

2020

## African Americans Beliefs Regarding Skin Cancer and Prevention

Tamara Wesley  
*Walden University*

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# Walden University

College of Nursing

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Tamara Wesley

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## Review Committee

Dr. Leslie Hussey, Committee Chairperson, Nursing Faculty  
Dr. Carolyn Sipes, Committee Member, Nursing Faculty  
Dr. Marilyn Losty, University Reviewer, Nursing Faculty

Chief Academic Officer and Provost  
Sue Subocz, Ph.D.

Walden University  
2020

Abstract

African Americans' Beliefs Regarding Skin Cancer and Prevention

by

Tamara Wesley

MA, University of West Georgia, 2013

BS, University of West Georgia, 2010

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Nursing

Walden University

August 2020

## Abstract

Skin cancer is becoming more prevalent in African Americans. African Americans' mortality rate is significantly higher than any other race due to lack of awareness. The purpose of this qualitative study, guided by Rosenstock's health belief model, was to gain an understanding of African Americans' beliefs and perceptions regarding skin cancer. Ten telephone interviews were conducted with African Americans who were 18 years old or older, no history of cancer, and who were members of a church in a rural town in the southeastern United States. The interview transcripts were manually transcribed verbatim. The data were analyzed by using codes that were entered into NVivo 11 to identify patterns and themes. The following 8 themes emerged from participants' beliefs regarding skin cancer and prevention: knowledge of skin cancer, sun-protective measures, consequences not using protective measures, need for sun-protective measures, risk of developing skin cancer, screened for skin cancer, recommendations for preventing skin cancer, and discussion of skin cancer with physicians. The results of this study revealed that participants knew very little or nothing about skin cancer. Further studies in this area may include conducting more qualitative studies that explore African Americans' behaviors using sun-protective measures compared to other ethnicities. Nurses, as well as other healthcare providers may benefit from this research because the findings will add to the body of knowledge by addressing the existing gaps in the literature. Understanding African American's beliefs and perceptions regarding skin cancer can help lead to prevention programs, which affects positive social change.

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## Dedication

I would like to give all the praise and glory to my almighty God because with Him all things are possible. I would like to dedicate this dissertation to my parents, Bernice and Tommy Wolfe, Gerald and Gloria Wesley; sons, Carlos and Corey Hutton; my sister, Lisa Geter; my brothers Cedric, Frederick, Lil Gerald, Christopher, and Ramon Wesley; granddaughters, Zoey, Harley; and granddog, Sadie, for giving me the support and encouragement to complete this journey even though I had to overcome many obstacles along the way. Last, but not least my best friend, Dr. Nehru Brown, for being my supporter and pushing me through this journey even when I did not feel like finishing up. Thank you all for being there for me!

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## Chapter 1: Introduction to the Study

### Introduction

The most common form of cancer in the United States is skin cancer (Lai, Cranwell, & Sinclair, 2018). Skin cancer consists of three types: basal cell carcinoma, squamous cell carcinoma, and melanoma (Lai, Cranwell, & Sinclair, 2018). Melanoma is the fifth most common cancer in the United States, with cases increasing threefold between 1975 and 2010 (Lai, Cranwell, & Sinclair, 2018). The incidence of cutaneous melanoma has been steadily increasing over the last 10 years, and it is estimated that almost 1 million people are currently living with a melanoma diagnosis in the United States (American Cancer Society [ACS], 2018). In 2019, an estimated 96,480 people were diagnosed with melanoma, of which about 7,230 people were expected to die from the cancer (ACS, 2018). Excessive sun exposure causes most skin cancers to develop, which can be prevented by wearing protective clothing and sunscreen daily (Qadir, 2016). Skin cancer is a growing problem in the United States and is of increasing concern in the African American population.

Skin cancer has become more prevalent in African Americans over the past 10 years and has become a leading problem in the public health field (Murchie & Iweuke, 2011). African Americans die more often from the deadliest form of skin cancer, melanoma, compared to European Americans who are usually diagnosed with less aggressive basal cell and squamous cell carcinoma (Murchie & Iweuke, 2011). This rate of death has increased by 3% per year in the African American population compared to 1% per year in other races such as European Americans and Hispanic Americans. While

the survival rate of European Americans diagnosed with skin cancer is high, African Americans' survival rate is much lower. African Americans have the lowest 5-year survival rate, although they have a lower incidence rate of 1% (Watson, Garnett, Guy, & Holman, 2015). The 5-year survival rates from melanoma are 87.6% for European Americans, 81.1% for Hispanic Americans, 80.2% for Asian Americans, and 72.2% for African Americans (Kailas et al., 2016). From 1982 to 2011, the incidence rates of melanoma for the overall United States population doubled. Despite the increasing incidence and mortality rate of skin cancer, African Americans generally do not believe that they are susceptible to skin cancer (Watson et al., 2015).

There has been little research on understanding the beliefs and perceptions of African Americans as they pertain to skin cancer. African Americans tend to be diagnosed with skin cancer at later stages due to seeing their physicians late (Tsai, Frank, & Bordeaux, 2018). To help make a difference in the African American community, I conducted this study to identify and understand African Americans' beliefs and perceptions about their susceptibility to getting skin cancer, which may lead to future prevention strategies.

An individual's beliefs about their personal likelihood of a negative event occurring plays a vital role in their health behavior (Robinson, Friedewald, & Gordon, 2016). Perceived risk is a core component in health behavior theories such as the health belief model (HBM;). Socially and culturally structured concepts inform actions and understandings about risk (Robinson, et al., 2016). Robinson et al. (2016) found there is a misconception among African Americans that skin pigment completely protects against

skin cancer. There is a significant gap in the literature concerning the beliefs and perceptions of African Americans developing skin cancer that needs to be addressed. There are a few extant studies on African Americans' risk for skin cancer, but little research has been conducted on African Americans' beliefs and perceptions related to developing skin cancer. Understanding African Americans' beliefs and perceptions about skin cancer may lead to the implementation of a plan to help decrease the risk of developing skin cancer, which would affect positive social change. In this chapter, I discuss the background of the study, problem statement, purpose, research questions, nature of the study, limitations, and the significance of the study.

### **Background of Study**

Skin cancer, especially melanoma, is becoming more common in African Americans. In the United States, African Americans have the highest death rate of skin cancer and shortest survival rate of skin cancer compared to other racial and ethnic groups (Watson et al., 2015). Familial melanoma is a genetic or inherited condition in which the risk of melanoma can be passed from generation to generation in a family (Soura, Eliades, Shannon, Stratigos, & Tsao, 2016). African Americans are usually diagnosed at an advanced stage when the disease has progressed (Fillon, 2016). African Americans need to be made aware of the importance of detection and screening because skin cancer is more aggressive when it manifests and leads to a higher incidence of death in this population (Kelly et al., 2014).

Misconceptions of melanoma risk in black populations are common among the general public, but especially among African Americans who are less educated about



melanoma (Goldenberg, Vujic, Sanlorenzo, & Ortiz-Urda, 2015). Fillon (2016), Lunsford et al. (2018), and Watson et al. (2015) stated that this population is likely to have erroneous beliefs about their skin cancer risks and be less likely to use sun protection strategies because they perceive their risk of developing skin cancer to be low due to their darker skin tone and/or lack of family history. Therefore, investigating African Americans' beliefs and perceptions regarding skin cancer will help increase understanding of what they believe. Robinson et al. (2016) found patients' cognitive and affective feelings of vulnerability and perceptions of being at risk to developing skin cancer may vary depending upon their gender, race, or ethnicity, especially African Americans and Hispanics. In addition, this phenomenon was studied by Goldenberg et al. (2015) who conducted a qualitative review of the literature to explain the difference in melanoma severity and survival in African Americans in the United States in which they identified a lack of public education in the black community regarding skin cancer. They recommended that education be increased by conducting health fairs and seminars/workshops for the public and physicians.

Little research has been conducted on African American perceptions, beliefs, and attitudes of developing skin cancer. Therefore, the perceptions and beliefs of African Americans need to be further studied because of the high mortality rate and aggressiveness of melanoma in this population. The findings of this study may help to increase knowledge of skin cancer prevention in the African American community, which may lead to decreased mortality rates and result in positive social change.

## Problem Statement

There is limited research on the beliefs and perceptions of African Americans about their risk for developing and preventing skin cancer. African Americans are at greater risk for developing skin cancer and have a higher mortality rate than other races due to lack of awareness (Batterham et al., 2016). Similarly, it has been found that black communities receive less public education on skin cancer and prevention than other communities (Goldenberg et al., 2015). I reviewed the literature from 2015 to 2019 using the key words *beliefs, attitudes, perceptions, and skin cancer in African Americans* which did not identify why African Americans are not concern with taking preventive measures against skin cancer. There is limited available evidence that explains if there is a lack of awareness of skin cancer or why prevention strategies are not followed by this population; therefore, this topic needs to be studied further to gain an understanding of African Americans' beliefs and perceptions of skin cancer and prevention.

Most African Americans believe that they cannot develop skin cancer due to their dark skin tone (Lunsford et al., 2018). Kleier, Hanlon, and MacDougall (2017) suggested that African Americans' perceptions and risk of developing skin cancer because of their skin tone needs to be explored due to their high mortality rate. African Americans have misconceptions about skin cancer, which causes delays in diagnosis and the decision to not use sunscreen to prevent skin cancer (Elmets, 2014). Chao et al. (2017) found African Americans' mortality rate is increasing and recommended that further studies need to address African Americans' perceptions of developing skin cancer to gain an understanding of why they do not think they are susceptible to developing it. Although

melanoma is more common in non-Hispanic Whites, ethnic minorities face a greater risk of melanoma-related mortality, which is attributed to lack of awareness (Chao et al., 2017). To address this issue and the gap in the literature, I conducted this study to gain an in-depth understanding of skin cancer risk perceptions and beliefs among African Americans.

### **Purpose of the Study**

The purpose of this qualitative study was to gain an understanding of African Americans' beliefs and perceptions regarding skin cancer. This understanding may lead to strategies that can prevent skin cancer or lead to earlier diagnosis. By gaining an understanding of this populations' beliefs and perceptions, healthcare providers may be able to increase African Americans awareness of skin cancer and its prevention.

### **Research Question**

What are African American's beliefs about their personal susceptibility to the risk of developing skin cancer and preventing skin cancer?

### **Theoretical Foundation**

The theoretical framework for this study was the HBM created by Rosenstock (1974). Rosenstock developed the HBM to examine the health behaviors in individuals. The model is focused on the idea that the threat or fear of disease is a predictor for positive health behaviors (Rosenstock, 1974). According to this model, individuals need to believe they are susceptible to developing a disease in order to prevent the disease (Rosenstock, 1974). The HBM is commonly used in the healthcare field to explore innovations in health promotion and disease prevention (Tomey & Alligood, 2002).

The HBM guided this study by assisting me to explore the beliefs of African Americans regarding skin cancer to possibly help develop prevention programs in the future. Rosenstock's (1974) HBM helped facilitate this study by helping to provide foundations for interpreting the data gathered from interviews. In the HBM, individuals' beliefs about health issues, perceived benefits of action and barriers to action, and self-efficacy explain their engagement or lack of engagement in health-promoting behavior (Rosenstock, 1974). I will provide more details on the HBM in Chapter 2.

### **Nature of the Study**

In this study, I used a basic qualitative approach (see Merriam & Tisdell, 2016) to explore African Americans' beliefs about developing skin cancer. I conducted this study to seek a better understanding of African Americans' beliefs and perceptions regarding skin cancer and prevention. I conducted telephone interviews to collect data from African American participants' beliefs regarding skin cancer. The knowledge gained from this study may be useful in implementing educational programs based on African Americans' perceptions of skin cancer.

A qualitative researcher performs many roles; one of those roles is to record the culture, perspectives, and practices of the people under study in their natural settings (Creswell, 2013). In addition, the qualitative researcher needs to be able to describe their study, identify any bias and assumptions, and share their experience to qualify as a researcher (Creswell, 2013). Merriam and Tisdell (2016) stated that when interviewing, researchers should keep a journal and ask probing questions to help build a picture using ideas and theories from an array of data sources.

## Definitions

*African American:* A person having origins in any of the Black racial groups of Africa (Centers for Disease Control and Prevention [CDC], 2013).

*Beliefs:* Another word for faith, which holds a high regard for the perceived truth or nature of God (Harvey, 1992).

*Culture values:* A set of values and beliefs that individuals naturally learn through education and socialization that are recognized and shared by the members of a society (Langton, 2018).

*Health behaviors:* Actions to maintain, attain, or regain good health or to prevent illness (Vickers, Conway, & Herving, 1990).

*Perception:* The act of becoming aware of something; a spiritual awareness or understanding of something considered general in nature (Kalderon, 2015).

*Skin cancer:* The uncontrolled growth of abnormal skin cells that occurs when unrepaired DNA damage to skin cells triggers mutations or genetic defects that lead the skin cells to multiply rapidly and form malignant tumors (Skin Cancer Foundation, 2015).

*Skin cancer screening:* An evaluation of the skin by a medical provider to assess changes to the skin (Kailas et al., 2016).

*Susceptibility:* The state of being a member of a population who is at risk of becoming infected by a disease (Carcioppolo, 2016).

### **Assumptions**

The primary assumption I made in this study was that African Americans would desire to prevent skin cancer and want to be aware about their risks for developing skin cancer and the preventive measures for skin cancer but that they are not willing to take measures to prevent skin cancer or get diagnostic work-ups. Another assumption was that the participants would speak openly about their perceptions and beliefs toward skin cancer. I assumed the participants in this study would answer the interview questions in an honest and candid manner and have a sincere interest in participating in the research study.

### **Scope and Delimitations**

I conducted this study with a population of adult African Americans attending a local church in the southeastern United States as participants. African Americans aged 18 years old or older were recruited to participate in this study. The purposive sampling method was used to recruit study participants. The inclusion criteria were participants had to be aged 18 years old or older (there were no participants under the age of 18 years old because individuals younger than this age are considered a vulnerable population), no other race than African American, and have no history or family history of skin cancer. If the participants had a diagnosis of dementia or Alzheimer's (verified via demographic questionnaire) they were excluded from the study; it would have been very difficult to collect data from them due to their confusion and cognitive impairment and the data obtained may not have been accurate.

I chose the basic qualitative approach because this approach helped me to focus on understanding individuals' beliefs and perceptions from their experiences (see Merriam & Tisdell, 2016). The scope of this basic qualitative study was to identify themes related to the African American participants while understanding their beliefs and perceptions about their risk of developing skin cancer. Consideration was given to other qualitative methods, such as ethnography and grounded theory. An ethnography approach seeks to understand the cultural experiences of individuals, while grounded theory, on the other hand, is a methodology of developing inductive theories in gathering and analyzing data (Creswell, 2013). Neither of these methods were appropriate for this study because I sought to understand individual experiences that would lead to the African American participants' beliefs and perceptions regarding skin cancer. Therefore, Merriam and Tisdell's (2016) basic qualitative narrative approach was the most suitable for this study.

I chose to use Rosenstock's (1974) HBM as a theoretical framework for this study. I had considered using Vygotsky's (1978) sociocultural theory to help explore the African Americans' cultural beliefs. Vygotsky's theory is commonly used to understand the role of social interaction in the development of cognition, in which it places emphasis on culture affecting cognitive development. Vygotsky's theory is connected to Rosenstock's model because the sociocultural approach provides researchers with a more informed view and understanding of the motivations that cause a person to behave in a way. Vygotsky's theory could have possibly helped facilitate this study in determining the level of knowledge and understanding of African Americans' beliefs and perceptions

about their personal susceptibility to the risk of developing skin cancer. Vygotsky's theory may have also helped in understanding the complex interactions associated with individuals learning in the environment. I did not choose Vygotsky's theory because it focused on children's learning, although the principles hold true for learners of all age groups. I chose to use Rosenstock's HBM to guide this study because it was widely used to plan for and change unhealthy behavior and promote health (see Khodaveisi, Omid, Farokhi, & Soltanian, 2017).

### **Limitations**

There were several potential limitations of this study. One limitation of this study was only focusing on African American participants that attended a specific church located in the southeastern United States. I chose the South as the location of the study because the states in southern latitudes have the highest death rates for melanoma due to being closer to the sun than the north, which is industrialized (see CDC, 2016a). To possibly reduce this limitation, I could have included both northern and southern states in the study. This limitation could be addressed in future research exploring the beliefs and perceptions of all areas of the United States.

Another limitation of this study was my affiliation with the community, racial identity, and social background under study. As a resident in the community, I have some prior knowledge of the participants' beliefs and perceptions of the risks of developing skin cancer before conducting research. My status as a survivor of skin cancer, particularly melanoma, means that my perceptions and beliefs may be biased with that of other participants. To address this limitation, I used a personal journal to record



my opinions and thoughts regarding the use of sun-protective measures. This process allowed me to bracket my beliefs, values, and ideas so that my preconceptions were separated from the research process.

### **Significance of the Study**

The findings from this study may help healthcare providers to better increase their knowledge about skin cancer and educate African Americans about their risk of developing skin cancer by providing health fairs or other educational opportunities in the African American community. Skin cancer prevention strategies developed from the results of this study and provided to the African American community may help reduce the mortality rates of skin cancer. The results from this study may help facilitate social change by revealing reasons why African Americans need to participate in skin care prevention programs once there is an understanding of their perceptions and beliefs. This may also lead to the development of programs that increase awareness and knowledge of skin cancer in the Black community because it is crucial to detect skin cancer early, when it is easiest to treat and most likely to be cured (see Wich et al., 2011). The Skin Cancer Foundation (2014) recommended that everyone practice monthly head-to-toe self-examination of their skin so that they can find any new or changing lesions that might be cancerous or precancerous. Skin cancers found and removed early are almost always curable (ACS, 2018).

Given this, nurses may be able to shift African Americans' beliefs by providing skin cancer knowledge and increasing awareness in their community. Nurses can play an important role in helping shift the beliefs of African Americans that they are not at risk

for developing skin cancer (Lunsford et al., 2018). Understanding the perceptions of skin cancer among African Americans may impact their lives by developing culturally sensitive programs to educate this population on skin cancer prevention, which will help in reducing the incidence and mortality rates of skin cancer and affect positive social change (Robinson et al., 2016).

Skin cancer can affect African Americans in several ways, such as emotionally, mentally, and physically (Gupta, 2014). Understanding the beliefs and perceptions of African Americans' risk of developing skin cancer may help influence them to participate in skin cancer screening and skin cancer prevention strategies (Bagatti, Englert, & Cline, 2016). The data collected in this study may help to develop prevention programs that will provide strategies for African Americans to prevent skin cancer (Bagatti et al., 2016). The goal of this study was to provide insight into what African Americans think about skin cancer and their risk of developing the disease. In addition, the findings add to the body of knowledge by addressing the existing gap in the literature on the health beliefs of African Americans related to skin cancer, thereby increasing the awareness of skin cancer in this understudied population (see Lunsford et al., 2018). This study may help promote positive social change in health promotion while reducing the incidence and mortality rates of skin cancer in African Americans (see Batterham et al., 2016).

### **Summary**

In Chapter 1, I provided a brief synopsis of the impact of skin cancer on African American adults and the importance of skin cancer screening and knowledge. African Americans are more susceptible to developing skin cancer due to risk factors, such as

ignoring preventive measures and lack of awareness and education (Lunsford et al., 2018). The main objective of this study was to assess the beliefs and perceptions of African Americans regarding skin cancer. Although the CDC has undertaken a national health communication campaign designed to reach adolescents and adults and influence their attitudes, behaviors, and social norm related to skin cancer prevention, skin cancer is increasing globally (Jorgensen, Wayman, Green, & Gelb, 2000). Nurses, physicians, politicians, and leaders in the community must continue to play a vital role in establishing and implementing safe sun practice for all individuals. In Chapter 2, I will review the extant literature to provide an understanding of African Americans' beliefs and perceptions regarding skin cancer and prevention as well as discuss the previous scholarly use of Rosenstock's HBM.

## Chapter 2: Literature Review

### Introduction

African Americans have a higher mortality rate after developing skin cancer than other populations due to lack of awareness, late diagnosis, and ignoring prevention strategies (Watson et al., 2015). Most extant research studies have focused on skin cancer and skin cancer prevention related to European Americans and other ethnicities. Few research studies have been conducted to understand African Americans' beliefs and perceptions related to skin cancer. In the United States, African Americans have the highest mortality rate of skin cancer than any other race (Watson et al., 2015). Skin cancer is more aggressive in African Americans, which leads to a higher mortality and incidence rate and makes it more concerning for this population (Kelly et al., 2014). Gupta (2014) stated that, although melanoma in dark-skinned people is rare, it is highly lethal. Most melanoma research is done on European Americans, so the reasons for disparities are unknown (Gupta, 2014). It is still unknown why African Americans do not participate in preventive measures for skin cancer. The purpose of this qualitative study was to gain an understanding of African Americans' beliefs and perceptions regarding skin cancer to help reduce the mortality rates in this population by increasing their awareness of this cancer and prevention strategies.

In Chapter 2, I present the literature search strategy, theoretical foundations, the conceptual framework, and a review of literature related to the topic under study. The literature review is divided into the following major sections: skin cancer knowledge;

beliefs and perceptions of acquiring skin cancer; skin cancer prevention; and racial differences, such as education and treatment.

### **Literature Search Strategy**

I conducted a search of the extant literature the databases of Sage Online Journal, Medline, CINAHL, PubMed, Cochrane, and Academic Search Premier. I focused my search on literature and articles published from 2012–2018 using the following key words: *minority, skin cancer, skin cancer screening, skin cancer prevention, knowledge, beliefs, and perceptions.*

### **Theoretical Foundation**

The HBM is a theoretical model that can be used to guide health promotion and disease prevention programs. This model was developed to explain and predict individual changes in health behaviors (Rosenstock, 1974). In this study, the HBM provided me with a framework focused on individual health behaviors and explaining how personal beliefs may influence participation in preventative behaviors, actions, or services. The HBM is one of the oldest theories used today to explain why people may or may not participate in preventative services such as health screenings (Glanz, Rimer, & Viswanth, 2008). The model focuses on defined concepts or domains of personal perceptions and the influence of those domains on behavioral outcomes (Glanz et al., 2008).

The HBM was originally created to help explain and predict health behavior and was developed in the 1950s by social psychologists Rosenstock, Hochbaum, Kegels, and Leventhal at the U.S. Public Health Service in response to a widespread failure of the

tuberculosis screening program (Rosenstock, 1974). The model consists of six constructs: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy (Rosenstock, 1974). These constructs are used to explain or predict why people will act to prevent, control, or screen for a disease (Rosenstock, 1974). Perceived susceptibility addresses beliefs about the chances of getting a disease or experiencing a risk toward getting a disease (Rosenstock, 1974). Perceived severity is the belief regarding the level of seriousness toward a health condition or a behavior (Rosenstock, 1974). Perceived benefits are the beliefs a person holds regarding the efficacy of the advised action to reduce risk or seriousness of impact (Rosenstock, 1974). Cues to action are relative to strategies capable of activating readiness toward making a change (Rosenstock, 1974). The last construct of the HBM is self-efficacy, which refers to the confidence an individual has in their ability to act toward abstaining from a health behavior (Rosenstock, 1974; see Figure 1).

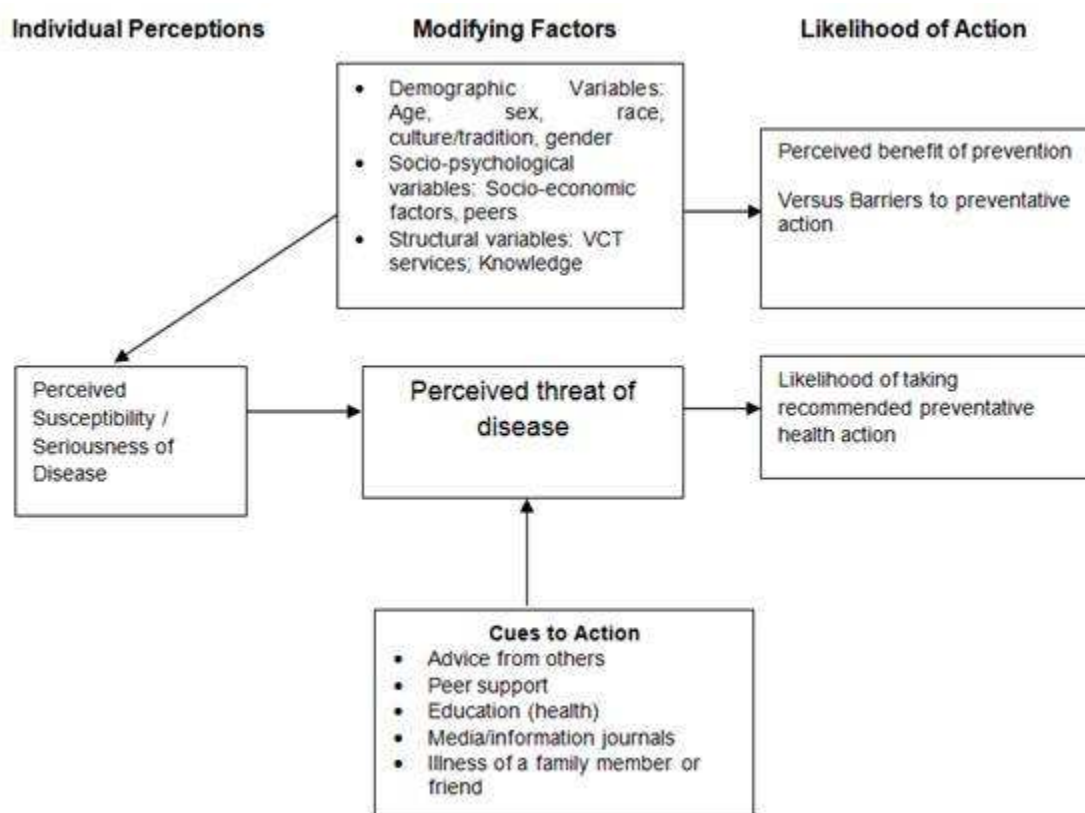


Figure 1. Constructs of the health behavior model (Glanz et al., 2008)

With a major focus on the attitudes and beliefs of individuals with respect to their actions regarding their health, the HBM includes many components that can help healthcare providers address individuals' current health issues and the types of intervention programs available to deal with them.

The HBM has been previously used in studies on prostate cancer, strokes, and breast cancer (Anderson et al., 2011; Darvishpour, Vajari, & Noroozi, 2018; Kleier, 2010). Kleier (2010) conducted a study to determine which of the selected constructs of the HBM (i.e., perceived susceptibility, perceived benefits, and perceived barriers) were predictors to the intention of Haitian men regarding prostate cancer screening. Perceived

benefits were found to have a predictive relationship to Haitian men's intent to screen for prostate cancer (Kleier, 2010). The findings could be utilized by nurses and other healthcare professionals to generate and implement culturally appropriate interventions (Kleier, 2010). Kleier stated those interventions could possibly help decrease the morbidity and mortality rates of prostate cancer among Haitian men in Haiti and abroad.

Anderson et al. (2011) also used HBM to motivate compliance to seek healthcare services after community stroke risk screenings of the following major risk factors for stroke: elevated total cholesterol, elevated non-fasting blood glucose, hypertension, transient ischemic attack symptoms, and smoking status. Participants who completed their study were randomized into one of two groups, with 227 completing the study (i.e.,  $n = 126$  intervention;  $n = 101$  control). The intervention group received an HBM-based motivational intervention in the month following the screening, and both groups received a 1-month and 3-month follow-up phone interview. Using the HBM-based intervention, the intervention group was 1.85 times more likely to seek healthcare services than the control group, with 69% reporting a visit to a primary care physician as opposed to 52% of the control group (Anderson et al., 2011).

Darvishpour et al. (2018) conducted a study to determine the predictors of breast cancer screening behaviors based on the HBM. The study involved 304 women ranging from 20 to 65 years of age, living in North Iran in 2015 using cluster sampling and Champion's Health Belief Model Scale. The overall findings of their study showed that self-efficacy, perceived benefits, and perceived barriers could predict breast self-examination behavior and the perceived benefits and barriers could predict



mammography. The authors determined that educational interventions must be considered to improve health behavior as skills for breast self-examination.

I used the HBM to guide this study and help formulate interview questions to elicit responses from the participants regarding their health behaviors. In the HBM, it is recommended that for individuals to have a positive health behavior experience, the individual must maintain certain beliefs (see Rosenstock, 1974). In terms of this study, these beliefs were the belief that the individual is susceptible to skin cancer; the belief that occurrence of skin cancer will have at least a moderately severe impact on their life; the perception that skin cancer screening will have beneficial effects, such as reducing the worry about skin cancer and increasing the chance of finding skin cancer; and the perception that skin cancer screening will not entail overcoming important barriers, such as cost, inconvenience, or pain (see Rosenstock, 1974).

### **Literature Review Related to Beliefs, Behaviors, Risk Factors, and Awareness**

I begin this section with a review of the prevalence of skin cancer. It will then continue with a discussion of the disparities of skin cancer, behaviors regarding skin cancer, skin cancer awareness, African Americans' beliefs, risk factors of skin cancer, and prevention strategies for skin cancer. These topics were explored to gather information as to why African Americans are less likely to protect themselves from the sun.

### **Disparities of Skin Cancer**

Skin cancer is one of many disparities in African American communities. Daves, Tsai, Gittlemen, Barnholtz-Sloan, and Bordeaux (2016) found that a serious disparity

existed in melanoma diagnosis and outcome for White patients compared to Blacks. Although Whites had the highest incidence rate of melanoma compared with their Black counterparts, they also had better overall survival outcomes; the survival rates for European Americans is 91% compared to 77% in African Americans (Mahendraraj et al., 2017). Daves et al. (2016) study has shown that there is a difference in health maintenance screening frequency based on race. Pichon et al.'s (2010) study on skin cancer screening showed that White patients were found to have received more skin examinations. Pichon et al. also found the perceived skin cancer risk among African Americans was low, with 46% reporting zero skin cancer risk and 76% perceiving zero or low risk. It was also determined that there was a lack of a relationship between perceived skin cancer risk and sunscreen use, which reflects African Americans' low knowledge about the value of sunscreen use (Pichon et al., 2010). This consistent disparity across different cancers showed that a serious gap exists in healthcare. Parsons et al. (2018) proposed that providing additional education on skin cancer screening is very important in areas where high mortality rates from melanoma are present.

### **Behaviors Regarding Skin Cancer**

Bagatti et al. (2016) examined the proposition that education can affect individuals' attitudes and behaviors regarding melanoma. They hypothesized that 19 women would change their behavior if they knew about the risks of skin cancer. They disseminated information about melanoma to a convenience sample of 72 women college athletes and then tested them 6 months later regarding their knowledge, attitudes, and behaviors. Bagatti et al. found that the women exhibited significant improvement in

attitudes about and knowledge of skin cancer as well as healthy behaviors. This research underscores the need to educate the public about skin cancer and the effectiveness of informed preventive programs (Tripp et al., 2016).

Furthermore, Volkov, Dobbison, Wakefield, and Slevin (2013) conducted a longitudinal study based on a surveys provided to Australians aged 12 to 69 years old who indulged in sun-tanning behavior over the 7-year period of 2003/2004 to 2010/2011 to gain a more detailed assessment of their compliance with sun-protective behaviors and sun-related attitudes. Their results indicated improvements over time regarding skin cancer prevention attitudes and behaviors due to educational and prevention programs.

### **Skin Cancer Awareness**

Lack of awareness about skin cancer within communities of color has been highlighted as a factor contributing to advanced presentations and poor prognosis. Informational commercials about skin cancer are primarily geared toward Caucasians rather than African Americans (Kailas et al., 2016). Kailas et al. (2016) identified a gap in a systemic review of knowledge, practice, and patient outreach concerning the risk of skin cancer in people of color. African Americans have a false belief that darker pigmentation means there is no risk of developing skin cancer. Kailas et al. agreed with other researchers that skin cancer awareness needs to be increased in the African American population. Kailas et al. proposed the misconception may be rectified by raising awareness through use of social media for the risk of skin cancer among African Americans and to increase ultraviolet ray protection, skin cancer screenings and exams (Kailas et al., 2016). It was suggested by Kailas et al. that collaborations should be

formed with healthcare advocacy groups and politicians to petition to implement skin cancer prevention programs for African Americans. Similarly, Fillon (2016) identified a common misconception of the public regarding skin cancer in minority population is they have erroneous beliefs about their skin cancer risk. Kelly et al. (2014) found African Americans are at-risk groups who are less aware of the importance of skin cancer prevention. Awareness must be raised in the African American population to improve survival outcomes.

### **Increasing Awareness**

Healthcare professionals such as nurses and physicians are in an ideal position for increasing public education and awareness of skin cancer screening for all populations, but they are failing to do so. Parsons et al. (2018) proposed there is a need for further skin cancer prevention education, particularly regarding avoidance of skin cancer risk behaviors and the potential benefits of skin cancer screening. Parsons et al. suggested additional studies are needed to identify what barriers to avoiding risk behaviors and facilitators to engaging in sun protective behaviors exist so that education campaigns and interventions can benefit from knowing both how individuals adhere to a sun protection regimen and what makes it more difficult or easy for them to do so. Thus, primary care providers and dermatologists need to effectively coordinate early screening and detection of melanoma for all patients, as well as specialized interventions for patients diagnosed with melanoma. The coordination of services between primary care practitioners and dermatologists has sparked a debatable discussion. Most primary care providers lack adequate training when performing full body skin examinations which makes them feel

uncomfortable detecting skin cancers (Shelby, 2014). With the growing transformation of preventative measures in healthcare, full body skin examinations will become an integral part of preventative care. Digital tools, such as a full body skin examination tool, along with education and training on how to integrate skin examinations into routine examinations are needed to improve early screening and detection of melanoma in the general population. The training can provide primary care clinicians with the ability to perform an accurate full body skin examination, assess evolving suspicious pigmented lesions and coordinate care with dermatologists according to their findings. In 2000, the Institute of Medicine issued a statement strongly recommending physicians to be aware of the signs and symptoms of melanoma especially in older men. Until recently, there were limited statistics regarding melanoma across the United States since the 2006-2011 report from the CDC.

### **Screening for Skin Cancer**

The U.S. Preventative Services Task Force (USPSTF) did not endorse population-based screening for skin cancer due to lacking randomized trials (Goulart et al., 2011). USPSTF last reviewed melanoma and non-melanoma skin cancers screening evidence in 2009. The USPSTF proposed that there was insufficient evidence to implement guidelines for routine screening for skin cancer using a full body skin examination in primary care for early detection of melanoma and non-melanoma skin cancers. This report identified gaps in inadequate examinations by primary care providers during routine care and lack of evidence that links screening to improved health outcomes. According to the USPSTF, the suggestion for practice was to remain alert to skin lesions

with malignant features when performing physical exams such as asymmetry, border irregularity, color, variability, and diameter > 6mm. It also recommended that any suspicious lesions be biopsied. More recent studies have suggested that self-screening and educational programs should be integrated with a skilled skin examination into routine examinations in primary care. It is suggested that early screening and detection in primary care could reduce the incidences of advanced melanoma, especially in vulnerable groups (Koh & Geller, 2011). Since the incidence of melanoma is continuing to rise, skin cancer prevention goals have become the top priority of the USPSTF. As a result, skin cancer prevention goals have been added as a national goal on the Healthy People 2020.

### **Reducing Rates**

One of the objectives of Healthy People 2020 is to reduce the melanoma cancer rate. According to Healthy People 2020 cancer objectives (2014): The target is to decrease overall melanoma rates by 2.4% per 100,000 populations about a 10% decrease. In order to complete this task, behaviors related to harmful sun exposure, ultraviolet (UV) radiation and sunburn need to be changed, specifically in adolescents. The target is to decrease melanoma by 10% or a target rate of 33.8% overall for the total population and reduce the risk of melanoma from 9.3% in 2009 by 11.2%. By continuing to improve the national goals of Healthy People 2020, this will potentially give African Americans a guide to improve skin cancer preventive measures.

### **African American's Beliefs**

Little is known about African American's beliefs regarding skin cancer, yet culture can contribute to the way in which people understand, explain, and develop their

attitudes toward skin cancer. Cancer prevention and early detection strategies may not be sensitive to African American's view affecting their awareness of risk factors and early detection services (Mulugetu, Williamson, Monks, Hack, & Beaver, 2017). Mulugetu et al. (2017) recommended public health campaigns should focus more on African Americans and their understanding of skin cancer in order to be more effective in reducing health disparity in the African American community.

Many African Americans do not trust their healthcare providers to act in their best interest. Researchers have found that access to medical care, lack of finances, mistrust of physicians, and apprehension about the potential for discriminatory practices, make African Americans less likely to use the medical care system than other racial or ethnic groups (White, Haas, & Williams, 2012). Trust plays a very important role in a physician -patient relationship to address disease and treatment possibilities (White et al., 2012). Mistrust of physicians and the healthcare system goes back to the 18th and 19th centuries when African American slaves were exploited as medical specimens (Feagin & Bennefield, 2014). Many African American men view the need for medical care and treatment as a sign of weakness, which makes them hesitant to seek medical care (Hammond, Matthews, Mohottige, Agyemang, & Corbie-Smith, 2010). A study by Schoenfeld and Francis (2015) showed that healthcare, even if it is a serious condition, may be delayed or stopped due to family financial concerns. Culture views of African Americans shape their way of thinking and understanding of skin cancer and prevention strategies. Cummings et al. (2013) posited that cultural beliefs and spirituality along with family support are factors that affect how African Americans react to adverse health

events and associated stress. Peek et al. (2012) postulated African American's cultural identity formed through generations of rituals and family values that gave strength and pride in their heritage. Whereas, culture beliefs were identified as shared ideas and values that are socially constructed and learned, not genetically created or transmitted (Smith & Silva, 2011). African Americans' cultural identity and beliefs serve as a lens in which to view life events (Harris-Perry, 2011). Taylor et al. (2011) further defined cultural identity as a self-concept influenced by members of the African American community as a means of self-preservation. Cultural identity along with cultural beliefs continue to evolve with blended and mixed racial unions, discrimination remain an inhibiting factor among African Americans when faced with health issues.

Some researchers have argued that the Tuskegee syphilis study may have had an impact on African American beliefs regarding skin cancer screening and linked the study African American's mistrust of physicians and the healthcare system (Scharff et al., 2010). Scharff et al. (2010) conducted a qualitative study that explored barriers to research participation among African American adults. Mistrust of academic and research institutions and investigators is the most significant attitudinal barrier to research participation reported by African Americans. The Tuskegee syphilis study was an observational study on African American males in Tuskegee, Alabama between 1932 and 1972. The U.S. Public Health Service conducted this study on more than 300 Blacks without notifying the participants about their disease nor treating them even after the intro of penicillin (Reverby, 2017). The Tuskegee syphilis study is widely recognized as a reason for mistrust because of the extent and duration of deception and mistreatment



and the study's impact on human subject review approval (Scharff et al., 2010). Scharff et al. noted that ethnic minority patients received less information, empathy, and attention from their physicians regarding their medical care than their white counterparts. Many of the participants associated the term *medical research* with the term *guinea pig*. African Americans viewed the term guinea pig as negative and felt they were being used to test medications and procedures (Scharff et. al., 2010). Nonetheless, the Tuskegee syphilis study is still the hallmark of medical discrimination and continues to reinforce African Americans distrust of the healthcare system (Scharff et. al., 2010). It was found by Hall et al. (2015) that most healthcare providers appear to have implicit bias in terms of positive attitudes toward Caucasians and negative attitudes toward African Americans. This author suggested that race and ethnically based implicit bias need to be understood and reformed because they may contribute to a lesser quality of care and health inequity and health disparities.

### **Role of Faith**

The African American church is a central place in the African American community where most people go to engage and define values and norms. It is evident that if cultural differences are present but unaccounted for in interventions, attitude and/or subjective norms could be affected to the degree that the individual never moves to intention. Within the concepts of attitudes and/or subjective norms of skin cancer prevention there is no data regarding the African American population in the Mississippi Delta. Many individuals in the African American population turn to faith-based factors such as prayer and faith to help them manage and cope with diseases.

Some individuals believe that faith-based factors may improve their overall health or contribute to better management in healthcare decisions. There are many studies that examine the positive influence that the African American church has on the African American population about promoting better health outcomes (Drayton-Brooks & Whit, 2004). Aaron et al. (2003) conducted a study with 2,196 African Americans from low-income communities for 2 years related to their healthcare practices and the correlation of health practices with faith-based organizations. The authors concluded that screenings such as pap smears and mammograms did increase and may be associated with church attendance. There were increases of 20% to 80% in improved healthcare practices for those attending church. The authors also concluded that the church may be a resource to help improve better health outcomes.

Drayton-Brooks and White (2004) conducted a qualitative study and found African American women were very dissatisfied with their healthcare providers because they failed to find out what they already did or did not know about healthcare. The participants discussed the lack of interest from health educators in understanding the behaviors of people when it comes to healthcare practices and why they do what they do (Drayton-Brooks & White, 2004). Drayton-Brooks and White concluded that faith-based organizations play a vital role in influencing better healthcare practices amongst African American women. Rollins et al. (2018) proposed leaders such as pastors, nurses, and ministries can have great influence in promoting healthcare practices such as prevention, management, and interventions by these leaders are influential in the role of better healthcare practices.

### **Risk Factors for Skin Cancer**

Skin cancer is associated with several risk factors in which some are modifiable, and some are non-modifiable. Modifiable risk factors include sun exposure and smoking. Non-modifiable risk factors include age, personal history, genetics, and moles. Sun exposure is considered a highly modifiable risk factor that can be controlled if people are educated and empowered to use prevention strategies to protect themselves from the sun (ACS, 2016c). Risk factors that cannot be directly controlled by individuals are considered unmodifiable. These include genetics, family history, skin color, and socioeconomic status. It is important individuals are made aware of these risk factors to prevent skin cancer.

Nurses are in an excellent position to promote skin cancer awareness as it relates to modifiable risks by informing and empowering the public which is motivation to conduct this study (Gupta, 2014). Sun exposure is a modifiable risk factor that can be controlled by individuals (Skin Cancer Foundation, 2017). This risk factor can be managed by educating the public to limit their exposure to the sun (Skin Cancer Foundation). The Skin Cancer Foundation (2017) recommended to limit sun exposure by performing prevention strategies such as wearing protective clothing, hats, sunglasses, and sunscreen. Kelly et al. (2014) found African Americans expressed poor sun care behaviors. Most African American participants stated they did not use sunblock or sunscreen because they were African American (Kelly et al., 2014). The findings of that study are concerning and implies African Americans are in a subculture whose communication encourages sun expose behavior (Kelly et al., 2014). African Americans

constitute a broad range of racial and ethnic groups and vary widely in skin tone. Ultraviolet rays exposure is a risk factor for skin cancer in African Americans (Cestari, 2017). Cestari (2017) reported despite the protective mechanisms of melanin, epidemiologic studies have shown that sunburn occurs even in darkly pigmented people of color and ultraviolet rays induced skin damage has been documented in all skin phototypes, from very light to very dark tone. It is also noted that African Americans are at a higher risk of vitamin D deficiency which is a risk factor for skin cancer. The importance of managing sun exposure is vital to preventing skin cancer. Healthcare workers must strive to empower the African American population to participate in prevention screenings.

Genetics can also play a factor in developing skin cancer. Individuals with one or more parents or siblings with skin cancer may be at increased risk, as well as those who have been previously diagnosed with skin cancer. Inherited skin conditions can also increase a person's chance of developing skin cancer. Xeroderma pigmentosum is an inherited disease that affects the skin's ability to repair ultraviolet damage. Kimmel, Taft, and Keefer (2016) conducted a study assessment on patients' risk factors of developing skin cancer and found that patients with a personal and family history of skin cancer tend to address worrying skin lesions with more vigilance and practice better sun protection than those without such histories. These authors further highlighted that one's perceived risk of skin cancer development motivates one to adopt appropriate skin protection strategies (Kimmel et al., 2016).

Certain types of moles can increase one's chance of developing skin cancer. Atypical moles are larger than a pencil eraser and have an unusual shape in color (ACS, 2016d). Having five or more moles puts an individual at a much higher risk of skin cancer compared with the general population (ACS, 2016d). The presence of dysplastic nevi (moles) may also increase the risk of developing skin cancer. ACS (2016d) stated most moles are harmless and may never develop into cancer but having many moles may increase the risk for developing melanoma. Individuals with multiple or irregular moles should have frequent skin examinations by a dermatologist to assess for the risk of developing skin cancer (ACS, 2016d).

### **Prevention Strategies for Skin Cancer**

Skin cancer screenings are invasive and relatively easy to perform which should make it an attractive behavior to adopt to detect skin cancer (Edman & Wolfe, 2000). Despite the exceptional number of recommendations for screening by the American Academy of Dermatology, the National Institutes of Health and the ACS, skin cancer screening remains uncommon in the African American population (Federman, Kravetz, & Kirsner, 2002). Therefore, it is imperative the public health community assess this population to identify and determine those factors that influence African Americans not to participate in skin cancer screenings.

Daves et al. (2016) reported there is a difference in health maintenance screening frequency based on race. Previous studies based on cancer screening recommendations showed that white patients were found to have received more skin examinations than any other race. Daves et al. study showed disparity in screening lowers frequency of early

detection in minority populations, which could lead to later stage incidence.

Furthermore, later stage melanoma has higher likelihood metastasis and higher rates of mortality. Similarly, Edman and Wolfe (2000) stated melanoma detection at early stages by clinical skin examination plays a critical role in saving lives and decreasing healthcare costs. The earlier the diagnosis, the smaller the size of the tumor, the greater the chance of long-term survival, and the less financial burden associated with treatment.

Little is known about skin cancer risk perceptions among African Americans and the relationship between such perceptions and sun protective behaviors among this population. Kim et al. (2009) conducted a study and found there was a lack of a relationship between risk perceptions and risk-reducing behaviors. The study reflected African Americans' low knowledge about the value of sunscreen use. Environmental barriers to sunscreen use were low access to sunscreen as a result of the paucity of drug stores and grocery stores in the African American communities (Landrine & Corral, 2009). Sunscreen use is one of the most common protective behaviors for the prevention against skin cancer. Using sunscreen with a sun protection factor of at least 30 reduces the risk of skin cancer. It has been estimated that regular use of sunscreen with sun protection factor of 30 for the first 18 years of life could reduce skin cancer by 78% (Nahar, 2013). Early detection of skin cancer and treating skin cancer in the early and treatable stages is critical to obtain a favorable prognosis.

### **Summary and Conclusions**

Skin cancer is the most common form of cancer in the United States. (Jemal et al., 2007). Public health agencies have made great efforts to change risk behaviors and

promote skin cancer screening. Unfortunately, skin cancer screening continues to be relatively uncommon in certain populations (Edman & Wolfe, 2000). The literature reflects little evidence of research exploring the health beliefs and preventive behaviors of African Americans ages 18 and older. The lack of research in this area requires the need for a study of this type. Promoting health beliefs that support skin cancer screening is vital, and that this may produce positive outcomes for the African American community.

In Chapter 2, I discussed the theoretical foundations and the literature review which consisted of topics such as, skin cancer knowledge, beliefs and perceptions of developing skin cancer, skin cancer prevention, and skin cancer risk factors. In Chapter 3, I will outline the selected methodology for the study, based upon the findings from the review of literature.

## Chapter 3: Research Method

### **Introduction**

The purpose of this study was to seek an understanding of African Americans' beliefs and perceptions regarding skin cancer. In previous studies, researchers have explored skin cancer screening practices among ethnic groups as well as minority and immigrant populations in the United States (Kleier et al., 2017; Watson et al., 2015). However, there are few studies pertaining specifically to the perceptions and beliefs of African Americans in the southeastern United States regarding skin cancer preventions and factors that are barriers to skin cancer screening.

In this chapter, I discuss the research design and rationale, role of the researcher, methodology, and issues of trustworthiness. This chapter will include a discussion of the basic qualitative approach used in this study. There is no correct research method to choose, but the method chosen should best suit the goals of the study and provide the best results.

### **Research Design and Rationale**

The following research question guided this study: What are African Americans' beliefs about their personal susceptibility to the risk of developing skin cancer and preventing skin cancer? I identified a gap in the literature as to understand why African Americans are not engaged in preventative care from developing skin cancer. The research question drove this study and interview questions were used to gather the data needed to answer the research question.



In this study, I used a basic qualitative research approach to identify the beliefs and perceptions of African Americans regarding skin cancer (see Merriam & Tisdell, 2016). A basic qualitative research approach enables researchers to explore participants' common experiences (Merriam & Tisdell, 2016). Basic qualitative research was the most appropriate research design for this study due to the need to understand the experiences of the participants (see Merriam & Tisdell, 2016). In basic qualitative research, the researcher's goal is to determine the perspectives of those who share an experience and to understand the perspectives related to those shared experiences (Merriam & Tisdell, 2016). Basic research is an exploration of the perceptions shared by a group of people in response to a specific situation or experiences and allows researchers to identify patterns or themes without developing a theory (Merriam & Tisdell, 2016). Researchers who employ the basic qualitative approach can develop an understanding of participants' responses through an encounter (Merriam & Tisdell, 2016). Qualitative research involves the collection of data, solicitation of participants, and formulation of procedures (Rudestam & Newton, 2014). In qualitative research, detailed descriptions from participants' perspectives are used as a means for examining specific phenomenon or issues under study and are helpful in exploring a phenomenon by empowering individuals to share their stories and hear voices (Rudestam & Newton). According to Gagliardi and Dobrow (2011), qualitative methods allow complex issues to be studied and can produce rich data on perceptions, beliefs, experiences, and behaviors that can enhance in-depth understanding of a problem and how it could be resolved. Qualitative research contributes to social justice when researchers advocate for the principles of equity, access

participation, and harmony for culturally diverse populations (Lyons et al., 2012). The results and findings of this study could possibly lead to an understanding of the beliefs of African Americans related to skin cancer. Qualitative traditions have been used in exploring culturally informed views about cancer screening and differences between younger and older Somali immigrant women (Raymond et al., 2014).

Creswell (2013) identified five major qualitative research designs: narrative, phenomenology, grounded theory, ethnographic, and case study. A basic qualitative approach seemed more appropriate for this study than other approaches because of its focus on meaning and understanding (see Merriam & Tisdell, 2016). This approach also focuses on purposeful sample data collection via interviews and presenting the findings as themes or categories (Merriam & Tisdell, 2016). For this study, a basic qualitative approach was the most suitable option for understanding the beliefs and perceptions of African Americans regarding skin cancer rather than use other approaches that focus on the essence of an experience, in-depth analysis, people's stories, and/or fieldwork (see Merriam & Tisdell, 2016).

### **Role of the Researcher**

My role as the researcher was to recruit and interview the participants, analyze and store data, and develop an interview guide to use to collect the data (see Creswell, 2013). I was responsible for collecting data from participants using techniques such as interviews and observations. Once data were collected, I organized, extracted, and sorted the data to identify similar patterns, phrases, or themes (see Vaismoradi et al., 2013). I

used NVivo 11 software to organize uploaded voice recording transcription files for easy retrieval and to keep the data confidential.

Question bias and data interpretation bias can influence the outcome of the study (Creswell, 2013). Bias can be introduced by the way the researcher phrases the questions, which could cause the participants to say what the researcher wants them to say (Creswell, 2013). I controlled for question bias with the use of an interview guide, which provided consistency and accuracy. With the interview guide, I was able to check for biased questions and either eliminate or rephrase them. Since I was the main instrument for data collection in this qualitative study, I was able to control for biased questions (see Creswell, 2013). By using this method, I was able to eliminate personal opinions, judgement, and any stereotypes that may have influenced the findings of the study (see Creswell, 2013).

I submitted an application for the Walden University Institutional Review Board (IRB) to review so I could address any ethical issues surrounding this study. The ethical treatment of participants requires that the privacy and confidentiality of participants remain a priority throughout the study (Creswell, 2013). Participants received confidentiality agreements to review and sign before participating in this study. Ethical qualitative research protects participants from adverse consequences, primarily through confidentiality agreements (Pollock, 2012).

### **Methodology**

In this section, I describe the research methodology selected to understand the beliefs and perceptions of African Americans' susceptibility to the risk of developing

skin cancer. I used a basic qualitative approach to help obtain rich data from interviews of African American adults attending church in a southeastern African American community (see Merriam & Tisdell, 2016).

### **Participant Selection Logic**

I used purposive sampling to recruit participants for this study who were African American adults and a member at one of several African American churches in the southeastern United States. The church is a community resource and an acceptable venue for reaching African American residents, including those at greatest risk for poor health outcomes (Lumpkins et al., 2013). An important aspect of the population is having participants who are African Americans who never had a diagnosis of skin cancer in order to understand why African Americans think they are susceptible to developing skin cancer. The inclusion criteria for this study included age (i.e., 18 years of age or older) and race (i.e., African American). I invited individuals to participate in the study by having the church's secretary post an invitational flyer posted to the church's announcement page on the church's website. Once the individuals agreed to participate, I screened them to see if they qualified (see Appendix A).

The sample size in a qualitative study is usually smaller than any other research method (Creswell, 2013). The targeted sample size for this study was based on a study conducted by Vasileiou, Barnett, Thorpe, and Young (2018). These authors found that provision of sample size justifications in qualitative research is limited and is not contingent in the number of interviews. I conducted up to 10 interviews; classified, coded, and analyzed the data; and then checked to see if saturation had been reached,

finding that it had been reached. Manual coding was used to help identify themes, whereas a coding log was used to help categorize themes and patterns that emerged. Vasileiou et al. proposed two main principles regarding the specification of saturation, that it be based on (a) an initial analysis sample (e.g., up to 15 interviews), which would be used for the first round of analysis, and (b) a stopping criterion, which is a number of interviews (e.g., 3) that needs to be further conducted, the analysis of which will not yield any new themes or ideas. If saturation would not have been reached, I would have interviewed an additional three more participants and analyzed the data. If saturation was still not reached, I would have consulted with my chair and committee to discuss options to help me reach data saturation. I followed the principles of Vasileiou et al. regarding sample size, data analysis and saturation. The concepts of saturation should be the guiding principles for sample size in qualitative research (Saunders et al., 2018). Saturation is reached when responses to the interview questions are similar from multiple participants, and themes derived from the data are repeated and no new themes derive (Moser & Korstjens, 2018).

### **Guiding Questions/Interview Protocol**

The data collection method I used for this study was one-on-one telephone interviews, which took the form of open-ended questions formulated in a semistructured interview protocol derived by me as the researcher (see Appendix B). The open-ended questions were designed to invite the participants' opinions and personal views on the topic. Interview guides ensure the investigator does not get off course and establishes consistency and trustworthiness throughout the interview process (Castillo-Montoya,

2016). I asked the same semistructured interview questions to all participants. I also posed probing questions to encourage participants to offer additional information when their first answer was short. For example, I would say “tell me more about your sun protection strategies” or “explain to me why you should use sun protective measures when going outside.”

### **Procedures for Recruitment, Participation, and Data Collection**

**Recruitment.** The initial contact with potential participants was via the church announcement page on their website. I gave the invitation flyer with inclusion criteria to the church secretary to post it to the announcement page on the church’s website. When members decided to participate in the study, they contacted me by phone using the phone number provided on the flyer.

**Screening.** Once a potential participant reached out to me via phone, I explained the purpose of the study to them. Once the individual voiced their interest, I used the inclusion criteria guide to ensure that they met the criteria for the study (see Appendix A). Purposive sampling was used for this study because it results in the intentional selection of a participant due to the specific qualities that the participants possesses (see Lewis & Shepard, 2006). The purposive sampling method is a nonrandom technique that does not require underlying theories a set amount of participants (Lewis & Shepard, 2006). The screening was completed in order to reduce participant burden. Once the individual was screened using the screening tool, I determined if the criteria had been met to participate in the study. If the criteria was met and the individual agreed to participate in the study, I scheduled a telephone appointment at a time convenient to them for the

interview and requested the informed consent form be read and sent back via e-mail along with a reply of “I consent.”

**Data generation.** Once the participant had been screened and agreed to participate in the interview, I called them at a convenient time to conduct the interview. Prior to beginning the interview, I reviewed the purpose of the study, obtained information to complete the demographic questionnaire (see Appendix C) in order to describe the sample, and answered any questions the individual had. Once all questions were answered, I obtained informed consent via e-mail. After informed consent had been obtained the telephone interview began the semistructured questions were asked. I estimated that the interviews would last approximately 30 minutes.

I interviewed up to 10 participants, and then analyzed the data from the interviews. Vasileiou, et al., (2018) suggested that researchers should specify an initial analysis sample (e.g. up to 15 interviews) which will be used for the initial round of analysis. If saturation was not reached, I would have interviewed an additional three more participants and code the data into categories based on the coding schemes I had developed to determine if I had reached saturation. That process would have been repeated until saturation was reached. Once saturation had occurred, a summary of the findings was created, whereas the data were recorded and transcribed verbatim. If for some reason saturation was still not reached after the additional three interviews, I would have consulted with my chair for guidance to reach data saturation. Data saturation occurs when the researcher no longer hears or sees a new pattern or obtains additional information during the research process (Fusch & Ness, 2015).

Each telephone interview was recorded on an Olympus digital voice recorder, model# VN-7100. During the interview, a preformatted interview guide was used in eliciting relevant information (see Appendix B). Once the interview was completed, the participant was asked for any concluding comments. I informed the participants the data would be saved for five years and then destroyed per Walden University's policy. I thanked the participants for their valuable time, for sharing their beliefs and perceptions of skin cancer and for their willingness to participate in my study. I informed the participants they could reach out to me at any time if they had questions or concerns related to the research process.

**Data analysis.** The data analysis was performed using the coding scheme after step 1-data cleaning was completed; this was in conjunction with data generation after the first 10 interviews are conducted. The data were transcribed verbatim and imported into NVivo 11.0, which is a software that will assist in identifying themes. Yin (2014) and Merriam and Tisdell (2016) noted that computer-assisted data analysis programs such as, NVivo 11.0 are intended only to assist and provide a tool and data management for the researcher. After the data were derived from NVivo 11.0, manual coding was used to identify themes as well. I transcribed the data by hand and began the next step in the coding process. I would categorize themes and patterns that emerged throughout the process. Coding involves recognizing a significant element and highlighting it before the process of interpretation (Creswell, 2013). I used Glaser and Strauss's (1999) constant comparative method to generate theory more systematically by using explicit coding and analytic procedures. According to Glaser and Strauss, the constant comparative method



makes full use all the data, by first sifting out the information that matter/cleaning the data, then by relating them to each other to help form an explanation. I continued the iterative process of data generation and data analysis until saturation was reached, identifying major themes and subcodes. Once I transcribed and analyzed all the data, the data were stored on an external flash drive which would be kept in a locked cabinet in my home.

### **Issues of Trustworthiness**

Trustworthiness ascertains the validity and reliability of qualitative research and is vital in qualitative studies (Korstjens & Moser, 2018). While conducting this study, I ensured the experiences of the participants are accurately represented. Korstjens and Moser (2018) stated quality criteria for all qualitative research and are the four major components of trustworthiness: credibility, transferability, dependability, and confirmability.

#### **Credibility**

Credibility establishes whether the research findings represent plausible information drawn from the participants original data and is a correct interpretation of the participants original views (Korstjens & Moser, 2018). Credibility is confidence in the truth of the finding. Techniques that can be used to conduct qualitative research and establish credibility are triangulation, prolonged contact, member checks, saturation, reflexivity, and peer review (Amankwaa, 2016). Triangulation is a technique using multiple data sources within an investigation to enhance understanding (Amankwaa, 2016). Data triangulation was possible in my study as the transcripts and field notes were

two separate sources of data. Each interview was audio-taped and transcribed verbatim. Thus, the transcripts, or the printed version of the interviews, became a primary source of data.

Prolonged engagement is an additional method to establish credibility as prolonged engagement not only will provide multiple chances to clarify what has been discussed, but also will assist in identifying discrepancies between what was observed as compared to what had been stated. For example, during the first interviews, many of the participants may tend to be general about their experiences by discussing their experiences in the most pristine way possible. Hence, my prolonged engagement enhanced the credibility of the study.

### **Transferability**

Transferability is the degree to which the results of qualitative research can be transferred to other contexts or settings with other respondents (Korstjens & Moser, 2018). As the researcher, I asked open-ended questions (see Appendix B) that solicited detailed answers that allowed the participants to tell a story with enough detail that the reader obtains a vivid picture of the events of the research. The qualitative researcher enhanced transferability by doing a thorough job of describing the research context and the assumptions that were collected doing the research (see Korstjens & Moser, 2018).

### **Dependability**

Dependability is important to trustworthiness because it establishes the research study's findings as consistent and repeatable (Amankwaa, 2016). A major technique for assessing dependability is performing an audit trail in which an independent auditor

reviews the activities of the researcher which are found in field notes, archives, or reports (Amankwaa, 2016). All interpretation and conclusions are examined to determine whether they are supported by the data itself. Similar to validity in quantitative research, in which there can be no validity without reliability, the same holds true for dependability. There can be no dependability without credibility (Lincoln & Guba, 1985).

### **Confirmability**

Confirmability is the last criterion for trustworthiness that a qualitative researcher must establish. Confirmability is used to verify the findings that are shaped by participants more so than they are shaped by the qualitative researcher (Amankwaa, 2016). At the end of the first interview, a summary was made of what the researcher understood the participant to have stated. This supports that the findings are based on participant's responses without bias of the researcher.

Reflexivity is an attitude that the researcher adopts when collecting and analyzing the data. The researcher looks at his or her own background and position to see how these influences the research process (Amankwaa, 2016). To achieve reflexivity, I kept an audit trail to document the course of the research process and to record any changes that may occur during the research project. Additionally, I kept a journal to reflect on my thoughts and emotions that surfaced during the course of the research.

### **Ethical Procedures**

The ethical procedures that were applied to this qualitative study were request for approval from the Walden (IRB). Documents that were used during the recruitment process were the invitation flyer, the screening tool (see Appendix A), the guiding

questions (see Appendix B), and the demographic data tool (see Appendix C). I obtained permission from Walden University's IRB (Approval No. 04-29-20-0535545) to gain access to interview participants and to collect data after oral defense had been approved. I took the following steps to prevent ethical concerns such as obtaining consent, maintaining participants' confidentiality, storing, and securing data. Confidentiality of participants was assured verbally and in writing. Participants had the option to withdraw from the study at any time without penalty or risk. All efforts were made during data collection, analysis and reporting of findings to protect the identity and location of the participants. A coding system was used to identify and categorize responses into emergent themes. In addition, pseudonyms (e.g., Participant 1, Participant 2, and so on) were assigned to each participant to ensure no data can be linked to any individual and will be used for reporting of findings. In this regard, pseudonyms were also used during the digital recording of the interviews and data analysis. All data were kept in a locked file and secured in a location known to and accessed by myself and my committee. Participants had the right to withdraw from the study at any time.

### **Summary**

In this chapter I discussed the methodology, data collection, data analog, and ethical procedures for this study. For the methodology section, I described the rationale for the method chosen for this qualitative study. The process for data collection and data analysis was also discussed in detail. Finally, the ethical procedures were discussed to prevent ethical issues and concerns. In Chapter 4, I will describe the outcomes of the

data collection and analysis. I will also provide a detailed description of the process that will be taken to ensure the integrity of the results.

## Chapter 4: Results

### Introduction

In this basic qualitative study, I sought to gather and assess African Americans' beliefs regarding skin cancer and prevention. I formulated the following research question to elicit information from the research participants: What are African Americans' beliefs about their personal susceptibility to the risk of developing skin cancer and preventing skin cancer?

### Setting

I conducted this study in the southeastern United States with African Americans with no history of skin cancer as participants. I conducted semistructured interviews with 10 participants to elicit rich data about their knowledge of skin cancer. I obtained approval from Walden University's IRB (Approval No. 04-29-20-0535545) before beginning to collect data for this study. I recruited participants from a church setting. I was given permission by the church secretary to have a recruitment flyer posted to the church's announcement page on their website. The flyer included information about my project and my contact information for anyone who wanted to participate in my study.

Interested participants reached out to me via a telephone number that was provided on the flyer. I discussed the purpose of the study to determine if they were still interested in participating. This process comprised purposive sampling. To those who were willing and consented to participate in my study, I obtained their phone number and e-mail address and then e-mailed them the consent form after explaining it to them over the phone. I made telephone calls to the participants to schedule telephone interviews.

The participants were then interviewed via telephone while they were in the comfort of their own home. The choice to participate in this study was voluntary and the participants had to meet the inclusion criteria of age (i.e., 18 years of age or older) and race (i.e., African American). Participation in this study did not cause any changes in the church budget or changes in personnel that may have influenced my interpretation of the study results.

### **Demographics**

I had a total of 10 participants in my study. All the participants were African American men and women aged 18 to 80 years old. I used NVivo, a guideline data software program, to generate case classification for the collected data. The case classifications included age, gender, income, and level of education. The following figures and tables represent the output from NVivo software, which I used to help organize my data. Figure 2 represents participants by age, Figure 3 represents participants by gender, Figure 4 represents participants by income, and Figure 5 represents the participants' level of education.

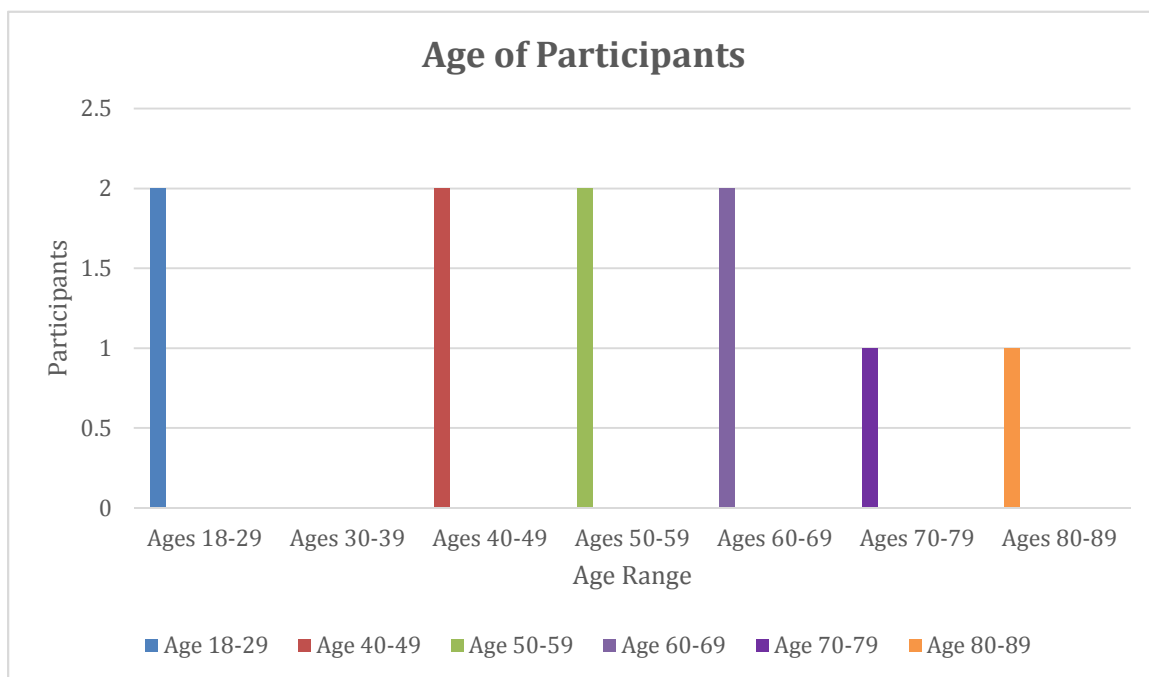


Figure 2. Participants by age.

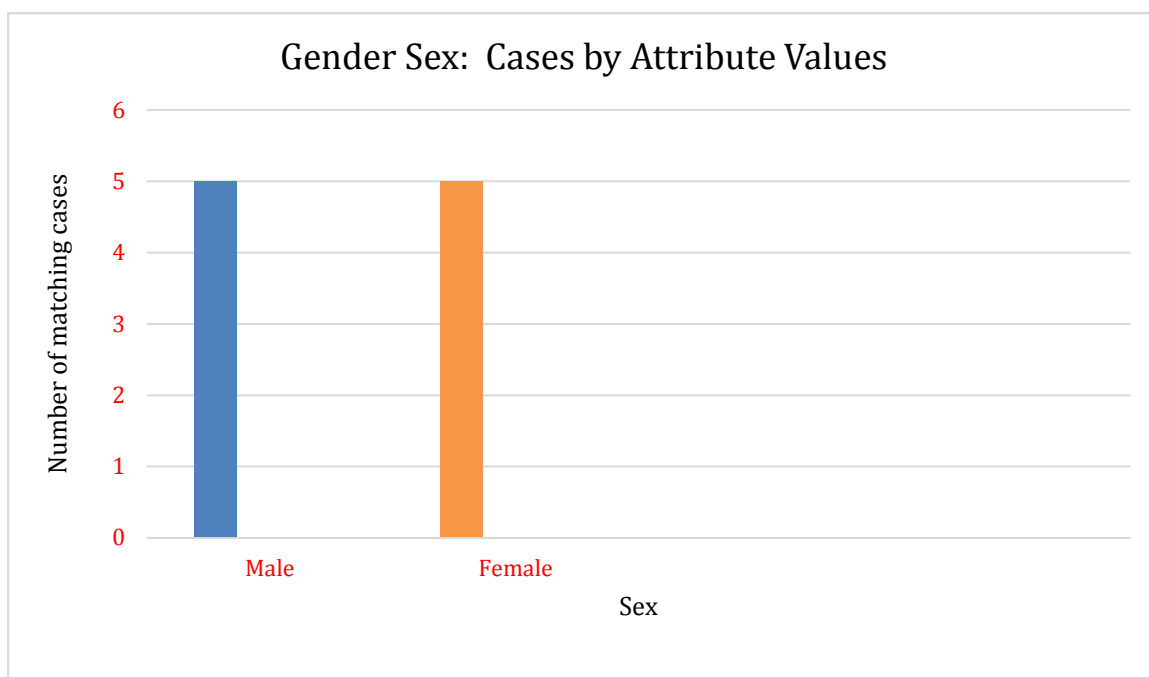


Figure 3. Participants by gender.



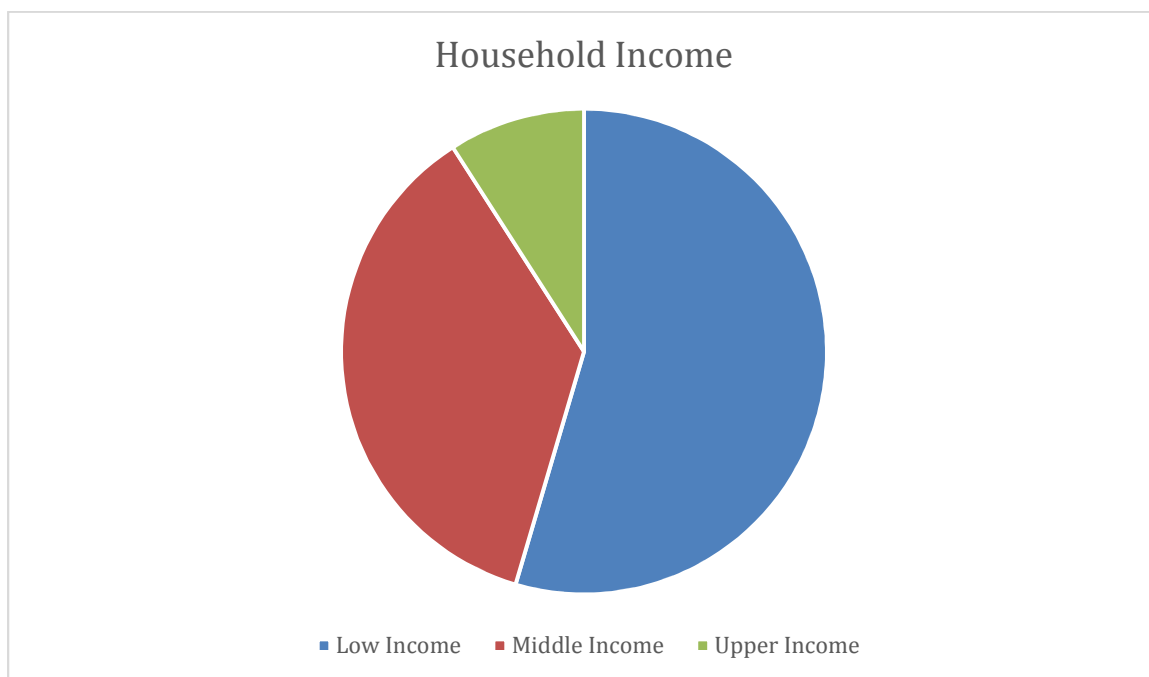


Figure 4. Participants by income.

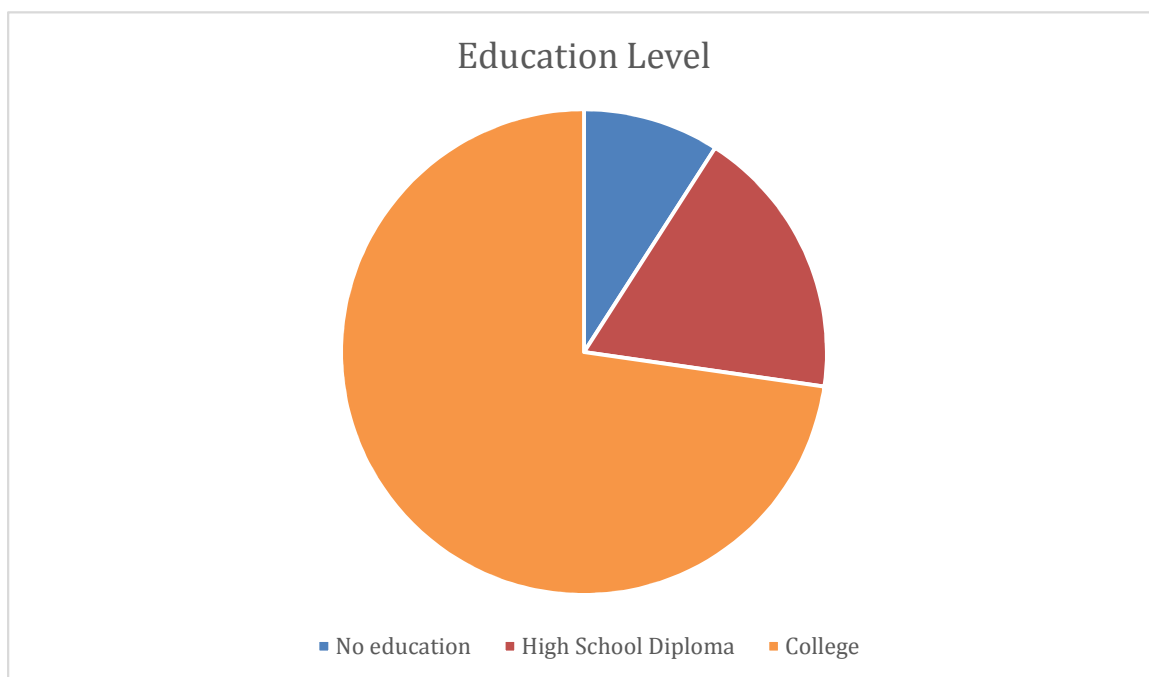


Figure 5. Participants by level of education.

### **Data Collection**

After I received approval from Walden University's IRB to conduct my study, I recruited participants by obtaining permission from the church's secretary to have an invitational flyer posted to the announcement page on the church's website. Interested participants reached out by calling my telephone number that was provided on the flyer. I reminded the potential participants of the purpose of the study to determine if they were still interested in participating in it. If the individuals were willing to participate in the study, I e-mailed the consent form after I explained the form. The participants were also told that the telephone interviews would be recorded and last up to 30 minutes. All participants e-mailed the consent form back to me, replying with the words "I consent." Once I received the consent forms from the participants, a telephone interview was scheduled with each participant at their preferred date and time. Interviews with 10 participants took place over the telephone, and the average interview time was 30 minutes. The interviews were recorded on a digital recorder.

There were variations from the original data collection plan for this study. Due to the coronavirus pandemic, the interviews had to be conducted over the telephone instead of in person as face-to-face interviews. Because the interviews were over the telephone, I was not able to observe participants to capture their gestures, body language, tone, and mood.

### **Data Analysis**

I manually transcribed each recorded interview into a Microsoft Word document to make the data easy to code. Coding is a process of searching for and identifying

concepts and finding relations between them (Merriam & Tisdell, 2016). I read and reread each transcript several times to gain an understanding of the participants' experiences. As I read the transcripts, I reviewed the data and identified codes and developed clusters of meaning and categories that formed themes and subthemes. Themes are topics, ideas, and patterns of meaning that comes up repeatedly (Merriam & Tisdell, 2016). The themes found in transcripts were the main subjects discussed during the interviews. Subthemes are themes that are secondary to a larger theme (Merriam & Tisdell, 2016). Each participants' transcript was uploaded into NVivo 11, a qualitative data software (QSR International, 2018). I used NVivo to organize the codes that emerged from the interview transcripts.

The key themes and codes that emerged from the interviews were: (a) skin cancer, (b) sun exposure, (c) sunburn, (d) exams, (e) risk, and (f) recommendations. Key themes that emerged throughout the transcripts were: (a) knowledge of skin cancer, (b) sun protective measures, (c) consequences not using protective measures, (d) need for sun protective measures, (e) risk of developing skin cancer, (f) screened for skin cancer (g) recommendations for preventing skin cancer, and (h) discussion of skin cancer with physicians. One theme that emerged was the knowledge of skin cancer. Subthemes for the knowledge of skin cancer are listed in Table 1. For example, Participant 5 stated "I do not know anything about skin cancer. Participant 6 stated that "I do not know that much about skin cancer; however, I do know that it can be caused from too much sunlight."

Another theme that emerged was sun protective measures. Subthemes for the theme: sun protective measures are listed in Table 2. For example, participants described ways they stay protected from the sun by doing the following: 1)using sunscreen, 2)wear clothing such as long sleeves, 3)wear head gear (hats, scarfs), and 4)wear moisturizers. Participant 2 stated that “I do not wear any sun protectant. I usually just apply lotion or some type of moisturizer to my skin and head when going outside.” Participant 5 stated that “I try to drink enough water to stay hydrated and wear sunglasses.”

Another theme that emerged was consequences not using protective measures. Subthemes for the theme: consequences not using protective measures are listed in Table 3. For example, participants stated consequences of not using protective measures as you could get sunburn, skin damage, or develop skin cancer. Participant 1 stated “You could very well experience sun burn which would increase your chances of getting skin cancer.” Participant 3 stated “I feel the consequences of not using sun-protective measures while out in the sun are getting sun burned, skin damage, sunspots, wrinkling of the skin, and skin cancer.”

Another theme that emerged was the need for sun protective measures. Subthemes for this theme is listed in Table 4. For example, Participant 8 stated “Sun protective measures should be used to prevent skin cancer and sunburn.” Participant 7 stated “I should use measures to reduce the rate of getting skin cancer.” Participant 2 stated “I believe the biggest consequences of not using a sun protectant when in contact with the sun is getting skin cancer”.

Another theme that emerged was the risk of developing skin cancer. Subthemes for this theme is listed in Table 5. Most participants reported a mild risk to developing skin cancer. For example, Participant 6 stated “I think my risk of developing skin cancer is low because I am not in the sun for a long period of time.” Participant 5 stated “I would think my risk is low because I have dark skin.”

Another theme that emerged was screening for skin cancer. Subthemes for this theme is listed in Table 6. Most participants reported they had not been screened for skin cancer and very few had been examined for skin cancer. For example, Participant 8 stated “There is no factors to indicate a cause for concern.” Participant 2 stated “No, I have never been screened for skin cancer, this is partially due to the fact that I am young and feel ‘invincible’ to situations like this.” Participant 3 stated “No, I have never been screened for skin cancer because I have not shown a suspicion or change in the appearance of my skin to do so.” Participant 10 stated “No, black people can’t get skin cancer because we are dark-skinned.”

Another theme that emerged was recommendations for preventing skin cancer. Subthemes for this theme is listed in Table 7. Most participants stated they would like to be educated on skin cancer. For example, Participant 3 stated “I think there should be more programs to educate people of color on skin cancer and the importance of taking care of their skin because you find more African Americans not wearing sunscreen and exposing themselves to the dangers of the sun.” Participant 9 stated “I think programs should consist of educational material to describe the pros and cons of skin cancer and prevention.”

Lastly, the final theme that emerged was the discussion of skin cancer with your physician. Subthemes for this theme is listed in Table 8. Most participants stated there was no need to discuss skin cancer with their physician because they did not think there was a problem. Participant 2 stated “ I have never discussed skin cancer with my physician even though I may be at a high risk.” Participant 5 stated “I don’t think there is a need to discuss skin cancer.” Participant 10 stated “I do not have a physician because of financial hardship.”

### **Evidence of Trustworthiness**

The data collected represents the views of the participants in relation to their beliefs regarding skin cancer and prevention, as well as helping to address the research questions of this study. The four major components of trustworthiness include: credibility, transferability, confirmability, and dependability. Trustworthiness refers to the degree of confidence in data, interpretation, and methods used to ensure the quality of the study (Korstjens & Moser, 2018). Credibility is the confidence expressed in the findings of the study and this was achieved by the use of probing questions as necessary during data collection to elicit information-rich data from participants (Rebar et al., 2010). I asked probing questions to elicit information-rich data from participants. For instance, one of the participants stated, “I usually just apply lotion or some type of moisturizer to my skin and head when going outside.” I then asked the probing question, “Do you know if the lotion you apply contain sunscreen?”

### **Triangulation**

Triangulation is a technique used to establish credibility of the findings (Amankwaa, 2016). Each interview was audio-taped and transcribed verbatim. Thus, the transcripts became the primary source of data. Many of the participants tended to be brief with their responses about their experiences, so I was able to ask probing questions to elicit a more thorough response. Hence, my engagement enhanced the credibility of the study through the ability to gather richer data.

### **Transferability**

Transferability is the degree to which the results of qualitative research can be transferred to other contexts or settings with other respondents (Korstjens & Moser, 2018). I asked the participants open-ended questions (see Appendix B) that solicited detailed responses, allowing them to tell a story with enough detail that the reader obtains a vivid picture of the events of the research. The results of this research will be published and also presented in public meetings in the community in the Mississippi Delta area that will include other races such as European Americans, Hispanic Americans, and Asian Americans.

### **Dependability**

Dependability is important to trustworthiness because it establishes the study findings as consistent and repeatable (Amankwaa, 2016). One major technique for assessing dependability is performing an audit trail in which an independent auditor reviews the activities of the researcher that are found in field notes, archives, or reports

(Amankwaa, 2016). I examined all interpretations and conclusions to determine whether they were supported by the data itself.

### **Confirmability**

Confirmability is the last criterion for trustworthiness that a qualitative researcher must establish. Confirmability was used to verify the findings that were shaped by participants more so than they were shaped by the qualitative researcher (Amankwaa, 2016). At the end of the interviews, each interview was transcribed verbatim by myself. Confirmability means findings are based on the participants' responses and not any potential bias of the researcher.

### **Results**

The interview transcripts were manually transcribed and the data were imported into NVivo 11. Nodes, a collection of references about a specific theme, topic, case, or relationship that you find in the data, were also created and the participants' responses that matched these nodes were assigned as matches occurred. Attributes were representative of participants' beliefs regarding skin cancer and prevention.

Participants expressed what they knew about skin cancer. Subthemes can be found in Table 1. Participant 9 stated "skin cancer can cause death and can be caused from sun damage." Participant 10 stated "I do not know anything about skin cancer." Participants 5 and 10 knew nothing about skin cancer and the other eight participants had some knowledge of skin cancer (see Table 1).



Table 1

*Theme 1: Knowledge of Skin Cancer*

Subthemes	Participants
No knowledge of skin cancer	P5, P10
Harmful	P1
Caused by sun exposure	P2, P6, P7, P9
Any race can develop skin cancer	P3, P8
Found anywhere on body	P4

Participants expressed their beliefs on using sun protective measures when out in the sun. Subthemes can be found in Table 2. Five participants stated that they did not use sun protective measures and five participants expressed they did adhere to some form of protection. Participant 1 stated “I apply sunscreen to my body when going outside.” Participant 2 stated “I do not take sun protective measures. I see it as if I am not in the sun for a long time, then I do not see the use.” Participant 1 stated “I don’t do anything too out of the ordinary. I wear clothing that will protect my skin.” Overall, five participants did not use sun protective measures and the other five participants did use sun protective measures (see Table 2).

Table 2

*Theme 2: Sun Protective Measures*

Subthemes	Participants
Do not use sun protective measures	P1, P2, P6, P8, P10
Use sunscreen	P3, P4, P7
Use sunglasses, head gear, clothing	P3, P5, P7, P9

Participants expressed their beliefs on consequences of not using sun protective measures when out in the sun. Subthemes can be found in Table 3. Some participants stated that they would get sunburned and others stated there would be no consequences. Participant 4 stated “One consequence for not using sun protective is sun burn which can lead to skin cancer. Participant 5 stated “Not sure. I guess develop some type of skin disease; maybe cause your skin to discolor.” Participant 10 stated “I feel there are no consequences for Black people because we are dark-skinned.” Overall, the majority of the participants felt there were consequences to not using sun-protective measures while out in the sun (see Table 3).

Table 3

*Theme 3: Consequences of not Using Protective Measures*

Subthemes	Participants
Sunburn, skin damage	P1, P3, P4, P7, P9
No consequences due to dark skin	P10
Develop skin cancer	P2, P3, P5, P6, P8

Participants expressed their beliefs on the need for protective measures. Subthemes are found in Table 4. Some participants stated to reduce sun exposure, and other participants stated to avoid getting skin cancer. Participant 7 stated “To avoid getting skin cancer. Reduce rate of getting skin cancer.” Participant 6 stated “To decrease our chances of skin damage no matter how ‘big’ or ‘small’ we believe the damage might be.” Protective measures should be used when going outside to protect your skin from the UV rays of the sun and all the damaging effects that could possibly come with that” was stated by Participant 3. Overall, most participants thought the need to wear protective measures were to reduce sun exposure and to avoid getting skin cancer (see Table 4).

Table 4

*Theme 4: Need for Sun Protective Measures*

Subthemes	Participants
No need for sun protective measures	P10
Reduce sun exposure, sun damage, sun burn	P1, P2, P3, P4, P5, P6, P8
Avoid getting skin cancer	P4, P7, P8
Protect longevity of life	P9

Participants expressed their beliefs on their risk of developing skin cancer. Subthemes can be found in Table 5. Some participants thought their risk of developing skin cancer were low, and a few participants thought their risk were high. Participant 2 stated “I would say that my risk of developing skin cancer is quite high due to the fact

that I do not wear a skin protectant when I step outside.” Participant 7 stated “Low risk because I use protective measures to avoid getting skin cancer.” Participant 6 stated “I would say because I do not use a protectant on an everyday basis, my risk is significantly higher than average.” Participant 8 stated “Low risk because of the amount of sun I’m exposed to”. Similarly, participant 5 stated “I think I am at very low risk because of the color of my skin.” Overall most participants felt they were at low risk of developing skin cancer (see Table 5).

Table 5

*Theme 5: Risk of Developing Skin Cancer*

Subthemes	Participants
Low risk	P3, P4, P5, P7, P8, P9, P10
Mild to moderate risk	P1
High risk	P2, P6

Participants expressed their beliefs on being screened for skin cancer. Subthemes can be found in Table 6. All of the participants did not think there was a need to get screened. Participant 10 stated “I don’t need to get screened for skin cancer because my skin color protects me from skin cancer.” Participant 5 expressed “No, I never thought about getting an exam done because of my skin color”. Another participant stated “I have not been screened for skin cancer. It has never been suggested by my doctor and I have never had any complications with my skin.” Most participants did not think there was a need to get screened for skin cancer (see Table 6).

Table 6

*Theme 6: Screened for Skin Cancer*

Subthemes	Participants
Not needed, invincible, no skin changes	P1, P2, P3, P4, P6, P7, P8, P9
Not needed, skin color protects me	P5, P10

Participants expressed their beliefs on recommendations for preventing skin cancer. Subthemes can be found in Table 6. Most participants suggested that educational materials should be provided to everyone. Participant 1 stated “I think there should be education to describe the pros and cons of skin cancer.” Another participant stated “I believe that should look interesting enough that all group of ages will be intrigued as well as educated on the matter.” Participant 7 expressed “There should be workshops available for the public and educational material should also be provided to the public.” Another voiced “I believe the programs should be eye appealing and interesting at the same time. It should also be sectioned well and easy to read so that multiple age groups can appeal to them.” Overall, most participants suggested that educational material should be provided to the public (see Table 7).

Table 7

*Theme 7: Recommendations for Preventing Skin Cancer*

Subthemes	Participants
Educational materials	P1, P2, P4, P6, P7, P8, P9
Physical exams	P1
Education for people of color	P3, P4, P5

Participants expressed their beliefs on discussion of skin cancer with their physicians. Most participants did not think there was a need to discuss skin cancer with their physicians. Participant 10 voiced “I do not have a doctor.” Participant 9 stated “I just don’t see a need to discuss skin cancer because I don’t have any problems with my skin.” Another participant stated “I have never discussed skin cancer with my physician because I feel my risk is low.” Participant 7 expressed “Yes, I have discussed skin cancer with my physician because I have a mole on my face, but he stated it was not cancer.” Most participants did not feel a need to discuss skin cancer with their physicians (see Table 8).

Table 8

*Discussion of Skin Cancer With Physician*

Subthemes	Participants
Do not have a physician	P10
No need to discuss, no problems	P1, P2, P3, P4, P5, P6, P9
Mole on body	P7, P8

### Summary

The information-rich responses gathered from the participants helped to answer the research question. The eight themes noted in this study were: (a) the knowledge of skin cancer, (b) sun protective measures, (c) consequences not using protective measures, (d) need for sun protective measures, (e) risk of developing skin cancer, (f) screened for skin cancer, (g) recommendations for preventing skin cancer, and (h) the discussion of skin cancer with physicians. The participants were also asked if they were ever screened for skin cancer and responses were, no factors to indicate a cause for concern, no because I am young and feel invincible to getting skin cancer and, I have not shown a change in the appearance of my skin. The interpretation of my findings will be discussed in Chapter 5.

## Chapter 5: Discussion, Conclusions, and Recommendations

### **Introduction**

The purpose of this qualitative study was to seek an understanding of African Americans' beliefs regarding skin cancer and prevention. I conducted the study using a basic qualitative research approach to identify the beliefs and perceptions of African Americans regarding skin cancer and prevention. Skin cancer has become a major concern in the public arena due to high mortality rates in African Americans. Watson et al., (2015) stated African Americans have the highest mortality rate of skin cancer among any race in the United States. There have been very few research studies conducted to understand African Americans' perspectives on skin cancer. The information-rich data collected from the participants in this study indicated the following themes: the knowledge of skin cancer, sun-protective measures, consequences of not using protective measures, need for sun-protective measures, risk of developing skin cancer, screened for skin cancer, recommendations for preventing skin cancer, and the discussion of skin cancer with physicians.

### **Interpretation of Findings**

I patterned the research question after the constructs of the HBM. The major themes identified were further analyzed based on the constructs of the HBM: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and cues to action. The themes are discussed in this section in relation to existing literature.



### **Perceptions on Susceptibility to Developing Skin Cancer**

Limited knowledge continues to be a barrier pertaining to skin cancer screening and prevention practices. Several barriers were identified by the participants with knowledge level about the risks being the primary barrier. Other barriers included lack of finances, effective physician communication, and education level. Participants' knowledge of skin cancer varied from knowing nothing to knowing little about skin cancer. Most participants stated skin cancer is caused by too much sun exposure. On the other hand, few participants knew nothing about skin cancer and thought their risk of developing skin cancer was low. Fillon (2016), Lunsford et al. (2018), and Watson et al. (2015) found that this population is likely to have erroneous beliefs about their skin cancer risks and be less likely to use sun protection strategies because they perceive their risk of developing skin cancer to be low due to their darker skin tone and/or lack of family history.

One of the constructs described in the HBM is perceived susceptibility. Perceived susceptibility addresses beliefs about the chances of getting a disease or experiencing a risk toward getting a disease (Rosenstock, 1974). Most of the participants in this study did not think they were at risk of developing skin cancer because they were not in the sun for a very long time or they felt their skin tone protected them from sun damage. The participants responses are consistent with Qadir's (2016) findings that most skin cancers develop due to excessive exposure to sun, which can be easily prevented by wearing sunscreen and protective clothing.

In reference to the HBM, individuals must assess not only their knowledge related to disease or health states, but also the ability to unite and apply their knowledge and other capabilities to an actual change in behavior (Rosenstock, 1974). According to the HBM, health outcomes are themselves strongly influenced by health behaviors, which in turn, are influenced by health knowledge (Rosenstock, 1974). In the HBM, race, age, and level of education can play a major role in the health behaviors of individuals (Rosenstock, 1974).

### **Perceptions of the Benefit of Using Sun Protective Measures**

Participants' experience with using sun protective measures varied from not using them to using sun-protective measures, such as wearing sunscreen, protective clothing, and hats. The findings in this study revealed that most African Americans do not perceive to be at risk for skin cancer, so therefore, most African Americans do not use sun protective measures to prevent skin cancer. This response is consistent with Watson et al.'s (2015) conclusion that African Americans ignore preventive measures because they do not believe they are at risk of developing skin cancer. Most people believe the color of African Americans' skin is dark enough to protect them from sun damage (Watson et al., 2015). In the HBM Rosenstock (1974) described the phenomenon of health outcomes in terms of behaviors that are themselves closely related to individual perceptions, social influences, and behavior-shaping environments.

Because the benefits and barriers to taking action related to medical radiation were discussed by the participants in this study, several cues to action also emerged.

Some participants stated they do not take sun-protective measures because they do not

feel they are at risk. Others stated they use sun-protective measures occasionally, such as wearing sunscreen, hats, sunglasses, and clothing. Sun-protective measures are very important in preventing skin cancer (Watson et al., 2015).

### **Perceptions of the Cues to Action Associated to Skin Cancer Prevention**

Participants shared their recommendations for preventing skin cancer, including the development and implementation of education via workshops and seminars and educational materials for people of color. These findings are consistent with Robison et al. (2016) who suggested understanding the perceptions of African Americans regarding skin cancer may impact their lives by developing culturally sensitive programs to educate this population on skin cancer prevention. Goldenberg et al. (2015) found that the Black communities received less public education on skin cancer and prevention than any other community. These authors recommended that education be increased by conducting health fairs and seminars for the public and physicians (Goldenberg et al., 2015).

### **Limitations of the Study**

I identified several limitations of this qualitative study. One limitation was the focus only on African American participants and not allowing individuals of other ethnic backgrounds to participate in the study. Another limitation was that this study was conducted with participants who live in the southeastern United States because, according to the CDC (2016a), the South had higher death rates for skin cancer than the North. Lastly, I had to conduct interviews over the telephone instead of face-to-face interviews due to the Covid-19 pandemic. This limited me from observing the participants'

gestures, facial expressions, and body language to see if they understood the questions or felt uncomfortable with the questions.

Issues of trustworthiness were also identified. For transferability, the methodology needs to be usable for participants with risk factors for other diseases. The limitations of recruiting only African American participants from a certain region related to issues of credibility and confirmability. For further credibility to be established, a study should be conducted with participants of other ethnicities and include those who reside in other regions of the United States to ensure information is accurate and that enough information is gathered to determine saturation. The issue of dependability can be addressed by ensuring the study can be replicated with different populations and that the data are collected using a systematic approach.

### **Recommendations**

My study contributes to the body of knowledge about the perspectives of African Americans' beliefs regarding skin cancer and prevention. There are not many studies that have explored African Americans' beliefs and perceptions of skin cancer and prevention. Previous studies have been conducted using qualitative methods to identify health behaviors and beliefs. Darvishpour et al. (2018) conducted a study and determined that educational interventions must be considered to improve health behaviors, such as skills for breast self-examination. Bagatti et al. (2016) examined the proposition that education can affect individuals' attitudes and behaviors regarding melanoma and found that when people are educated on topics their behavior changes, while Tripp et al. (2016) suggested the need to educate the public about skin cancer and the effectiveness of informed

preventive programs. In a review of knowledge and practice conducted by Kailas et al. (2016), a gap was identified concerning the risk of skin cancer in people of color. Kailas et al.'s findings supported the work of Kim et al. (2009) who suggested that skin cancer awareness should be increased in the African American population and suggested that collaborations should be formed with healthcare advocacy groups and politicians to petition to implement skin cancer prevention programs for African Americans. Parsons et al. (2018) proposed there is a need for further skin cancer prevention education and additional studies to identify risky behaviors that contribute to cancer development so that education campaigns and interventions can be initiated. Further studies in this area may include conducting more qualitative studies that explore African Americans' behaviors using sun protective measures as compared to other ethnicities. Other recommendations for further studies include assessing the perceptions of people of other ethnicities to compare the results to those of the current study and recruiting participants from different regions in the United States to determine if the themes and findings are similar.

### **Implications**

The insights obtained from this study provide valuable information for healthcare providers about African Americans' beliefs regarding skin cancer and prevention. In this study, I identified that some African Americans do not consistently adhere to sun protective measures. This study was needed because there is a gap in the literature focusing on the beliefs and perceptions of African Americans developing skin cancer that needs to be addressed. The findings of this study add to the body of knowledge by

addressing the existing gaps in the literature of the health beliefs of African Americans related to skin cancer. Understanding African Americans' beliefs regarding skin cancer can help lead to prevention programs that positively affect social change. Nurses are the frontline healthcare providers and are capable of implementing educational programs that help close the gaps and make a significant impact on the future management and treatment of skin cancer for African Americans. The results of this study suggest that the African American population may lack information or be unaware of their risk of skin cancer and could benefit from educational information and early detection strategies for skin cancer specifically targeted to them. Finally, the findings of this study may help to increase knowledge of skin cancer prevention in the Black community, which may lead to decreased mortality rates.

### **Conclusions**

In conclusion, skin cancer is a major concern in the healthcare industry due to its increasing incidence and mortality rate in the African American population. I used Rosenstock's (1974) HBM as the theoretical framework of this study. In this model, Rosenstock suggested that individuals' beliefs about health issues and the perceived benefits of action and barriers to action explain engagement or lack of engagement in health-promoting behaviors. In this study, I focused on African Americans' beliefs regarding skin cancer and prevention. Ten participants shared their beliefs and perspectives about skin cancer and prevention, and the results revealed that they knew very little or nothing about skin cancer. The findings of this study also indicated that most participants did not use sun protective measures because they did not feel a need to

or they thought their skin color protected them from the sun. African Americans ignore preventive measures because they do not believe they are at risk of developing skin cancer (Watson et al., 2015). The study findings revealed there is a lack of knowledge of the risks of skin cancer in the Black community. To address this, African Americans should be given culturally sensitive information that could possibly lead to changes in their behaviors, values, patterns, and norms about skin cancer screening.

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## Appendix A: Screening Tool

Which of the following races do you consider yourself?

\_\_\_\_\_ 1) African American/Black

\_\_\_\_\_ 2) Caucasian/White

\_\_\_\_\_ 3) American Indian/Native American

\_\_\_\_\_ 4) Hispanic/Latino

\_\_\_\_\_ 5) Asian /Pacific Islander

\_\_\_\_\_ 6) Other \_\_\_\_\_

## Appendix B: Interview Guiding Questions

1. What do you know about skin cancer?
2. Do you use any sun-protective measures while out in the sun? Why or why not?
3. Tell me what you do before going outside in the sun.
4. What do you think are the consequences of not using sun-protective measures while out in the sun?
5. Explain to me why you should use protective measures when going outside?
6. How would you describe the risk of you developing skin cancer?
7. Tell me what measures you have taken to prevent skin cancer?
8. Have you gotten screened for skin cancer? Why or why not?
9. Have you discussed skin cancer with your primary physician? Why or why not?
10. What do you think recommendations or programs to prevent skin cancer should look like?

## Appendix C: Demographic Information

1. What is your gender? Male \_\_\_\_\_ Female \_\_\_\_\_
2. What is your age?
3. What is your highest level of education?
4. What is your occupation?
5. What is your household income?
6. What is your general state of health? (Please check one):  
Excellent\_\_\_ Good\_\_\_ Average\_\_\_ Poor\_\_\_
7. When was the last time you had a physical exam? (Please check one):  
Never\_\_\_  
Less than 1 year ago\_\_\_  
1-2 years ago\_\_\_  
More than 2 years ago\_\_\_
8. Have you ever had a skin cancer screening/exam? Yes\_\_\_ No\_\_\_
9. If you answered "No" to question 4, how soon do you plan to have such an exam?  
Within 6 months\_\_\_ Within the next year\_\_\_
10. Do you know or have you known of someone who had skin cancer? Yes\_\_\_  
No\_\_\_
11. If you answered "Yes" to question 6, what is (was) the nature of your relationship with that (those) person (s)?  
\_\_\_\_\_



12. Where have you received information from about skin cancer?

Work\_\_\_

Doctor\_\_\_

Internet\_\_\_

Friend/Family\_\_\_

Other\_\_\_(please specify)\_\_\_\_\_

**\*\*Thank you for taking the time to complete this questionnaire\*\***