janumet and an unnamed insulin medication twice a day.

Table 4.2 Participants' Prescription Medication Description and Frequency

Name	**Previous Metformin User**	**Recommended Diabetes Prescription Dosage Frequency**	**Current Prescription Medication**
Robert Johnson	Yes	N/A	None
Jerena Michaels	Yes	Once A Day; Unit Measure of Insulin Not Available	Janumet & Insulin
Elbert Fairley	Yes	Once A Day; 66 Units of Insulin (Shots of 12 at different points in the daytime and 30 single dose shot at night)	Janumet & Insulin
Joel Bordeaux	Yes	Twice A Day	Janumet & Insulin

The experiences of the participants with diabetes varied. One participant said that for him diabetes was not a major concern because he doesn't take medication for diabetes and his doctor told him that he does not have to change his diet. Another participant, who is older than the participant who takes no medication for his diabetes, has reported more serious complications with diabetes such as passing out and having a stroke and having to take multiple medications per day. Three out of four of the diabetic participants receive Medicare to pay for their medications and are not allowed to work for long periods of time. The only woman participant said that generally she feels that her diabetes is not a problem, but if she doesn't watch her diet she knows that diabetes can become a problem for her. Most participants reported taking Janumet pills as a part of their diabetes prescription routine.

None of the participants reported using herbal teas to regulate their blood pressure, but all reported performing some form of exercise and taking blood pressure medication. Generally, diabetic men participants were less likely to use herbal remedies because of lack of familiarity with them, fearing that herbal remedies would cause a potential chemical complication with the prescription medicine. Jerena Michaels in comparison with the men of the study used herbal remedies more than the men. She only uses cinnamon capsules as a CAM form in addition to taking insulin to help with her diabetes. Jerena Michaels says the following about the frequency of her cinnamon capsule use, "…I don't take the cinnamon regular…Janumet is a tablet. But I take the cinnamon periodically… I paid fifty dollars for them so they don't go to waste." Jerena Michaels, on the other hand, has heard of CAM being used for diabetes but only uses it to a very small extent. The main CAM she stated she used was cinnamon capsules because, in her opinion, they help detoxify the blood. Other than Jerena, no other participant mentioned using cinnamon capsules. There was language of "cleaning" or "detoxifying" the blood by herbal remedies when participants talked about the potential benefits that they heard about herbal remedies that they were familiar with. Each of the participants were introduced to CAM as children, but later in life demonstrated a varying degree of use because of reasons unknown. It is possible that with that because the men of the study were not users of CAM beyond adolescent using CAM did not become a habit for them later in life. Later CAM use in life may depend on being introduced to the CAM form as a young child.

In Table 4.3 participants CAM use, prescription medicine type, and demographic status were compiled. Also, place of birth within McIntosh County was listed. As it relates to occupational status and CAM, Jerena Michaels spoke at length her occupation and her childhood which introduced her to various CAM types. All of the participants reported being retirement

age (60-80) and two out of six participants reported being retired. All of the participants were from McIntosh County and the median age of the participants was 70 years old. All of participants claimed that they had issues with the previous Metformin medicine they were taking because it caused headaches, nausea, and dizziness. Of the participants who reported being employed, their occupations included a CAM distributor, tour guide, domestic worker, and non-profit employee. Two were unemployed (retired).

There was no data collected about educational attainment. The only participants that reported significant CAM use were the sellers/educators of CAM who were not diabetic themselves. For example, Walker Wilson reported using life everlasting, mullein, and youpon teas as things that encourage health. Alain Edwards spoke about using sassafras root, mullein, and saw palmetto as things that would help produce prostate health and prevent prostate cancer. Alain talked about the dangers of prostate cancer for African-American men and that sassafras root and saw palmetto in general were very good measures against prostate cancer. However, within this same vein of thought, Alain Edwards repeatedly spoke about the need for people to be educated about the particular benefits *and* side effects of taking herbal remedies such as sassafras root which corrodes the kidneys, according to Edwards.

Table 4.3 Participant CAM Use Type and Prescription Type

Name	Age	Place of Birth	Ethnicity	Gender	Work Type	Rx Type	Herbal Medicine User for Diabetes
Jerena Michaels	60-70	McIntosh County, GA (Credit Hills)	Geechee	Female	Domestic Worker	Janumet (pill) and Lantus (insulin shot)	Yes- Cinnamon, Sassafras, and Life Everlasting (Infrequent User)
Robert Johnson	70- 80	McIntosh County, GA (Sapelo Island)	Geechee	Male	Owner of Store & Tour Company	None	No Prayer and exercise
Elbert Fairley	70-80	McIntosh County, GA(Eulonia)	Geechee	Male	Retired	Janumet/ Insulin	No (Used life everlasting & sassafras as a child for colds)
Joel Bordeaux	70-80	McIntosh County, GA (Sapelo Island)	Geechee	Male	Retired	Janumet	No Prayer
Walker Wilson	60-70	McIntosh County, GA (Sapelo Island)	Geechee	Male	Herbal Tea Distributor	N/A	Life Everlasting, Mullein, Youpon
Alain Edwards	60-70	McIntosh County (Darien)	Geechee	Male	Non-Profit Worker	N/A	Life Everlasting, Sassafras, Mullein, Palmetto Root

4.4.3 "Whether [CAM] Does Any Good, I Don't Know"[6]

The only woman participant, Jerena Michaels, claimed to use cinnamon pills and drink life everlasting tea for diabetes, but only sparingly. However, Jerena uses cinnamon more than

[6] This sub-theme is taken from my interview with Jerena Michaels.

life everlasting tea typically. Jerena Michaels believes that CAM helps improve the blood sugar of people living with diabetes. Although Jerena Michaels believes that blood sugar is improved by CAM, other factors such as the cost of CAM is a major factor that influences the frequency of her consumption. Also, compounded with the expensive of the CAM type she uses, e.g. cinnamon capsules, she is not entirely sure that the cinnamon capsules will provide the benefits she is looking for. Jerena says the following about the expensive nature and efficacy of CAM, "whether [CAM] does any good or not… as far as its benefits… um right at fifty dollars I'll take it. (Laughs) Whether it works or not, (laughs) I don't know."

For Jerena, using herbal medicine was tied to family tradition. Her mother and other women in her family first introduced her to herbal remedies like mullein baths and consuming life everlasting tea for diabetes which she consumes periodically. When asked about herbal remedies she said that Gullah-Geechee people she knew were more likely to use allopathic medicine or over-the-counter medication because people could access these things better today in comparison to the era she grew up in. In that era, people tended to rely more on "backyard" remedies and would go out in the forest and dig up plants they were familiar with that had curative properties and boil it into a tea. Gullah-Geechee people, according to Jerena, would boil plants as a way to cure people because that was the way that they were familiar with.

Although Jerena is not a typical user of CAM, she counts cinnamon capsules as her main CAM source for diabetes management. The effectiveness and efficacy of CAM for Jerena was related to cost of the CAM type and potency. Cinnamon capsules were considered expensive for her—one bottle of cinnamon capsules was valued at over fifty dollars—and was bought at a health food store. Jerena did not provide details on whether or not the health food store was located in McIntosh County. Many herbal remedies according to her help detoxify the blood

which helps improve the overall body according to her. Jerena described herself as being “not an everyday advocate of herbal remedies”, but being a periodic user of cinnamon capsules. Someone informed Jerena that cinnamon capsules lower blood sugar. However, she isn’t sure whether cinnamon actually lowers blood sugar. A theme in Jerena’s interview was non-frequent use of CAM and not being certain whether the CAM type was effective. In comparison with Jerena, Robert Johnson spoke about not taking herbal medicine unless he was sick. He did not see herbal medicine use as a preventive measure in avoiding diabetes complications.

Three out of four of the participants stated that alternative medicine was typically a periodic part of their diabetes experience. However, participants used herbal remedies infrequently for diabetes and colds. Three participants said that their eating habits had to change as a result of their diabetes diagnosis and that they adopted a more appropriate diet consisting of less starches and more vegetables and lean meats. Jerena also testified using sassafras tea to a lesser degree to help with diabetes. Both life everlasting and sassafras tea were seen as blood detoxifiers. For Michaels, herbal remedies like sassafras tea are seen as a last resort because it is possible to make things worse by taking too much of the thing. Also, in her descriptions about the benefits of herbal remedies there is some uncertainty about its possible effectiveness to actually helping improve health conditions.

As for methods of preparation of CAM types (specifically focused on herbal remedies), most of the herbal remedies (e.g. cactus root tea to sour weed tea) were prepared by harvesting the tea/herb leaf and then drying the leaf and placing the leaves in a pot to boil. According to Walker Wilson, an herbal tea distributor and amateur botanist who grew up in McIntosh County and spent some of his childhood on Sapelo Island, one has to study the leaf type of the plant in the wild to choose a healthy variety and avoid choosing a poisonous plant. Several poisonous

plants appear similarly to common herbal remedies used by the Gullah-Geechee such as the mullein plant. If you are standing 20 feet away from a poisonous plant and the mullein herb, they would look almost the same. Mullein, for example, has leaves which look similar to the Chinese Tribbett. The Chinese Tribett is a very poisonous plant that grows on Sapelo Island as well and in other swampy ecosystems. In Walker Wilson's words from my interview with him, "if you drink Chinese Tribbett, you are going to the hospital."

Walker, at the time of the interview, wasn't able to actually identify the mullein correctly in the forest, but he is currently studying the plant to be able to do so. Mullein looks different when it is ripen (green) than it does when it is dried. Jerena Micheals was able to identify sassafras in the woods and told me that its leaves are its most distinguishable characteristic. The sassafras tea has three different leaves. One of the leaves looks like a regular leaf. It has another leaf that looks like a mitten and another that as prongs on its leaves. During the summer time, Jerena Michaels goes to the woods and picks sassafras and life-everlasting herbs to make teas. Not having a thorough training in harvesting herbs and identifying safe ones can have very harmful effects. There are no records available that state how many rural, poor communities such as the Gullah-Geechee have mistakenly harvested poisonous plants and died as a result. Future research benefits from examining the ratio of faulty herb harvesting for CAM consumption purposes because it may decrease potential poisonings and accidental deaths.

Jerena provided a story of a man who only used an herbal remedy by itself because in his diabetes experience he possibly valued the herbal remedy more than taking Western medicine. The man was an avid Spanish moss tea drinker. He drank Spanish moss tea only because he believed deeply that Spanish moss tea was enough to cure him of diabetes. Jerena declared with a bit of sorrow in her voice that the man was an amputee because he failed to take the prescribed

medication and relied solely on Spanish moss tea as a protector against diabetes. Using Spanish moss tea as the only defense against diabetes led to costly medical bills and the loss of a limb. Jerena repeated several times about how if the man would have taken some sort of oral medication along with the Spanish moss tea he would have been better off. Jerena stated that people "need doctors", and told the researcher she knew a man who didn't believe in doctors and refused to take prescription medicine because "he thought he could handle [diabetes] on his own" and wanted to drink "Spanish moss tea for diabetes." Demonstrating that he was "man" enough to brave the disease without oral medication supports the theme of "I'm Not That Sick". Jerena highlighted the existence of a kind of masculine bravado which makes some Gullah-Geechee men more likely to not take medication.

According to Jerena, like the man who only took Spanish moss tea for diabetes, these men believe "they can handle it on their own." The men rely only on CAM because they believe they are impenetrable to the more malevolent representations of diabetes like diabetic comas and amputations. The participants in general warned about erring on the side of caution when taking CAM. One should go to the doctor because they are specialized and can help people better many participants alluded. They urged that using common sense in combination with having spiritual practices were good things to incorporate in taking care of yourself with diabetes.

Table 4.4 Participant Reported CAM Modalities

Name of CAM	Type of CAM	Reason for Use	Method of Preparation
Pine Needle Tea	Herbal Medicine	Diabetes, Colds, and Fevers	Boil in water and steep
Sassafras Tea	Herbal Medicine	Diabetes, Colds, and Fevers	Boil in water and steep
Sour Weed Tea	Herbal Medicine	Diabetes, Colds, and Fevers	Boil in water and steep
Life Everlasting Tea	Herbal Medicine	Diabetes, Colds, and Fevers	Boil in water and steep
Mullein Tea	Herbal Medicine	Diabetes, Colds, and Fevers	Boil in water and steep
Blueberry Leaf Tea	Herbal Medicine	Diabetes, Colds, and Fevers	Boil in water and steep
Prayer	Spirituality	Alleviates Pain/Concern Related to Illness	N/A
Performing Yard Labor	Physical Activity	Improves Blood Circulations; Diabetes Management	N/A
Walking As Part of Daily Routine	Physical Activity	Improves Blood Circulations; Diabetes Management	N/A
Working on Boat	Physical Activity	Improves Blood Circulations; Diabetes Management	N/A
Mullein Bath	Herbal Medicine	Fever	Gather fresh mullein leaves and rub them on inflamed area
Cactus Root Tea	Herbal Medicine	Diabetes, Colds, and Fevers	Boil in water and steep
Sautéed Cactus Root and Onions	Herbal Medicine	Diabetes, Colds, and Fevers	Boil in water and steep
Cinnamon Capsule	Herbal Medicine	Diabetes, Colds, and Fevers	Boil in water and steep
Turpentine Oil and Sugar	Herbal Remedy	Fevers and Covers	N/A
Yaupon Tea	Herbal Medicine	Prevents the Onset of Colon Cancer	Dry leaves and boil in water
Coconut Water	Herbal Medicine	Helps improve blood pressure	Put in ground for a few days in a container and consume

Participants said that Gullah-Geechee women were the keepers of the family history and knowledgeable about alternative remedies like mullein baths, life everlasting tea, and pine needle tea. According to Walker Wilson, learning about your family's history and preparing CAM were typically the domain of women. Women were also said to be more likely to talk to children about their family's history than the men who were characterized as being more reserved. Seeking out knowledge about your history was thought to be "women's work" and a participant said that they did not feel completely willing to investigate that history when they had to tend to the daily demand of working to take care of themselves and their families. One participant said that he learned what he knew about his family's Gullah-Geechee history and alternative medicine from women in his family such as his aunt, mother, and grandmothers. According to Walker Wilson, "my grandmother mostly was the one who told you about your ancestors."

Gullah-Geechee identity was represented by a participant as "history" and "language". To them, Gullah-Geechee identity is distinct from African-American identity in several ways which include language differences and cultural displays (e.g. traditional net crafting and herbal medicine harvesting). One of the participants claimed her Gullah-Geechee vernacular was so different from Standard English that individuals would hardly "be able to tell what [she was] saying."

Table 4.4 was constructed from compiling each of the CAM types that each participant in the study mentioned and the method of preparation and/or harvesting that was mentioned by each participant as well. With regard to the column that describes illness treated by CAM types, the researcher incorporated the descriptions given by participants and an elderly community member the researcher spoke with while speaking to people in the Hogg Hammock community of Sapelo Island.

When asked about Janumet, Jerena Michaels stressed instead that using herbal remedies alone for individuals for diabetes management could possibly expose a person to harm because herbal remedies might not be enough to treat illnesses by themselves. Another participant claimed that drinking saw palmetto helps prevent prostate cancer in men. Participants differed in how they saw the effectiveness of complementary and alternative medicine. However, all of the participants associated Gullah-Geechee traditions with CAM. One spoke about a kind of community based herbal healer called the "root doctor." Root doctors rely on herbal remedies to heal individuals of various ailments.

One of the participants, Alain Edwards, spoke about being introduced to CAM as a sickly child with bronchial disease. He remembers being so sick that he thought he would certainly die. He remembers speaking to his father and mother and they told him to speak to the spirit of his deceased grandmother at the funeral to heal him and the next couple of days after the funeral of his grandmother he was healed. Speaking to the dead for curative purposes, according to Alain Edwards, was a cultural practice of his family and is a deeply held belief by Gullah-Geechee people. He says he was introduced to the term "root doctor" and "root worker" during the same time he was sick. His parents consulted a "root doctor" when he was child so he could be healed. The root doctor told the parents that he should speak the spirits to get healing and the parents relayed the message to their child. The difference between the root doctor and the root worker is the reliance upon the magical/spiritual world for help. The root worker used the aid of the spirits to enact change in the physical world. The root doctor, however, uses her or his skill and knowledge about the earth to influence positive changes in the lives of people. The roots that both the root doctor and the root worker uses deals with the roots of the plants. The plant root, according to Edwards in his interview, was something deeply ingrained in the thinking of the

Bakongo people that came as enslaved people to Sapelo Island. Plant roots were used to heal and to evoke the power of the spirits. According to Alain Edwards, things such as “the roots of the saw palmetto tree…the berries of [saw palmetto] are…a preventative type of medicine for…prostate cancer.” From Alain Edwards’s perspective, the roots of the plants are multi-use in purpose and the same plant that is “cancer fighting” helps with “colds” and “diabetes”.

When asked about the power of exercising to help with diabetes, Elbert Fairley spoke about his exercise regimen which is not a daily routine, but is one that he adheres to frequently. Although he does not have access to recreational centers or a gymnasium, he reports working on the boat, cutting the yard, and walking 1.5 miles several times a way. For Elbert, as a previously overweight man, maintaining healthy levels of weight is important to him. He spoke about not wanting to become obese because it interferes with his life. Elbert says the following about mindful eating and grounds this statement by talking about his previous weight challenges, “You can’t eat anything you want to eat…The only thing is you do not want to get too heavy. I weighed 20 pounds more than I did in my life…I was obese… [now] I weigh 190…”

5 DISCUSSION

5.1 Introduction

This chapter summarizes the results of the research study. Following a discussion of possible improvement areas and why particular decisions were made concerning the study’s procedures, the chapter discusses the study’s limitations, and concludes with a section dedicated to future implications connected to the research focus of this study and topics related to future research explorations.

This exploratory study sought to understand how Gullah-Geechee in McIntosh County people describe their experience living diabetes and to learn about the things Gullah-Geechee

people manage their diabetes. Of particular interest to this study was CAM use (herbal remedy use) for diabetes management. To accomplish this, participants were asked questions about doctor visitation, physical activity, CAM use, Gullah-Geechee identity, prescription medicine use, length of time living with diabetes, and experiences living with diabetes. Some of the findings are consistent with previous literature. Gullah-Geechee people in McIntosh County, like many African-Americans living in rural areas, continue to face deep health care disparities. Other findings, however, detour from the findings of previous literature. Contrary to the findings of Johnson-Spruill (2009), which looked at Geechee people with Type 2 diabetes in South Carolina, all of this study's participants reported exercising, self-glucose monitoring, adhering to a diabetic diet, and service utilization (e.g. visiting a physician for diabetes care).

5.2 Limitations

A major limitation for this study was time and resources. If allotted more time, the researcher would likely have been able to provide more quality qualitative data and develop a deeper relationship with the research participants thereby creating an atmosphere of trust and familiarity. Having used a community leader as a point of connection to research participants, the researcher's presence may have influenced the way that the participants answered my questions. In contrast to being a known and respected community member, if participants knew more about the community value of the research, they may have been able to feel more comfortable and provided better and/or more quality information. Time and financial resources were also issues that affected the method of data gathering. Because the researcher had to physically drive 5 hours from Atlanta to the McIntosh County, Georgia several weekends, the researcher had to figure out a way to get the qualitative interviews done in a manner that was efficient but also protective of my financial well-being as a working-class, graduate student. As a result of this predicament, out

of six individuals, one semi-structured interview was in person and the rest were completed via the telephone and recorded using Google Voice. The researcher believes that the decision to do most of the qualitative interviews via the phone may possibly have impacted the fluidity and the richness of the data collected and has implications for future projects that seek to do research on Gullah-Geechee people in rural Georgia and McIntosh County, Georgia. Future researchers would benefit from forming clear community connections and finding ways to use their research to help communities prosper financially. The communities of McIntosh County face a great deal of challenges as far as employment is concerned and finding a way to uplift the cultural offerings of the community may provide opportunities for individuals as the area mainly brings in money through tourism.

5.3 Conclusion

This study is important because it could contribute to creating more culturally competent care for healthcare providers working with Gullah-Geechee people in McIntosh County and provide them very useful information about healthcare beliefs and behaviors. Also, this study is significant because it could help explain Gullah-Geechee health beliefs in relation to diabetes which will help healthcare providers in general treat this population better. Healthcare providers who treat Gullah-Geechee patients in McIntosh County will be able to treat patients better because they will understand this population's health belief system better. The limitations of this study revolve around its lack of generalizability primarily as a result of the sampling method employed and the number of participants included in the study. The Gullah-Geechee are a subset of the African-American and their health behaviors don't necessarily reflect the larger population's practices.

Health care providers benefit from knowing why their patients use complementary medicine instead of, or in conjunction with allopathic treatments. Generally, Gullah-Geechee use of CAM is related to familial traditions and having a community-oriented health care system (Banks 2013; Bailey 2001). By understanding health promotion behaviors among the Gullah-Geechee population of Sapelo Island, health care providers and those interested in providing culturally competent care to rural populations benefit from the findings of this study.

The first limitation deals with the lack of the generalizability of this study. Gullah-Geechee people's culture are not necessarily indicative of the culture of most African-Americans. Also, the population that the researcher interviewed was a rural population and do not reflect the behaviors of people who may live in urban areas. Also, the Gullah-Geechee people in South Carolina and the Gullah-Geechee people in McIntosh County, Georgia health behaviors probably do not mirror each other because of the regional factors that are different from each one. Also, because of this fact, it is more difficult to compare the data against each of these groups. Finally, because of the small sample size, extrapolations about the health of Gullah-Geechee, or African-Americans generally, cannot be made.

BIBLIOGRAPHY

Acury, T.A., Nguyen, H.T., Sandberg, J.C., Neiberg, R.H., Altizer, K.P., Bell, R.A., Grzywacz, J.G., Lang, W., Quandt, S.A. (2012). "Relationship between nonprescribed therapy for illness prevention and health promotion and health related study of life". *Journal of Applied Gerontology*, 33(4), 1-22. doi: 10.1177/0733464812453518.

African-americans and heart disease, stroke. (2015, September 16). Retrieved from: http://www.heart.org/HEARTORG/Conditions/More/MyHeartandStrokeNews/African-Americans-and-Heart-Disease_UCM_444863_Article.jsp#VsPnpk2wOM8.

Age-adjusted rates of diagnosed diabetes per 100 civilian, non-institutionalized population, by race, united states, 1980-2014. (2015, December 1). Retrieved from: http://www.cdc.gov/diabetes/statistics/prev/national/fibbyrace.htm.

Age-adjusted percentage of adults with diabetes using any diabetes medication, by race/ethnicity, united states, 1997-2011. (2013, November 19). Retrieved from: http://www.cdc.gov/diabetes/statistics/meduse/fig5.htm.

American community survey (acs). (2015, June 22). Retrieved from: www.census.gov/programs-surveys/acs/data.html

Andersen R. (1995). "Revisiting the behavioral model and access to medical care: Does it matter?". *Journal of Health and Social Behavior.* 36 (March).

Anderson, J. (2003). *Conjure in african-american society*. Baton Rouge, LA: Louisiana State University Press.

Astin, JA. (1998). Why patients use alternative medicine: Results of a national study. *JAMA* 279 (19). 1548-1553. doi: 10.1001/jama. 279.19.1548.

Bailey C.. (2001). *God, dr. buzzard, and the bolito man: A saltwater geechee talks about life on sapelo island, georgia*. New York: Anchor Books.

Baird, K. and Twining, M. Eds. (1991). *Sea island roots: African presence in the carolinas and georgia*. Trenton, NJ: Africa World Press.

Banks. T. (2013). *Folk medicine use among the gullah: Bridging the gap between folk medicine and westernized medicine*. Retrieved from: http://scholarworks.gsu.edu/cgi/viewcontent.cgi2article=1022&context=ass_theses.

Barnes, P.M., Bloom, B. and Nahin R.L. (2007). Complementary and alternative medicine use among adults and children: United States, 2008. *National Health Statistics Report, 10(12)*, 1-23.

Barner, J.C., Bohman, T., Brown, C.M., and Richardson, K.M. (2010). Use of complementary and alternative medicine for treatment among African-Americans: A multivariate analysis. *Research in Social and Administrative Pharmacy*, 6(3), 196-208. doi: 10.1016/j.sapharm.2009.08.001.

Basics about diabetes. (2015, March 16). Retrieved from: http://www.cdc.gov/diabetes/basics/diabetes.html

Bell, R. A., Grzywacz, J. G., Quandt, S. A., Neiberg, R., Wei, L., Ha, N., & Arcury, T. A. (2013). Medical skepticism and complementary therapy use among older rural African-Americans and whites. *Journal Of Health Care For The Poor & Underserved*.

Bibb, H. (1852). *Narrative of the life and adventures of henry bibb, an american slave written by himself*. Auckland, New Zealand: The Floating Press.

Black or african-american populations. (2015, July 31). Retrieved from: http://www.cdc.gov/minorityhealth/populations/REMP/black.html

Blue, A.V. (2012). Culture. Retrieved from: http://academicdepartments.musc.edu/fm_ruralclerkship/curriculum/culture.htm.

Brady, E. (2001). Introduction. In *Healing logics: Culture and medicine in modern health belief systems*. Ed: Erika Brady. Logan, Utah: Utah State University Press. 3-13.

Brown, C., Barner, J., Richards, K., & Bohman, T. (2007). Patterns of complementary and alternative medicine use in African Americans. J*ournal Of Alternative & Complementary Medicine*, 13(7), 751-758. doi:10.1089/acm.2006.6392

Brown, C., Barner, J., Bohman, T., & Richards, K. (2009). A multivariate test of an expanded Andersen Health Care Utilization Model for complementary and alternative medicine (CAM) use in African Americans. *Journal Of Alternative & Complementary Medicine*, 15(8), 911-919. doi:10.1089/acm.2008.0561

Calbellero, A.E. and Tenzer, P. (2007). Building cultural competency for improved diabetes care. *Journal of Family Practice* 59(6), 7-13.

Campbell, RD. and Long, L.A. (2014). Culture as a social determinant of mental and behavioral health: A look at culturally shaped beliefs and their impact on help-seeking behaviors and service use patterns of black americans with depression. *Best Practices in Mental Health* 10 (2). 49-62.

Carney, J.A (2002). *Black rice: The African origins of rice cultivation in the Americas*. Cambridge, Massachusetts: Harvard University Press.

Chan, EWC. Soh, E.Y., Tie, P.P. and Law, Y.P. (2011). Antioxidant and antibacterial properties of green, black, and herbal teas of *Camellial sinesis*. *Pharmacognosy Research* 3(4). 266-272.

Chao, MT and Wade CM. (2008). Socioeconomic factors and women's use of complementary and alternative medicine in four racial/ ethnic groups. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4160874/

Chin, J.L. (2000). Viewpoint: On cultural competence. *Public Health Reports 115(2000)*: 25-33. Web. 17 February 2016.

Chireau, Y.P. (2006). *Religion and the African-American conjuring tradition*. Oakland, California: University of California Press.

Chow EA, Foster H, Gonzalez V., McIver L. (2012). The disparate impact of diabetes on racial/ethnic minority populations. *Clinical Diabetes* 30(3). 130-133. doi: 10.2337.

City of Sapelo, GA Demographic Information. (2016, January 1). Retrieved from: http://zipcode.org/city/GA/SAPELOISLAND

Cotton, S., Luberto, C. M., Yi, M. S., & Tsevat, J. (2011). Complementary and alternative medicine behaviors and beliefs in urban adolescents with asthma. *Journal Of Asthma*, 48(5), 531-538. doi:10.3109/02770903.2011.570406

Creel, M. (1989). A *peculiar people: Slave religion and community culture among the gullah*s (The American Social Experience). New York: New York University Press.

Creswell, J.W. (2012). *Qualitative inquiry and research design*. Thousand Oaks, California: Sage Publications.

Cui Y, Hargreaves MK, Shu XO, Liu J, Kenerson DM, Signorello LB, Blot WJ. (2012). Prevalence and correlates of complementary and alternative medicine services use in low-income African-Americans and whites: a report from the Southern Community Cohort Study. *Journal of Alternative and Complementary Medicine* 18(9). 844-849. doi: 10.1089

Cuellar, N, Aycock, T., Cahill, B. and Ford, J. (2003). Complementary and alternative medicine use by African-American (AA) and Caucasian American (CA) older adults in a rural setting: A descriptive, comparative study. *BMC Complementary and Alternative Medicine 3(8)*: 1-7.

Cullen KW, Buzek BB. (2009). Knowledge about type 2 diabetes risk and prevention of African-American and Hispanic adults and adolescents with family history of type 2 diabetes. *The Diabetes Educator, 35 (5)*. 836-842. doi: 10.1177/0145721709341851.

Curtis, P. (2001). *Evidence-based medicine & complementary & alternative therapies.* Retrieved from: https://www.med.unc.edu/phyrehab/pm/files/Evidence%20Based%20Med.pdf.

Denzin, N., Lincoln, Y.S., (Eds.) 2000. *Handbook of Qualitative Research*.
Schwandt, T. "Three epistemological stances for qualitative inquiry: Interpretivism, hermeneutics, and social constructions". Thousand Oaks, California: Sage Publications.

Diabetes. (2014, August 5).Retrieved from: http://www.nytimes.com/health/guides/disease/diabetes/overview.html

Diabetes. (2016, July 16). Retrieved from: https://medlineplus.gov/diabetes.html

Diabetes and african-americans. (2015, June 16). Retrieved from: http://minorityhealth.hhs.gov/omh/browse.aspx?1ID=18

Diefenbach, M.A., Hamrick, H., Uzzo, R., Pollack, A., Horowitz, E., Greenberg, R. and Engstrom, P.F. (2003). Clinical, demographic and psychosocial correlates of complementary and alternative medicine use by men with localized prostate cancer. *The Journal of Urology 170(1)*: 166-169. doi:10.1097/01.ji.0000070963.12496.cc.

Drayton et. al. v. McIntosh County, Georgia et. all. 1:15-cv-04274 (April 13, 2016). Retrieved: https://www.pacermonitor.com/public/case/10120306/Drayton_et_al_v_McIntosh_County,_Georgia_et_al

Ellis, J.H., Friedman, D.B., Puett, R., Scott, G.I. and Porter, D.E. (2014). A qualitative exploration of fishing and fish consumption in the gullah/geechee culture. *Journal of Community Health: The Publication for Health Promotion and Disease Prevention*.

Eisenberg, D.M., Davis, R.B., Ettner, S.L., Appel, S., Wikey, S. Van Romapay, M. and Kessler, R.C. (1998). Trends in alternative medicine use in the united states, 1990-1997: Results of the a follow-up national survey. *JAMA 280 (18)*: 1569-75.

Ernst, E., Pittler, M.H., Stevinson, C., and White, A. (Eds.) (2001). *The desktop guide to complementary and alternative medicine: An evidence-based approach*. London, United Kingdom: Harcourt Publishers, Ltd.

Evans, T. (2004). The heritage of an island. Retrieved: http://www.georgiamagazine.org/archives_view.asp?mon=3&yr=2004&ID=945

Factor-Litvak, P., Cushman, L.F., Kronenberg, F., Wade, C., and Kalmus, D. (2001). Use of complementary and alternative medicine among women in New York City: A pilot study. *Journal of Alternative and Complementary Medicine 7(6): 659-667.*

Facts about type 2. (2015, October 27). Retrieved from: http://www.diabetes.org/diabetes-basics-type-2/facts-about-type-2. html?loc=ab-slabnav.

Facts about physical activity. (2014, May 20). Retrieved from: www. cdc.gov/physicalactivity/data/facts.html.

Farris-Thompson, R. (1984). *Flash of the spirit: African & afro-american art & philosophy*. New York, NY: Vintage/Knopf Doubleday Publishing.

Fett, S. (2002). *Working cures: Health, healing, and power on southern slave plantations*. Chapel, NC: The University of North Carolina Press.

Giger, J.N., Davidhizar, R.E., and Turner. (1992). Black american folk medicine care beliefs: Implications for nursing plans of care. *The ABNF Journal: Official Journal of the Association of Black Nursing Faculty in Higher Education, Inc. 3(2)*: 42-46.

Glossary on herbal teas. (2010). Retrieved from: http://www.ema.europa.eu/docs/en_GB/document_library/Regulatory _and_procedural_guideline/2010/04/WC500089943.pdf

Gomez, M. (1998). *Exchanging our country marks: The transformation of african identities in the colonial and antebellum south*. Charlotte, NC: The University of North Carolina Press.

Gordon, L. (2000). *Existentia africana: Understanding africana existential thought*. New York: Routledge.

Goodwine, M.L. (2002). *The legacy of ibo landing: Gullah roots of african-American culture. Atlanta*, GA: Clarity Press.

Gordon, T. (2002). Black belt manure tea makers say brew cures what ails you. The Birmingham News. Retrieved August 21, 2015. (http://www.al.com/specialreport/birminghamnews/index.ssf?blackbelt/blackbelt7.html).

Granger, M. and The Georgia Writers' Project. (1940). *Drums and shadows: Survival studies among the georgia coastal negroes*. Athens, GA: The University of Georgia Press.

Guendelman S, Wagner TH. (2000). Health services utilization among latinos and white non-latinos: results from a national survey. *Journal of Health Care for the Poor and Underserved* 11(2). 179-194. doi: 10.1353/hpu.2010.0719.

Gullah/Geechee cultural heritage corridor north carolina, south carolina, georgia, and florida. (2015, January 1).Retrieved from: http://www.nps.gov/nr/travel/cultural_diversity/Gullah_Geechee_Cultural_Heritage_Corridor.html

Gutman, H.J. (1977). *The black family in slavery and freedom, 1750-1925*. New York, NY: Vintage Books.

Harley, D.A. (2006). Indigenous healing practices among rural elderly african-americans. *International Journal of Disability, Development, and Education,* 53. Retrieved from http://eds.a.ebscohost.com.ezproxy.gsu.edu/eds/pdfviewer/pdfviewer?sid=2cc35a6d-88e2-4c13-a76b-1d2de2e2d3e964%40sessionmgr4005&vid-9&hid=4208

Hipps, Y., Hacker, Y., Hoffmann, D., Brinckmann, J., Socci, R., & Rogers, D. (2009). Self-reported quality of life in complementary and alternative medicine treatment of chronic rhinosinusitis among African Americans: A preliminary, open-label pilot study. *Journal Of Alternative & Complementary Medicine*, 15(1), 67-77. doi:10.1089/acm.2008.0163

Historic Maps. Old west legends: Old time cures and remedies. Retrieved August 21, 2015. (http://www.legendsofamerica.com/we-oldremedies.html).

Huffman, F.G., Exebio, J.C., Vaccaro, J., Zarini, C.G. and Dixon, Z. (2013). *Effect of medical advice for diet on diabetes self-management and glycemic control for Haitian and African-Americans with type-2 diabetes.* Retrieved from: http://digitalcommons.fiu.edu/dietetics_nutrition_fac/9.

Jack, L., Jack, N.H., Hayes, S.C. (2012). Social determinants of health in minority populations: A call for multidisciplinary approaches to eliminating diabetes-related health disparities. (2012). *Diabetes Spectrum* 25 (1). 9-13. doi: 10.2337.

Jernewall, N., Zea, M., Reisen, C., & Poppen, P. (2005). Complementary and alternative medicine and adherence to care among HIV-positive latino gay and bisexual men. *AIDS Care*, 17(5), 601-609.

Jones, R.A. & Taylor, A.G. & Bourguignon, C. & Steeves, R. & Fraser, G., et.al. (2007). Complementary and alternative medicine modality use and beliefs among african american prostate cancer survivors. *Oncology Nursing Forum*, 34. 359-364. doi: 10.1188/07.ONF.359-364.

Johnson-Spruill, I., Hammond, P., Davis, B., McGee, Z., and Louden, D. (2009). Health of gullah families in south Carolina with type 2 diabetes: Diabetes self-management analysis for SuGAR. *The Diabetes Educator, 35 (1)*. doi: 10.1177/0145721708327535

Joubert A., Kidd-Taylor A., Christopher G., Nanda J., Warren R, Lindong I, Brohner Y. (2010). Complementary and alternative medicine practice: Self-care preferred vs. practitioner-based care among patients with asthma. *Journal of the National Medical Association* 102(7). 562-9.

Kelly, J. A. (2006). Use of herbal/natural supplements according to racial/ethnic group. *Journal Of Alternative & Complementary Medicine*, 12(6), 555-561.

Keith VM, Kronenfield JJ, Rivers PA, Liang SY. (2005). Assessing the effects of race and ethnicity on use of complementary and alternative therapies in the USA. *Ethnicity & Health* 10 (1). doi: 10.1080/1355785052000323010.

Kleinman, A. (1988). *The illness narratives: Suffering, healing, and the human Condition.* New York: Basic Books.

Knibb-Lamouche, J. Institute on Medicine. (2012). *Roundtable on the promotion of health equity and the elimination of health disparities*. Seattle: Institute on Medicine.

Knight, J. & Manson, K. (2007). Sierra leone draws americans seeking slave roots. Retrieved from: https://gondobaymangafoundation.org/2007/03/sierra-leone-draws-americans-seeking-slave-roots/

Kronenberg, F., Cushman, L. F., Wade, C. M., Kalmuss, D., & Chao, M. T. (2006). Race/Ethnicity and women's use of complementary and alternative medicine in the united states: results of a national survey. *American Journal Of Public Health*, 96(7), 1236-1242. doi:10.2105/AJPH.2004.047688

Kulkarni KD. (2004). Food, culture, and diabetes in the united states. *Clinical Diabetes* 22(4). 190-192. doi: 10.2337.

Lee, M.M., Lin, S.S., Wrensch, M.R., Adler, S.R. and Eisenberg, D. (2000). Alternative therapies used by women with breast cancer in four ethnic populations. *Journal of the National Cancer Institute 92(1)*: 42-47. doi:10.1093/jnci/92.1.4.2.

Levine, Lawrence W. (2007). *Black Culture and Black Consciousness: Afro-American Folk Thought from Slavery to Freedom*. Oxford, England: Oxford University Press.

Linares, O.F. (2002). African rice (Oryza glaberrima): History and future potential. http://www.pnas.org/content/99/25/16360.full

Living with type 1 diabetes. (2015, February 9). Retrieved from: http://www.diabetes.org/living-with-diabetes/recently-diagnosed/living-with-type-1-diabetes.

Liu, G., Mi, X., Zheng, X., Xu, L., Lu, J., Xiao, H. (2014). Effects of tea intake on blood pressure: A meta-analysis of randomised controlled trials. *British Journal of Nutrition* 112(7), 1043-1054. doi: http://dx.doi.org/10.1017/S0007114514001731.

Mackenzie, E., Taylor, L., Bloom, B., Hufford, D., & Johnson, J. (2003). Ethnic minority use of complementary and alternative medicine (CAM): A national probability survey of CAM utilizers. *Alternative Therapies In Health And Medicine*, 9(4), 50-56.

Marmot, M. (2006). Health in an unequal world. *Lancet* 6736 (06). 2081-2094. doi:10.1016/S0140-6736(06).

Marshall, M.C. (2007). Overcoming barriers to glycemic control in African-Americans with type-2 diabetes: Benefits of insulin therapy. *Journal of the National Medical Association 99(8)*: 868-875.

Metcalf A, Williams J, McChesney J, Patten S, and Jette N. (2009). Use of complementary and alternative medicine by those with a chronic disease and the general population- results of a national population based survey. *BMC Complementary and Alternative Medicine* 10(58). doi: 10.1186/1472.6882.

Mullin F. (2012). The heart speaks. *Nutrition in Clinical Practice* 27(3). 426-427. doi: 10.1177/088453361244453.

National Center for Complementary and Integrative Health. (2008). Complementary, alternative, and integrative health: What's in a name?. Bethesda, Maryland. Retrieved August 21, 2015. (https://nccih.nih.gov/health/integrative-health).

O'Connor BB and Hufford, DJ. (2001). Understanding folk medicine. In Erika Brady (Ed.), *Healing logics* (13-38). Logan, Utah: Utah State University Press.

Odell, J. (2012). *The healing*. New York, NY: Anchor Books.

Office of Insurance and Safety Fire Commissioner. (2015). Rural health care. Retrieved August 30, 2015. (http://www.oci.ga.gov/RuralHealthcare/home.aspx)

Owen-Smith, A. A., Diclemente, R., & Wingood, G. G. (2007). Complementary and alternative medicine use decreases adherence to HAART in HIV-positive women. *AIDS Care*, 19(5), 589-593. doi:10.1080/0954012070120327.

Overall numbers, diabetes and prediabetes. (2014, June 2010. Retrieved from: http://diabetes.org/diabetes-basics/statistics. Centers for Disease Control and Prevention. National diabetes fact sheet: National estimates and general information on diabetes and prediabetes in the United States, 2011. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention 2011.

Patton, M.Q. (1999). Enhancing the quality and credibility of qualitative analysis. *Health Services Research* 34 (5.2) 1189-1208.

Pettit DJ, Talton J, Debelea D, Divers J, Imperatore G, Lawerence JM, Liese AD, Linder B, Mayer-Davis EJ, Pihoker C, Saydah SH, Standiford DA, Hamman RF. (2014). Prevalence of diabetes in U.S. youth in 2009: The SEARCH for diabetes in youth study. *Diabetes Care*, 37 (2): 402-8. doi: 10.2337.

Phillips, R. (2013). Property tax avalanche threatens homeowners on historic coastal land. Retrieved from: https: http://edition.cnn.com/2013/10/26/living/georgia-island-tax-avalanche/

Pinnegar, S., Daynes, J.G. (2006). Locating narrative inquiry historically: Thematics in the turn to narrative. In D.J. Clandinin (Ed.), *Handbook of narrative inquiry: Mapping a methodology* (pp. 3-34). Thousand Oaks, CA: Sage Publications, Inc.

Pollitzer, W.S. (2005) *The Gullah people and their African heritage.* Athens, Georgia: The University of Georgia Press.

Premilovac, D., Roberts-Thompson, K.M., Hg, H.L., Bradley, E.A., Richards, S.M., Rattigan, S., Keske, M.A. (2013). Blueberry tea enhances insulin sensitivity by augmenting insulin-mediated metabolic and microvascular responses in skeletal muscle of high fat fed fats. *International Journal of Diabetology & Vascular Disease Research* 1(5): 29-36.

Raboteau, A.J. (2004). *Slave religion: The "invisible institution" in the antebellum south*. Oxford, England: Oxford University Press.

Quick Facts- McIntosh County, Georgia. (2015). Retrieved 1 July 2016. http://www.census.gov/quickfacts/table/PST045215/13191

Revell, M.A. (2012). Use of complementary and alternative medicine in African American culture. *International Journal of Childbirth Education* 27 (3). 55-59.

Ross, L. E., Fletcher, A., Anderson, M. C., Meade, S. M., Powe, B. D., & Howard, D. (2012). "Complementary and alternative medicine (CAM) use among men with a history of prostate cancer". *Journal Of Cultural Diversity*, 19(4): 143-150.

Sapelo Island Cultural and Revitalization Society. (2015). Retrieved from: http://www.sapeloislandga.org/history/slave-times

Savitt, T. (2002). *Medicine and slavery: The diseases and health care of blacks in antebellum virginia*. Urbana-Champaign, IL: The University of Illinois Press.

Schulz, L.O., Bennett, M.B., Ravussin, E., Kidd, J.R., Kidd, K.K., Esparza, J., and Valencia, M.E. (2006). Effects of traditional and western environments on prevalence of type 2 diabetes in pima indians in mexico and the u.s. *Diabetes Care*, 29(8): 1866-1871.

Sapelo island slave times. (2015, January 1). Retrieved from: http://www.sapeloislandga.org/history/slave-times

Shane-McWhorter, L. (2013). Dietary supplements for diabetes care are decidedly popular: Help your patients decide. *Diabetes Spectrum* 26(4): 259-266.

Smith, J.F. (1985*). Slavery and rice culture in low country Georgia 1750-1860*. Knoxville, Tennessee: The University of Tennessee Press.

Smith, L. (1999). *Decolonizing methodologies: research and indigenous peoples*. Otago, New Zealand: Otago University Press.

Smitherman, G. (1986). *Talkin' and testifyin': The Language of Black America*. Wayne, MI: Wayne State University Press.

Snow, L.F. (1970). *Walkin' Over Medicine: Traditional Health Practices in African-American Life*. Wayne, MI: Wayne State University Press.

Snow, L.F. (1978). "Sorcerors, saints, and charlatans: Black folk healers in urban america." *Culture, Medicine, and Psychiatry. 2(1): 69-106.*

Snow, L.F. (1983). Traditional health beliefs and practices among lower class black americans. *Western Journal of Medicine,* 139. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1011011/pdf/westjmed00196-0050.pdf

Statistics about diabetes. (2015, May 18). Retrieved from: http://www.diabetes.org/diabetes-basics/statistics/

Stote, K.S. and Baer, D.J. (2008). Tea consumption may improve biomarkers of insulin sensitivity and risk factors for diabetes. *Journal of Nutrition 138(8): 1584-1588*.

Stowe, H.B. (1852). *Uncle tom's cabin.* Bedford, Massachusetts: Applewood Books.

Stussman, B.J. and Bethell, C.J.. Gray, C. and Nahin, R.L. (2013). "Development of the adult and child medicine questionnaires fielded on the national health interview survey". *BMC Complementary and Alternative Medicine*. 13(328): 1-18.

Su, D. and Lifeng, L. (2011). Trends in the use of complementary and alternative medicine in the United States: 2002 to 2007. *Journal of Health Care and for the Poor and the Underserved*. 22 (1

http://muse.jhu.edu/journals/journal_of_health_care_for_the_poor_and_underserved/v022/22.1.su.pdf

Tabassum, N. and Feroz, A. (2011). The role of natural herbs in the treatment of hypertension. *Pharmacognosy Review* 5(9). doi: 10.4103/0973-7847.79097

Tamhane A., McGwin G., Redden D, Hughes LB, Brown EB, Westfall AO, Conn DL, Jonas BL, Smith EA, Brasington RD, Moreland, Bridge SL, Callahan LF. (2014). Complementary and alternative medicine use in african-americans with rheumatoid arthritis.. *Arthritis Care Research* 66(2). 180-189. doi: 10.1002/acr. 22148

The University of Minnesota- The Center for Spirituality and Healing. 2009. "How does culture affect healthcare." Retrieved August 26, 2014 (http://http://www.takingcharge.csh.umn.edu/common-questions/how-does-culture-affect-healthcare)

Treatment and care for african-americans. (2013, November 12). Retrieved from: http://www.diabetes.org/living-with-diabetes/treatment-and-care/high-risk-populations/treatment-african-americans.html.

Trochim, W.K.M. (2006). Qualitative approaches. Retrieved from: http://www.socialresearchmethods.net/kb/qualapp.php

Thoburn, S. & Faith, J. & Keon, K.L. & Tippens, K.M. (2013). Discrimination in health care and CAM use in a representative sample of U.S. adults. *Journal of Alternative and Complementary Medicine*. 19(6). 577-8. doi: 10.1089/acm.2012.0586.

Turner, L.D. (2002). *Africanisms in the gullah dialect*. Columbia, South Carolina: The University of South Carolina Press.

Twitty, M. (2015). A people history of Carolina rice. Retrieved from: http://www.madfeed.co/2015/a-peoples-history-of-carolina-rice/

Van Atten, S. (2016). Geechee community endures on the island, but just barely. Retrieved: http://specials.myajc.com/sapelo/

Wagner, E.H. and Austin, B.T., and Korff, K.M. (1996). Improving outcomes in chronic illness". *Managing Care Quarterly*. 4 (2). 12-25.

Washington, Harriet A. (2006). *Medical apartheid: The dark history of experimentation on African-Americans from the colonial times to the present*. New York: Anchor Books.

Welcome to McIntosh County. (1, January 2012). Retrieved from: http://www.mcintoshcountyga.com/.

Wickersham, M.E., Basey, S., Beba, S., Bradford, J., Davis, A., Dougherty, J. Lander, J., Moreno, J. Moss, M. and Wade, C. (2013, October 31). *Community health needs assessment*

coastal health district. Retrieved from: http://www.gachd.org/FinalMcIntosh%20County%20Community%20Health%20Needs%20Assessment.pdf

What is gestational diabetes? (2013, June 20). Retrieved from: http://www.diabetes.org/diabetes-basics/gestional/what-is-gestional-diabetes.html

Wisse, B. (2016, June 7). Blood sugar test. Retrieved from: https://www.nlm.nih.gov/medlineplus/ency/article/003482.htm

World Health Organization. (2013). WHO traditional medicine strategy 2014-2023. Retrieved from: https://apps.who.int/iris/bitstream/10665/92455/9789241506090_eng.pdf.

Yeh, G.Y., Eisenberg, D.M., Kaptchuk, T.J., Phillips, R.S. (2003). Systematic review of herbs and dietary supplements for glycemic control of diabetes. *Diabetes Care* 26 (4).

Young, Jason R. (2011). *Rituals of resistance: African atlantic religion in kongo and the lowcountry south in the era of slavery*. Baton Rouge, LA: Louisiana State University Press

Young WC, Nammi S, Jeppesen PB, Cho WCS. (2013). Complementary and alternative medicine for diabetes. *Evidence-Based Complementary and Alternative Medicine* 2013 (1). 1-3. http://dx.doi.org/10.1155/2013/831068.

Zemestani, M. Rafraf, M., and Asghari-Jafarabadi, M. (2016). Chamomile tea improve glycemic indices and antioxidants status in patients with type 2 diabetes mellitus. *Nutrition* 23 (2016). 66-72.

APPENDIX: INTERVIEW GUIDE

Background Questions

1. What part of Sapelo is your family from?
2. How long has your family lived in Sapelo?
3. What does being Gullah-Geechee mean to you? What does it mean to be from Sapelo to you?
4. When were you first diagnosed with diabetes?
5. When is the last time you have visited a medical doctor?

Context Questions

1. What kinds of remedies do you use to help with your diabetes?
2. Why do you use remedies to help with your diabetes? Do you go to a regular doctor to help with your diabetes, too?
3. Where do you buy your remedies from? Who do you buy your remedies from?
4. Why you drink herbal tea to help with your diabetes? If so, why do you believe herbal tea works in helping with your diabetes?
5. What else would you like to share as far as what you do to take care of your diabetes?

Questions for Alternative Medicine Sellers

1. What kinds of remedies do you sell? What are some the remedies you sell used to cure or treat illness?
2. How long have you been selling remedies?
3. Do you sell remedies that help cure or treat diabetes? If so, what are the names of these remedies? What are some of the symptoms of diabetes these remedies treat (e.g. high blood pressure and body pain)?

Closing Questions

1. What else would you like to share?
2. What do you think people who study Gullah-Geechee people need to know about Gullah-Geechee people?