The Role of Family Context in Family Health History Communication Surrounding Chronic Disease

Kendall M. Williams

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Communication about family health history related to chronic disease are important to health promotion and prevention and associated with better health outcomes, yet for African Americans, they do not happen until after a family member has been diagnosed with a specific disease or condition (Hovick, 2016; Rodriguez, 2016). The purpose of the study was to examine the occurrence of family communication surrounding chronic disease in a sample of African American women in the rural Southeastern United States. Secondly, the study sought to examine whether frequency of communication was a factor in the communication (gathering or sharing) of family health history. The survey instrument used was the FACES-IV (Olson, 2011) which measures the concepts of cohesion and adaptability within a family. A purposive sample of 94 African American women participated in the study. The average age of the participants was 58; 92% graduated from college and the majority identified as being of the Baptist faith. A third of the sample reported gathering information from other family members on chronic disease history and 37% shared information on family health history with family members for chronic disease prevention. Results showed that neither cohesion, adaptability nor frequency of communication were statistically significant with the gathering or sharing of family health history information about chronic disease. Despite the lack of statistically significant results, understanding how family context (cohesion and adaptability) affects family communication patterns related to chronic disease, specifically among African Americans should be explored in future research.

INDEX WORDS: Family communication patterns theory (FCP), Family systems theory, Family health history, Chronic disease, African-American women
THE ROLE OF FAMILY CONTEXT IN FAMILY HEALTH HISTORY COMMUNICATION

SURROUNDING CHRONIC DISEASE

by

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A Dissertation Submitted to the Graduate Faculty of Georgia Southern University in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF PUBLIC HEALTH

STATESBORO, GEORGIA
THE ROLE OF FAMILY CONTEXT IN FAMILY HEALTH HISTORY COMMUNICATION
SURROUNDING CHRONIC DISEASE

by

KENDALL MERRELL WILLIAMS

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December 2019
DEDICATION

I would like to dedicate the fulfillment of the dissertation process to my family, friends, and committee members who have selflessly contributed to the attainment of my doctoral degree through this grueling process.

First to my family who have assisted me with maintaining my focus in times when there was no clear path in the completion of my dreams. I would like to acknowledge my mother and father foremost in this process. Their unwavering support from my first day in grade school up to and through my matriculation of college encompassing four-degree paths and institutions of higher learning. My aunts and uncles whose constant inquiry about my progress during the process inspired me to persevere in the darkest of times. My friends who kept me laughing when I really did not feel that there was much joy to glean from the process. And most of all, my dissertation committee, Drs. Chopak-Foss, Smallwood, and Rochani, the encouragement provided to me in the face of overwhelming odds during the re-envisioning of my project has prepared me for life’s future ups and downs.

In memory of my paternal grandparents, David B. Williams and Iver Lee Williams. You left me with the knowledge that I could become whatever I put my mind to and achieve the impossible. Your quiet strength over my life has been a driving force which motivated me to accomplish more than I ever thought possible.

In memory of my maternal grandparents, Wendell Jennings and Mozelle Jennings. I never had an opportunity to meet you (grandpa), but I know that you were there amid all my trials. To my grandma, I will never forget your strength during the darkest and toughest of times and remember how your courage lit the way for our family time and time again.
ACKNOWLEDGMENTS

I would like to start by extending my most sincere gratitude to my committee chair, Dr. Joanne Chopak-Foss, for her tireless devotion to the completion of my dissertation project and matriculation through my program of study. Her selfless dedication in assistance provided to me over the past several years has been priceless which words themselves could not adequately express.

I would also like to say a special thanks to my committee members, Drs. Smallwood and Rochani, for their indispensable efforts to assist me with the preparation and coordination of my project. Their expert advice has been an undergirding support which has been an invaluable buffer against my constant feelings of disillusionment concerning my ability to finalize my studies.

I would be derelict in my acknowledgments if I did not express my most heartfelt gratitude to the Historically Black College and University (HBCU) sororities of Alpha Kappa Alpha, Zeta Phi Beta, and Sigma Gamma Rho for the assistance afforded me through their participation in my project. Their consistent support and philanthropic efforts within the community has been so valuable not only to the growth of residents but also to the local colleges and universities.

Finally, I would be remiss if a special acknowledgement was not afforded, Drs. Quillin and Corona faculty members from Virginia Commonwealth University, for their assistance through the permitting of me to adapt a previous research instrument utilized by them for my project purposes.
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LIST OF ABBREVIATIONS

American Cancer Society (ACS)
American Diabetes Association (ADA)
Centers for Disease Control (CDC)
Coronary Heart Disease (CHD)
Department of Health and Environmental Control (DHEC)
Division for Heart Disease and Stroke Prevention (DHDSP)
Family Communication Patterns Theory (FCP)
Family Health History (FHH)
Family History of Cancer (FHC)
Hereditary Nonpolyposis Colorectal Cancer (HNPCC)
Historically Black Colleges and Universities (HBCU)
Multiple Chronic Conditions (MCCs)
Multiple Family Groups (MFGs)
Non-white female (NWF)
Non-white male (NWM)
Potential Years of Life Lost (PYLL)
Revised Family Communication Patterns Theory (RFCP)
Type 2 Diabetes (T2D)
CHAPTER 1
BACKGROUND AND SIGNIFICANCE
INTRODUCTION

In 2012, approximately half of all adults or approximately 117 million Americans suffered from one or more chronic conditions (Ward, 2014). Chronic diseases are defined as illnesses or conditions that prolonged disease. Specific chronic diseases such as diabetes, cancer, heart disease, and stroke were among the leading causes of morbidity and mortality among African Americans in the United States (CDC, 2016c). Multiple chronic conditions (MCCs) affected one out of four individuals (CDC, 2016c). Multiple chronic conditions are considered to be comorbidities or combinations of chronic diseases which contribute to a higher disease burden. African Americans (13.2%) suffer from a higher burden of chronic disease compared to non-Hispanic whites (7.6%) in part due to MCC’s (ADA, 2016a).

Chronic diseases account for a substantial proportion of potential years of life lost (PYLL) for African Americans under 75 years of age. According to the Centers for Disease Control and Prevention (CDC) heart disease accounts for 1,601/100,000 years of potential life lost among African Americans; whereas, Whites experienced a lower burden at 1,022/100,000 years of potential life lost. Cancer accounted for slightly higher years of potential life lost at 1,708.8/100,000 for African Americans and 1601/100,000 for Whites. The rate for diabetes was 297.4/100,000 for African Americans and 159.9/100,000 for Whites concerning years of potential life lost (CDC, 2016a).

CDC data indicated that trends in chronic disease prevalence found at the national level were reflected at the state level, particularly in the southeastern United States. In South Carolina, diabetes prevalence rates were 448/100,000 individuals and 179/100,000, respectively (CDC, 2016a). The adult diabetes prevalence rate among South Carolinians in 2014 averaged or was
reported to be 117/1000 (CDC, 2016d). The counties with the highest prevalence rates were Orangeburg County, South Carolina (15.1%) and Allendale County at 19.2% (CDC, 2016j). In addition, South Carolinians suffered higher mortality rates from heart disease (120/100,000) and stroke (50/100,000). The target mortality rate for heart disease and stroke according to Healthy People 2020 was 101 and 33.8, respectively (CDC, 2016e). Beyond being a major cause of morbidity and mortality, heart disease, stroke, and diabetes shared a common risk factor--family history. Since family members share genes, behaviors, lifestyles, and environments, individuals with a close family member with a chronic disease developed an increased chance of developing a chronic disease compared to those without this close familial tie (CDC, 2016g). For the chronic diseases that occurred more frequently in African-Americans, the odds of developing the disease varies: stroke (1.6 to 2.3), heart disease (0.9 to 1.4), or diabetes (1.1 to 1.7) relative to their White counterparts, respectively (Scheuner, 2008). According to Valdez (2007), there were associations which promote the acquisition of chronic disease in individuals who have a family history of diabetes. Through analysis of living and deceased relatives’ family health history, the study found that individuals had a high risk of the disease if two first-degree relatives or one first-degree and two second-degree individuals in the lineage were diagnosed. A moderate chance was exhibited when one first-degree and one second-degree relative had the disease. This was also possible through a first-degree relative alone or when two second-degree relatives along a similar maternal or paternal lineage contracted the disease. Individuals had an average chance of obtaining the disease even when there was no family history of the disease or at least one second-degree relative with the disease (Valdez, 2007). Early onset coronary heart disease affected the first-degree relative while changing the family history beyond the first-degree. The prevalence of coronary heart disease within family history above first-degree was increasingly
associated with early onset coronary heart disease (CHD) in first-degree relative when the condition was acquired at or before the age of 60 years. In addition to exhibiting a first-degree relative with early onset CHD, a second-degree relative or more than two second-degree relatives irrespective of age of CHD onset increased chances of developing the disease. In women, the early onset of stroke within a first-degree relative and a first-degree relative with diabetes elevated the opportunity for CHD diagnosis (Scheuner, 2008). There is strong evidence that family history is one of the many etiologic factors for chronic conditions. Knowledge of family health history can increase early detection, knowledge of risk factors and subsequent treatment.

Lack of knowledge of one’s family health history has been shown to be a growing area of disparity between African Americans and Whites (Hovick, 2015). Research indicates that African Americans tend to be less knowledgeable about their family health history as a risk factor for chronic disease (e.g. heart disease, stroke, cancer and diabetes) compared to Whites (Hovick, 2015). One reason individual fail to engage in appropriate risk reduction activities was because they were unaware of their family health history. Family health history as a risk factor for the acquisition of chronic disease required increased knowledge about its emphasis on susceptibility of family members. In a study conducted by Jepson 1991), the data demonstrated a deficiency in knowledge measures concerning the belief about prevention of cancer between African Americans and Whites. According to Jepson (1991), the percentages for the independent variables of knowledge measured (e.g. fat and fiber, risk factor, and cigarette risk) demonstrated that there were small differences in the perceived effect on the increasing of susceptibility for African Americans to develop a chronic disease. The African American participants continually scored at least one percentage point or lower on these knowledge-related variables. The percentages for knowledge about risk factors for cancer indicated that African
Americans at 3.62% and Whites 4.46% believe themselves to be at less risk for cancer diagnosis. Learning one’s family health history could be beneficial in its ability to understand the potential for children’s increased risk of acquiring a chronic condition. Knowledge about family history could make it easier to diagnose children in the future with possible disorders exhibited during a visit (CDC, 2016i). Most adults were unaware of the fact that a family history of chronic diseases such as diabetes and heart disease could exhibit signs during their children’s childhood years (CDC, 2016i).

Statement of Problem

Research suggests that African Americans tend to be less knowledgeable about their family health history as a risk factor for chronic disease (e.g. heart disease, stroke, cancer and diabetes) compared to Whites (Hovick, 2015). This is one of the contributing factors to disparities in disease occurrence and progression among African Americans (Rodriguez, 2016; Yoon, 2004).

Another issue that may contribute to poor health outcomes among African Americans is lack of knowledge about family health history. Rodriguez (2016) found that differences in cultural beliefs was adversely associated with FHH communication among African Americans and Latinos. When viewing FHH communication from the position of culture, African Americans as well as Latinos have been found to maintain beliefs and values that similarly lead to a failure in communication about FHH that bring about poor health outcomes (Rodriguez, 2016). The lack of family health history knowledge among African Americans interferes with the ability to take appropriate primary and secondary preventive actions that were based on their higher levels of risk (Hovick, 2016; Rodriguez, 2016).
Purpose of Study

The purpose of the present study was to examine the occurrence (gathering or sharing) of family communication surrounding chronic disease in a sample of African American women in the rural Southeastern United States. Secondly, the study sought to examine whether frequency of communication was a factor in the communication (gathering or sharing) of family health history. The premise for the study was the following: within the African-American community, women are the “keepers” of family health history and therefore an important link to prevention, treatment and narrowing the gap of health disparities related to chronic disease among African-Americans.

Significance of Study

Information available on the relationship between family communication patterns and chronic disease among African Americans is limited (Olsen 2010, 2011; Drazie, 2012; Galvin, 2010; Gartley, 2015; Thompson, 2016), yet the burden of disease is higher than for other racial groups in the United States. Findings from the study will add to the current body of knowledge regarding the role of family communication patterns related to the sharing and/or gathering of family health history among African Americans. Findings from the study can assist public health practitioners in developing culturally and age appropriate prevention and risk reduction strategies. Improved prevention and reduction of risk factors for chronic disease will reduce health disparities in populations of color. The benefits to society included a better understanding of how family communication patterns, family cohesion and adaptability affect the communication of FHH information to family members.

Theoretical Framework

To better understand the correlations between the family communication patterns, family context, and family health history communication about chronic disease, theoretical evidence
concerning the relationships among the family needed to be considered. Family systems theory provided the ability to conceptualize the total working relationships concerning the average family dynamic. Murray Bowen (1999) who was a psychiatrist that studied the inner workings of the family initiated the conceptualization of the family systems. The theory proposed by Bowen examines the human behavior of the family and looked at the overall members as an emotional unit or system. This theory took into consideration that the family was emotionally connected and when there was a change in one-member’s emotional attachment to a social reality would affect other members’ emotional attachment. The theory created to examine the family system was made up of eight concepts. Table 1.1 provides the definitions of the different concepts included in the theory. Galvin (2010) believed that the transference of family health history (FHH) should be guided using the family systems perspective.

**Table 1.1**

*Family Systems Theory*

<table>
<thead>
<tr>
<th>Principles</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triangles</td>
<td>A three-person relationship system.</td>
</tr>
<tr>
<td>Differentiation of self</td>
<td>A person’s way of thinking is affected by family and other social groups.</td>
</tr>
<tr>
<td>Nuclear Family Emotional Process</td>
<td>A person’s attitudes, beliefs, and relationships are governed by the emotional system.</td>
</tr>
<tr>
<td>Family Projection Process</td>
<td>The way in which emotional problems are transmitted to the child from their parents.</td>
</tr>
<tr>
<td>Multigenerational Transmission Process</td>
<td>Small changes within the lives of individuals in the family throughout generations lead to differentiation between parent and child which then lead to larger changes among multigenerational family.</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Emotional Cutoff</td>
<td>The management of unresolved emotional issues among parents, siblings, and family members through the reduction of emotional contact.</td>
</tr>
<tr>
<td>Sibling Position</td>
<td>Individuals growing up in the same sibling position will exhibit commonality in characteristics.</td>
</tr>
<tr>
<td>Societal Emotional Process</td>
<td>The emotional system controls behavior at the societal level through the promotion of progressive and regressive periods within a society.</td>
</tr>
</tbody>
</table>


The various concepts established for this theory cover the wide-ranging emotional issues which govern the complicated interactions often engaged in by family. Family members tend to build coalitions among family members through what was termed triangles. Triangles were conceived to build or harness resources among family that would assist with the coping mechanisms to alleviate stress. These coalitions tend to manifest between two individuals within the family and include an additional person or family member to assist with further mediation of the crisis. From the incorporating of individuals into the fold to offset the stress of changes to the emotional system of the family, the differentiation of self-allowed an individual to somewhat remove themselves from the influence of the immediate fold to deal with any new issues in a manner that seems appropriate. This concept looked at the individual's ability to examine and
think about new situations from a personal or individual perspective. Through the nuclear family emotional process, the emotional system was further strengthened by the coalescing of the family members' beliefs, attitudes, and relationships. The bonding of the emotional states of family members could allow the unit to become a force to be reckoned with or an internal problem which caused undue tension in the face of adverse circumstances. Due to the nuclear family emotional process, the family projection process must have been a factor that brought about a higher level of conformity among the nuclear family. Any attempt to break away from this translation of emotion by the parent onto the child must have brought unnecessary conflict between parents and children when there was stressful tension in the home. The relationships among parent and child exhibit small amounts of differentiation from one generation to another but were most evident over a period through multi-generational shifts according to the multigenerational transmission process. From the emotional cutoff concept comes the notion that the family member was further allowed a chance to separate one’s emotional state from the overall emotional system. This would allow for a better analytical examination of the situation to bring about a more comprehensive and far reaching problem resolution process to relieve stress and pressure on the emotional system. The positioning of the sibling or sibling position considered the ability of the sibling to project across generations the responsibility of being a leader or dependent upon others for guidance. This concept did not take into consideration the ethnicity of the siblings when attempting to determine whether or not the individual would take on a leadership role or dependency position toward others. The emotional system of the family at the societal level governed the behavior of the unit when displayed outwardly to others within the social reality by way of the societal emotional process.

Social reality factors associated with the individual and interpersonal level function to affect the communication of family health history. At the individual level, knowledge, perception,
education, self-efficacy and health care access serves as barriers and facilitators to FHH communication. At the interpersonal level, non-nurtured relationships among members of the family, lack of knowledge about family health history information, inadequate social networks, and factors (e.g. family dynamics, stigma, quality of life, fatalism) causing limitations that prevented the transference of family health history knowledge from occurring within the family system (Drazie, 2012; Galvin, 2010; Gartley, 2015; Thompson, 2016).

Due to the highly complex nature of concealment or revelation of family health history, the Family Communication Patterns Theory (FCP) should be considered in addition to the Family Systems theory to provide an understanding of some of the barriers to family communication in this study surrounding the communication of family health history.

Koerner and Fitzpatrick (2006) posited that the Family Communication Patterns Theory provided a means to evaluate the causation of family types identified through cognitive research instead of just distinctions in behavior to qualify their existence. A significant interpretation of the concept of the Family Communication Theory presented itself as a comprehensive theory concerning communication among family that transcended both concepts of cognition and interpersonal behavior (Koerner & Fitzpatrick, 2006). The theory of Family Communication Patterns came about due to the consideration of shared families’ social realities within the process of co-orientation and re-orientation of the model as a theory of interpersonal behavior. Family Communication Patterns theory also considered portions of the Socio-ecological model that incorporates the intrapersonal and interpersonal processes to explain the passage of information among individuals. Table 1.2 provides the definition of the constructs of the Family Communication Patterns Theory. These two studies were intended to be used to guide the interpretation and understanding of the results of the study. Specifically, what are some potential
barriers within the African-American community surrounding communication of family health history. Due to the small sample size, neither one of these theories were tested.

**Table 1.2**

*Family Communication Patterns Theory*

<table>
<thead>
<tr>
<th>Beliefs</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversation orientation</td>
<td>Degree to which families create a climate where all family members are encouraged to participate freely in interaction about a wide array of topics</td>
</tr>
<tr>
<td>Conformity orientation</td>
<td>Degree to which families create homogeneity of attitudes, values, and beliefs</td>
</tr>
<tr>
<td>Consensual</td>
<td>Families high in conversation orientation and high in conformity orientation</td>
</tr>
<tr>
<td>Pluralistic</td>
<td>Families high in conversation orientation and low in conformity orientation</td>
</tr>
<tr>
<td>Protective</td>
<td>Families low in conversation orientation and high in conformity orientation</td>
</tr>
<tr>
<td>Laissez-faire</td>
<td>Families low in conversation orientation and low in conformity orientation</td>
</tr>
</tbody>
</table>


**Assumptions**

The following assumptions were made prior to data collection:

1. Participants completing the self-administered questionnaire would answer the survey questions honestly.
2. The survey would be able to capture correlations between family context and family health history communication to provide a better understanding of communication structure.

3. Participants would answer questions about their perceptions about family context, as well as family health history communication to the best of their recollection.

4. Participants would understand the context of the questions posed to them.

**Delimitations**

The study was delimited to the city of Orangeburg, South Carolina. The city of Orangeburg, South Carolina located primarily in the Southeastern region of the state was selected because of the large African-American population. Participants were delimited to African American women who were members of alumni chapters of one of the nine historically African American, international Greek lettered fraternities and sororities located in Orangeburg.

**Table 1.3**

**Definition of Terms**

<table>
<thead>
<tr>
<th>Terms</th>
<th>Operational Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Health History (FHH)</td>
<td>The history of family members who suffer from chronic conditions or disease which may be considered genetic in origin (Thompson, 2015).</td>
</tr>
<tr>
<td>Family History of Cancer (FHC)</td>
<td>The history of family members who suffer from cancer diagnosis which may be considered genetic in origin (Mitchell, 2013).</td>
</tr>
<tr>
<td>Chronic disease</td>
<td>A human health condition or disease that is persistent or otherwise long-lasting in its effects.</td>
</tr>
<tr>
<td>Barrier</td>
<td>Something material that blocks or is intended to block passage.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Familiarity</td>
<td>Knowledge of someone or something, or to a feeling of comfort and closeness with someone or something (Ashida, 2012).</td>
</tr>
<tr>
<td>Health promotion</td>
<td>Any activity that seeks to improve a person’s or population’s health by providing information about, and increasing awareness of, at-risk behaviors associated with various diseases (Glanz, K., 2008).</td>
</tr>
<tr>
<td>Intragenerational</td>
<td>Of, occurring among, or intended for individuals in the same generations (Koerner, A. F.; Fitzpatrick, M. A., 2002).</td>
</tr>
<tr>
<td>Intergenerational</td>
<td>Of, occurring between, or intended for individuals in different generations (Koerner, A. F.; Fitzpatrick, M. A., 2002).</td>
</tr>
<tr>
<td>Conversation orientation</td>
<td>Degree to which families create a climate where all family members are encouraged to participate freely in interaction about a wide array of topics (Koerner, A. F.; Fitzpatrick, M. A., 2002).</td>
</tr>
<tr>
<td>Conformity orientation</td>
<td>Degree to which families create homogeneity of attitudes, values, and beliefs (Koerner, A. F.; Fitzpatrick, M. A., 2002).</td>
</tr>
<tr>
<td>Cohesion</td>
<td>Emotional bonds between family members (Rodriguez, 2016).</td>
</tr>
<tr>
<td>Adaptability</td>
<td>The quality and expression of leadership and organization within the system (Rodriguez, 2016).</td>
</tr>
<tr>
<td>Communication</td>
<td>Facilitating dimension which assists families in finding balanced levels of cohesion and flexibility to obtain optimal functioning (Rodriguez, 2016).</td>
</tr>
</tbody>
</table>

**Chapter Summary**

Chapter one consisted of the introduction, problem statement, purpose of the study, research questions, significance of the study, and assumptions. Chapter two contains a review of the scientific literature related to family and communication patterns concerning transference of
family health history. Chapter three describes the methodology undertaken to complete the study which entailed the study design and other procedural tasks. Chapter four provide the results of the study followed by a comprehensive discussion of the study findings in their entirety in chapter five.
Currently, there were at least 10 leading causes of death for African Americans (CDC, 2016c). Of the top 10 causes of death for this demographic group, four have been noted by the Centers for Disease Control and Prevention (CDC). The four most prominent causes of death among chronic disease/health were heart disease, stroke, cancer, and diabetes (CDC, 2016c). According to the CDC, chronic diseases affect men and women at a different magnitude causing the diseases to be ranked at various levels. Chronic disease and health fluctuated significantly given the gender of the individual and ethnicity of the group in question.

Approximately two-thirds or 64% of women succumb to heart disease during their life and experience no symptoms prior to the event (CDC, 2015l). In contrast, half or 50% of men do not have symptoms before determining that they have coronary heart disease. The Centers for Disease Control and Prevention indicated that roughly 7.9% of black men compared with 8.5% of white men suffer from heart disease (CDC, 2015k).

Again, it was seen that the primary risk factors for stroke in both men and women were high blood pressure, elevated LDL cholesterol, and smoking. Over 795,000 people suffer from strokes every year in the United States. Out of the 795,000 individuals living with having a stroke in their lifetime, 130,000 people would die due to this chronic disease (CDC, 2015j).

According to data from 2011 by the CDC, cancer as a chronic disease for the State of South Carolina had an incidence rate of 373.8 to 435.8 per 100,000. In addition to the considerable incident rate experienced by the South Carolina residents according to the 2011 data, the death rate was among the highest within the United States at 180.3 to 200.9 per 100,000
The three leading cancer types which affect men were prostate, lung, and colorectal. Prostate cancer among combined races for men within the United States has an incident rate per 100,000 at 128.0 followed by lung cancer at 73.0 and colorectal cancer at 46.1. In contrast, the death rates per 100,000 among combined races suffering from lung cancer at 57.9, prostate cancer at 20.8, and colorectal cancer at 18.1/100,000. For women, the three most common forms of cancer per 100,000 were breast cancer at 122.0, lung cancer at 52.0, and colorectal cancer at 34.9. When ascertaining the leading cause of death per 100,000 from cancer for women, lung cancer took the top spot with 37.0, breast cancer with 21.5, and colorectal cancer with 12.8 (CDC, 2015b).

**Chronic Disease by Gender**

The leading causes of death from chronic disease were ranked in order from heart disease (23.7%), cancer (22.9%), stroke (5.1%), and diabetes (2.9%) within the United States (CDC, 2014). By gender, African American males succumb to the problem of heart disease approximately 24%, cancer 22.4%, stroke 4.7%, and diabetes 4.1%. The African American females surrendered to the same debilitating chronic conditions of heart disease 23.6% with a slight elevation in death rate compared to men for cancer 22.5%, stroke 6%, and diabetes 4.7% (CDC, 2015e; CDC, 2015f). The most acknowledged causes of death for chronic disease or health were heart disease, stroke, cancer, and diabetes. Chronic disease affected men and women at different magnitudes. The fluctuation of the various chronic diseases occurred among the genders and demographic groups (CDC, 2015e; CDC, 2015f).

Collectively, these chronic conditions accounted for more than half of the mortalities reported among men (53.3%) and women (52.5%). The data presented by the CDC indicated that African American women in general illustrated a trend that places the four leading causes of
death for heart disease, cancer, stroke, and diabetes at a level of attention, which required further analysis. For the men of African American descent, the four leading causes of death were intertwined with unintentional injuries and homicide. Stroke and diabetes were pushed lower to a ranking of fourth and sixth but still accounted for approximately 4.7% and 4.1% of the deaths that African American men experience (CDC, 2015e). Interestingly, heart disease was considered the foremost cause of death for both men and women of African American descendants at a percentage rate of 24 to 23.6 with cancer a close second at 22.4 to 22.5, respectively. The rate of death from stroke for African American women slightly exceeded that of African American men by about 1.3% (CDC, 2015f). When examining the data for both men and women by age groups, death by chronic disease did not play a significant role until the individuals reached an age of 35 to 44 years according to the 2013 data provided by the CDC (CDC, 2015e; CDC, 2015f). Prior to both gender groups reaching this age group, unintentional injuries for both men and women were the chief cause of death; whereas, homicide becoming prominent for men around 15 to 19 years of age (CDC, 2015e; CDC, 2015f). Once men reach this age group, heart disease started to become the most important cause of death for this age group spanning 10-year increments until age 85 of the individual. For women within a similar age group, cancer becomes the leading cause of death (CDC, 2015e; CDC, 2015f).

When examining the entirety of cancers affecting men and women, the data collected from 2011 suggests that incident rates per 100,000 for black men were highest at 528.2 followed by white men at 477.2 and Hispanic men at 369.7. Similarly, the trend for death rates per 100,000 among all men mimics that of incident rate in the same manner by which the ethnic groups were distressed by this chronic disease. Women suffering from all the known cancers indicated an incident rate for white women at 416.7, black women at 391.5, and Hispanic women
at 325.3. Death rates for women took a slightly different trend from the incident rate in the repositioning of the demographic groups of black women with 161.9, white women with 142.1, and American Indian/Alaska native with 99.9 (CDC, 2015e; CDC, 2015f).

**Chronic Disease affecting South Carolinians**

For the State of South Carolina, the chronic diseases that were highlighted by the Department of Health and Environmental Control as the most debilitating for African Americans was proving to be the foremost causes of death for this group as well. There were goals established by the Diabetes Initiative of South Carolina that were designed to curtail the prevalence and complications suffered from the effects of diabetes among minorities. The current goal was created due to the alarming data collected on non-white males (NWM) and non-white females (NWF). The data demonstrated that the state experiences a mortality rate from 32.5 to 29.2/100,000 for NWFs. Also, the mortality rate for NWMs showed an appalling spiral of health from this disease at 26.7 to 24.0/100,000 (DHEC, 2015a). When it comes to diabetes as a chronic condition in South Carolina, the data borne out that African Americans have a 42% higher prevalence of the disease than did the White population (DHEC, 2015b).

When it comes to heart disease in South Carolina, African Americans were 30% more likely to die from this disease than their White counterparts were. Heart disease and stroke as chronic diseases affecting African Americans by gender in 2008 were determined for males to be 4,796 deaths for heart disease and 979 deaths for stroke. As for the African American female population, the death rates were found to be similar in that 4,188 individuals suffered from heart disease and 1,408 from stroke (DHEC, 2015c). African American men succumb to heart disease more than women in South Carolina do: whereas women perished from stroke at a higher rate than men (DHEC, 2015c).
Data obtained for the chronic disease of cancer in the State of South Carolina demonstrated the grave need for some type of intervention whether therapeutic or educational. The American Cancer Society (ACS) predicted that in the future 1 in 2 men as well as 1 in 3 women will develop a cancer diagnosis. The ACS also posited that there would be approximately 1,660,290 new cases diagnosed within the United States during 2013. This prediction about the number of new cases postulated that 4,549 may be affirmed through diagnosis. For the State of South Carolina within the year of 2013, 27,620 new cases were identified where approximately 76 new cases were predicted to be confirmed daily (DHEC, 2015d). An estimated 9,800 residents of South Carolina would perish from this chronic disease. From cancer incidence data collected in 2010, a breakdown of the data for African American and White males and females was produced to illustrate the depth of the problem that cancer was causing in this state. When both ethnic and gender groups were considered in reference to the incident rate for cancer, the data borne out where the rate for the United States and South Carolina were virtually similar (DHEC, 2015d).

The death rate, which encompasses both these groups in the United States, was 460.5 and South Carolina’s rate was 445.2, respectively. South Carolina ranked 32nd overall among other states within the United States concerning the death rate of African Americans and Whites succumbing to the effects of cancer (DHEC, 2015d). When both ethnic groups of African American and White were compared against the incident rates of the United States at 460.5, the group which fared slightly better than the national incident rate at 459.5 was White; whereas, the rate was 471.1 for African Americans. The local rates for the prospective groups were 443.2 for White and 442.3 for African Americans (DHEC, 2015d).
The data for males on a national level illustrated an elevated incidence rate for South Carolina of 515.0 versus a national incidence rate of 502.2. For females within the State of South Carolina, the incident rate of 395.6 was compared to the national incident rate of 434.1, which was slightly lesser. When contemplating the mortality rate ranking of these same ethnic and gender groups for the State of South Carolina, the rankings generated were considered greater due to their position on a scale from 1 to 51. In comparison to the national incidence ranking for the United States, males were considered mid-range at 25 on a national ranking scale of 51. The females fared a little better than the males with an incident ranking of 36 on a national ranking scale of 51. African Americans incidence ranking was 27th on the national ranking scale and Whites ranked 30th out of 51.

The encompassing of both ethnic and gender groups when a comparison was made between the mortality rates of the United States at 171.8 and South Carolina at 181.9 illustrated an elevation of death. African Americans mortality rate ranking was 23rd and Whites were deemed to be around 13th out of 51. The male population exhibited a mortality ranking of 10th and the female population ranking of 23rd out of 51 (DHEC, 2015d). Both male and female populations for the State of South Carolina demonstrated a higher mortality rate against that of the national mortality rates. Once again, these groups experienced a slightly increased demise from mortal complications caused by the diagnosis of cancer (DHEC, 2015d).

**Risk factors**

The current risk factors for each of the chronic diseases analyzed in this study varied between African American men and women. Risk factors as outlined by the CDC in their data obtained in 2013 listed the initiators as high blood pressure, increased LDL cholesterol, and smoking as contributors to acquiring heart disease and stroke (CDC, 2015k; CDC, 2015l; CDC,
Diabetes in the African American population was the result of a specific set of risk factors such as poverty, lack of access to health care, cultural attitudes and behaviors, which were known barriers (CDC, 2015c). The known risk factors for cancer were tobacco use, increased alcohol consumption, skin exposure to sun and tanning, inadequate fruit and vegetable intake, unhealthy weight, and physical inactivity. (CDC, 2015b). In addition to the risk factors stated for each of the chronic diseases known to ravage the African American population, there were factors, which further increase the risk for these families to acquire and succumb to their deleterious effects. The risk factors of family health history, education, and socioeconomic status played an integral role in the perpetuation of chronic disease in the lives of those struck by these health problems.

*Family Health History*

Family health history was considered a non-modifiable risk factor in the acquisition of chronic disease. Knowledge about family health history could be a vital effort in the fight against chronic diseases. Information concerning past family history was instrumental in directing the future health history of members of the family. The concept concerning genetic makeup of family was sometimes interchangeable with the notion of family history. In addition to having similar genetic makeup as that of certain family, other risk factors such as shared behaviors, environments, and cultures played an integral role in the health outcomes of individuals within a family (CDC, 2015d). These risk factors can also be lumped under the term of lifestyles. A key role that knowledge of family health history played in an individual’s life was that of understanding what conditions make the likelihood of developing chronic disease in the future more likely. Knowledge about family history could be pivotal in decision making about lifestyle changes assisting with decreasing onset of chronic diseases (CDC, 2015d).
Studies have indicated that knowledge of family health history was essential in assisting that individual with making an informed decision to modify their lifestyle in the future as well. Various research studies have determined that knowledge of family history also increase the probability that individuals would seek screening of chronic diseases (Acheson, 2010; Ashida, 2012, 2013, 2015; Hovick, 2015).

*Education*

A lack of education concerning the risk factors for many of the chronic diseases puts individuals in a precarious position when trying to determine their risk for being susceptible to contracting disease in the future. Data from a survey performed in the United States indicated that individuals who suffered from a chronic disease would utilize the internet to gain new and varied information concerning their condition (Stellefson, 2015). Education as a risk factor was important in its ability to instill confidence in an individual necessary to be able to disseminate family health history to members of the family. Studies have shown that men were less likely to transfer family health history to others due to the limits in educational attainment and less inclined to discuss chronic disease issues with physicians (Mitchell, 2013). Women were considered more responsive to the attainment of knowledge concerning chronic disease provided the method by which the information was disseminated from familiar culturally relevant resources. The ability to educate women about the risk factors of chronic disease in general was dependent upon perceived similarity in culture among individuals or information resources (Allicock, 2013).

*Socioeconomic status*

Rehkopf (2015) examined the relationship between early life state of residence and the later onset of chronic disease. (i.e. hypertension, diabetes, heart disease) The study looked at the
environment by which the individual was raised to draw a probable correlation between the chronic diseases of socioeconomically deprived persons and their upbringing. There has been an attempt to move away from speculation of chronic health outcome due to ecological characteristics model into a more individual-level characteristic model. This study promoted the idea that there were consistent associations between the later development of chronic disease and the aspects of income inequality, being a minority, and education attainment (Rehkopf, 2015). In this most recent study, the associations between chronic disease and socioeconomic status were still prevalent. Although there were attempts to mitigate variance using statistical controls, the difference between the strength of association for each model was negligible while still being considered strong in nature.

**African Americans View about Family Structure**

The most utilized interpretation about the structure of the family has been through the view or perception of non-Hispanic whites (Thompson, 2016). Although this ethnic group has been researched concerning their perspective of family, there was a need to examine rural African-American inhabitants’ viewpoints about what constitutes family. There may be a distinct difference in the interpretation of what constitutes a family and in what ways it may impact the transference of FHH information. Many varying definitions of family have received acknowledgement through use in peer-reviewed studies.

The most common definitions that define the family focused on the structural cohesion of accepted social members, functional social support offered by members, or transactions offered to one another. According to (Marbley, 2013), the theoretical lens of structural functionalism appropriated the concepts of family system, social structure, function, and equilibrium. The concept of structural functionalism considered the person being associated with multiple
systems, which were both interrelated and interdependent. The behavior of a person or system has a direct effect on the other individuals and systems as well. Additionally, the functional aspect of family looked at producing and supplying goods or services, maintenance of order, educating of members in compliance to societal norms, and conflict resolution. The transactional aspect of family considered the give and take or social support exchanges, which were deemed beneficial to members. Thompson (2016) believed that these defined family structures were often utilized within many contexts that fluidly move among the three interpretations when necessary to resolve impending issues. In addition to fluctuating among the three most common distinctions about the family structure, studies (Coles, 2006; Segrin & Flora, 2005; Stewart, 2007) have shown that African Americans often included the extended family and imagined kinships inserted into their definition of family. Marbley (2013) posited that African Americans base their interpretation of family to include the extended family due to their sense of “survival of the group”. This principle incorporated the need for the survival of the community in addition to the individual. The concept encompassed all black people when considering the community. The extension of the concept of family among African Americans was further believed to be necessary because of the benefits of support for societal functions and social bonds to help maintain health whether mental or physical. Furthermore, the Afrocentrism lens was utilized to define the family as not only a Western/American nuclear family surviving society but also assimilating the whole village (Marbley, 2013). The prevailing view about the reason for the inclusive extension of the family by African Americans was to mitigate economic hardship and spur upward mobility through extended family ties. The extended ties that were created within the African American family were deemed an indigenous system for its ability to envelope the entire perceived kinships created for survival.
The Effect of Chronic Disease Disclosure on Family Dynamics

The family as an entity has been traditionally identified as individuals making up parts of a much larger social system. A couple of heterosexual orientation living within a single dwelling with their offspring could be construed as a family. The concept of family at present was changing quickly as several family types being acknowledged. According to (Galvin, 2010), the concept of familial interdependence was best understood as consisting of one or more members that together confront health issues. Delivery of health information should be guided using the family systems perspective. This systems perspective considered not only the individual but also the individuals who made up the larger portion of the system. Health care professionals directed by this perspective need to consider who comes to the office visit with the patient, the family's pattern of communicative behavior, and the impact on the behavior patterns and communication among the family (Galvin, 2010). Galvin (2010) believed that the communication about genetic diagnosis along with the health implications was not a singular event, but with this knowledge, the issue was longitudinal and fluid. This was also true for communication of chronic disease diagnosis received by individuals. By utilizing the family systems theory, the ability to understand the family complexities when it comes to interactions could be put into context. The social system, which was known as the family, could be viewed as interactive with the ability to comprehend the structure of the family through its changes and development.

There were eight characteristics attributed to the family system, which were interdependence, wholeness, patterns/rules, calibration, interactive complexity, openness/boundaries, organization, and equifinality (Galvin, 2010). The interdependence of the family assured that the system was affected when there were health issues such as chronic disease of an individual. The impact of health issues often rippled through the family touching
everyone differently. The wholeness of the family as a system was considered very different from its individual parts. Each family member exhibited many different characteristics in the face of a health diagnosis. These characteristics may be humor, aggression, hopefulness, or skepticism about the condition of the individual in question (Galvin, 2010). When family members become knowledgeable about the health status of a family member, there may be patterns and rules that are engaged to guard or release information to others in the family. The communication behaviors established at this time become aligned with the Family Communication Patterns (FCP) that families create to control the flow of health information. These communication rules imparted a level of procedures and direction concerning the answers provided by individuals and the questions that were allowed. The rules were used in conjunction with the patterns of family communication such as protective, consensual, laissez-faire, and pluralistic as a regulator for information flow. Family communication patterns were further controlled through a calibration process that was utilized to set a feedback mechanism for the regulation of individual behavior concerning both explicit and implicit rules. In general, information about an individual’s genetic or chronic disease diagnosis or even the potential for the development of the condition influenced the interaction of family communication patterns. Due to the interactive complexities of the family system, it was almost impossible to assign an agent or reason which caused the behavior of an individual. This means that the behavior of family members most certainly become unpredictable considering a health issue suffered by a family member. The family system could be considered an open system or boundary system where the constant change in behavior were not moderated by any psychological or physical limits. This system of non-regulation could lead to deviations in social realities or social behaviors that could require the closure of boundaries to limit access to a family member’s
health information or status. The eventual closing off boundaries could lead to the formation of complex relationships within the family. This creation of relationships produced families that aligned themselves with two or more persons to formulate interpersonal subsystems to promote relationships and communication patterns. Family system established an equifinality state of existence in the face of an unexpected health condition or diagnosis of a family member. Once the health problem was identified concerning an individual, the endpoint that was arrived at in response to the health condition was still achievable from the initiation point of health information acquisition. The family could accomplish this from many varied means.

*Stigmatizing Effects of Chronic Disease on the Family Dynamic*

Health conditions of any kind experienced a level of stigmatization at any point within the disease progression process or at the initial onset of noticeable or imperceptible acquisition. Individuals not only have to live with the effects of the health condition itself but also the debilitating health challenges and at times total disability that accompanied it. Gartley (2015) utilized the term stigma to mean an attribute that was intensely discrediting. The issue of stigmatization took on many varied ways in which it could be conveyed. The most common method of stigmatizing an individual was to do so verbally through the messaging of a person’s response to the health information received. Another form of stigmatization was the use of subtler means by which individuals gawked or looked multiple times at the visible health issue or condition. According to (Gartley, 2015), there were two methods for coping with the problem of stigmatization. The first approach was to attempt to change the perceptions of society about certain health conditions that were apparent to the eye. Another technique was to prepare the individual who suffered from the condition to deal with the unwanted attention due to a visible anatomical condition, mental state or invisible condition of behavior, or utilization of equipment.
Although many of the chronic conditions that currently affect individuals may not be visual, these methods were still necessary to allow for a full developmental life for the affected person. Drazie (2012) understood that the perception of stigma plays a critical role in the quality of life experienced by a person who suffered from health conditions. The stigma that was perceived by an individual acted counter to their health through increased stress. The elevated stress produced psychological and social morbidity health issues. Because of the perception of stigma associated with health conditions, self-esteem of individuals tend to be affected negatively and lessen potential social responses. Individuals who do not exhibit a visible disability but still were not able to perform the same actions or tasks as able-bodied individuals were mentally damaged through invisible stigmatization. This form of invisible stigmatization was possible because the individual with an unknown or invisible chronic illness or condition may be perceived as lethargic or uncooperative in the performance of certain tasks (Hermanns, 2013).

**Family Member’s Perception about the Quality of Life in the Face of Chronic Disease**

Because the quality of life (QL) of individuals who acquire chronic diseases were not certain, the burden of worry, self-pity, and social rejection took a toll on the family system and led to the eventual closing off of conversations about the issue. Lopez-Larrosa (2013) believed that the advent of interventions in the practice of multiple family groups (MFGs) could assist not only the family member but also the family with coping with increased demands in the form of home-based care. With the increase disease progression by a chronic condition, the effects on the individual placed a strain on the family resources. The multiple family groups (MFGs) was designed for individuals suffering from chronic conditions and the family having to assist with care for them. The intervention was a structured psychoeducational program used to teach the
family system how to balance illness of the individual and non-illness priorities of the family (Lopez-Larrosa, 2013). The overall purpose of the program was to develop a knowledge base, which assisted family members with analyzing and acting on the processes of the family in connection to the chronic condition. The quality of life was considered a subjective sense of well-being in an evaluation of multidimensional aspects of the physical, psychological, social and spiritual dimensions which accompany the cultural context of the individual (Lopez-Larrosa, 2013). According to (Sprangers, 2000), the data suggested that older patients rather than younger ones indicated a lower quality of life expectancy when the physical functioning of the individual was in question. Male patients provided a more positive or comparable response to quality of life questions concerning mental functioning in the time of chronic illness. The expectancy of older females with one comorbidity and less education while living alone reported the lowest level of quality of life. The study was able to determine that comorbid conditions affecting patients reported the lowest level of physical and mental functioning in the face of the illness. This determination was found to rate high when the chronic conditions of hypertension, heart condition, and diabetes were correlated (Sprangers, 2000).

*The Fatalistic View of Chronic Disease among Family Members*

The quality of life perception of the family member suffering from a chronic condition was different from that of the caregiver who assisted the individual daily. The average family members often become the unofficial caregiver of the individual who has a chronic condition. Sautter (2014) indicated that there are approximately 19 hours of unpaid informal care on a weekly basis offered to individuals 50 years old and older. Nearly 43.5 million caregivers of informal training to do the job required was anticipated to increase by 85% during the next several decades due to the rising population of older adults. The experience of the caregiver was
found to be constant during the year of aiding among caregivers working with individuals within the last year of life as well as in the initial onset of the chronic disease. The most taxing burden on the caregiver was that of schedule adherence. Sautter (2014) found that social support offered to the caregiver was not adequately associated with the caregiver outcomes. The coping styles of fatalistic and anxious preoccupation were correlated with the elevated problem of scheduling for caregivers. Other dimensions of burden such as family, health, and finances were found to stress the social network established by the family system and limit the opportunity of the caregiver to offer care to others (Sautter, 2014).

Research has typically evaluated the effects of health outcomes from the point of psychological factors associated with health care beliefs and behaviors. From these studies (Franklin, 2007; Sharf, 2005), individuals’ fatalistic beliefs arose from perceived health conditions which were not within the control of the patient, but dependent on chance, luck, fate, or God. The term religious fatalism was developed to span the individual’s belief in fatalism with their religious beliefs and spiritual practices (Franklin, 2007). Franklin (2007) indicated that religious fatalism was the individual’s belief about their health outcome being predetermined by a higher power. In a study conducted by (Franklin, 2007), the health care utilization, health behaviors, and chronic disease associated against religious fatalism was deemed greater for African Americans and older participants. In another study by (Sharf, 2005), male and female patients suffering from lung cancer tend to downplay their condition and instead relied upon their faith. These studies have shown that African Americans’ fatalistic beliefs stem from predictors such as age, income, education, and access to health care. From this study alone by (Sharf, 2005), the data indicated that the most durable correlations were between fatalism and chronic illness instead of health care utilization.
Communication of FHH among older adults and familial members

African Americans since their introduction into slavery in the Americas have relied on oral traditions to pass down the knowledge and information encompassing medicinal attributes, genealogy, literary stories, and culture. This information was generally entrusted to the older adults who were considered the elders of many tribes in Africa and now in the Americas. As the elder became older and increasingly infirm, the oral traditions would be passed to another generation. During the time of slavery, the griots which were the elderly individuals, were the best tellers of stories that contained cultural mores, values, histories, and religion from generation to generation (Hamlet, 1981). The griots utilized storytelling to the advantage of those enslaved to uplift spirits, garner laughter, suppress unrest, and covertly translate information. As with the griots, the older adults within African American families maintain and catalog mentally family health history concerning other members. From the descriptive contextualized principles of the Health Belief Model, family members perception about the sharing of family health history was believed to be beneficial for the reduction of health risks by other family members.

A study conducted by (Ashida, 2013) examined the critical role older adults’ exhibit in the dissemination of family health history, which potentially could lead to preventative methods by younger members. The study was used to evaluate the relationship between older adults and familial networks concerning two communication types. The communication types for new FHH information about the intent to share and have shared were examined to determine facilitation efforts concerning dissemination. It was hypothesized that the use of networks could clarify FHH communication among older adults. The characteristics of the participants FHH
communication networks, FHH and disease risk perceptions, and factors associated with FHH communication were utilized to assess the validity of the hypothesis for the study.

In another study led by (Ashida, 2015), the ability of older adults to share FHH among more family members was undertaken. The basis for the study was to look at whether the lack of knowledge pertaining to an individual's’ own FHH among the public or family members hinder the utilization of health practices concerning prevention of common diseases. The study was commissioned to look at how psychosocial factors contribute as potential barriers or facilitators to the communication of FHH within families. Again, the author of the study looked at the relationships between older adults that those family members who provide tangible support in their later years of life. For the purpose of this study, the critical term of tangible support was defined as reciprocal emotional support. There were 110 participants interviewed from three separate senior centers within an urban community. The hypothesis that older adults desire to disseminate FHH for the increasing of the well-being of younger generations was hamstrung by their own perception of lack of knowledge about their own FHH.

* Differences in communication of FHH among men and women

When considering the ways and extent African American men and women communicate FHH among family members, an in-depth examination of the research literature needed to be performed to clearly establish the avenues by which information was transmitted. Although the articles focus on the chronic condition of cancer, the lessons concerning the dissemination of information to this demographic and exactly how culturally appropriate messages increased the acceptance of health promotion and health practices are still obtainable (Allicock, 2013; Kaphingst, 2012; Mitchell, 2013). It was a well-known fact that African Americans suffer a higher burden of cancer diagnosis and at a later stage of progression.
Allicock (2013) looked at the knowledge, beliefs, and attitudes of women about breast cancer in order to learn about perceptions of risk. There were 57 participants in six focus groups interviewed in the cities of Raleigh, Durham, and Chapel Hill, North Carolina. The participants had to meet the eligibility criteria of being African American, 18-49 years of age, no previous diagnosis or treatment for breast cancer, and no immediate family member having a diagnosis or having been treated for breast cancer. Recruitment of the participants was performed using phone calls and flyers focusing on community centers, churches, and college and sorority alumnae chapters. The results for the six focus groups containing fifty-seven participants demonstrated that 40% were between 18, 29 years old, and 60% between 30 and 49 years old. The data borne out that the age, race, and lack of family history of breast cancer influence women’s perception of breast cancer susceptibility. The low risk perceptions of the women were correlated to the risk information concerning their family, media, and health providers. The women participants for this study contained little knowledge pertaining to cancer subtypes. The participants indicated that health communications needed to be personally relevant, culturally appropriate, and convenient. The limitations of the study were that the method of interactivity could have persuaded some members of the focus groups to align themselves with a majority perception opinion and conceal their divergent views. The generalizability of the focus group data to a larger population was not possible due to differences in participants’ demographics compared to a larger population.

From a study conducted by (Mitchell. 2013), looked at the ways by which men communicate about a family history of cancer (FHC) to their family members and the extent the dissemination of the information affected male members of their family. Undergirded with the knowledge of family history of cancer, African American men were found to be more likely to
discuss FHC with a relative. This was also found to be true if the men had spoken with a physician about their FHC. The hypothesis of the study was that having a family history of cancer increased the risk for individuals in the family that informed the decision-making surrounding cancer-screening test. The independent variables in the study were education, socio-demographic variables of age, marital status, and income. The dependent variable was the outcome of interest. The results for the study demonstrated that knowledge in addition to non-relative discussions about FHC were positively correlated with the occurrence of communication with relatives. The limitations for this study were that the participants sampled of African American men were from Mid-western city. The generalizability of the findings for the African American men sampled to other regions of the United States could not be established using the data. The cross-sectional study did not account for probable changes over time as well as any confounding variables. A suggestion of utilization of a longitudinal study format afforded the examination of FHC communication changes during life for the participants. Any data obtained for the analysis and dissemination by this study were partial to recall bias by the participants.

*Family Health History Keepers*

Prior to women being looked upon as the keepers of family health history, they were well known as the caregivers of the family. Moreover, as caregivers of the family, they were unwittingly maintainers of the knowledge of family health history through their fervent care offered to any family member that needed assistance with daily living. The daily grind, which required women to play a pivotal role in the care given to family over countless hours, goes largely unrecognized by other family members and the nation. Sautter (2014) found other stresses which places another undue burden on families’ social network (e.g. family, health, and financial) established by the family system. Previously, the knowledge concerning family health history was
once believed to be archived by the griots of the village as well as the elders of the family (Ashida, 2013, 2015). Although this notion has been found to be largely true, new research has discovered that women have been for a long-time collector of FHH. Studies have shown that African American women believed that knowledge and information presented to them in the form of culturally appropriate contexts would provide the most benefit in the transference of information (Allicock, 2013).

African American women were key to understanding the reasons as to why FHH information was not transferred to other family members. Studies have shown that women are primarily the caregivers to other members of the family whether assisting with health issues or taking care of the children (Allicock, 2013; Rodríguez, 2016; Thompson, 2015). In addition to the role of caregiver, women have become the knowledge base by which FHH information was stored and presented to others (Sautter, 2014). African Americans in general and African American women were thought to be more spiritual in that they attended church services more than their white counterparts (Franklin, 2007) did. Baty (2003) believed that women considered more genetic factors when it came to marriage possibilities of potential suitors as well as developmental outcomes of planned offspring.

Risk reduction discussions with physicians

A key factor in assisting with the reduction of risk associated with many of the various chronic diseases affecting the African American community was to have a reality-based conversation with physicians. To evaluate the ability of patient and physician communication to increase chronic disease risk reduction, a study was conducted to provide the primary care physician with patient results designed to initiate better quality improvement measurements in practice (Heje, 2011). Through the utilization of general practitioner evaluations, common
practices concerning patient care was revamped to provide better services for patient evaluated conditions for which they were seen. Chronic diseases were responsible for nearly 60% of the deaths internationally with two-thirds occurring within the United States, and accounts for approximately half of the premature deaths as well (Prentice & Flores, 2007). Due to the high rates of death concerning these diseases, the prevention and management of these diseases have become a key focus for health care practitioners. Because chronic diseases were lifestyle-related, this healthcare issue was determined to account for approximately one-third of the consultations experienced by general practitioners (Ball, 2013). When it comes to chronic disease prevention efforts, patients interpreted nutrition care as an important piece of the care provided by general practitioners. The study conducted by (Ball, 2013) indicated that general practitioners’ interventions affected positive nutrition change in lifestyle-related chronic disease.

Kaphingst (2013) looked at the relationships between behavioral risk factors and discussion of FHH among members of the family as well as doctors. This study found that behavioral risk increased within a patient sample while concern about genetic explanations for the acquisition of chronic disease also rose. Despite the increase concern that was displayed by the patients, interest in how health habits affect disease risk decreased. The influence of behaviors downstream was critical in determining appropriate interventions of clinical significance for improving patient health given an understanding of processes for discussion of FHH information (Kaphingst, 2013).

The Role of the Family System Theory

In an ever-perpetual attempt to understand the intricate relationship between family members, a theory examining the emotional system, which intertwine close personal relationships among genetically similar individuals, was postulated. As the author of this theory,
Bowen devised several concepts, which could identify the areas where family members would produce coalitions for the mitigation of trouble in and among the family as well as for the division of responsibilities and desires of the one. Because of humanity’s emphasis on emotional connection to one another, the basis for the theory was a very reasonable place to start to understand how individuals create the necessary communication pathways for the sharing and collection of information in general. This desire for a connective relationship was not only the basis for establishment of the family unit but also the glue, which holds these sometimes-chaotic ancestral relationships together. Bowen attempted to focus on the psychosocial factors of anxiety in the family and how it was either too much closeness or distance associated with this key factor among the relationships established (Brown, 1999). Anxiety level as a factor in the establishment of social relationship among the family used as a platform for the addressing of communication creation and breakdown within the family unit. Brown (1999) believed that the family system theory was created to explain how mediation in anxiety level as a therapy illustrated how the emotional system functions and the elevation of the differentiation of self-compared to that of others in the family could be a calming factor for stress.

Prest (1993) examined the effects of codependence on the family system and how it was associated with the idea of emotional system. From the analysis of the Bowen’s family system, several of the concepts theorized to explain the emotional system coincided with the codependence concept such as differentiation of self, interlocking triangles, and multigenerational processes. Codependence as a concept stemmed from several assertions that there were patterns of relationships that were transferred among generations, the individual’s as well as the family's behavior tended to emanate from these established patterns, and the homeostatic processes which maintain the family system (Prest, 1993). The belief that the
family system driven by the emotional system as a force for maintenance of the interconnected relationships which makeup the social reality work to sustain the inter-relational aspect of self and family over time. The intricate coalescing of these two distinct dynamics bring about the codependence that undergirded the family dynamics.

The Role of the Family Communication Pattern Theory

There were many different family typologies, which were employed to explain how the nuclear family interacts with family members. The typical family typology focused on whether the family was a high or low functioning family unit. Through this family paradigm, the functionality perspective of the family was proposed to be well functioning provided they encompassed many different behaviors. Behaviors that were characteristic of one type of family may or may not be beneficial in their interface phases of another family profile. In this respect, families must define their own interpretation of the behaviors that were experienced by assigning an understanding to the nuisance of the conduct and evaluate the meaning projected by the family member. Koerner and Fitzpatrick (2006) postulated that their conjecture of the Family Communication Patterns Theory (FCP) distinguished that there was no collectively specific family type nor no complete way of communicating within any of the family types, that was unique.

The continued development of family typologies by academics was focused on defining the characteristics and behaviors, which will distinguish well-functioning families from that of poor functioning. Through the development of additional family typologies, there were two assumptions that were evident concerning the functioning of the families. Upon contemplation about the creation of the family typologies, one assumption was that the family exhibited a constantly functional or dysfunctional conduct or fundamental property about the family
(Fitzpatrick & Koerner, 2005; Koerner & Fitzpatrick, 2006). The problem with this assumption was that the behavior experienced by a family member manifest itself inside various contexts of the moment that promote different outcomes. Another assumption mistakenly formulated concerning family typologies, was that behaviors function in a correlational direction specific to a one-dimensional variable. Because behaviors can be either functional or dysfunctional within a family’s social reality, the observed diverse behaviors functioned in a manner that was congruent in its response to a situation according to the context by which they were viewed. Functionality was never one-dimensional within social realities, which make differing behaviors highly unlikely to be correlational to one another in any situation. (Fitzpatrick & Koerner, 2005; Koerner & Fitzpatrick, 2006). When two distinct types of behaviors exist at opposite ends of a linear spectrum, the process of functionality displayed as a one-dimensional variable was not possible. In order for functionality to be considered one-dimensional, the difference between behaviors must interact consistently for this concept to be plausible. Koerner and Fitzpatrick (2006) posits that the Family Communication Patterns Theory provided a means to evaluate the causation of family types identified through cognitive research instead of just distinctions in behavior to qualify their existence.

Furthermore, the Family Communication Patterns Theory (FCP) illustrated the fact that there were multiple ways in which communication can be transferred among family members. The strengths of this theory were exhibited through how it emphasized that many behaviors elicit the functionality of the family. The behaviors deemed functional or dysfunctional but when intertwined within a social reality or social environment the various family types could be massaged into an identifiable context. With the Family Communication Patterns Theory (FCP) rooted in a cognitive model, co-orientation as a process by which family social reality was shared
and assists in the explanation about how the family types were differentiated. Finally, the
Family Communication Patterns Theory was aligned with an experimental measure, which
considered the dimensions that make up the family types (Fitzpatrick & Koerner, 2005; Koerner
& Fitzpatrick, 2006).

The Family Ties That Bind: Family Cohesion and Adaptability

When addressing the functionality and dysfunctionality of the family unit, the ability of
family members to communicate information and specifically family health history must be
taken into consideration. Due to the various family typologies, there has been attempts to qualify
whether these family units perform at a functional level or fall short of what was considered
ideally functioning. If multiple family behaviors were found within the family dynamic, the
functionality perspective constituted a well performing unit. This concept correlated to what was
believed about the Family Communication Patterns (FCP) in that functionality and
dysfunctionality within the family was made up of diverse behaviors of the family members.
The idea of functionality was never one-dimensional among social realities (Fitzpatrick &
Koerner, 2005; Koerner & Fitzpatrick, 2006). In order to determine how well a family unit will
coexist, behaviors ascribed upon one family unit would not be applicable to another family unit
even if they were considered blood relatives. Koerner and Fitzpatrick (2006) believed that the
Family Communication Patterns Theory (FCP) was utilized to explain why there could not be a
discernible way to identify a family type within family units that was unique for communication.
To determine the level of communication among family members about family health history,
Kaphingst and colleagues (2012) determined that approximately 34% of the respondents
indicated that some or no communication was offered concerning family health history.
Rodriguez (2016) proposed that certain sociodemographic factors, which assist in the transmission of information about family health history indicated that specific individuals within the family were sought after for certain information, moreover women were believed to be keepers of FHH information, while older adults were tasked with chronicling and sharing information, and certain demographic groups maintain beliefs that were thought to be adverse to FHH communication. The circumplex model was believed to demonstrate how marital and family systems interact to show how family members co-exist within the unit. The three ways by which the circumplex model illustrated a working relationship among a family unit were cohesion (i.e. emotional bonds), adaptability (i.e. leadership and organization in the family system), and communication (i.e. mediating force between the cohesion and adaptability) (Olson, 2006). This belief made sense that the family communication patterns orientations of conversation and conformity coupled would drive these two dimensions (e.g. cohesion and adaptability). Rodriguez (2016) believed that extraneous circumstances might bring about changes in the family system that promoted more reliance upon the cohesion or adaptability domains. The key pivot point, which allowed for the balancing of cohesion and adaptability, was that of communication or lack thereof. Increased cohesion and adaptability within the family illustrated how there was a more open communication avenue for sharing FHH information and discussion among family members (Harris, 2010). This belief aligned with the family communication patterns of consensual and pluralistic which exhibited a high conversation and conformity orientation or high conversation and low conformity for the latter pattern. Family communication patterns that present differing magnitudes (i.e. high, low, low, high) for the communication behaviors (e.g. conversation and conformity) was expected to be more functional (i.e. pluralistic and protective) and dysfunctional for those behaviors displaying similar
magnitudes (i.e. high, high, low, low) (i.e. consensual and laissez-faire). Harris (2010) conducted a study consisting of 313 participants with a diagnosis of melanoma in the family reporting that less than half (42%) exhibited an open communication style. In addition, direct lack of communication about FHH among participants was illustrated approximately 28% of the time with first-degree relatives when sharing information.

The Circumplex Model of marital and family systems was a concept utilized to traverse the gap among research, theory, and practice (Olson, 2000). The Circumplex Model through a compilation of numerous concepts derived for the understanding of marital and family systems was comprised of three main dimensions. These three dimensions couple the family’s cohesion, communication, and adaptability was important to theorists in understanding marital and family systems. Marital and family cohesion was the identification of the level of togetherness of a family system. The construct of family cohesion was essentially a concept which examined the family’s emotional bonding exhibited among the family members; whereas, family adaptability conceptualized the leadership capabilities of the family members (Olson, 2000). The four levels of cohesion encompassed disengaged (very low), separated (low to moderate), connected (moderate to high), and enmeshed (very high). The thought of optimal family functionality was created from central and/or balanced levels of togetherness (i.e. separated and connected). Whereas, problematic relationships within the family system stemmed from extremes or unbalanced steps of togetherness (i.e. disengaged and enmeshed) (Olson, 2000). If cohesion levels were considered very high which was defined as an enmeshed system, there believed to have an exorbitant amount of consensus and not enough independence. These concepts could be likened to the concept of the family communication pattern of consensual. In this communication style, there was a high level of conversation orientation as well as high
conformity orientation (Koerner and Fitzpatrick, 2006). The cohesion concept of enmeshed systems maps well onto this family communication pattern because the communication behavior of conversation exhibited increased interactions concerning various topics without coercion to comply from other family members. In addition, the lack of independence among the family system correlated with the high conformity or decreased transfer of thoughts, beliefs, and values of the individual (Olson, 2000). At the opposite end of the spectrum was the concept of disengage systems which demonstrate how family members follow their own ways of looking at situations while feeling a minimal attachment or commitment to others in the family (Olson, 2000). Again, the family communication pattern of laissez-faire connected well with this concept due to a low conversation (decreased interactions concerning various topics without coercion) and conformity orientation (decreased transfer of thoughts, beliefs, and values). The functionality of these family communication types (e.g. consensual and laissez-faire) bring about a more dysfunctional family unit. The remaining systems of cohesion (separate and connected) tend to lean more toward the belief that these family systems or couples display an overall life-cycle which was deemed functional. In separated relationships, family members find being apart from one another was more acceptable than together and decreased combined making of decision was also seen. Individual interests and activities were performed separate from one another as well. Pluralistic communication style has a high conversation orientation with low conformity orientation interactions among family systems. With connected relationships, family members’ level of cohesion was more congruent concerning issues. Here protective communication style constituted a low conversation orientation and high conformity orientation with these family units. These two communication patterns appeared to comply with the thought that varying or
differing magnitudes of communication behaviors bring about a more stable functionality in a family unit.

**Identifiable Patterns of Communication among Family**

Family communication considered portions of the Socio-ecological model that incorporated the interpersonal processes to explain the passage of information among individuals. Two explanations about the ways in which family transferred information among members can be found in the concepts of intersubjectivity and interactivity. (Koerner & Fitzpatrick, 2002). The commonality in meaning which was ascribed to objects or things by family members’ communicative behaviors that were relatable cognitively was referred to as intersubjectivity. In compliance with this idea, interactivity delved into the ways by which family members utilized symbols to illustrate their understanding of concept, use, and explanation of similar items at the interpersonal behavior level. The communication behaviors emanated from the cognitive processes identified were conversation orientation and conformity orientation in addition to four established communication family types. (Fitzpatrick & Koerner, 2005; Koerner & Fitzpatrick, 2006).

Structured groups and family members utilized the concept of co-orientation in their perceptions and evaluations of the environment in which they existed and were understood as the social world or reality. (Fitzpatrick & Koerner, 2005; Koerner & Fitzpatrick, 2006) In their attempt to understand this social world or reality in which one resided, the families developed a psychological balance in their cognition and the practical need to understand the other side of the perceptions or evaluations of objects or situations. Development of the original model of the family communication pattern was established to describe the tendencies that indicated the comparatively stable and predictable ways of communicating among one another. McLeod and
Chaffee (1972, 1973) desired to be able to explain how families initiated and shared their social reality and not how the family communicated. Expounding on the concept of co-orientation bring about three additional attributes of agreement, accuracy, and congruence. The agreement factor of this concept was that there must be an equal understanding of the object in question by at least two individuals. Whereas, the accuracy in the evaluation process for an object must coincide with the perception of the individual and another person’s evaluation. A form of congruence was established when similarity in one’s own evaluation of an object aligned with another individual’s perception concerning the same object (Fitzpatrick & Koerner, 2005; Koerner & Fitzpatrick, 2006). Co-orientation as a concept of the cognitive theory was described by (Heider, 1946, 1958) and (Newcomb, 1953). The concept examined how multiple persons focusing on and evaluating the same object within their similar social reality and material environment come to a consensus about the meaning or identity. McLeod and Chaffee (1972) identified two different ways in which the family can accomplish agreement. The concept of socio-orientation was a manner by which family members were able to concentrate on their evaluations of an object while coming to a consensus on the information provided. In a sense, there was conformity of interpretations about an object or situation among the family members that led to this common ground in views. Concept-orientation as a concept delved into the notion that families concentrated on an object within their environment by deliberating the situation and the various attributes by which it provided to the members and coalesced around a collective perception about the object or situation. The proposition that families utilized the two strategies which were posed by (McLeod and Chaffee, 1972) to develop a compromise in agreement about social realities varied due to family preferences for and usage of these strategies. The children within these families tend to succeed their interpretive power or
authority to that of other family members the parents and peers through the strategy of socio-
orientation. While other families approved of a concept-orientation strategy, which allowed the
children their space to interpret ideas and concepts from messages in order to determine the
meaning. Behavioral tendencies in family communication patterns grew out of the two strategies
(Ritchie, 1991, 1997; Ritchie and Fitzpatrick, 1990) realized that the family’s distribution of their
social reality was not restricted to the handling of messages from the media. Through the
identification of this process among family members, a reorganization of (McLeod and Chaffee,
1972) family communication pattern (FCP) scale was produced to provide a more generalized
instrument for the measuring of patterns in family communication. From the creation of the
Family Communication Pattern scale, there was a regeneration of this scale to produce the
Revised Family Communication Patterns (RFCP) instrument. Through the recalibration of this
new instrument, the identified relationship of socio-orientation was rethought to take into
consideration the conformity of the families evident between the children and parents and
renamed conformity orientation. The conformity orientation concept evaluated the families’
socialization of the children to expect validation in the assigning of meaning to things from
others (Koerner & Fitzpatrick, 2002; Fitzpatrick & Koerner, 2005).

Koerner and Fitzpatrick (2002) and Fitzpatrick & Koerner (2005) further differentiated
the two dimensions of socio-orientation and concept-orientation into two distinct interaction
levels of conformity orientation and conversation orientation, respectively. Conversation
orientation investigated the level by which family chooses to engage in unreserved
communication encompassing an infinite selection of topics. The high dimension of the scale
created for this concept looked at the unrestricted, intense, and impulsive involvements among
the family members barring limitations in interactions concerning time and discussion of topics. Among these families, there were sharing of events, beliefs, and feelings and the actions and undertakings that were planned as a family unit were engaged in addition to other decisions (Koerner & Fitzpatrick, 2002). On the other hand, low dimension of the scale for conversation orientation incorporated the families that do not interact as often and only engage in the communication on a select number of topics. These families do not convey personal information often and insightful discussion of events were not sought-after during family decisions (Koerner & Fitzpatrick, 2002). Koerner & Fitzpatrick (2002) felt that conformity orientation considered the family's' ability to view situations and objects in a similar light or climate of harmony about attitudes, values, and beliefs. The high dimension of this concept experienced interactions entailing uniformity of beliefs and attitudes. The attributes of harmony, conflict avoidance, and interdependence of family were examples of conformity orientation perspective (Koerner & Fitzpatrick, 2002). The intergenerational aspect of families exhibited a level of obedience to parents and other adults through communication about situations and objects. Families experiencing a low dimension of conformity orientation were less capable of interacting in response to homogeneous attitudes and beliefs that demonstrate independent thinking from family members as well as an individual perspective on situations apart from family. Koerner & Fitzpatrick (2002) asserted that intergenerational communication exchanges among family members reflect an equality that was experienced by children as well during decision-making processes. A high level or dimension of conformity orientation was expected with what was considered a traditional family system or structure. In this family type, a ranked structure was thought to be unified where the family members tended to desire a relationship more so with their family rather than with outside individuals.
The pluralistic family type exhibited an elevated level of conversation orientation and declined in conformity orientation that allowed for the discussions of family members within an open environment on a plethora of topics (Fitzpatrick & Koerner, 2005; Koerner & Fitzpatrick, 2006). There was a laissez-faire approach to the way, which this family type interacts with their children by allowing a hands-off approach concerning their decision making as well as conforming to the family’s ideas. Most of the weight was given to the importance of arguments put forth by the family member rather than where in the hierarchy of the family the individual was seen to position himself or herself. Through emphasizing the flow of free expression in opinions, there was a decrease in resolutions of conflicts and oppressive conformity used to bring the individual into line with the family thinking. There was a specific value placed upon conversations in the family, which brought about independence in the children’s ability to think and bolstered their chances to competently communicate and find confidence in making decisions (Koerner & Fitzpatrick, 2006).

Different from the pluralistic family type, the laissez-faire families experienced a low orientation within both their conversation and conformity among members of the family. Like the pluralistic perspective, laissez-faire parents believed that the family members should be allowed to make their own decisions even the children of these families could voice and determine their own beliefs (Fitzpatrick & Koerner, 2005; Koerner & Fitzpatrick, 2006). With a decreased emphasis on conversation and conformity within this family type, there was not a need or desire to constrain the members of the family and conflicts of interest were thus further reduced. Without the prospect of a robust conversation within this family, the children tended to determine that conversations among the family members were not as important as their ability to make their own determinations about social realities. Koerner and Fitzpatrick (2006) felt that the
children would ultimately begin to question their own abilities to make decisions within their lives.

When families demonstrated an increased level of conversation and conformity within their interactions, a consensus factor brings a common understanding about its social reality in which it was found. However, the consensual family type often experienced turmoil in their corresponding relationships; this was evident in the antagonistic interactions entailing recognition of hierarchy of family and interest to engage upon open communication while under stress to agree at the same time considering new ideas (Koerner & Fitzpatrick, 2006). Within this environment, the parents took on the role of the top of the hierarchy in which case they made the final decisions for the family and especially the children while still allowing for open dialogue to persist. The ingrained views of the family were usually undertaken by the children, which led to a valuing of the conversations in which they engaged. This family type tended to engage in mitigation of conflicts that brought about a deterioration in relationships that influenced resolution of conflicts and established problem-solving protocols (Koerner & Fitzpatrick, 2006).

The family type of protective illustrated a conformity orientation level higher than that of conversation orientation (Fitzpatrick & Koerner, 2005; Koerner & Fitzpatrick, 2006). Once again, the parents assumed the hierarchical role of authority, which expected obedience by the children with little emphasis on undefended communication or matters concerning conceptual notions. There was an expectation of the family members to not insight conflicts while embracing the interest and rules of the family in general. The ability to tamp down the conflicts that arose within this family type was lessened due to a diminishing of communication skills. The children of this family type find it difficult to rely on their communication abilities because
of the undervaluing of family conversation, which led them to distrust the decisions they made within their lives (Koerner & Fitzpatrick, 2006). Koerner & Fitzpatrick (1997) believed that a disruption in relationships within the protective family places a negative connotation upon conformity for this family type.

*The Role of the Church in Family Communication of Chronic Disease*

Becker (2004) as well as the National Congregations Study (2006) posited that both African Americans and Caucasian churchgoers develop a deep trust in and centralization of their churches which made them the focal point in their lives. The determination behind the reason(s) for the disconnect between African Americans and the health care system stemmed from mistrust of the healthcare system (i.e. Tuskegee Experiment), discriminatory practices in government and public structures, and shared normative cultural pressures from a historical perspective (Chaves, 2001; Kwate, 2005; Lewis-Coles & Constantine, 2006; Matts, 2000). Religiosity and spirituality provided African Americans with a rooted purpose for maintaining their existence in the presence of sometimes overwhelming disparities in their daily lives. There was considerable documentation of how spirituality in addition to the Black church has influenced the culture of African Americans according to researchers (Polzer, Ceaserz & Miles, 2008; Underwood & Powell, 2006). Koenig (2004) administered a study, which determined that 85% of physicians assert that there was a level of importance that should be applied to the spirituality of the individual and a better understanding of this fact in devising coping strategies in conjunction with treatments. This belief was further elucidated through the understanding of African Americans spirituality with God as being their guidance and strength while at the same time feeling compelled to take care of the bodies’ temple (e.g. body and soul). On the other hand, individuals’ belief that God’s will should precede or trump any human attempts to change health
outcomes through health care which negated African Americans ability to perform necessary and
desired lifestyle changes (Koenig, 2004). Interventions that rely totally upon conventional
disease management did not fully perform the necessary benefits that management of Type 2
Diabetes (T2D) and other chronic diseases daily require. At present, there was not a cure for this
chronic disease or others but allowance of emotional and physical healing to a certain extent
through spirituality which assisted in the increase of individual’s longevity in the presence of this
disease(s) (Bhattacharya, 2013).

Since the enslavement of Africans in the Deep South, the battle to survive the unlawful
incarceration of people of color has been met with the formation of various healing practices
whether it was for the physical or mental well-being (Becker, 2004; Marbley, 2013). African
Americans view the healing practices as a means of protection from the ravages of being
oppressed and dehumanized. Becker (2004) asserted that this practice further leads to a
convergence of healing practice with the incorporation of the communal body, cultural
religiosity, and dependence upon one’s self. Upon the abolishment of slavery, African
Americans needed to rely on the new form of reliance on self and spirituality in the face of
continued suppression and overwhelming odds in many forms. Becker (2004) further posited
that the assimilation of multiple coping skills developed by African Americans over the years
morphed into what was now known as social organizations within the church seen as the overall
facilitator of mechanisms for coping. The transference of healing practices, coping skills, and
spirituality has become the focal point of the African American family in the form of the Black
church. These processes have become ingrained in the culture of family within the African
American community and have maintained the church as a pivotal structure that has coalesced
these feelings and sentiments encompassing them into a metaphysical power against adversarial
traumas. Within the African American community, the church has adorned many different hats or roles that provide this culturally ethnic segment of America with services that undergird their survival instincts in an unjust world (i.e. health care, housing, financial aid, family counseling) (Becker, 2004).

**Issues of Family Communication among African-Americans**

Studies have been lacking in their endeavor to determine the root cause for the lack of family health history communication among African Americans. There were many studies, which have examined this problem, but at the same time have utilized ethnic groups which were not considered underserved. It was well known that African Americans suffered from numerous health disparities and chronic diseases were just a facet of the medical concerns voiced by and for this demographic group. Many studies conducted to determine how FHH information was retained and relayed have identified both the women as well as the older or elder adult as the keepers and at times the disseminator of family health information. It was thought that family dynamics play an essential part in the reason as to why FHH was not disseminated to additional family members. African Americans tended to view their family dynamics through the lens of extended family according to numerous studies conducted on this issue. In addition, studies have shown that men and women both exhibited a differing manner as to how and why the FHH information was communicated.

The bulk of research performed on the problem of communication of health information has involved majority White samples (Acheson, 2010; Cohn, 2010; O’Neil, 2009; Thompson, 2015). There needed to be more diversity in the demographic populations sought for study concerning the issue of FHH communication. Although, there were known disparities between African Americans and Whites concerning health knowledge, conditions, and health access,
there was a need for culturally appropriate interventions to increase dissemination of FHH information. The barriers to African Americans collecting and communicating knowledge of FHH information could intensify the health disparities that plague this ethnic group. Facilitators in the form of increased understanding of communication patterns, family cohesion and adaptability could translate into better FHH information transference. The communication patterns (i.e. Protective, Pluralistic, Laissez-faire, and Consensual) confused information transfer surrounding a social reality or situation that limits the effect of family communication concerning health information collection and dissemination of FHH information. African Americans view of the family cohesion and adaptability tended to include extended family ties along with fictive kinships, which made communication patterns more complex. In comparison, Western/American (e.g. White families) consideration of family was mainly limited to the nuclear or biological family (Thompson, 2016). The inclusion of the extended family by African American families was believed to be due to indigenous systems that allow for additional social support required to fulfill its societal functions (Marbley, 2013). The addition of individuals into the fold of FHH information sharing (e.g. extended family ties) made it more difficult for the flow of knowledge to be achieved through family communication patterns, family context, and family health history communication.

Family health history knowledge was a crucial undergirding factor as to whether individuals may or may not take appropriate preventive measures to curtail chronic disease development. As a non-modifiable factor, genetic makeup played a pivotal role in the probability of an individual developing a chronic condition within their lifetime. However, there were factors (e.g. astigmatism, family dynamics, quality of life, fatalism) that introduce barriers to the seeking of health care access or transferring FHH information for minimizing the
possibility of developing a chronic condition. These factors assisted in the prevention of FHH information communication to family members based on unfair beliefs and negative attitudes about these conditions.

Health care access for individuals suffering from the development of chronic disease has seen a substantial increase for money (e.g. Health Care Expenditures) that has been allocated to combat these conditions. Americans in general were also succumbing to the deleterious effects of these diseases at an alarming rate. The prevalence of any of the four documented chronic conditions of heart disease, stroke, diabetes, or cancer has seen a significant increase not only in the United States population but also within the State of South Carolina’s as well.

Although the four modifiable risk factors for chronic conditions were well documented, individuals were still not heeding the warning signs and taking appropriate action to mitigate the effects or prolong the onset of the conditions. The two most identified risk factors within the intrapersonal and interpersonal levels were education and socioeconomic status. The coupling of these two dimensions made seeking assistance for the modifying of lifestyles that bring on these conditions more difficult.

Families in general experienced a difficult time talking about issues, which brought strife in and among the members. The study of family dynamics considered these difficulties and utilized evidence-based theories to assist with the understanding of communication privacy rules and communication patterns about communication of FHH. These concepts about communication behaviors were further intertwined within the interpersonal and intrapersonal levels of social realities.

Olson (2011) posited that the circumplex model played a specific role in the transfer of information through communication dimension that facilitated the alteration of family cohesion
and adaptability. This model embodied the belief that balanced levels of the two dimensions of cohesion and adaptability were most helpful to family functioning. Positive communication skills used in the family system was deemed essential for communication and this dimension was thought to facilitate the altering of family cohesion and adaptability levels (Olson, 2011). The circumplex model was derived to examine the balanced and unbalanced levels of function of the family unit. Olson (2011) asserted that the circumplex model showed a healthy functioning of the family when the cohesion and adaptability dimensions of the model were balanced and unhealthy in its functioning when unbalanced.

The interplay of family dynamics, communication patterns, and chronic disease made for an environment or social reality, which brought about discourse and distrust concerning the communication of family health history on a beneficial scale. Interventions were needed to assist in modifying health behaviors of this underserved population to increase the promotion of health in bringing about a healthier family.

*Chronic disease prevention*

Research suggested that individuals still were not taking appropriate risk reduction activities according to their familial level of risk. Preventive measures were needed to assist with the reduction of risk factors that led to the onset of chronic disease. Four modifiable health risk behaviors (e.g. lack of physical activity, poor nutrition, tobacco use, and excessive alcohol usage) were related to the causes for chronic disease acquisition. Increased physical activity has been determined to assist in controlling weight, reducing risk for cardiovascular disease, type 2 diabetes, and some cancers to name a few (CDC, 2016f). Improved nutrition could decrease the overall risk for chronic diseases. Statewide smoking prevention programs which were evidence-based have demonstrated their ability to reduce smoking rates, tobacco related deaths, and
disease caused by smoking (CDC, 2016f). To reduce the utilization of alcohol, there were strategies directed at the decreasing of binge drinking. As noted, the third leading cause of death was from the excessive consumption of alcohol (CDC, 2016f).

To curtail the onset of or even prevent the acquisition of chronic diseases among African Americans, numerous programs develop a regimen or plan to assist with the overall effort to mitigate these disease influences on one’s life. The tools typically utilized for the prevention of many chronic diseases were curriculum-based information, lifestyle coaching, and various screening tests. It was well known that the reduction of weight along with increase in exercise could assist in the delaying of development of diabetes or stop it from becoming a reality. The Centers for Disease Control and Prevention began an effort to prevent diabetes through a program of prevention. Individuals who were close to or currently passed the age of 45 should be tested for diabetes. A reduction in weight equivalent to or surpassing 5% to 7% of an individual's weight could be beneficial in minimizing the onset of this disease. (CDC, 2015c)

Due to the similarities in risk factors between heart disease and stroke, the Centers for Disease Control and Prevention provided information through their website to accommodate both diseases. There were educational materials produced to assist patients with information crucial to their comprehension of the factors that bring about these two chronic diseases. The website contained information about high blood pressure, cholesterol, and salt influence on the onset of these diseases. Specifically, the Division for Heart Disease and Stroke Prevention (DHDSP) provided resources and evaluation tools to tribal organizations, community, partners, and local health departments to disseminate information efficiently. (CDC, 2015h; CDC, 2015i)

Cancer because of its multifaceted types of neoplasm that affect ethnic groups differently required a diverse set of prevention techniques. The Centers for Disease Control and Prevention
asserted that four distinct practices and policies would assist in decreasing the cancer risk of individuals. The reduction of excessive alcohol could help in the elimination of many of the cancers that plague individuals. Another means for lessening the promotion of cancer into one’s life was to fortify their homes against the introduction of Radon gas into their lungs, which causes Lung cancer. The most common manner by which individuals acquire cancer was through skin cancer. Skin cancer initiated not only by exposure to the ultraviolet rays of the sun but also when allowing the skin to be irradiated using artificial light sources such as tanning salons. Recommendations for the avoidance of tanning reduced the possibility of skin cancer prematurely especially for young adults. Cessation of tobacco smoking and utilization of tobacco products negated the probability of a lung cancer diagnosis within one’s lifetime. (CDC, 2015b)

Chapter Summary

In Chapter 2, a review of related literature review was presented relating to the distribution of chronic disease in African Americans and how family structure affected the disclosure of chronic illness among the family dynamic. Because of the stigmatizing effects brought on by chronic disease acquisition within the family unit, family members perceptions surrounding the quality of life imparted upon the individuals’ diagnosis tend to lead to fatalistic views concerning their prognosis moving forward. Family health history keepers which were comprised typically of female caregivers-maintained knowledge about family members overall chronic disease and health outcomes. Chronic disease affects men and women differently and at varied rates of prevalence. South Carolinians experience a level of prevalence concerning certain chronic diseases such as diabetes at an elevated level compared to the national rate. Risk factors such as family health history, socioeconomic status, and education put some ethnic
groups at an increased disadvantage concerning health outcomes (e.g. health disparities). Risk reduction conversations with physicians could assist with individuals choosing preventative measures, which would allow for communication about FHH among older adults and family members as well as men and women. Interventions built around the evidence-based theories of the family system and family communication patterns within the family could lead to closer family ties exhibiting a higher level of family cohesion and adaptability bringing about communication of FHH. The church plays a very important cultural role in the African American community that could be utilized as an avenue for interventions designed to elevate communication strategies through identifiable communication patterns among family members.
CHAPTER 3
METHODOLOGY

This chapter describes the research design, population, sample and sampling procedures, and methodology of data collection and analysis. The purpose of the study was to examine the occurrence of family communication surrounding chronic disease in a sample of African American women in the rural Southeastern United States. Secondly, the study sought to examine whether frequency of communication was a factor in the communication (gathering or sharing) of family health history. The premise for the study was the following: within the African-American community, women are the “keepers” of family health history and therefore and important link to prevention, treatment and narrowing the gap of health disparities related to chronic disease among African-Americans.

Study Design

The study used a one-time, cross-sectional, purposive study design in which a sample of African American women recruited from alumni chapters of sororities in which the collegiate chapter is located at a historically black college and university (HBCU) were recruited for participation.

Study Setting and Participant Recruitment

The rural community of Orangeburg, SC was selected for study due to the large African American population. The participants consisted of members of several local historically black colleges and universities (HBCU) alumni chapters. The female population made up 53.1% of the overall population of South Carolina. Blacks and African Americans by themselves comprised 62.2% of the total population of South Carolina (U.S. Census Bureau, 2016). The criteria for
inclusion into the sample were that participants must be of African American, descent.
Participants must be African American female and over the age of 18. Ideally, participants were
to live or work in Orangeburg, South Carolina.

**Sampling**

To assess the level of communication about FHH, a sample of African American women
were selected from the overall population within the county of Orangeburg, South Carolina. This
was an exploratory study using a purposive sampling design. There were three HBCU sororities
(Alpha Kappa Alpha, Zeta Phi Beta, Sigma Gamma Rho) contacted for participation in the study
from the surrounding counties of Orangeburg, South Carolina. Specifically, a letter containing
information describing the purpose and intent of the study and accompanying flyer was sent to
the attention of each of the organization’s regional presidents.

A convenience sample consisted of African American women from the county of
Orangeburg, South Carolina that were selected from participating alumni chapters at historically
black colleges and universities (HBCU) sororities. The number of individuals included in the
study was approximately 94 participants.

**Data Collection**

A follow up phone call was made to the regional presidents to schedule a date and time to
administer the survey. The data collection events were held in fellowship hall of a church
(Alpha Kappa Alpha), sorority house (Sigma Gamma Rho), and municipal community center
(Zeta Phi Beta).

A consent form approved by the Institutional Review Board (IRB) at Georgia Southern
University was presented to participants for their signature. Participants of the study were
reminded of the purpose of the research study and informed of the IRB confidentiality clauses by
which their responses will be protected. Upon completion of the mandatory consent form, the participants were instructed to fill out the questionnaire according to the instructions provided by the principal investigator. The principal investigator collected and secured the self-administered survey questionnaires upon completion within a briefcase or backpack. Debriefing of the participants commenced to determine whether there were questions concerning the survey instrument or about the way the study data results would be utilized that need to be addressed.

The timeline for the entire process of study presentation, data collection, and analysis was performed from May 2019 through July 2019. The principal investigator performed an in-setting tutorial of how the survey would be completed along with reading of instructions to be followed. After explaining the purpose of the study, the researcher reminded the participants of their rights outlined in the consent form. If individuals agree to participate in the study, they were asked to complete the survey per the informed consent document and complete the self-administered survey. The principal investigator administered and collected the survey data. Administration and completion of self-administered survey instruments were held in the church fellowship halls or other designated meeting areas of the historically black college and university (HBCU) sororities. The data were de-identified using alphanumeric coding to protect the anonymity of the respondents. The de-identified hard copy data would be erased and discarded upon completion of the analytical and interpretation phases of the study or before the end of 2019 for further protection against possible participant or participants being identified through the data. Hard copy backup records of the data would be kept for a period of three years in the event the study needs to be reviewed for compliance by the Institutional Review Board (IRB). Hard copy data was be cataloged in a locked file cabinet along with the laptop used for data collection for limited access purposes with principal investigator having the only key for access.
**Instrument**

A set of demographic questions was included at the beginning of the survey. Items included age, race, marital status, educational level (e.g. high school degree or less vs. some college or higher), religious affiliation, living arrangements and personal chronic disease diagnosis (e.g. stroke, cancer, heart disease, diabetes) if applicable.

The Family Adaptability and Cohesion Evaluation Scale, Fourth Edition (FACES-IV) was selected as the measurement tool, because of its ability to assess the cohesion and adaptability in a family. The instrument consisted of 42 items, which are rated on 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree) and produce six subscale results that are classified into two dimensions of: cohesion and adaptability. The six scales consisting of two balanced scales and four unbalanced scales were utilized to determine the level of family functionality. The unbalanced scales for cohesion were disengaged and enmeshed; the unbalanced subscales for adaptability were rigid and chaotic. The continuous score generated a response that was either below one indicating an unbalanced system or above 1 denoting a more balanced system (Olson, 2011). Internal consistency for the complete FACES IV instrument was not conducted, but Cronbach’s alpha for the individual scales were provided. Cronbach’s alpha for each of the six subscales was as follows: .77 for enmeshed, .87 for disengaged, .89 for balanced cohesion, .84 for balanced flexibility, .86 for chaotic and .82 for rigid. In addition, the two balanced subscales of cohesion and flexibility were found to be highly correlated .89 and .99 respectively. (Olson, 2011). The level of functionality concerning behaviors was determined using a ratio score for each of the cohesion and adaptability dimensions.

The derivation of ratio scores was obtained from the formulas as follows:

\[
\text{Cohesion ratio} = \frac{\text{Cohesion}}{(\text{Disengaged} + \text{Enmeshed}) / 2}
\]
Adaptability ratio = Adaptability / (Rigid + Chaotic) / 2

Total circumplex ratio = (Cohesion ratio / Adaptability ratio) / 2

The results of the research were analyzed using simple linear regression and multivariable logistic regression analysis. From this analytical process, the determination in variance among the explanatory variables of frequency of communication, family cohesion, family adaptability, age, educational level, living arrangements, sharing FHH, and gathering FHH illustrated statistical significance or not concerning the dependent variable of FHH communication or not. Data obtained from this process were shown in a table format. Logistic regression analysis was utilized to examine correlations for the relationship between the explanatory variable effects on the outcome variables of communication of FHH or not. Whereas, simple linear regression analyzed the variables of family context (cohesion and adaptability) against the information shared or collected. Again, the statistical significance or not surrounding this analysis was illustrated in a table format to demonstrate the associations between the independent variable (family context) and dependent variable (information shared or collected).

In addition, demographic variables of age, education, family history of chronic disease, and living arrangements were analyzed. The results of the demographic variables as well as additional explanatory variables were illustrated in a table format. The analysis of the study variables was performed through the utilization of IBM SPSS v25 statistical software.

The adapted dichotomous items consisting of responses (yes and no) were used to determine whether participants shared or gathered chronic disease information about their family. The question for the purpose of gathering information communicated about FHH was “Have you ever collected chronic disease information from your relatives for the purpose of
creating a family health history?” In addition, the sharing of information was examined through the question of “Have you actively given your relatives information about chronic disease risk?” Given the acknowledgement that information about chronic disease was either shared or collected or “Yes”, the participants were then asked to elaborate on the kind of information communicated (i.e. type of chronic disease, age at diagnosis, the results of various test) (Rodriguez, 2016).

*Family Health History Communication*

Determination as to whether family communication about chronic disease was communicated and established using three outcome variables of information gathering, information sharing, and communication frequency. The questions were adapted using Yoon (2004) creation of questions concerning communication of cancer risk. The adapted dichotomous items consisting of responses (yes and no) were used to determine whether participants shared or gathered chronic disease information about their family. The question for the purpose of gathering information communicated about FHH was “Have you ever collected chronic disease information from your relatives for the purpose of creating a family health history?” In addition, the sharing of information was examined through the question of “Have you actively given your relatives information about chronic disease risk?” Given the acknowledgement that information about chronic disease was either shared or collected or “Yes”, the participants were then asked to elaborate on the kind of information communicated (i.e. type of chronic disease, age at diagnosis, the results of various test) (Rodriguez, 2016).

A study conducted by Bowen (2004) was utilized to generate questions about the frequency of communication while adapting it to elicit responses concerning chronic disease such as “How much have you spoken about family history of chronic disease with each of the
following relatives?” Adaptation of these questions were rated on a Likert scale from 0 (Don’t currently have this relative(s)) to 4 (A lot) using responses from the participants first-degree and second-degree relatives. Responses were obtained from all living relatives will be tallied, averaged, and analyzed (Rodriguez, 2016).

The following questions were used to guide the study:

1. Do cohesion and adaptability within a family, influence communication of family health history controlling for demographic factors?

2. Does frequency of communication predict a greater likelihood of collecting and/or sharing of family health history information?

Data Analysis

Analysis of the data included multivariable logistic regression, simple linear regression, descriptive measures. Frequencies, means and standard deviations were run for the demographic variables in the study. Multivariable logistic and simple linear regression analyses were performed to determine whether a statistical relationship existed between selected demographic variables and the variables of interest in the research questions. Data was analyzed using the IBM SPSS v25 software.

Methodological assumptions

The assumptions for the proposed line of questioning for this study were that African American women’s perception concerning family context (i.e. family cohesion and adaptability) and family health history communication (i.e. sharing and collecting) allowed for the determination of the effect on the transference of FHH throughout the family. The distribution of questions by related factor were presented in tables 3.1.
Table 3.1

*Distribution of Questions for Family Communication, Information about Chronic Disease, Frequency of Communication, Family Cohesion, and Family Adaptability*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Questions Associated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Communication</td>
<td>1, 2</td>
</tr>
<tr>
<td>Information about Chronic Disease</td>
<td>collected and shared information</td>
</tr>
<tr>
<td>Frequency of Communication</td>
<td>1, 2, 3, 4, 5, 6, 7, 8</td>
</tr>
<tr>
<td></td>
<td>9, 10, 11, 12, 13, 14, 15, 16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor</th>
<th>Questions Associated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enmeshed</td>
<td>4, 10, 16, 22, 28, 34, 40</td>
</tr>
<tr>
<td>Balanced cohesion</td>
<td>1, 7, 13, 19, 25, 31, 37</td>
</tr>
<tr>
<td>Disengaged</td>
<td>3, 9, 15, 21, 27, 33, 39</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor</th>
<th>Questions Associated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chaotic</td>
<td>6, 12, 18, 24, 30, 36, 42</td>
</tr>
<tr>
<td>Balanced adaptability</td>
<td>2, 8, 14, 20, 26, 32, 38</td>
</tr>
<tr>
<td>Rigid</td>
<td>5, 11, 17, 23, 29, 35, 41</td>
</tr>
</tbody>
</table>
Chapter Summary

The purpose of this study was to examine whether perceived family context was associated with the degree to which family health history was communicated among African Americans in rural South Carolina. Chapter 3 contains the methodology used to accomplish the purpose of the study. The results of the study will be discussed in Chapter 4. Chapter 5 will contain a discussion of the results, conclusions drawn because of the study, implications for public health practice and recommendations for future research.
CHAPTER 4

RESULTS

Chapter four presents the results of the study on the collection and sharing of family health history that address the purpose of the study, which was to examine whether perceived family context was associated with the degree to which family health history was communicated in a sample of African American women. The data will be presented in the following order: Demographic variables that describe the study sample, the communication of FHH information, FACES IV constructs of the study, which include family cohesion, adaptability, frequency of communication on family health history. The results will be presented by research question.

Description of the Sample

A total of 94 women all African-American descent completed the FACES-IV survey (Olson, 2011). The mean age of the women in the sample was 58. Most of them were married (57.4%); 28.7% lived alone and 98% of the sample was college educated. Over 40% (n = 41) of the sample indicated they were affiliated with the Baptist church. See Table 4.1.

Table 4.1

Frequencies of Demographic variables of the sample of African-American women

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>88</td>
<td>58</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>54</td>
<td>57.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>18</td>
<td>19.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorced or</td>
<td>9</td>
<td>9.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separated</td>
<td>11</td>
<td>11.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Church Affiliation
Methodist  33  35.1
Baptist  41  43.6
Pentecostal  2  2.1
Non-denominational  8  8.5
Other  9  9.6

Living arrangements
Alone  27  28.7
Parents  3  3.2
Friends  15  16
Other  17  18.1

Educational Attainment
Elementary
High School
Trade/Technical
College  92  97.9

With respect to gathering and collecting family health history information, for this sample of women, 69% (n = 65) reported not gathering chronic disease information from relatives, while 31% (n = 29) indicated they had collected information on chronic disease history. Of those who responded “yes” to the collection chronic disease information, indicated that the information collected or gathered contained knowledge about the type of chronic disease (31%), the results of chronic disease testing (20%), followed by the age of diagnosis (18%).

Almost half of the participants responded yes to sharing family health history information about chronic disease, 48% (n = 45) with other family members. The following topics were reported as being shared: Medical Information about chronic disease (43%); Risk for chronic disease in the family (42%); Recommendations for chronic disease prevention (37%), the results of chronic disease testing (20%). These results suggest that information on chronic disease was not gathered frequently, however, closer to half of the sample did share information on health
With respect to questions not answered, the participants did not respond to questions seeking disease related information via open-ended inquiries. See Table 4.2.

### Table 4.2

**Communication of Family Health History Information**

<table>
<thead>
<tr>
<th>Gathering FHH Information from relatives</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>65</td>
<td>69.1</td>
</tr>
<tr>
<td>Yes</td>
<td>29</td>
<td>30.9</td>
</tr>
<tr>
<td>- Type of chronic disease</td>
<td>28</td>
<td>29.8</td>
</tr>
<tr>
<td>- Age of diagnosis</td>
<td>17</td>
<td>18.1</td>
</tr>
<tr>
<td>- Results of chronic disease testing</td>
<td>19</td>
<td>20.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sharing FHH Information with relatives</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>48</td>
<td>51.1</td>
</tr>
<tr>
<td>Yes</td>
<td>45</td>
<td>47.9</td>
</tr>
<tr>
<td>- Medical Information about chronic disease</td>
<td>40</td>
<td>42.6</td>
</tr>
<tr>
<td>- Risk for chronic disease in the family</td>
<td>39</td>
<td>41.5</td>
</tr>
<tr>
<td>- Recommendations for chronic disease prevention</td>
<td>35</td>
<td>37.2</td>
</tr>
<tr>
<td>- Results of chronic disease testing</td>
<td>19</td>
<td>20.2</td>
</tr>
</tbody>
</table>
The dimensions of family cohesion and adaptability determine the participants’ perception of the strength of family ties and explain briefly about adaptability among family members. The analytical range used for examining the level of closeness (cohesion) or leadership (adaptability) is explained using a scale in which scores are placed on a spectrum from “balanced” above 1 and unbalanced scores below 1. The ratio scores for family cohesion were 2.5 and \( SD \) 1.3; whereas for family adaptability the average ratio scores were 1.9 with a \( SD \) .95. A result above 1 indicates a perception of functionality among family members concerning togetherness and leadership capabilities.

**RQ1: Do cohesion and adaptability within a family, influence communication of family health history controlling for demographic factors?**

In order to answer this research question, multivariable logistic regression was performed, and odds ratio estimated to examine whether any relationships between specific individual factors related to family cohesion and leadership would predict the gathering and/or sharing of FHH. Family cohesion specific factors (age, marital status, church affiliation, living arrangements, and education) were controlled for both gathering and sharing chronic disease history.

The results indicate that neither the family cohesion nor adaptability were significant predictors of either gathering or sharing family health history. The odds ratio and p-value for cohesion (OR = .89, \( p = .62 \)) and adaptability (OR = .89, \( p = .78 \)) for gathering family health history. The odds ratio and p-value results for cohesion (OR = .99, \( p = .96 \)) and (OR = .93, \( p = .84 \)) for sharing family health history. The results for this analysis were reported in Tables 4.3 and 4.4.
Table 4.3

*Logistic regression for Collection of Family Health History Information*

<table>
<thead>
<tr>
<th>Variable</th>
<th>OR</th>
<th>95% CI</th>
<th>Type-3 p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.0</td>
<td>.99-1.1</td>
<td>.10</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>.43</td>
<td>.05-3.4</td>
<td>.46</td>
</tr>
<tr>
<td>Single</td>
<td>2.7</td>
<td>.28-26.0</td>
<td>.39</td>
</tr>
<tr>
<td>Divorced or Separated</td>
<td>1.4</td>
<td>.11-19.0</td>
<td>.79</td>
</tr>
<tr>
<td>Widowed</td>
<td>Ref</td>
<td>Ref</td>
<td>.34</td>
</tr>
<tr>
<td>Church Affiliation*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methodist</td>
<td>.85</td>
<td>.13-5.7</td>
<td>.87</td>
</tr>
<tr>
<td>Baptist</td>
<td>.44</td>
<td>.06-3.1</td>
<td>.41</td>
</tr>
<tr>
<td>Other</td>
<td>Ref</td>
<td>Ref</td>
<td>.57</td>
</tr>
<tr>
<td>Living Arrangements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alone</td>
<td>.53</td>
<td>.06-4.4</td>
<td>.55</td>
</tr>
<tr>
<td>Parents</td>
<td>.27</td>
<td>.01-5.7</td>
<td>.40</td>
</tr>
<tr>
<td>Friends or Relative</td>
<td>1.6</td>
<td>.29-8.9</td>
<td>.60</td>
</tr>
<tr>
<td>Other</td>
<td>Ref</td>
<td>Ref</td>
<td>.68</td>
</tr>
<tr>
<td>Cohesion Ratio</td>
<td>.89</td>
<td>.55-1.4</td>
<td>.62</td>
</tr>
<tr>
<td>Adaptability Ratio</td>
<td>.89</td>
<td>.40-2.0</td>
<td>.78</td>
</tr>
</tbody>
</table>

Note: The other category is the combination of three choices that of denominations with low responses.
Table 4.4

*Logistic regression for Sharing of Family Health History Information*

<table>
<thead>
<tr>
<th>Variable</th>
<th>OR</th>
<th>95% CI</th>
<th>Type-3 p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>.98</td>
<td>.94-1.0</td>
<td>.43</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>.51</td>
<td>.07-3.9</td>
<td>.52</td>
</tr>
<tr>
<td>Single</td>
<td>.75</td>
<td>.10-5.6</td>
<td>.78</td>
</tr>
<tr>
<td>Divorced or Separated</td>
<td>1.2</td>
<td>.12-13.0</td>
<td>.85</td>
</tr>
<tr>
<td>Widowed</td>
<td>Ref</td>
<td>Ref</td>
<td>.83</td>
</tr>
<tr>
<td><strong>Church Affiliation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methodist</td>
<td>1.6</td>
<td>.25-10.0</td>
<td>.63</td>
</tr>
<tr>
<td>Baptist</td>
<td>1.6</td>
<td>.23-11.0</td>
<td>.64</td>
</tr>
<tr>
<td>Other</td>
<td>Ref</td>
<td>Ref</td>
<td>.88</td>
</tr>
<tr>
<td><strong>Living Arrangements</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alone</td>
<td>1.5</td>
<td>.22-11.0</td>
<td>.68</td>
</tr>
<tr>
<td>Parents</td>
<td>4.3</td>
<td>.22-82.0</td>
<td>.33</td>
</tr>
<tr>
<td>Friends or Relative</td>
<td>2.1</td>
<td>.38-12.0</td>
<td>.39</td>
</tr>
<tr>
<td>Other</td>
<td>Ref</td>
<td>Ref</td>
<td>.72</td>
</tr>
<tr>
<td><strong>Cohesion Ratio</strong></td>
<td>.99</td>
<td>.62-1.6</td>
<td>.96</td>
</tr>
<tr>
<td><strong>Adaptability Ratio</strong></td>
<td>.93</td>
<td>.46-1.9</td>
<td>.84</td>
</tr>
</tbody>
</table>

**Note:** The other category is the combination of three choices that consists of three choices of denominations with low responses.

The cohesion and adaptability ratio were devised to allow for the discernment of functionality concerning these two dimensions of the FACES IV survey. Ratio scores calculated to be above one, indicated that the women in the sample perceived with a higher score depicting an increased perception about the dimensions of cohesion and adaptability. Conversely, the lowering of score below that of 1 showed a less perceived level of functionality.
with a further decrease illustrating a more dysfunctional belief in this family system. The
perceived level of functionality of the family unit was thought to be correlated with the sharing
and collecting of family health history. Correlation between the independent variable of family
context and dependent variable of communication of FHH would have assisted in further
answering research question 1 by showing the extent to how much influence the perceived
functionality of the family unit had on the communication. In addition, controlling for
demographic characteristics did not predict an increased likelihood of sharing or collecting
family health history information. Because less than half of the sample reported
gathering/collecting health information, the data collected for this analysis was not beneficial in
determining predictable influence by either perceived family context (cohesion or adaptability).

*RQ2: Does frequency of communication predict sharing and collecting family health history?*

Research question 2 examined whether an association between frequencies of
communication predicted sharing and collecting family health history. A binary logistic
regression was performed. The results for this analysis was shown in table 4.6.

The analysis found that communication frequency was negatively (OR = 0.820, p =
0.006) associated with collecting FHH information. In other words, the more frequency of
communication, the lower, the probability of collecting FHH. Similarly, communication
frequency was also negatively (OR = 0.833, p = 0.008) associated with sharing FHH
information. The more frequent the communication, the lower the probability of sharing FHH.
The original assumption concerning associations between the frequency of communication and
sharing and collection of FHH was that increased frequency of communication would lead to
gathering and sharing FHH information among family members. According to the results of this
analysis, the frequency of communication of FHH had no bearing on whether family members
exchanged information on family health history.
Table 4.5

*Logistic regression for communication frequency, collecting, and sharing information*

<table>
<thead>
<tr>
<th>Variable</th>
<th>OR</th>
<th>95% CI</th>
<th>Type-3 p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collecting info</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of Communication</td>
<td>.820</td>
<td>.712-.945</td>
<td>.006</td>
</tr>
<tr>
<td>Sharing info</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of Communication</td>
<td>.833</td>
<td>.728-.954</td>
<td>.008</td>
</tr>
</tbody>
</table>
CHAPTER 5

DISCUSSION

The purpose of the study was to examine the occurrence of family communication surrounding chronic disease in a sample of African American women in the rural Southeastern United States. Secondly, the study sought to examine whether frequency of communication was a factor in the communication (gathering or sharing) of family health history. The study population was comprised of 94 African American women with a mean age of 58. Almost all (98%) of the participants were college educated, slightly more than half of the women were married with a third of the sample indicating that they lived alone. Almost half of the women were affiliated with the Baptist church. One-third of the participants reported collecting information on family health history. The dimensions of family cohesion and adaptability did not influence communication about family health history when controlling for specific demographic factors such as age, education, marital status, religious affiliation or living arrangements. The frequency of communication in families also had no relationship to communication about family health history. The homogeneity of the sample as well as the small sample size influenced the meaningfulness of the results of the study.

Rodriguez (2016) hypothesized that the family context (cohesion and flexibility) would be correlated with the gathering of family health history along with sharing of family cancer information and increased frequency of family information surrounding cancer. Although the study performed by Rodriguez (2016) demonstrated an association between family cohesion and communication or sharing of family health history, the gathering of the same family cancer history was not found to be correlated with either family cohesion or flexibility. In this study, increase frequency of communication among family members was not associated both with the
sharing and with gathering of chronic disease risk information. As with Rodriguez (2016), the current study showed an inability to establish a direct association between family cohesion, flexibility, and openness to share family cancer through discussions. The belief that family openness to communicate does not completely illustrate the complex challenges which may arise when attempting to communicate family health history as seen in the (Rodriguez, 2016) study. These findings illuminated just how important the interactions of family members were irrespective of the familial degree on the transference of family health history information. Expectations surrounding possible associations of family context (cohesion and adaptability) effect on the gathering and sharing of chronic disease information were not realized. Family cohesion and adaptability were not found to be an indicator of chronic disease information communication outcome. The application of individual factors in addition were not shown to have an influence on the communication of chronic disease risk either. Marbley (2013) utilized the term structural functionalism to view the family through a theoretical lens embodying family system, social structure, function, and equilibrium to attempt to provide a reason for the many interactions among African Americans family units. For instance, as members of the family grew older familial interdependence in the face of health issues led to increased conversations about family health history (Galvin, 2010; Ashida, 2011). The present study consisted of women in the middle age of their lives whom may not have been apprised of the significance of family health history.

Because a significant correlation between the frequency of communication and family members’ discussions seeking to gather and share family health history were not found, results showed that family cohesion and adaptability were not associated with chronic disease conversations by the family. Marbley (2013) posited that a mere benevolent feeling of kinship
towards others may not be the only initiator of communication about family health history. There could be a transactional aspect or give and take scenario where social support exchanges of information were deemed beneficial to other family members. Communication about family health history naturally may not be driven just by family context, which was unmeasurable by the current study and was unable to capture the various nuisance circumstances that perpetuate discussions about chronic disease risk (Rodriguez, 2016). Although, there were perceived increased levels of cohesion and adaptability as indicated from the participants circumstances enveloping family communication behaviors that were put in place to control the movement of health information may have generated a barrier to these discussions (Pertronio, 2010; Petronio, S. & Caughlin, J. P., 2006). In some instances, research has shown that discussions about chronic disease brought negative positions stigmatizing the condition and quality of life expected while leading to a fatalistic view and caused the closing off open communication (Gartley, 2015; Drazie, 2012; Franklin, 2007; Rodriguez, 2016; Sharf, 2005). Although family health history knowledge could be easily transferred through simple conversations with family network members, custodians of the family health history knowledge were not always available to provide the information or chose selectively who may have access to the information. Whether individuals were disclosing guarded information about someone or themselves, the complexities of the dance among family members for the acquisition and dissemination of FHH could be better understood through the five principles concerning privacy management (Petronio, 2002). By identifying relatives that were more amiable to the communication of chronic disease which can be articulated concerning risk information, this process can direct the creation of interventions designed to increase conversations about family health history.
Rodriguez (2016) believed that consideration of family context should consider the examination of individual factors, which were thought to affect health communication. For this study, demographic factors specific to everyone such as age, marital status, church affiliation, and residency were estimated to produce the determinative responses that illicit communication about chronic disease. The inability to garner favorable results could have been impacted by researcher and recall biases. Although the selected factors did not fulfill the expectation as to an association among these individual factors and the gathering and sharing of family health history information, the established research study was still undergirded in its demonstration that the frequency of communication produced communication among family. Previous research has shown that the chosen individual factors provided additional beneficial knowledge to the current voluminous information surrounding age, marital status, church affiliation, education, and residency (Ashida, 2013, 2015; Allicock, 2013; Franklin, 2007; Mitchell, 2013). Studies have demonstrated that an increased sense of self-efficacy drove the desire to share family health history information with more relatives (Rodriguez, 2016; Ashida, S. & Schafer, E. J., 2015). There was a possibility that the individual factor of self-efficacy, which was not studied, was not elevated enough among the women studied to promote the gathering and sharing of family health history information.

Limitations

Limitations affecting the desired outcome of studies often were not completely without notice. Family communication that was considered open or free flowing was believed to garner increased cohesion and adaptability within the family environment. (Olson & Gorrall, 2006) The study as designed focused primarily upon the perceptions of women concerning communication about chronic disease given the family context by which it was driven. The data from this cross-
sectional study was not generalizable to men or other women residing within the county. The sample size of the study was small utilizing a convenience sample of women. Although the sample population was socioeconomically diverse, the participants were not ethnically; however, the sample incorporated ages from young to older adults. Reliance upon self-reporting for this study may have influenced by recall biases. By controlling for face validity measures through changes in the wording of items, measurement wording identification as well as desirability of socially acceptable responses could have a profound effect on responses in the future. Responses concerning the information collected or shared for this study about chronic disease information were scarcely responded to. This made it difficult to ascertain what chronic disease information was more influential in the changing of perceptions about risk among the participants and whether the family context of cohesion or adaptability could have increased these discussions. Future research would be needed to further examine whether communication of family health history and individual factors, which facilitate or barr these discussions vary among a more randomized sample of African American women.

Some biases that have caused additional problems with obtaining expectant outcomes were that of recall and/or researcher bias. These biases have caused the effectual misrepresentation of expectant outcomes in the form of non-significant statistical results with respect to the logistic analyses among family context (cohesion and adaptability), gathering and sharing of family health history, and what information was shared or gathered.

Recommendations for Future Research

At present, the most effective means of gathering an appropriate sample size within a hard-to-reach population was that of a snowball sampling method or technique. The effective strategy of using a participant to garner the additional support or participation of known
associates or other individuals of similar or dubious habits has always been the go-to method for this purpose. Although snowball sampling was believed to be antagonistic towards the known assumptions surrounding various sampling techniques, the strategy was found to contain several acceptable benefits when attempting to sample perceived vulnerable or stigmatized social groupings. The typical hard-to-reach target populations sought after by utilizing this technique were that of drug dealers, drug users, aids sufferers, gang members, and prostitutes (Atkinson & Flint, 2001). Atkinson and Flint (2001) noted that snowball sampling as a participant gathering technique was often plagued with the problems of selection bias and non-generalizability. In addition to these sampling issues, the technique offered another problem with large single chain sampling was that of homogeneity or shared similarities and unique characteristics of the target population.

Since the inception of additional techniques for supplying research studies with willing participants, new sampling strategies have emerged that claim to provide a means for sampling populations while at the same time minimizing the biases which were seen among other techniques (i.e. snowball sampling). The inability to construct adequate or significant sample sizes of hard-to-reach or hidden populations was confronted using random sampling techniques, which attempted to garner support, by telephone or mailing lists. These techniques led to the problem of low number sampling populations. One method of sampling which may offer a solution to the problem of low sampling of hard-to-reach populations through random sampling methods was that of a venue-based time-space sampling technique.

Muhib (2001) promoted this sampling technique to increase generalizability and sampling population size while diminishing the chance of low participant interaction. The process of venue time-space sampling has incorporated venue daytime sampling to address
specific hard-to-reach population sampling by meeting the participants where they congregate. This technique required that the day and time be known when the target population was present in a specific venue. The creation of a sampling frame would allow the systematic intervening schema to be performed on willing participants.

With respect to future research, the quandary concerning the inability to acquire desirable results from the present study brought about a reconsideration surrounding certain design aspects. The original exploratory design was chosen due to the uncertain outcomes, which may present themselves in the data. A convenience sampling of African American participants was employed because of time restraints with acquiring access approval from other potential source populations.

Implications for Public Health Practice

A key role that knowledge of family health history played in an individual’s life was that of understanding what factors make the likelihood of developing a chronic disease in the future more likely. Knowledge about family health history could be pivotal in decision making about lifestyle changes assisting with decreasing onset of chronic diseases. In addition, a decrease in the health disparities among African Americans and Caucasians could be achieved through the communication of family health history. Particularly, the increase of primary preventive measures that could be taken by members of the family to fraught disease onset may lead to offsetting or complete mitigation of chronic disease often seen in older family members.

Examination concerning the type of communication patterns (i.e. collecting or sharing) associated with the degree to which the functionality of the family may bring about knowledge of family health history. Additionally, the functional aspect of family looked at producing and supplying goods or services, maintenance of order, educating of members in compliance to
societal norms, and conflict resolution. The transactional aspect of family considered the give and take or social support exchanges, which were deemed beneficial to members (Marbley, 2013). Through the determination of African-American women’s perception about their family’s level of cohesion and adaptability in conjunction with the frequency of communication assisted in the development of interventions surrounding communication among family members. Strategies created for bolstering the family context (cohesion and adaptability) could assist in increasing communication frequency among family members. Knowledge about one’s family health history imparted a level of perceived control to individuals concerning their ability to alter future chronic disease conditions (CDC, Genomics and Health Impact Blog, 2015)

The findings from this study could be used to inform public health educators on how family context could contribute to knowledge of family communication about chronic disease. Understanding this relationship could assist community health educators in developing strategies that promote better health outcomes through conversations consisting of preventative methods, lifestyle changes, and reduction in health disparities within the African American community. Conversations about appropriate risk reduction measures through strategically directed formats about prevention procedures including screenings, family health history communication, and health promotion could alleviate perpetual health disparities among African Americans.

Insistence upon the completion of responses for questions were not requested due to protections afforded participants within the informed consent agreement. Selection of individual factors (i.e. age, marital status, church affiliation, educational attainment, and residency) or independent variables have not produced the appropriate social realities necessary to initiate specific recall of gathering and sharing behavior of the participants. In conclusion, the results for the current study were not generalizable to others within the community of Orangeburg, South
Carolina. Moving forward, a cross-sectional design looking at a snapshot of African American women’s family context perceptions could have brought about a more favorable selection of participants. This change in recruitment would allow for a more robust selection of participants using random selection techniques. Random selection of participants should allow for an expanded view of family context and communication surrounding chronic disease in the family. A broader selection of participants could permit a more complete analysis of women’s family contest perceptions about the movement of family health history information. In addition, this recruitment method would allow the results obtained from the study to be generalizable to others within the community. An increase in the number of participants benefited a new look at this research through additional solicited perceptions of women from the community. Reexamination of individual factors, which could potentially bring about measurable outcomes surrounding the gathering and sharing of family health history information, would be researched prior to initiation of a new study.

By incorporating the Revised Family Communication Patterns approach, future research could focus on examining which types of communication would assist in the functional transference of family health history information or identify its dysfunctional entanglement of knowledge pertaining to the family context (i.e. cohesion and adaptability) of the family (Koerner, 1997). From the ability of the Revised Family Communication Patterns to predict the functionality of the family through identification of the communication patterns, these patterns of communication could be overlaid on the cohesion and adaptability perceptions to parse out meaningful clarity as to facilitators (i.e. conversation orientation) and barriers (i.e. conformity orientation) to family health history communication. For this reason, Olson (2006) believed that family cohesion maps onto or overlays best with the consensual and pluralistic communication
patterns and family adaptability on that of laissez-faire and protective communication patterns. It was believed that the communication behaviors of conversation and conformity orientations propel the communication of information or impeded its transference in the same respect. Functional analysis concerning the communication of chronic disease could be examined using the survey instruments of both the Revised Family Communication Patterns Theory as well as the Circumplex Model due to their ability to verify functionality about a family system.

Conclusions

Due to women’s ever-faithful role as nurturer, this less than coveted title of caregiver during every stage of life has afforded them the unfortunate opportunity to become the chronicler of family health history information. Numerous studies have verified that women currently and always have been the caregiver of humankind (Allicock, 2013; Rodríguez, 2016; Thompson, 2015). Women have utilized this knowledge not only for the documenting of family members untimely passing due to illness but also for the decisive planning of offspring as well as determination of appropriate suitors for marriage (Baty, 2003). The extensive knowledge base that women possess surrounding family health history make them an invaluable asset to the family unit and research opportunities.

Although the current study did not yield statistically significant findings and or results that could be generalizable to other populations of African-American women in the rural Southeastern United States, a clear implication concerning the gathering and sharing of family health history information was found to be the frequency of communication. A key motivator surrounding most communication behaviors necessary for conversations about health promotion and prevention strategies (Rodriguez, 2016; Hamlet, 1981; Ashida, 2015). African American men and women communicate family health history differently in that the lack of education
attainment for men was determined a hindrance to the transfer of knowledge; whereas, women were encouraged through the culturally appropriate presentation of such information which was then passed on to others (Allicock, 2013; Kaphingst, 2012; Mitchell, 2013). In short, the findings illuminated the benefit that frequency of communication has on the transference of family health history and demonstrated potential trajectories future research could take to focus on just how family context influences this area of communication.
REFERENCES


DOI: 10.3109/01460861003663987


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APPENDIX A.

FAMILY HEALTH HISTORY FLYER

VOLUNTEERS NEEDED TO COMPLETE AN IMPORTANT RESEARCH PROJECT

PURPOSE

• TO LEARN MORE ABOUT HOW AFRICAN AMERICAN FAMILIES COMMUNICATE ABOUT HEALTH ISSUES.

WHO IS ELIGIBLE

• AFRICAN-AMERICAN WOMEN
• AGES 18 YEARS OR OLDER
• LIVE, WORK, WORSHIP, OR ATTEND CHURCH IN ORANGEBURG COUNTY

WHAT DO I HAVE TO DO TO PARTICIPATE?

IF YOU MEET THE ELIGIBILITY CRITERIA, YOU WILL BE ASKED TO COMPLETE A SURVEY

For more information or to schedule an appointment contact: Kendall Williams by phone: (803) 378-9983 or email: kw04668@georgiasouthern.edu
APPENDIX B.

FAMILY HEALTH HISTORY SURVEY INSTRUMENT

Thank you for helping us learn more about communication about family health history as it relates to risk for chronic disease.

Please think about your close blood relatives. These include your parents, brothers and sisters, aunts, uncles, grandparents, children, grandchildren, and nieces and nephews. The following questions ask about these relatives.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>1. Have you ever actively collected chronic disease information from your relatives for the purpose of creating a family health history?</td>
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<td>2. Have you ever actively given your relatives information about chronic disease risk?</td>
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If yes to question 1, what information did you collect (check all that apply)?

☐ Type of chronic disease

☐ Age at diagnosis

☐ Results of chronic disease testing (“Chronic disease testing” refers to a blood test, diabetes test, cardiovascular test, and cancer test that looks for symptoms of chronic disease risk that can be passed on in families like other traits.)

☐ Other information__________________________

If yes to question 2, what information did you give (check all that apply)?

☐ Medical information about chronic disease

☐ Risk for chronic disease in the family

☐ Recommendations for chronic disease prevention

☐ Results of chronic disease testing (“Chronic disease testing” refers to a blood test, diabetes test, cardiovascular test, and cancer test that looks for symptoms of chronic disease risk that can be passed on in families like other traits.)
How much have you spoken about family history of chronic disease with each of the following family members?

<table>
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<tr>
<th>Relative</th>
<th>Don’t currently have this relative(s)</th>
<th>Not at all</th>
<th>A little</th>
<th>Some</th>
<th>A lot</th>
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<td>a. Your children</td>
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<td>b. Your grandchildren</td>
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<td>c. Your sisters</td>
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<td>d. Your brothers</td>
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<td>e. Your nieces</td>
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<td>f. Your nephews</td>
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<td>g. Your mother</td>
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<td>h. Your mother’s sisters (aunts)</td>
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<td>i. Your mother’s brothers (uncles)</td>
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<td>j. Your mother’s mother (grandmother)</td>
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<td>k. Your mother’s father (grandfather)</td>
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<td>l. Your father</td>
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<td>m. Your father’s brothers (uncles)</td>
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n. Your father’s sisters (aunts)

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<th>Undecided</th>
<th>Generally Agree</th>
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o. Your father’s mother (grandmother)

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p. Your father’s father (grandfather)

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We are interested in learning more about family communication and its relationship to chronic disease.

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<th>Strongly Disagree</th>
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<th>Generally Agree</th>
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<tbody>
<tr>
<td>1. Family members are involved in each other’s lives.</td>
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<td>2. Our family tries new ways of dealing with problems.</td>
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<td>3. We get along better with people outside our family than inside.</td>
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<td>4. We spend too much time together.</td>
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<td>5. There are strict consequences for breaking the rules in our family.</td>
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<td>6. We never seem to get organized in our family.</td>
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<td>7. Family members feel very close to each other.</td>
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<td>8. Parents equally share leadership in our family.</td>
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<td>9. Family members seem to avoid contact with each other when at home.</td>
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<td>10. Family members feel pressured to spend most free time together</td>
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<td>Statement</td>
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<td>11. There are clear consequences when a family member does something wrong.</td>
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<td>12. It is hard to know who the leader is in our family.</td>
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<td>13. Family members are supportive of each other during difficult times.</td>
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<td>14. Discipline is fair in our family.</td>
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<td>15. Family members know very little about the friends of other family members.</td>
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<td>16. Family members are too dependent on each other.</td>
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<td>17. Our family has a rule for almost every possible situation.</td>
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<td>18. Things do not get done in our family.</td>
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<td>19. Family members consult other family members on important decisions.</td>
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<td>20. My family is able to adjust to change when necessary.</td>
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<td>21. Family members are on their own when there is a problem to be solved.</td>
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<td>22. Family members have little need for friends outside the family.</td>
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<td>23. Our family is highly organized.</td>
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<td>24. It is unclear who is responsible for things (chores, activities) in our family.</td>
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<td>25. Family members like to spend some of their free time with each other.</td>
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<td>26. We shift household responsibilities from person to person.</td>
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<td>27. Our family seldom does things together.</td>
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<td>28. We feel too connected to each other.</td>
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<td>29. Our family becomes frustrated when there is a change in our plans or routines.</td>
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<td>30. There is no leadership in our family.</td>
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<td>31. Although family members have individual interests, they still participate in family activities.</td>
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<td>32. We have clear rules and roles in our family.</td>
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<td>33. Family members seldom depend on each other.</td>
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<td>34. We resent family members doing things outside the family.</td>
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<td>35. It is important to follow the rules in our family.</td>
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<td>36. Our family has a hard time keeping track of who does various household tasks.</td>
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<td>37. Our family has a good balance of separateness and closeness.</td>
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<td>38. When problems arise, we compromise.</td>
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<td>39. Family members mainly operate independently.</td>
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</table>
40. Family members feel guilty if they want to spend time away from the family.

41. Once a decision is made, it is very difficult to modify that decision.

42. Our family feels hectic and disorganized.

Finally, please answer a few questions about your background.

1. What is your age? __________

2. Are you ...?

☐ Married or have a partner

☐ Single

☐ Divorced or separated

☐ Widowed

3. What is your church affiliation?

☐ Methodist

☐ Baptist

☐ Pentecostal

☐ Non-denominational

☐ Other

4. With whom do you currently reside?

☐ Alone

☐ Parents (one or both)
Friends or other relative

Other (for example, hall or residence, living in accommodation provided with your job, etc.)

5. What is your highest grade/level of education? (Circle the highest grade or level that you completed)

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<thead>
<tr>
<th>Elementary School</th>
<th>Middle/Junior High School</th>
<th>High School</th>
<th>Trade/Technical School</th>
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<td>1  2  3  4  5</td>
<td>6  7  8</td>
<td>9  10  11  12</td>
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College

1  2  3  4+
APPENDIX C.
FAMILY HEALTH HISTORY PARTICIPANT LETTER

To: HBCU Sororities
From: Kendall Williams

My name is Kendall Williams. I am a graduate of the biotechnology program at Claflin University. I am currently pursuing my doctoral degree in public health at Georgia Southern University. I am writing to ask for your assistance in conducting a research study to fulfill a partial requirement for my doctoral degree in public health.

I am studying The Role of Family Context in Family Health History communication surrounding Chronic Disease. I would like to request assistance in enlisting African American women from the Orangeburg community who are affiliated with your organization. The criteria by which I am recruiting participants are as follows: 18 years of age and older, African American, and live, work, worship, or attend church in the county of Orangeburg.

A key role that knowledge of family health history plays in an individual’s life is that of understanding what factors make the likelihood of developing a chronic disease in the future more likely. Knowledge about family health history can be pivotal in decision making about lifestyle changes assisting with decreasing onset of chronic diseases.

The purpose of my study is to examine whether the type of communication patterns is associated with the degree to which family health history is communicated among African American families in rural South Carolina. Specifically, to determine African-American women’s perception about their family’s level of cohesion and adaptability will be explored. Secondly, the study seeks to examine how the frequency of communication contributes to types of communication among family members.

The findings from this study will inform public health educators on how family communication patterns contribute to knowledge of chronic disease. Understanding this relationship will assist community health educators in developing strategies that promote better health outcomes through conversations consisting of preventative methods, lifestyle changes, and reduction in health disparities within the African American community. Conversations about appropriate risk reduction measures through communication about prevention procedures including screenings, family health history communication, and health promotion can alleviate perpetual health disparities among African Americans.

I look forward to partnering with your esteemed organizations to bring about the necessary information to create and implement an evidence-based intervention. To
promote communication of this life changing knowledge within our African American communities and families, is the goal in which this study seeks to achieve.

Kind regards,

Kendall M. Williams
My name is Kendall Williams; I am a doctoral candidate in the Jiann-Ping Hsu College of Public Health at Georgia Southern University. I am conducting the following research study looking at The Role of Family Context in Family Health History Communication surrounding Chronic Disease. This will be performed to satisfy the final component for graduate work for me in the form of a dissertation.

The purpose of the study is to examine whether type of communication patterns is associated with the degree to which family health history is communicated among African Americans in rural South Carolina. Specifically, to determine African-American women’s perception about their family’s level of cohesion and adaptability will be explored. Secondly, the study seeks to examine how the frequency of communication contributes to types of communication among family members.

Participation in this research will include completing a self-administered survey.

Although there are no physical risks to you by participating in the study in order to protect you from any discomfort, you have the right to refuse to answer any questions that make you feel uncomfortable or you may end your participation at any time.

The benefits to you participating include the satisfaction of knowing that you will be helping African Americans, others, as well as researchers to better understand how family communication patterns, family context, and family cohesion and adaptability are essential in the communication of chronic disease information to other family members.
The benefits to society include a better understanding of how family communication patterns, family cohesion and adaptability affect the communication of FHH information to family members. The utilization of the church's Wellness Ministry as a vehicle for the implementation of an appropriate intervention constituting dialogue that will increase the transference of family health history information among family members. As a key component in the increasing of appropriate health promotion prevention practices, the African American community will be provided a culturally appropriate intervention which would assist in decreasing the health disparities experienced by this ethnic group through the lack of family health history communication and can be implemented through the Health and Wellness ministries of churches and other groups.

6. You will require between 30 and 60 minutes to complete the self-administered survey questionnaire.

7. Only members of my research team will have access to any of your study-related data. All study related information that exists in paper form will be kept in a locked file cabinet. All paper study information will be retained for a minimum of 3 years following completion of the study. “Deidentified or coded data from this study may be placed in a publicly available repository for study validation and further research. You will not be identified by name in the data set or any reports using information obtained from this study, and your confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions.”

8. Participants have the right to ask questions and have those questions answered. If you have questions about this study, please contact, Kendall Williams, the researcher named above or the researcher’s faculty advisor, Dr. Joanne Chopak-Foss, whose contact information is located at the end of the informed consent. For questions concerning your rights as a research participant, contact Georgia Southern University Institutional Review Board at 912-478-5465.

9. There is one part to the study: (1) the self-administered questionnaire. Depending on your eligibility, you are invited to participate in the study.

10. Your participation in this research is voluntary. You have the right to not answer any questions that you do not want to answer and to stop the study at any time. As a participant, you don’t have to participate in this research; may end your participation at any time by telling the person in charge, not returning the instrument or other options; you do not have to answer any questions that you do not want to answer.

11. There is no penalty for deciding not to participate in the study. You may decide at any time that you don’t want to participate further and may withdraw without penalty or retribution.

12. You must be 18 years of age or older to consent to participate in this research study. If you consent to participate in this research study and to the terms above, please sign your name and indicate the date below.

You will be given a copy of this consent form to keep for your records. This project has been reviewed and approved by the GSU Institutional Review Board under tracking number H18444.
Title of Project:  The Role of Family Context in Family Health History Communication surrounding Chronic Disease.

Principal Investigator:

Kendall M. Williams, Jiann-Ping Hsu College of Public Health Georgia Southern University P.O. Box 8015 Statesboro, GA 30460, 912-478-1530, kw04668@georgiasouthern.edu

Other Investigator(s):

Faculty Advisor:

Dr. Joanne Chopak-Foss, Jiann-Ping Hsu College of Public Health Georgia Southern University P.O. Box 8015 Statesboro, GA 30460, 912-478-1530, jchopak@georgiasouthern.edu

By completing the survey, participants are acknowledging they have consented to participate.