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Knowledge, Perceptions, and Facilitators to Colorectal Cancer Screening Among African American Men in Mobile, Alabama

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This is to certify that the doctoral dissertation by

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Abstract

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Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
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Abstract

African American (AA) men in the state of Alabama are affected by colorectal cancer (CRC) more than all other races. The purpose of this phenomenological study was to gain understanding of colorectal cancer screening health benefits in AA men in Mobile, Alabama. The health beliefs model (HBM) developed by Hochum, Rosemstock, and Kegels was used to to explore the barriers and facilitators to CRC screening in AA men with health insurance in Mobile, Alabama. The research questions explored knowledge, perceptions, and facilitators to CRC screening among AA men age 40 to 75. Participants were selected using purposive sampling and data were collected through face-to-face individual interviews with 13 participants living in Mobile, Al. Data were inductively coded and subjected to a thematic analysis procedure. The study findings revealed that participants had a general knowledge of cancer but a low awareness of CRC screening. Findings also revealed a perceived gap in CRC screening education from participants' doctors. Few reported understanding or remembering a conversation about the need for CRC screening during their last doctor's visit. There was no indication that age or level of education played a meaningful role in participants' knowledge or perception of CRC screening requirements. Positive social change implications stemming from this study include recommendations to Alabama public health officials and policy makers to invest in the development of intervention and education efforts to increase CRC screening among AA men, which in turn, may reduce CRC related morbidity and mortality.

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Dedication

First, I dedicate this work to God, without whom I could do nothing. I dedicate this project to my devoted wife, Paula who provided 100% support throughout this entire journey. She sacrificed so much of her time maintaining the affairs of our home while I was engrossed in this process. Her boundless confidence in my ability sustained me when my self-confidence was low. I also dedicate this to my two biggest fans, my sons, Ruben III “Frankie” and Isaac along with my other biggest fan and grandson, Ian. They gave up too many hours with dad/grandad so I could just get finished. To my dad, Ruben E. Franklin Sr. who instilled the “can do” spirit in me and whose character and integrity set the standard for the best of men. I will always unashamedly be the son who aims to make my daddy proud. I miss you dad. I dedicate this to my mother, Annie Franklin Johnson who has always been in my corner constantly encouraging and inspiring me to greater heights with her motherly love, wisdom, and prayers. Thanks momma. I also dedicate this to my mother in law, Ruby Christian, also affectionately known as my mother in love who was a continuous source of prayers, support and celebration at each stage and every step of the way. Also to “Bishop” whose prayers and wise words were a continual source of strength that helped me stay focused on the light at the end of the tunnel. I am also grateful to all my brothers and sisters who encouraged me and cheered me on the entire way: Ketelby, DeAnn, Derrick, LaShonda, and Karlicia. Thank you and I love you all! This would not have been possible without you.

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Chapter 1: Introduction to the Study

Cancer is a considerable health concern in the United States with nearly 600,000 deaths in 2016 (National Cancer institute, 2016). Colorectal cancer (CRC) is the second leading cause of cancer deaths in the United States (National Cancer Institute, 2013). African Americans (AA) experience the highest incidence of CRC of any racial or ethnic group. In the state of Alabama, the rate of CRC related deaths among AA men is 12% higher than the national average (U.S. Department of Health and Human Services, 2013). The reason for higher rates of CRC in AAs is unclear, but contributors may include socioeconomic barriers, access to medical care, and/or physician recommendation. Mitchell, Hawkins, and Shires (2014) suggested that CRC screening among AAs should increase with the passing of the Affordable Care Act, but health care access alone is not enough to increase CRC screening among AA. Other socioeconomic barriers must be addressed (Mitchell et al., 2014). Wilkins et al. (2012) identified a physician's recommendation as having the strongest association to CRC screening among AA men. Public health professionals should pay greater attention because this group may influence the behavior of the younger men facing the same health issues.

Given that AA men are more likely to benefit from CRC screening, it is important to improve CRC screening participation among AA men (Wilkins et al, 2012). Myers et al. (2014) suggested that increased awareness and education may contribute to increasing CRC screening participation among AAs. Further research is needed to determine how to identify, deploy, and maximize interventions (Myers et al., 2014). Purnell et al. (2009) suggested further examination of the relationship between sociocultural factors (e.g., traditional acculturative strategy, group-based medical mistrust, physician ethnicity, and group-level perceptions of susceptibility) and perceived benefits, barriers, and CRC screening participation among AAs. A better understanding of these factors that affect CRC screening participation may better guide researchers, public health, and health professionals in developing strategies to improve screening.

Healthy People 2020 (HP 2020, 2010) recognized the importance of addressing all forms of cancer with an increased risk of disability or death and recognized the disparity between European Americans and minorities for all major cancers. HP (2010) established an initiative to eliminate the disparity between AAs and non-AAs. In addition to the elimination of health disparities between European Americans and minorities, Healthy People 2020 added a goal of achieving equity to the goal of eliminating health disparities for all forms of cancer. The Healthy Alabama initiative shares the goal of achieving equity and elimination of health disparities for all forms of cancer for the entire state of Alabama (Alabama Department of Public Health, 2013). The results of this study may be used to inform policy for alignment and collaboration among health care institutions and government agencies and set the stage for unity and support in developing interventions to improve health outcomes.

This chapter provides the background to CRC among AAs nationally and in the state of Alabama. In this chapter, I also discuss the higher incidence of CRC morbidity and mortality among AA men, AA lower participation in CRC screening, and the gap in the literature that supports the purpose of the study. The remainder of this chapter includes the background, problem statement, purpose of the study, research question(s), theoretical framework for the study, nature of the study, definitions, assumptions, scope and delimitations, limitations, significance, and a summary.

Background

Public health poses challenges in the U.S. population. The Centers of Disease Control Foundation referred to public health as the action of protecting and improving the overall health status of entire populations (as cited in Silvers, 2013). Public health professionals work to prevent disease spread and recurrences, decrease health disparities, and improve quality of care (Silvers, 2013). Various illnesses attack the U.S. population. The incidence and prevalence of cancer increases yearly, and statisticians predict that one in four deaths in the United States results from cancer (Siegel, Naishadham, & Jemal, 2013).

AA men are more severely impacted cancer than any other ethnic group. According to the Journal of National Cancer Institute (2013), comparing the AA population to the European American population, AA men have a 35% higher risk of dying of cancer than European Americans. Although racial differences may result from the type and severity of disease when diagnosed, there are disparities among races for many diseases including cancer (Office of Minority Health, 2013). The 5-year survival rates for AAs are lower than those for European Americans for all the major cancers including lung cancer, breast cancer, and prostate cancer (American Cancer Society, 2013).Earlier detection and treatment in AA men would play a key role in reducing the health disparity between AA men and other ethnic groups.

Even though advancements have been made in the detection and treatment cancer, many new cases are seen each year. In 2013, there were approximately 102,480 new cases of CRC throughout the United States (Siegel et al., 2013). Of the 102,480 cases of CRC, approximately 50,000 resulted in death (Siegel et al., 2013). CRC is second only to lung cancer as a cause of cancer death in the United States (American Cancer Society, 2013). According to the American Cancer Society (ACS) AAs have the highest incidence of CRC of any racial or ethnic group (ACS, 2013). Researchers have investigated the reason for the higher incidence of CRC among AAs, but the cause is unclear (Purnell et al., 2009). However, researchers have produced evidence of the health benefits of CRC screening as an early detection tool for CRC. CRC screening reduces the negative impact of CRC (Naylor, Ward, & Polite, 2012). This means a reduction in both CRC related morbidity and mortality.

Many factors may cause a delay in the detection of CRC resulting in more severe diagnosis among once finally diagnosed. AA men have the highest incidence of death related to CRC compared to men in other ethnic groups (Napier et al., 2014; Robbins, Siegel, & Jemal, 2012; Wong, Bloomfield, Crookes, & Jandorf, 2013). CRC is detected in a later stage of development in AA men than in European Americans, and the survival rate, once detected, is 5 years less in AA men than in European American men (Naylor et al., 2012). CRC is both detectable and treatable with scheduled CRC screening (Purnell et al., 2009). According to the National Institute of Health, the reasons for higher rates of CRC in AAs is unclear and likely due to the lack of screening resulting in later detection among AAs than in other races (as cited in Srinivasan, 2005). Despite the recommendation of CRC screening for adult men between ages of 50 and 75, there is still a disparity in CRC screening participation the AA male population compared to other ethnic groups. Later stage detection among AA men causes them to get treatment later than other groups and later treatment results in greater disease severity.

The disparity in cancer between AA men and other ethnic group is also seen in the state of Alabama. In fact, in the state of Alabama, the rate of CRC-related deaths among AA men is 12% higher than the national average (Cole, Jackson, & Doescher, 2013). Purnell et al. (2009) suggested the relationship between sociocultural factors (e.g., traditional acculturative strategy, group-based medical mistrust, physician ethnicity, and group-level perceptions of susceptibility) and perceived benefits, barriers, and CRC screening among AAs needs to be further examined. Studying the relationship between these factors may provide public health professionals with the information needed to improve CRC screening in the AA male population, thereby reducing the incidence and prevalence of CRC this group.

SocioCultural Factors

Traditional acculturative strategy is used to examine the customary modes of cultural expression. These factors include individual perception of group susceptibility, medical mistrust, and traditional acculturation. Purnell et al. (2009) stated the group susceptibility influences individual perception of the benefits of CRC screening. The level of medical mistrust and cultural orientation affect the individual’s intent to screen. However, individual perception of group susceptibility influences the intent of individuals to complete CRC screening, regardless of the level of traditional cultural orientation or medical mistrust.

Perceived Benefits

The perceived benefits of cancer screening vary. According to Purnell et al. (2009), those who perceive high group susceptibility to developing CRC also perceive high benefit in CRC screening. Conversely, those who perceive low group susceptibility also perceive low screening benefits. Individuals who are more traditional in their attitude toward health behavior perceive more benefits than individuals who are less traditional. Thereby, individuals who are less traditional and individuals who perceive low group susceptibility perceive the least benefits of screening. Ruggieri et al. (2013) stated that CRC screening is a tool used to improve preventive health. The perceptions of the benefits of CRC screening vary. If people think there are at a higher risk of develop cancer, they are more likely to participate in screening.

Barriers

Barriers impede individuals' health related decisions and behaviors. Griffith, Passmore, Smith, and Wenzel (2012) described several barriers to cancer screening as perceptions articulated by the participants which prevented them from participating in screening. Griffith et al. (2012) and Purnell et al. (2009) identified medical mistrust as a barrier. Furthermore, Griffith et al. identified fear of pain, fear of doctors, lack of information, misinformation, and lack of knowledge as barriers to completing CRC screening. Overcoming these barriers has been a focus of many researchers (Cole, Jackson, & Doescher, 2013; Griffith et al., 2012; Lansdorp-Vogelaar et al., 2013). Researchers have suggested removing barriers to screening through initiatives including health education, community outreach, and interventions (Lippke, Nigg, & Maddock, 2012; Moussa, Sherrod, & Choi, 2013; Naylor et al., 2012). This study found education by health professionals was critical in overcoming lack of knowledge about pathways to screening as a barrier to CRC screening.

CRC Screening Intentions

CRC screening intentions are influenced by different factors. Liu et al. (2011) suggested negative attitudes represent the biggest barrier to CRC screening. The intent to be screened is influenced by different factors. Purnell et al. (2009) stated physician ethnicity and medical mistrust influence individual intent to complete screening. The individual's screening intentions increased when the physician was AA, even if the level of medical mistrust was high (Purnell et al., 2009). Griffith et al. (2012) identified other factors that influence individual screening intention: the desire to be cured, responsibility to family, fear of death, and knowledge of family or friends who suffered were impacted by CRC.The closer the individual is to the influencing factor, the more significant the influence. If it were a factor with personal impact or family impact the influence is greater than if it were a factor impacting a stranger.

Problem Statement

There is a significant health concern among AA men in Alabama. AA men in the state of Alabama have a higher rate of CRC mortality and morbidity than all other races in the state (Siegel, DeSantis, & Jemal 2014). Despite the proven benefits of preventive colorectal screening, AA men in Alabama have the highest incidence of CRC, yet the lowest participation rates in CRC screening. According to the Healthy Alabama 2020 (year) assessment report, cancer treatment and prevention were high priority focus areas. The American Cancer Society (ACS, 2014) has also set a priority on CRC screening for the prevention and early detection of precancerous lesions and polyps. On a national, state and local levels, low participation in CRC screening among AA men need to be addressed.

The rates of cancer mortality and morbidity are especially high when compared to non-Hispanic White males. Healthy Alabama 2020 (year) set a priority focus on removing the health disparity for cancer for all groups. The focus was to eliminate the disparity between AA men and non-AA men in the state of Alabama (Alabama Department of Public Health, 2012).

The most beneficial tool to impact CRC is screening. CRC screening is credited for the early detection and treatment that prevents many CRC deaths (Brawley, 2014). CRC screening has the potential to prevent CRC because the CRC screening causes earlier detection of adenomatous polyps in early formation (Brawley, 2014). Most CRCs develop from adenomatous polyps. Polyps are noncancerous growths located in the colon and rectum can develop into cancerous cells (Brawley, 2014). Additional benefits of being screened at the recommended frequency is the increase in the likelihood that CRC will be detected at an earlier stage, (Grubbs et al., 2013). The earlier CRC is detected the more likely it will be treatable. Consequently, making CRC more treatable through earlier detection has a positive impact on CRC related deaths.

Researchers have not addressed the barriers that lead to the higher rates of CRC screening among AA men in Mobile, Alabama. Traditional acculturative strategy, group-based medical mistrust, physician ethnicity, and group-level perceptions of susceptibility may be reasons for the low rates of CRC screen, but it is still unclear (Purnell et al., 2009). In this study, I investigated the knowledge, perceptions, and facilitators to CRC screening among AA men in Mobile, Alabama.

Purpose of the Study

I explored the knowledge, perceptions, and facilitators that prevent AA men between the ages of 40 and 75 in Mobile, Alabama from participating in CRC screening. In this qualitative inquiry, I explored the behaviors and attitudes of AA men concerning CRC screening to increase CRC screening participation among AA men in accordance with recommendations of the United States Preventive Services Task Force (USPSTF, 2008). The USPSTF recommends CRC screenings begin at age 50. The American College of Gastroenterology recommends screening begin at age 45 for AA men (Rex et al., 2009). Creswell (2009, p. 13) stated that phenomenological research is a strategy of inquiry that is used to identify patterns and relationships of meanings. In this phenomenological research of AA men, I investigated the perceptions of CRC screening relative to their health and identified facilitator and barriers to their decision to be screened or not screened.

Research Questions

This study was designed to investigate the phenomena concerning the decision of AA men to participate in CRC screening. Emerging themes may provide legislators and health professionals the information necessary to create policy required to improve the participation in CRC screening among AA men. Resulting policies may cause improvement of CRC morbidity and mortality rates among the study group as suggested by historical literature. The following questions provided guidance for the research:

1. What knowledge do AA men from age 40-75 have about CRC in Mobile, Alabama?

2. What perceptions about CRC screening prevent AA men from age 40-75 in Mobile, Alabama from seeking care?
3. What are the facilitators to CRC screening among AA men from age 40-75 in Mobile, Alabama?

Theoretical Framework

In this study, I used the health belief model (HBM) as the theoretical framework. The HBM has been used to examine health beliefs across several health issues. The earliest of these models was developed to examine breast cancer screening and mammography termed the Champion's health belief model scale for mammography screening (CHBMS), named after the scientist that developed this version of the HBM method, Champion (1995). In a revised version, Champion (1999) posited perceived susceptibility involves a woman's thinking that there is a chance that she will develop breast cancer in the future. Perceived beliefs involve the woman's understanding that receiving a mammogram is beneficial in preventing breast cancer because early detection results in good treatment and improves the likelihood of survival. Champion also stated the increased benefits of screening along with the understanding of barriers may be theoretically linked. Therefore, understanding the barriers to participating in mammography along with the benefits are important in understanding mammography behavior and a greater benefit is associated with increased screening rate.

The CHBMS has been adopted and refined for many different uses throughout the world. In 2000 and 2008, the CHBMS model was adopted by other researchers and refined for use in people with CRC with a first degree relative diagnosed with cancer (Rawl, Menon, Champion, Foster, & Skinner, 2001). Champion also suggested that this model could be modified to measure health beliefs in other screenings as well (as cited in Glanz, Rimer, & Viswanath, 2008), thereby opening the path for use in CRC screening.

Nature of the Study

In this qualitative, phenomenological study, I identified themes associated with the knowledge, perceptions, and facilitators to CRC screening among AA men. In this phenomenological study, I used the HBM. According to the HBM, an individual's perception of a possible health threat influences his or her likelihood of taking action to prevent the threat. The HBM was developed to help explain the lack of participation in programs that detect and prevent disease (Rosenstock, Stretcher, & Becker, 1988). The HBM states an individual will take certain preventive health actions based on the individual's perception of a possible health threat (Myers et.al. 2014).

The phenomenological approach is used to better capture the lived experiences of individuals as the experience certain phenomena (Creswell, 2010). Creswell (2010) described phenomenology as a way to uncover, describe, and interpret structures of lived experiences as they occur. In this study, I used open-ended interview questions in a one-on-one format. The participants were AA men age 40-75. I investigated how traditional acculturation, medical mistrust, physician ethnicity, CRC screening perceptions, facilitators, and barriers influenced the decision to participate in CRC screening among the study population. According to Creswell, the open-ended questionnaire format allows the researcher opportunities for probing deeper while providing structure allowing the researcher to stay on task. I used the open-ended questionnaire to maintains consistency in my interview questions while allowing personalized responses from each participant.

Historical research provided emerging themes on the low participation in CRC screening for the prevention of CRC, but failed to address these themes in the AA male population in Mobile, Alabama. The phenomenological study set aside all presuppositions and relied on intuition, imagination, and universal structures to create a picture of the experiences of the study participants (Creswell, 2007).

Definitions

Acculturation: The processes of cultural adaptation of an individual, group, or people from one culture to another as a result of prolonged contact (Purnell et al., 2009).

Computed tomographic colonography: Known also as virtual colonoscopy, this is only a screening tool, not a diagnostic tool. This procedure uses CT scans to create a 3-D image used to evaluate the colon (National Cancer Institute at the National Institute of Health, 2011).

Fecal occult blood test (FOBT): A noninvasive comparatively inexpensive screening test that chemically tests stool hidden or occult blood which may be indicative of a premalignant polyp or CRC (National Cancer Institute at the National Institute of Health, 2011).

Flexible sigmoidoscopy: Alternatively called a flex-sig, this method of screening is performed by a physician using a camera attached to the end of a flexible tube that is inserted into the rectum (National Cancer Institute at the National Institute of Health, 2011).

Susceptibility: Denotes a person’s ability to be affected, influenced, or harmed (Purnell et al., 2009).

Assumptions

I assumed the individuals interviewed would fully understand the interview questions. It was also assumed that the individuals interviewed would respond to the questions truthfully. It was further assumed that the interview questions and method would be effective in retrieving participant information.

Scope and Delimitations

This scope of this study included developing an understanding of CRC screening behaviors and perceptions among AA men 40-75 years of age who resided in Mobile, Alabama at the time of the study. The interview site was a local church in Mobile, Alabama. Members and nonmembers were recruited for participation in the study. The inclusion criteria were limited to individuals who were AA, male, and age 40-75. Although I included interview questions concerning age, marital status, insurance, work status, and education, participant responses to these questions did not prevent a participant from continuing in the study. I investigated knowledge, perceptions, and facilitators to colorectal screening among this group using the phenomenological research design. In contrast to quantitative research methods, a qualitative phenomenological approach allows for the exploration of themes as they emerge in the lived experience (Creswell, 2010). I only explored the health beliefs of the participants and did not capture how the participants managed or coped with CRC if they had ever been diagnosed with any cancer including CRC.

Limitations

This study group was limited to AA men in the Mobile area, and the sample size was small. Due to the size and subjective self-reporting of this study, the results cannot be generalized beyond the individuals participating in the study (Creswell, 2007, 2010). Despite the intent to be completely objective, in qualitative studies, interpretation of responses made by the participants may not be exactly what the participants intend to articulate.

Significance

The ACS (year) revealed fewer AA are dying from CRC than in previous years. Despite this reduction in deaths, AAs still have the highest death rate of any other racial or ethnic group for most cancers, including CRC. It was anticipated that over 9,000 AA men died from CRC in 2014 (ACS, 2014). When examining all forms of cancer deaths combined, AA men are over 35% more likely to die from cancer than European American men.

In this study, I focused on decreased CRC screening participation among AA males 40-75 years of age in Mobile, Alabama. There was an estimated 147,000 new cases of CRC in the United States and 50,000 related deaths (U.S. Department of Health and Human Services, 2014). CRC is second only to lung cancer as a cause of cancer death in the United States. AAs have the highest incidence of CRC of any racial or ethnic group. The National Institute of Health (2014) stated the reasons for higher rates of CRC in AAs are unclear. Srinivasan (2005) suggested that higher rates of CRC in AA is due to the lack of screening, resulting in later detection among AAs than in other races. Despite the recommendation of CRC screening for adult men between ages of 50 and 75, there is still a disparity in the AA men population in Mobile, Alabama.

USPSTF’s 2009 policy recommendations for CRC screening have not been adequate to erase the disparity in CRC rates in the United States. Consequently, neither the Healthy People 2020 nor the Healthy Alabama 2020 recommendations and initiatives have been adequate in erasing the disparity in CRC in Alabama (ACS, 2013; Alabama Department of Public Health, 2012; National Institute of Health, 2011). This study may help inform local municipalities and health policy makers on education, awareness, and resource allocation strategies to achieve Healthy Alabama 2020 goals to reduce CRC rates and reduce cancer disparities (Alabama Department of Public Health, 2012).

Perceptions and barriers affect an individual's propensity to participate in CRC screening. Outside of ignorance, barriers are the biggest deterrent to screening (Wong et al., 2013). Two of the more common barriers to screening were embarrassment and lack of engagement with the physician (Myers et al., 2013). It is critical to gain a better understanding of how AA men's knowledge, perceptions, beliefs, and perceived barriers affect their propensity to participate in any preventative health screening. Now that the Affordable Care Act provides access, this study was conducted to inform policy that addresses barriers to CRC screening in the most impacted AA men in Mobile, Alabama. This study was conducted via live in-person interviews. The data were collected, transcribed, coded, and interpreted.

Summary

Despite a reduction in deaths, AAs still have the highest death rate of any other racial or ethnic group for most cancers, including CRC. It was anticipated that over 9,000 AA men will die from CRC in 2014 (ACS, 2014). When examining all forms of cancer deaths combined, AA cancer is detected in later stages than in non-AAs and AAs' death rate is greater than non-AAs.

In Chapter 1, I introduced the impact that CRC is having on the health of the United States. I discussed the background of CRC in the United States and in South Alabama. I also identified key objectives and initiatives of government organizations to make improvements in CRC screening rates to lower mortality and morbidity rates in cancer and eliminates cancer related health disparities. Chapter 2 is a comprehensive review of the published literature on CRC with an emphasis on AA men and more specifically on AA men in Mobile, Alabama.

Chapter 2: Literature Review

Introduction

There are several government and private organizations that recognize the impact CRC has on individuals in the United States. CRC is the second leading cause of cancer deaths in the United States (Journal of National Cancer Institute, 2013). AAs experience the highest incidence of CRC of any racial or ethnic group. In the state of Alabama, the rate of CRC-related deaths among AA men is 12% higher than the national average (U.S. Department of Health and Human Services, 2014). This is a significant health concern in the state of Alabama and a focus of the Healthy Alabama 2020 initiative (ADPH, 2013).

AA men in Alabama have a higher rate of CRC mortality and morbidity than all other races in the state. It was anticipated that over 9,000 AA men died from CRC in 2015 (Centers for Disease Control and Prevention, 2014). AA men are over 35% more likely to die from cancer than European American men (Centers for Disease Control and Prevention, 2013; National Cancer Institute, 2014; Office of Minority Health, 2013). When male and female genders are combined, CRC remains the third most diagnosed cancer and the second largest leading cause of deaths in the United States (ACS, 2013). Healthy People 2020 recognizes the need to improve CRC morbidity and mortality as part of the goal to reduce the impact of cancer (HP 2020, 2010).

The purpose of this qualitative study was to investigate the knowledge, perceptions, facilitators, and barriers to CRC screening among AA men in Mobile, Alabama. There is a significant gap between the high incidence of CRC and the low participation in CRC screening. This gap exists despite the proven benefits of preventive CRC among AA men. CRC is the second leading cause of cancer deaths in the United

States (Journal of National Cancer Institute, 2014). Among those who suffer from the effects of cancer, AA men suffer the most in moebidity and mortality. Yet AA men continue to have the lowest participation in CRC screening (Grubbs, 2013).

Chapter 2 consists of scholarly literature on CRC screening intentions as the motivation that influences AA males to seek and maintain overall health. Further examination of the relationship between other health influencers in Chapter 2 encompasses the gap in CRC screening and the incidence and prevalence of CRC in the AA male population. Chapter 2 also includes a historical overview of cancer health and health behaviors that influence CRC screening intentions and a discussion of themes that address the research questions that support the existence of a gap in care amongst African American males versus other ethnic groups and health motivation theories.

The following is a review of literature on the following: a historical overview of CRC in the United States; overview of CRC among AA men nationally, and the state of Alabama in particular; discussion of CRC screening and perceived benefits and barriers among AA men; CRC screening among AA men; health seeking behaviors of AA men; theoretical frameworks that guided this study and were used in the past to address CRC; and gaps in the literature and how this study will attempt to fill them. The remainder of this chapter contains the literature search strategy, the theoretical and conceptual framework, literature related to key variables and concepts, issues of trustworthiness (including credibility, transferability, dependability, and conformability) ethical procedures, and ends with a summary.

Literature Search Strategy

The literature review for this study was conducted through a search of academic search engines and databases including EBSCO Host Research database at Walden University, Academic Search Complete, ProQuest Complete, Thoreau Multi-Database Search, The University of South Alabama, Medline, PubMed, CINAHL, and Google Scholar. The Centers for Disease Control (CDC), The National Institute of Health (NIH), The Lancet, and The ACS websites were used to provide population statistic data. Research articles on CRC screening in AA men are included in the study. Both qualitative and quantitative studies were deemed relevant to the research questions. Key search words for this study included *African American*, *African American men*, *race*, *Alabama*, *cancer*, *cancer screening*, *colorectal cancer screening*, *health benefits*, *health disparities*, *health screening*, *disparities*, *benefits*, *cultural influences*, *aculturative influence*, *medical mistrust*, *physician-patient relationship*, *qualitative methods*, *social influence*, *susceptibility*, *racial health difference and health beliefs*, *health knowledge*, and *sociodemographic influence*.

Theoretical Foundation

Health Belief Model

I used the HBM to explore the health behaviors of the participants in this study. The HBM was developed to address which beliefs should be promoted to yield desirable health behaviors (Glanz et al., 2008, pp. 46-92). The HBM has been used to explain change and maintenance of health-related behaviors and practices (Glanz et al., 2008). Researchers using the HBM examine health beliefs across several health issues. The earliest of these models was developed to examine breast screening and mammography termed CHBMS, named after the scientist that developed this version of the method (Champion et al., 2002). The key components of the HBM are perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy (Glanz et al., 2008). These components can be used individually or in combination to explain health behaviors (Champion et al., 2002; Glanz et al., 2008). The versatility of the HBM makes it an important tool to explore health behaviors.

Perceived Susceptibility

Perceived susceptibility is a person's belief concerning their perception of the chance they may experience a certain disease or medical condition (Glanz et al., 2008). Susceptibility includes a person's ability to be affected, influenced, or harmed. The male perception of susceptibility influences their decision to participate in preventive health behaviors including health screening (Parrott, Kahl, Ndiaye, & Traeder, 2012). Using a 4-point Likert scale, Purnell et al. (2009) assessed the perceptions of the probability of developing CRC polyps and cancer among AAs. Items were rated from 1=*strongly agree* to 4= *strongly disagree* (Purnell et al., 2009). Purnell et al. recorded an average score of 2.70 suggesting that AAs did not strongly believe there was a high probability of developing colorectal cancer. The perception of a lower possibility of developing CRC would suggest a reduced urgency in the participation in CRC screening.

Perceived Severity

Perceived severity is a person's belief about the seriousness of a condition and the consequences of them having the condition (Glanz et al., 2008). This refers to the perception of the difficulties a disease or condition may cause. Examples include loss of time at work, pain, inconvenience, family difficulties, and the potential to contract a more serious disease or condition.

Perceived Benefits

Perceived benefits are a person's opinion of the usefulness of a behavior in reducing risk of disease. Purnell et al. (2009) and Glanz et al. (2008) posited that the greater perceived benefit an individual has in health behavior, the greater the likelihood the individual will have a behavioral change. While there are benefits to health screening, the perception of the health benefits is lower for AAs than for non-AAs. Health outcomes for AAs continue to be worse than for non-AAs. This is especially the case for AA men (Lippke, Nigg, & Maddock, 2012; Napier et al., 2014; Ricci-Cabello, Ruis-Perez, Nevot-Cordero, & Rodrigues-Barranco, 2013). This lowered view of benefit suggests a negative impact on participation in preventive health screening. To increase participation in health screening and improve health behaviors, the health risk must be great enough to cause a change in behavior or the perception of the health benefit must be great enough to motivate the individual to participate in the positive health behavior.

Perceived Barriers

Perceived barriers is a person's belief concerning the cost of an advised action that includes tangible and psychological costs (Glanz et al., 2008). Perceived barriers to health affect an individual's tendency to participate in a beneficial health behaviors including CRC screening. Perceived barriers are the largest deterrent to preventive health screening (Griffith et al., 2012; Myers et al., 2014; Wong et al., 2013). Wong et al. (2013) identified ignorance or the absence of knowledge as the greatest barrier to screening. The absence of knowledge of the health implications of CRC and the benefits of CRC screening causes delays in the detection of CRC. This delay results in later stage CRC detection in AA men, which contributes to AA men having the highest CRC death rates among all races (Lansdorp-Vogelaar et al., 2012; Naylor et al., 2012).

Cues to Action

Cues to actions are the strategies to activate readiness. They relate to providing the "how to" information, promoting awareness, and incorporating appropriate reminder systems (Glanz et al., 2008). These cues to action may be internal or external.

Self-efficacy

Self-efficacy is an individual's confidence in his or her ability to act (Glanz et al., 2008). Self-efficacy leads to health behaviors. Clark, Gong, and Kaciroti (2014) referred to health behavior as the ability of patients to control illness through an effective therapeutic plan. Under normal circumstances, a reasonable person will use the available information to make reasonable decisions to preserve one's health (Schwarzer, 2014). Health behavior is more than a series of rigid health centered habits. Health behavior is cued by habit resulting in a conscious decision that prompts behavior (Gardner, 2014). Ultimately, the behavior becomes automatic in the presence of alternative options or stimuli and promotes health.

The CHBMS has been adopted and refined for use with various research inquiries. In 2000 and 2008, the CHBMS model was adopted by other researchers and refined for use in people with CRC with a first degree relative diagnosed with cancer (Rawl et al., 2001). Glanz et al. (2008) also suggested that this model be modified to measure health beliefs in other screenings, thereby opening the path for use in CRC screening. Three types of factors comprise the framework of the use of health services:

predisposing factors, health beliefs, and other individual characteristics; enabling factors; and sickness level or need factors. Public health organizations play a key role in addressing health disparities in health care. I stopped reviewing here. Please go through the rest of your chapter and look for the patterns I pointed out to you. I will now look at Chapter 3.

The perceived benefits to CRC screening are well documented (Gardner, 2014; Griffith et al., 2013; Rex et al., 2009; Vernon et al., 2012). CRC screening enables earlier detection of abnormalities and polyps. The early detection of polyps and abnormalities can help prevent progressive worsening of CRC (Rogers, 2014). Perceptions and barriers affect the individual's propensity to participate in CRC screening. Outside of ignorance, barriers were the biggest deterrent to screening (Wong et al., 2013). Two of the more common barriers to screening were embarrassment and lack of engagement with the physician (Myers et al., 2012). It is critical to the health of the AA community to gain better understanding of how AA men's knowledge, perceptions, beliefs, and perceived barriers affect their participation in preventative health screening (Purnell et al., 2009). This is especially important for CRC screening because CRC mortality and morbidity rates are the highest among African American men. More importantly, CRC is easily detectable and treatable.

The Health Beliefs Model (HBM) suggests that if individuals are aware of the health benefits of an action, then they will participate in the beneficial health behavior. The Health Beliefs Model could affect CRC morbidity due to the detectable and treatable nature of CRC. This HBM would suggest that AA men would participate more in CRC screening if they had the knowledge of and a belief in the benefits of CRC (Griffith et al., 2012; Oliver et al., 2007; Perkins, Nicholls, Liu, & Molokhia, 2013; Wong et al., 2013).

Despite the many studies that have been conducted utilizing the HBM, criticisms have been made about this model. One criticism is that it is difficult to design appropriate tests of the HBM to compare results across studies. The reason is different researchers may use different questions in different studies to investigate the same beliefs (Creswell, 2010; Yoo, Kwon, & Pfeiffer, 2013). Another limitation of the HBM is health behaviors are influenced by factors other than health beliefs including socioeconomic factors, and education, (Moore et al., 2013). This study minimized the impact of these issues by including participants from all socioeconomic groups and educations levels. Data captured on participant economic status and education were recorded and analyzed.

Literature Review

Study of Health Behavior

How people change their behaviors can be described by the levels of change in the core concept of the Transtheoretical Theory (TTM) (Lippke et al., 2012). The basic concept of the TTM is that behavior change is most successful when specific behavioral strategies, called process-of-change, are applied appropriately at the appropriate stage of change (Lippke et al., 2012).

The transtheoretical model was applied to colorectal cancer screening by Vernon et al. to promote CRC screening. Vernon et al. (2012) applied the TTM in a randomized trial of tailored, interactive intervention to increase CRC screening. In the research, patients were randomized to one of three groups: a tailored group–exposure to a tailored intervention about CRC screening, a web site group–exposure to a public web site, and a survey only group–no intervention. Study participants were patients 50-70 years old and completed a baseline survey at the beginning of randomization. The primary end-point was completion of any recommended CRC screening within 6 months (Vernon et al., 2012).

The authors based their application of this model on the premise that tailoring uses personal information to deliver messages that are directly relevant to the person's expressed attitudes and beliefs (Vernon et al., 2012). Study researchers identified that printed tailored messaging provided too much lag time and allowed for additional knowledge factors to impact the person's attitudes and beliefs. The telephone notification option provided a more intimate counseling experience with the added benefit of immediate feedback, but is expensive and difficult to incorporate into a health care setting. With the advancements, availability and reduced cost of computer technology, computers have an advantage over both the written survey and phone counseling. Computers provide the same immediacy potential as phone counseling and the increased flexibility of the participant having the capability to tailor the computer interaction (Lippke et al., 2012; Myers et al., 2013; Vernon et al., 2012).

The authors' primary objective was to conduct a randomized controlled trial to increase CRC screening in the clinic setting with additional objectives designed to evaluate the intervention effect on intermediate psychosocial variables that may influence screening, assess moderation effects, conduct a process evaluation of intervention implementation. After a baseline survey was administered, the participants were stratified by gender and screening status. The categories were never screened females, overdue females (females who were screened but whose screening was no longer current), never screened males, and overdue males (males who were screened but whose screening was no longer current) (Vernon et al., 2012).

The constructs that the authors used from the TTM utilized in the intervention were stage of change or readiness to complete CRC screening, pre-contemplation, contemplation, and preparation for action. The processes of change related to each stage were self-reevaluation, consciousness raising, environmental reevaluation, and self-liberation. In addition, there were self-efficacy pros and cons – decision balance (Vernon et al., 2012). The authors hypothesized the CRC screening would be lowest in the survey only group and highest in the tailored group.

The authors found no moderating effect in the group by age, sex, race, marital status, education, income, employment status, insurance, or computer use. The researchers found no statistical difference between any of the groups that participated. Moderators that affected intervention effects were family history, prior screening, stage of change, and physician recommendation. The present study sought to discover the motivation that influences the participation in CRC, specifically for AA men.

Study of Population Health

Murray et al. (2012) stated measuring disease and injury burden in populations requires a composite metric that captures premature mortality and severity of ill-health. To measure this burden, a 1990 study proposed a unit of measure known as disability-adjusted life years (DALYs) (Murray et al., 2012). Studying, understanding, treating, and preventing, health risks is a global initiative that is a top priority for the entire world (Napier et al., 2014). Disease migrations both planned and unplanned, diverse social practices along with emerging diverse vectors transform how health and wellbeing are understood and addressed (Murray et al., 2012; Napier et al., 2014). The Global Burden of Disease Injuries, and Risk Factors (GBD) is an enterprise movement that scientifically quantifies the health loss due to disease, injuries, risk factors by sex, age, and geography (Murray et al., 2012). The calculated losses are not calculated financially or with time or hours of productivity. The role of the analysis is to identify and report the more important health losses for global and community awareness.

These data are utilized by countries to inform their population health assessments and calculate risks. In addition, these data help inform governments on their approach to population health policy and medical coverage. World Health Organization Director Chan stated that universal health coverage is the greatest contribution to the community that public health offers (Schmidt, Gostin, & Emanuel, 2015). Almadi et al. (2014) used the HBM to conclude that most people were willing to undergo preventive health behaviors such as CRC screening if a national program was in place that specifically targeted CRC screening (Almadi et al., 2014).

Many researchers agree on the usefulness of the HBM to investigate preventive health behaviors and CRC screening among African American men (Griffith et al., 2012; Lippke et al., 2012; Oliver et al., 2012). They further agree that one construct of the HBM is not enough to cause African American men to change their health behaviors. For example, perceived susceptibility alone will rarely cause an African American man to participate in health screening (Hayden, 2014; Myers et al., 2012; Robbins et al., 2012). Causing behavioral health change may require a certain perception of susceptibility to CRC combined with a certain perception of severity and the perception that CRC screening will benefit them (Griffith et al., 2012; Hayden, 2014). The literature identifies various combinations of HBM factors that influence African American men's decision concerning preventive health behaviors and CRC screening (Griffith et al., 2012; Lippke et al., 2012; Oliver et al., 2012).

Health Disparities

The National Institutes of Health (NIH) define health disparity as, "the differences in access to or availability of facilities and services" (2009). The NCI defines cancer health disparities as, "adverse differences in cancer incidence (new cases), cancer prevalence (all cases) morbidity (cancer-related health complications), cancer mortality (deaths), cancer survivorship, and burden of cancer or related health conditions that exist among specific population groups in the United States" (National Cancer Institute at the National Institutes of Health, 2011). Healthy People 2020 further defines health disparity as, "a health difference that is closely linked with social, economic, and/or environmental disadvantage. Healthy People established goals to address health disparities. Healthy People 2000 set a goal to reduce health disparities. Health People 2010 set a goal to eliminate health disparities and set a goal to eliminate disparities and achieve health equality and improve the health across all groups (Healthy People 2020, 2010).

Health disparities in cancer. African Americans (AA) have the highest mortality rates for all cancers combined and for most major cancers (Office of Minority Health [OMH], 2013). In addition, African Americans have higher death rates for all major causes of death contributing to the lower overall life expectancy of African Americans. In 2009, AA men were more likely to develop new cases of lung and prostate cancer than their white counterpart (NIH, 2013). In fact, AA men were 1.3 times more likely to have a new case of lung cancer and 1.6 times more likely to have a new case of prostate cancer (NIH, 2013). The same is true with the other major forms of cancer. AA men were 1.7 times more likely to have new cases of stomach cancer and 2.5 times likely to die from prostate cancer. Their 5-year survival rate was lower for colon, lung and pancreatic cancer as well (OMH, 2013.) OMH (2013) reported that in 2009 AA women were 10% less likely to be diagnosed with breast cancer and 40% more likely to die from breast cancer than Caucasian women.

Minority men and women had insufficient knowledge about CRC screening diagnosis or treatment (Grubbs et al., 2013). Grubbs et al. (2013) also suggested that there is a disparity in overall health knowledge between minorities and whites. The research article stated that there are multiple studies documenting the disparity in CRC screening rates with minority rates being lower than whites. AAs have the lowest rates of follow up when abnormal results or discrepancies are found (Zullig et al., 2013). The gap in follow up after abnormalities has been attributed to medical mistrust, low susceptibility, or disbelief in diagnosis (Moore et al., 2013; Wong et al., 2013).

Health disparities in colorectal cancer. Colorectal cancer is detectable and in most cases easily treated. Grubbs et al. (2013) stated it is a shame the higher incidence rates in CRC may likely be due to the differences in screening rates between whites and minorities (2013). These differences may be found in quality of care and the scope of procedures received across other diseases including CRC. Despite the changes in insurance industry with the passing of The Affordable Care Act, minorities are still disproportionately represented in CRC screening and treatment (Mitchell, Hawkins, & Shires, 2014). Whites are screened more often and abnormalities are found sooner and treated earlier. This increases survival rates among whites and widens the gap between whites and minorities. African American men are less likely to be screened resulting in abnormalities discovered later than Caucasians. Consequently, African Americans exhibit a lower survival rate of CRC (Office of Minority Health, 2013).

Literature Review Related to Key Variables and Concepts

Colorectal cancer is a major health problem in the United States (Siegel et al., 2013). Colorectal cancer (CRC) is the second leading cause of cancer deaths in the United States according to the Journal of National Cancer Institute (2013). African Americans have the highest incidence of colorectal cancer of any racial or ethnic group as well. In the state of Alabama, this trend continues and the rate of CRC related deaths among African American (AA) men is 12% higher than the national average. The reason for higher rates of CRC in African Americans is unclear (Cole, Jackson, & Doescher, 2013; Myers et al., 2014; Purnell, 2009; Wong et al., 2013). The literature suggests that a major contributor to the higher CRC rates among African Americans and especially African American men is the lack of participation in CRC screening (Lasser, Ayanian, Fletcher, & Good, 2008; Myers et al. 2012; Oliver et al., 2012; Palmer, Chhabra, & McKinney, 2010; Ruggieri et al., 2013; Wilkins et al., 2012; Wong et al., 2013). There are several screening options recommended by the USPSTF including Fecal Occult Blood Test (FOBT), Flexible Sigmoidoscopy (FS), computed tomographic colonography (CTC), and Colonoscopy (USPSTF, 2008).

Purnell et al. (2009) suggested while there are several studies have been conducted to investigate CRC screening behaviors among African Americans but do not include social and cultural barriers. Purnell et al. (2009) further posited while the HBM has been frequently used in CRC literature, the HBM does not adequately conceptualize culture specific factors relevant to African Americans. Purnell et al. (2009) identified traditional acculturation, medical mistrust, and physician ethnicity as barriers to CRC screening among African. There were other key barriers that were not captured by Purnell et al., (2009). The barriers were lack of knowledge about the importance of CRC screening and perceived access to care (Moore et al., 2013; Wong et al., 2013).

Colorectal Cancer

In 2013, there was an estimated 147,000 new cases of colorectal cancer in the United States and 50,000 related deaths (U.S. Department of Health and Human Services). Colorectal cancer is second only to lung cancer as a cause of cancer death in the United States. African Americans have the highest incidence of CRC of any racial or ethnic group. The National Institute of Health reported the reason for higher rates of CRC in African Americans remains unclear, but is likely due to the lack of screening resulting in later detection among African Americans than in other races (Srinivasan, 2005). Despite the recommendation of CRC screening for adult men between ages of 50 and 75, there is still a disparity in the AA men population in Alabama (Cole et al., 2013).

As reported by the National Cancer Institute (2013), the incidence of CRC is 51.6 per 100,000 men and women and the incidence of death is 19.4 per 100,000. However, the incidence of CRC among African Americans is 62.1 per 100,000 while the incidence of death is 26.7 per 100,000. Despite the reductions in deaths, African Americans still have the highest death rate of any other racial or ethnic group for most cancers, including colorectal cancer (Cole et al., 2013). When examining all forms of cancer deaths combined, the data are telling. African-American men are over 35% more likely to die from cancer than Caucasian men. CRC is the second leading cause of death among African American men in the United States. However, there are fewer African Americans dying from CRC than in previous years.

CRC Screening among African Americans

The health experience in America varies from individual to individual. The goal of the American healthcare system is to provide individuals with valuable healthcare at an affordable cost. The National Institutes of Health reported the three main objectives of the Patient Protection and Affordable Care Act (ACA) are (1) to reform the private insurance market—especially for individuals and small-group purchasers, (2) expand Medicaid to the working poor with income up to 133% of the federal poverty level, and (3) to change the way medical decisions are made (Silvers, 2013). The intent of the ACA is to bring fairness to the health care system and stabilize healthcare costs while bringing confidence to the public regarding the increasing costs of healthcare. Yet, fear remains among many Americans, particularly among lower income earners who feel trapped in a substandard health program resulting in confidence in the system lower than the crafters of the ACA anticipated (Silvers, 2013).

The National Institutes of Health (NIH) affirmed a drive to improve the quality in healthcare in general practice exists among health care policy makers (Silvers, 2013). The quality improvements approaches have varied between practices, groups, and systems. The change initiatives begin at the government level with incentives and penalties for achieving certain quality measures and extend reach to state, regional, and local levels.

The various types and compositions of health care organizations employ their own initiatives to achieve ACA compliance (NIH, 2015; Silvers, 2013).

In Alabama, the health trends in all major categories of health concern are higher than the national average. Cigarette smoking in both youths and adults is nearly 5% higher than the national average. Obesity in the state of Alabama exceeds the national average by over 5%. Heart disease is the number one killer of citizens in Alabama and is higher than the national average by 44.6 per 100,000. Hypertension rates exceed the nation by nearly 9% and diabetes rates exceed the nation by nearly 5%. All health risks are higher in the African American population than in the non-African Americans in the state of Alabama (Centers for Disease Control and Prevention, 2014).

Traditional acculturative strategy. The acculturation process includes the cultural adaptation of an individual, group, or people from one culture to another due to prolonged contact (Purnell et al., 2009). Acculturation manifests and influences the establishment of social norms, group perceptions, and behaviors of a culture (Kelly et al., 2012). Kelly et al. (2012) also suggested that acculturation shapes and affirms health beliefs and behaviors. The role of the African American male in the family has traditionally influenced the beliefs and behaviors of the family relating to health decisions (Kelly et al., 2012). Since members of a group identify more with members of their own group, then they would differ from members of other groups. This difference would result in differences in thought and behavior. Kramer et al. (2012) stated that there are cultural universalities and perceptions are influenced by ethnic background and the perceiver's relationship to the group. Purnell et al. (2009) stated in the African American culture, values prevalent among the group have been identified e.g., group solidarity, striving despite obstacles, and reliance on others within the group; thereby suggesting that providing health screening messaging to the African American man would demonstrate a benefit to the group to influence individual behavior.

Medical mistrust. Researchers suggest medical delays in health screenings and routine checkups among African American men can often be attributed to medical mistrust (Grubbs et al., 2013; Hammond, Mathews, Mohottige, Agyemang, & Corbie-Smith, 2010; Purnell et al., 2009). The reluctance to participate in routine primary care doctor visits by African American men has been attributed to masculinity, possessing appropriate qualities associated with a man. Literature suggested that what was once attributed to AA male masculinity was medical mistrust (Davis, Bynum, Katz, Buchanan, & Green, 2013; Ruggieri et al., 2013).

The origin of this mistrust has been attributed to many factors. Recently, researchers suggested that the medical mistrust by AA men may be due to perceived racial discrimination by society including the physician (Hammond, 2012). Purnell et al. (2009) stated medical mistrust is impacted by the ethnicity of the physician. Medical mistrust appeared to diminish when the physician and patient are of the same ethnicity, specifically African American (Purnell et al., 2009).

Physician ethnicity. The ethnicity of the medical provider influences theory about communication. The perspective of African American men in the United States has been influenced by events in history that date back to slavery and continue forward to include other social inequalities such as segregation and discrimination (Blocker et al., 2006; Moore et al., 2013; Robbins et al., 2012). This “race consciousness” influences their decisions in matters of health (Blocker et al., 2006). Among the health decisions that are influenced is the physician they will use. Purnell et al. (2009) found that the intent to screen was greater among African American men when the physician was also African American than when the physician was not African American. This may be attributed to increased comfort in communication between people of the same race (Kramer et al., 2012; Purnell et al., 2009). African Americans in rural Alabama expressed increased discomfort when the physician was Caucasian (Oliver, 2007). African American men have developed a discomfort with Caucasian physicians that causes a reluctance to discuss medical issues (Oliver et al., 2012). This may also affect compliance to treatment regimens and health screenings.

Colorectal cancer screening tools and guidelines. There have been many studies that give credit to CRC screening for the early detection and treatment that prevents many CRC deaths (Brawley, 2014). In 2008, the United States Preventive Services Task Force (USPSTF, 2008) made recommendations concerning CRC screening (Zhu et al., 2013). The USPSTF recommends Fecal Occult Blood Test (FOBT), Flexible Sigmoidoscopy (FS), and Colonoscopy with an “A” rating for CRC screening (USPSTF, 2008). In 2008, when the USPSTF made these determinations, there was a new type of screening available known as the computed tomographic colonography (CTC), more commonly known as virtual colonography. The CTC screening was too new to receive a rating by USPSTF so its value was undetermined. USPSTF guidelines recommend screening CRC screening beginning at the age of 50 and continuing until the age of 75 for average risk (2008). Average risk is defined as 50 years of age or older with no symptoms. Increased risk is defined as patients who have a personal or familial history of CRC, polyps, or Inflammatory Bowel Disease with or without symptoms. However, the American College of Gastroenterologists recommends African Americans begin screening at the age of 45 due to an increased risk of CRC (Oliver et al., 2012).

Fecal occult blood test (FOBT). The FOBT is a non-invasive comparatively inexpensive screening test that chemically tests stool hidden or occult blood which may be indicative of a premalignant polyp or CRC. The Centers for Medicare and Medicaid Services (CMS, 2009) declared early detection and intervention have been shown to improve survival in randomized trials on FOBT. If blood is found during FOBT screening, a colonoscopy is usually performed as a follow up. Benefits of FOBT lie in the ability to administer this screening to larger numbers of people at a lower cost. Negative characteristics of this screening include the potential for inaccurate results, dietary restrictions prior to testing, and the number of samples required for examination. This screening is recommended annually (USPSTF 2008).

Flexible sigmoidoscopy. The flexible sigmoidoscopy (FS) is also called flex-sig. This method of screening is performed by a physician using a camera attached to the end of a flexible tube that is inserted into the rectum. The patient is usually given a sedative and lies on one side during the examination. This procedure can be performed quickly, but it only examines the lower portion of the colon. This procedure requires pretreatment colon cleanse and dietary restrictions. FS enables the physician to collect tissue samples in the lower colon (called biopsy) for microscopic examination. If premalignant polyps are found, USPSTF recommends that the patient have a colonoscopy screening for the remainder of the colon. Recommendation for FS screening is every 5 years (USPSTF, 2008).

Colonoscopy. Colonoscopy is an invasive procedure conducted by a physician that allows the examination of the entire colon using a long thin tube with a camera on the end. This long thin flexible tube is called a colonoscope. During this procedure, the patient is sedated and lies on his or her side while the physician inserts the tube into the rectum. Colonoscopy allows for the detection and removal of polyps or growth abnormalities to be removed for further microscopic examination. Removing polyps during colonoscopy is thought to prevent CRC related deaths in addition to preventing CRC from developing (Shah et al., 2014). This treatment takes longer than FOBT and FS, and it takes longer to perform. Colonoscopy can be used as a diagnostic test and a follow up test when other screening tests are unclear (Centers for Disease Control and Prevention, 2014). Colonoscopy is recommended every 10 years (USPSTF 2008).

Computed tomographic colonography. Computed tomography colonograph (CTC) is also known as virtual colonoscopy. The National Cancer Institute declared this is a technique that is not accepted as a diagnostic tool. It is only a screening tool. Once an anomaly is identified utilizing CTC, the patient is referred to take a colonoscopy for a diagnosis (National Cancer Institute, 2013). This procedure uses CT scans to create a 3-D image that is used to evaluate the colon. Due to the newness of this procedure, this method of evaluation is not yet used for standard screening (National Cancer Institute, 2013). This method does not require sedation and is less embarrassing for the patient. The relative high costs in addition to the inability to collect polyps or perform biopsy are considered major drawbacks to this procedure. There is still a need for colonoscopy if any polyps or abnormalities are found. This procedure requires the colon to be inflated with air which causes a risk of perforation of the colon. This method is expensive and not widely covered by medical plans (Centers for Medicare & Medicaid Services, 2013).

Griffith et al. (2012) stated that many barriers to CRC screening exist among African Americans with less screening occurring among African American men. The barriers to CRC screening should be further examined (Myers et al., 2014). Wilkins et al. (2012) found African Americans had lower screening rates than Caucasians and significantly more African Americans reported barriers to CRC screening than did Caucasians. Research also purported that physician recommendation had the strongest association to having current CRC screening regardless of race (Wilkins et al., 2012). Ruggieri et al. (2013) stated that both patients and physicians perceived that the doctor recommendation for screening is an important facilitator to all patients getting screened.

Screening recommendations for colorectal cancer. CRC screening is recommended beginning at the age of 50 and continuing until the age of 75 (USPSTF, 2008). However, the American College of Gastroenterologists recommends African Americans begin screening at the age of 45 due to an increased risk of CRC (Oliver et al., 2012). Earlier screening is also recommended for individuals who have multiple risk factors including family history of CRC with a first-degree blood relative who has a history of CRC polyps or adenomatous polyposis. Physician recommendation has the strongest association to patients having current CRC screening (Wilkins et al., 2012).

Patient knowledge of CRC screening recommendations and benefits. The U.S. Preventive Task Force recommends CRC screening for adult patients beginning at the age of 50, and yet AA men are less likely to have current screening than other groups (USPSTF, 2008-2015). The reduced likelihood of AA men having current screening occurs whether AA men have medical/health insurance or not (Mitchell, Hawkins, & Shires, 2014). The health care provider is the key to reducing the incidence and mortality of CRC. There are other interventions that the health care provider can employ to increase CRC screenings. In a study investigating ways to increase participation in organized screening, Camilloni, Ferroni, Jimenez Cendales, Pezzarossi, Funari, Borgia, Guasticchi, and Rossi (2013) examined all studies on interventions aimed at increasing screening published between 1/1999 and 7/2012. Those studies included examinations of CRC screening. Camilloni et al. (2013) reported interventions that helped increase CRC screenings included patient education, mail outs, community educational interventions, setting specific appointments instead of having open appointments, and other provider reminders. These interventions ranged from 20% to 30% increase in patients participating in CRC screening (Camilloni et al., 2013).

CRC screening enables the detection of CRC during earlier stages of development. When the cancer is detected earlier, it is more likely the cancer can be treated successfully (Myers et al., 2014; Naylor et al., 2012). Routine participation in CRC screening enables the earlier detection of CRC. Despite the benefit of CRC screening, African American men continue to have lower participation rates in CRC screening than non-African American men (Oliver et al., 2012). This study seeks to identify perceptions, beliefs, and barriers to colorectal cancer screening among AA men in Mobile, Alabama. Understanding barriers to that prevent individuals from participating in CRC screening can improve health behaviors and improve screening participation among AA men. This could improve population health and inform policy regarding preventive health screening. This could also result in the reduction in the incidence of CRC among AA men and other ethnic groups as well.

The lack of knowledge of the disease of CRC and the screening recommendations had a negative impact on CRC screening rates along with CRC mortality and morbidity (Griffith et al., 2012). Wong et al. (2013) stated that the greatest barrier to CRC was the lack of knowledge of the importance of screening for non-colonoscopy screened people and the most common facilitator for the people who had colonoscopies was physician recommendation.

Perceived access to care. The Affordable Care Act, passed in 2013 under the Obama Administration opened access to health care for more Americans (Silvers, 2013). However, improved access to health care does not equate to reduced incidence and prevalence of various diseases (Oliver et al., 2012). Population health professionals seek to understand and uncover gaps in health care to develop strategies and processes to improve the health of the American population. Among these gaps in health care is colorectal cancer. Colorectal cancer is the second leading cause of cancer deaths in America (ACS, 2013). African Americans have the highest death rates for all cancers compared to other ethnic groups. African American men have the highest death rate among African Americans (ACS, 2013). Targeted interventions and strategies are necessary to improve these results (Lansdorp-Vogelaar et al., 2012; Oliver et al., 2012). The method recognized and recommended by The American Cancer Society and The United States Preventive Services Task Force is CRC screening (Elnitsky, Andresen, & Clark, 2013; Robbins et al., 2012; USPSTF, 2008).

Summary and Conclusion

This chapter examined the literature used for this study. Griffith et al. (2012) stated that many barriers to CRC screening exist among African Americans. The literature review provided a detailed exploration of cancer, colorectal cancer, and colorectal cancer screening and revealed that African American (AA) men had the highest incidence of CRC in American and in Alabama (Alabama Department of Public Health, 2013; Oliver et al., 2012). Additionally, the literature emphasized that African American men had the lowest participation rates in CRC in America and in Alabama (Alabama Department of Public Health, 2013; Oliver et al., 2012).

The comprehensive literature review provided extensive studies conducted on cancer, CRC, and CRC screening in African American and non-African American populations. Despite this abundance of studies on CRC screening across ethnic groups and genders, none of the studies reviewed investigated CRC screening among African American men in Mobile, Alabama. Therefore, research specific to CRC screening among African American men in the Mobile, Alabama area should be further explored.

This study intended to contribute to the literature by utilizing a qualitative approach to investigate the beliefs, barriers, and facilitators to CRC screening among African American men age 40 to 75 in Mobile, Alabama area. Aimed at gaining better understanding of the health behaviors concerning CRC screening, the study strives to result in the changes in health policy and the development of intervention tools to improve CRC screening and remove the health disparity among AA men in Alabama. Chapter 3 identifies the research design, rationale, and role of the researcher.

Chapter 3: Methodology

Introduction

The purpose of this qualitative, phenomenological study was to gain an understanding of CRC health beliefs in AA men in South Alabama. I explored the perceptions, beliefs, and barriers that prevent AA men between the ages of 40 and 75 in Alabama from participating in CRC screening. In this phenomenological research of AA men, I uncovered their perceptions of CRC screening relative to their health and identified the influencers to their decision to be screened or not screened. This phenomenological study design was appropriate for this study to investigate and develop a theoretical proposition to explain the reticence of AA men to participate in CRC screening despite the benefits of CRC screening. The participants were interviewed, and they provided answers to questions from a semistructured interview guide.

This chapter includes six major sections: Introduction, Research Design and Rationale; Role of the Researcher; Methodology (a) participant selection logic (b) instrumentation (c) procedures for pilot study (d) procedures for recruitment, participation, and data collection; (e) Data Analysis Plan; Issues of Trustworthiness (f) ethical procedures; and Summary.

Research Design and Rationale

This qualitative inquiry was designed to provide an explanation of the behaviors and attitudes of AA men and CRC screening. The following research questions were addressed during this qualitative study:

1. What knowledge do AA men from age 40-75 have about colorectal cancer in Mobile, Alabama?

2. What are the perceptions to colorectal cancer screening among AA men from age 40-75 in Mobile, Alabama?
3. What are the facilitators to colorectal cancer screening among AA men from age 40-75 in Mobile, Alabama?

This is a qualitative phenomenological study. Qualitative research methods are guided by a core concept or idea (Creswell, 2007, 2010). Qualitative methodology begins with a broad assumption in the study of research problems inquiring into the meanings individuals or groups ascribe to a social or human problem (Creswell, 2007). Key attributes of qualitative research are researchers using the qualitative study tend to collect data in the natural setting of the participants; researchers serve as a key instrument in the data collection; the research process is emergent via inductive data analysis where researchers build their patterns, categories, and themes using a bottom-up approach (Creswell, 2007). Creswell (2007) stated that the key idea behind qualitative research is to learn about the problem or issue from the participants and to address the research to obtain that information. The nature of this investigation and the information being sought made the qualitative method the best methodology for this study.

I used a qualitative methodology with a hermeneutical phenomenological approach. Phenomenological research is an investigation of how individuals experience and understand the world in which they are a part (Creswell, 2009). The appropriateness of using the hermeneutical phenomenological approach was due to the allowance for both descriptive and interpretive techniques during the data analysis process versus descriptive phenomenology that solely describes a phenomenon in general terms.

Several research methods were considered and rejected for this investigation. Qualitative methods such as ethnography require immediate data collection during the experience (Creswell, 2007). Creswell (2010) stated that seeking to understand culture sharing patterns is an example of ethnography. Ethnographers focus on an entire cultural group (Creswell, 2007, 2010). The ethnographic design was not applied to this study as the study was an effort to develop a theory from examining individuals, not shared behaviors or values in cultural groups (Creswell, 2010). The grounded theory methodology was considered and dismissed. The grounded approach is used to produce a theory when the focus of this study is to gain understanding the essence of experience (Creswell, 2007). Ethnography and narrative methods may have served to narrow or broaden the scope beyond the study intent. The narrative focuses on the life of the individual and ethnography focuses on an entire culture sharing group (Creswell, 2007, 2010). The case study was not appropriate for this study either. Creswell (2007) asserted that the case study develops an in-depth description of a single case or a group of cases. That was not the intent of this study.

This investigation explored the experiences of the participants related to CRC and CRC screening. Creswell (2007, 2010) described phenomenology as a way to uncover, describe, and interpret the essence of lived experiences. Any research investigating CRC in AA men in Mobile, Alabama is scarce. Creswell (2010) also stated that phenomenology is an effective method to study several individuals who have experienced the same phenomenon confirming the appropriateness of the phenomenology method for this study.

Role of the Researcher

I recruited participants from the Mobile, Alabama area using a recruitment flyer disseminated on the premises of the study site and in surrounding areas in Mobile where likely study population frequented (Appendix A). I fit into the study population as an AA male in the 40-75 age groups. As a former resident of Mobile, Alabama, I interviewed a study participant familiar through inadvertent contact. To avoid bias, I adhered to the inclusion criteria and used the same interview guide and interview location to conduct the interview as was done with all other participants. Participants were only allowed to participate based on predetermined inclusion criteria. Creswell (2007) stated that it is important to find participants and places to conduct interviews while building rapport to obtain good data. I established rapport by making participants feel at ease with friendly conversation throughout the entire process of recruitment and during the interviews.

I conducted face-to-face interviews. Prior to the commencement of any interviews, all participants were provided a consent form (Appendix B). The consent form was presented directly to each participant prior to the interview. The participant then read the consent form and returned it to me in person at the time of the interview. Consent was indicated via signature on the consent form. Names were not used to track the interviews. The interviews were coded using alphanumeric codes. Each participant was encouraged to maintain his own copy of the consent form for his records. I was the only person with access to the any computers, copiers, recorders, or data storage device used for this data collection. I used a mini recording device to record verbal interviews as stated in the participants signed consent.

Study Population

The target participants were AA men aged 40 to 75 years old residing in Mobile, Alabama. Across all measures of cancers, the state of Alabama presents the incidences of cancer above the national average. Within the state, AA men disproportionately present the highest morbidity/mortality rates (ACS, 2013; Alabama Department of Public Health, 2012). All participants were given an explanation of the consent form and provided the opportunity to decline participation once the terms of the interview were explained. They were also notified that they could discontinue the interview at any time during the process. Demographic questions were asked. Except for age and race, demographic data did not exclude participants from the study.

Sample

Purposeful snowball sampling strategy guided the study. Creswell (2007) stated that purposeful sampling is an appropriate approach when the inquirer selects the individuals and sites for the study because they can purposefully inform an understanding of the research problem. Snowball sampling allows for recruited participants to refer others to the study as appropriate. In a small community geography, snowball sampling fits well into the culture of sharing lived experiences.

The study group of AA men age 40-75 was predefined, thereby solidifying the purposive sampling strategy as appropriate for this study. All of the participants have had experience with the central phenomenon of this study while fitting the gender, ethnic, and age requirements. Known as criterion sampling, Creswell (2007) purported that criterion sampling works well when the participants have experienced the phenomenon. Criterion sampling increases the level of familiarity of the investigation phenomenon among the study participants.

Participation in this study was only permitted for AA men age 40-75. All participants who met the inclusion criteria and volunteered to participate in the study could read and consent to the study as indicated by their signature on the consent form. No screened member discontinued the study. The participants provided proof of age to establish they met the age inclusion criteria. I determined whether the participants were AA was using a demographic screener tool (Appendix C).

The number of participants in phenomenological studies varies; there were 13 participants in this study. Recruitment for this study continued until saturation of data relative to the central phenomenon was achieved. Recruitment was conducted 2 weeks before the first interviews were conducted. Interviews were scheduled and conducted on Friday and Saturday of each week for six weeks. Data saturation was achieved when similar incidences, events, and activities with no new information emerged in accordance with the description of saturation by Creswell (2007). Creswell posited that five to 25 participants are an acceptable number of participants for a phenomenological study. A smaller number of study participants are appropriate due to the extensive and deep level engagement necessary to identify patterns and understand relationships.

Data Collection

I recruited participants at local churches and public areas in the Mobile area frequented by AA men who fit research criteria. In addition to the research site, flyers announcing the study were disseminated throughout the community in public areas including local stores, barbershops, gas stations, the adult center, parks, and community message boards. The flyers contained my contact information. Once the participant saw the flyers, they contacted me. I then verbally confirmed inclusion criteria was met, then coordinated a time and place to conduct the live in-person interviews. I stopped reviewing here. Please go through the rest of your chapter and look for the patterns I pointed out to you. I will now look at your Chapter 4.

The church provided written approval to recruit for the study and conduct interviews on the premises (Appendix D). The church allowed the recruitment flyers to be disseminated on the church premises and placed on the announcement board. The church also made announcements at each of their services until the research was concluded.

The flyer provided the basic information about the study and instructions and contact information that enabled the participants to contact me directly. I then connected with the participants to provide study explanation, consent form, and next steps. The participants were offered a copy of the consent form at the time the appointment was set. At the interview, the consent form was explained and then signed. Once consent form was signed the interview began. The participants were reminded of the process, confidentiality, and their right to withdraw prior to beginning the interview. Each participant was provided a thank you letter at the end of the interview session (Appendix E). Once the study was completed and approved, the Ioffered a summary of the study results to be made available to the participant once fully approved and complete. The summary was offered to be sent via email or via mail if the participant requested and provided contact information.

Instrumentation

This study utilized an interview tool developed by Lasser for her study of barriers to CRC screening in community health centers (Appendix F), (Lasser et al., 2008). The purpose of the study was to describe barriers to and facilitators of colorectal cancer screening among diverse patients served by community health centers. This tool was obtained via Open Access media and full authorization was provided (Lasser et al., 2008). The semi-structured survey includes demographic data collection: sex, age, marital status, children, occupation, education level, religion, birthplace, current residence, and languages.

Lasser et al. (2008) interviewed 23 outpatients and their primary physician. The study utilized a semi-structured individual in-depth interview to obtain information why patients who were eligible for colorectal cancer screening had or had not been screened. This study included both screened and unscreened patients. The study included ethnically and linguistically diverse patients at eight community health centers in the Boston area. The researchers observed four themes emerge for unscreened patients: 1) lack of trust of the physician; 2) lack of symptoms for non-screening; 3) lack of physician recommendation, and 4) patients cited fatalistic views about cancer as a barrier to participating in screening (Lasser et al., 2008). Patients across different races mentioned these factors.

In the study Lasser et al. (2008) noted several races reported the same factors for not participating in CRC screening, but their reasons differed. Physician distrust by African Americans as a barrier to participate in screening has been attributed to the legacy of the Tuskegee syphilis experiment. Other racial groups attribute the lack of trust in their physician to the physician’s interpersonal skills. Lack of symptoms also causes some patients to distrust doctor recommendations for a disease not presenting visible signs of its presence. The researchers also found Haitian patients cited lack of physician recommendation as the reason they do not participate in CRC screening, but when evaluating patient records, it was found that many of the patients had been notified (Lasser et al., 2008). The researchers attributed this to possible communication problems between patient and physician despite both patient and physician speaking the same language.

The study conducted by Lasser et al. (2008) contributed to the literature by providing insight into colorectal cancer screening in disadvantaged patients served by community health centers. Lasser et al. (2008) investigated diverse groups in which colorectal cancer screening had not been widely studied. Validity was achieved by Lasser et al. (2008) developing an open-ended, semi-structured interview instrument to provide in-depth information to investigate the phenomenon (Creswell, 2007, 2010). To further ensure validity, the researchers reviewed the extensive ethnographic colorectal cancer screening literature to ensure that instrument included barriers and facilitators encountered by other researchers investigating comparable patient populations and research groups (Creswell, 2007, 2010; Lasser et al., 2008). The researchers used a maximum variety sampling strategy to include a broader variety of perspectives.

Limitations and threats to validity include the results from this study group cannot be generalized to other patients. The sample groups were too small and too diverse possibly causing saturation, possibly not being reached (Lasser et al., 2008). To overcome this limitation, the researchers also interviewed the physician of the patients who participated in the study to provide a more in-depth investigation into the central phenomenon (Lasser et al., 2008). To address the threats to validity experienced by Lasser et al. (2008), the study employed a purposive sampling strategy with a predetermined group. Researchers conducted interviews until no new themes emerged and saturation was achieved.

The instrument developed by Lasser et al. (2008) is essentially comprised of two parts. The initial portion ascertains cultural, family, and educational history. These were not disqualifiers because the inclusions criteria were met using different criteria prior to participation and there were no other exclusion criteria. The second portion of the tool ascertains in-depth specific information about participants' CRC screening experience (Lasser et al., 2008). This tool addresses all the questions that this study investigated. There was no intent to change this tool for application in the proposed study. Lasser's interview tool was retrieved from an open access article in which the author gave unrestricted access to the article in its entirety if proper accreditation is given. Lasser also provided written permission to utilize the tool (Appendix G).

Data Analysis Plan

I used NVivo 9 software to analyze the data investigated in this study. Table 1 identifies the correlation between the study questions and the interview tool. I used Nvivo software to store, organize, sort, and assign codes to textual data for emergence of common themes that emerged during the interviews. Familiarity, ease of use, and applications of the NVivo software made it a logical choice for me to use in this research study over Atlas ti. I captured and recorded discrepant cases with exceptions noted in the results section.

Table 1

Correlation of Interview Questions to Specific Study Research Questions

Research Questions	Interview Questions
1. What knowledge do African American men from age 40-75 have about colorectal cancer in Mobile, Alabama?	Question #7: Have you heard about colon cancer? Question #8: Where did you hear about it? Question #9: Family history of polyps/cancer (yes/no) Question #10: Have you ever been checked for colon cancer? (yes/no)
2. What are the perceptions to colorectal cancer screening among African American men from age 40-75 in Mobile, Alabama?	Question # 4: Do you think there are things you can do to prevent cancer? What sorts of things? Do you think it helps to find cancer early? Question #5: Do you think doctors can really do things to help prevent cancer? In what way? Why? Question #11: What advice would you give someone who was choosing between the different (cancer) tests? Question #12: Can you see yourself doing that? (FOBT) Question #13: Can you see yourself doing that? (sigmoidoscopy) Question #14: Can you see yourself doing that? (colonoscopy)
3. What are the facilitators to colorectal cancer screening among African American men from age 40-75 in Mobile, Alabama?	Question #6: Have you or anyone you're close to been told you have cancer? Question #15: What do you think makes some people get these tests done, and others not? Question #16: How do you think that can be done?

Note. Interview questions adapted from "Barriers to colorectal cancer screening in community health centers: A qualitative study," by Lasser, K. E., Ayanian, J. Z., Fletcher, R. H., & Good, (2008), *BMC Family Practice*, *9*(15).

Issues of Trustworthiness

Validity threats in the present study included the research geography was the researcher’s hometown. Some of the participants are the researcher’s contemporaries and may know him. The participants’ assumptions or bias about colorectal cancer, the interview setting, tape-recording of interviews, and participants’ possible hesitation to be completely honest during the interview process also posed threats to the study. The researcher built rapport by engaging in general conversation upon meeting the participant to make the participant more at ease with the interview process and increase willingness to discuss during the actual interview.

Ethical Procedures

The intentional sampling method addressed the need to use a study population within the same hometown as the researcher (Creswell, 2010). Using a semi-structured, open-ended, interview process may decrease input of bias from the interviewer and interviewee (Lasser et al., 2008). The specific questions are in Appendix E.

Building rapport and discussing the research problem, nature, significance, and interests prior to initiation of the interview created an environment more conducive for discussion and engagement. Interpreting the data collected from the in-depth interview process hopes to aid in evolution of a hermeneutical phenomenological method of the study.

I used a paper questionnaire to capture interview data along with handwritten notes, and voice audio when participants agreed. I collected data via one-on-one interviews (Appendix H). The interviews were conducted in a private room. The interview was audio recorded with the consent of the participant. The study allowed participants as much time as they needed to answer each question. The study consisted of one interview per participant. The participant information remained completely private.

This study maintained the privacy of the participants by ensuring the interviewer always maintained complete custody of all questionnaires and all participant data. During collection, all data remained in the researcher's possession. After collection, data were stored on a computer hard drive and I secured the files with a password security lock. Paper information was kept in a locked file.

Summary

Phenomenology is the study of lived experiences and the development of decisions of the essences of these experiences (Creswell, 2010; Moustakas, 1994). Creswell (2010) described phenomenology as the philosophy without presuppositions. This approach requires the researcher to suspend all judgments (Creswell, 2010; Moustakas, 1994). The focus of the study allows emerging themes to surface and inform the research.

Chapter 3 provided a detailed explanation of the research design and method used in the study. Elaborating on design appropriateness for the study as opposed to other methods gives the reader clarification about and rationale for the transcendental phenomenological study. Data collection involved an in-depth interview process (Creswell, 2010). Data analysis used the NVivo 9 software to code the data (Appendix I).

This chapter included six major sections, each describing the study method as follows: Introduction, Research Design and Rationale, Role of the Researcher, (a) participant selection logic (b) instrumentation (c) procedures for pilot study (d) procedures for recruitment, participation, and data collection; (e) data analysis plan, (f) issues of trustworthiness (g) ethical procedures, and summary. These sections described the research design and appropriateness, sample population, instrumentation tool, and validity. Walden University granted my approval to conduct this research. My approval number was 06-14-16-0308847. Chapter 4 details the findings of the research.

Chapter 4: Research Results

Introduction

This purpose of this study was to explore the knowledge, perceptions, and facilitators to CRC screening among AA men age 40 to 75 in Mobile, Alabama. Data collection was conducted over the course of six weeks from June 17th to July 22, 2016. Three research questions posed in Chapter 1 guided this study:

1. What knowledge do AA men from age 40-75 have about colorectal cancer in Mobile, Alabama?
2. What perceptions about colorectal cancer screening prevent AA men from age 40-75 in Mobile, Alabama from seeking care?
3. What are the facilitators to colorectal cancer screening among AA men from age 40-75 in Mobile, Alabama?

This chapter contains a description of the interview setting followed by a presentation of the participant demographics and characteristics. I then discuss data collection, data analysis, address issues of trustworthiness, followed by the results and the summary.

Setting

The interviews took place in a meeting room at local Mobile church. A room was provided to conduct the interviews without interruption. The only organizational condition that may have influenced the participants was the fact that the interview site was a church, which may have made them feel more relaxed and open to discuss their perceptions and beliefs concerning health screening.

Demographics

The study was conducted with AA men who live in Mobile, Alabama. To meet inclusion criteria for this study, the participants had to be AA males age 40-75 and residing in Mobile, Alabama.

Table 2

Participant Demographic Data

Participant	Age	Years Education	# Children	Marital Status
SC1	49	12	2	D
AD2	40	14	3	M
DM3	49	18	1	M
TW5	40	15	6	M
KE4	48	14	2	M
RC6	53	16	2	S
GB7	46	14	5	M
CD8	47	14	3	D
KB9	54	13	3	M
AM10	48	12	2	S
XM11	47	16	2	M
ET12	50	12	2	S
ER13	50	16	2	M

The participants were asked their age and city of residence during the interview. I asked participants their marital status, number of children, education level, and religious affiliation. There were four participants between 50 and 60 and no participants over the age of 60. The average age of the participants was 47.77-years-old. Eight participants were married, three were single, and two were divorced. All participants completed high school. Eleven participants attended college. Four participants earned a bachelor’s degree, and two participants earned a master’s degree.

Data Collection

I interviewed 13 participants for this study. The participants' age range was 40-54. Recruitment flyers were placed in public places thought to be frequented by the study participants to recruit the participants. Participants responded via e-mail with their interest to participate in the study. The interview time was scheduled for the first available time on the following Friday or Saturday at the interview site. When the participant arrived for the interview at the scheduled time, I confirmed that he met the inclusion criteria verbally and when I provided him the consent form. Once I confirmed he met the inclusion criteria and he agreed and signed the consent form, I commenced the interview. Interviews were conducted in a meeting room in a local church centrally located in Mobile.

The interviews were conducted on Friday and Saturday of each week for six weeks until data collection concluded. The interview times averaged 40 minutes. No interviews exceeded 55 minutes in length. I made digital audio recordings and took handwritten notes of all interviews with the consent of the participants. There were no names or personal identifiers used to record or analyze the data at any time. I had the only access to the digital recorder, and all other notes and material. The digital recorder and all notes were securely maintained in my office in my desk behind a locked door. The electronic information was maintained on my password-protected computer and a secure digital jump drive.

Data Analysis

Upon the completion of the data collection, I used QSR NVivo 9 software to code and identify emerging themes for each participant interview. I transcribed and imported all interview responses into NVivo 9. Participant responses were then categorized based on how they related to each study research question (RQ). All interview responses made to each interview question (IQ) were grouped together as is indicated in Table 1 and below:

1. Research Question 1-What knowledge do AA men from age 40-75 have about CRC in Mobile, Alabama?

   IQ7 - Have you heard about colon cancer?

   IQ8 - Where did you hear about it?

   IQ9 - Family history of polyps/cancer (yes/no)

   IQ10 - Have you ever been checked for colon cancer? (yes/no)

2. What are the perceptions to CRC screening among AA men from age 40-75 in Mobile, Alabama?

   IQ4 - Do you think there are things you can do to prevent cancer? What sorts of things? Do you think it helps to find cancer early?

   IQ5 - Do you think doctors can really do things to help prevent cancer? In what way? Why?

   IQ6 - Have you or anyone you're close to been told you have cancer?

   IQ12 - Can you see yourself doing that? (FOBT)

   IQ13 - Can you see yourself doing that? (Sigmoidoscopy)

   IQ14 - Can you see yourself doing that? (Colonoscopy)

3. What are the facilitators to CRC screening among AA men from age 40-75 in Mobile, Alabama?

IQ11 - What advice would you give someone who was choosing between the different (cancer) tests?

IQ15 - What do you think makes some people get these tests done, and others not?

IQ16 - How do you think that can be done?

Then the responses were grouped together as they related to each research question. I then identified and organized common themes as they emerged.

In RQ1, I examined the knowledge of AA men of CRC in Mobile, Alabama. When asked if they have heard of colon cancer, all 13 participants responded yes they heard of colon cancer. Even though all participants had heard of colon cancer, only four had participated in some sort of screening. When asked how they heard about colon cancer, the themes that emerged were from a doctor or doctor's staff, family members, and friends. Media sources including television, radio, and the Internet also emerged. This theme emerged with eight of 13 participants. The relationships between the research questions and the interview questions are indicated in Figure 1.

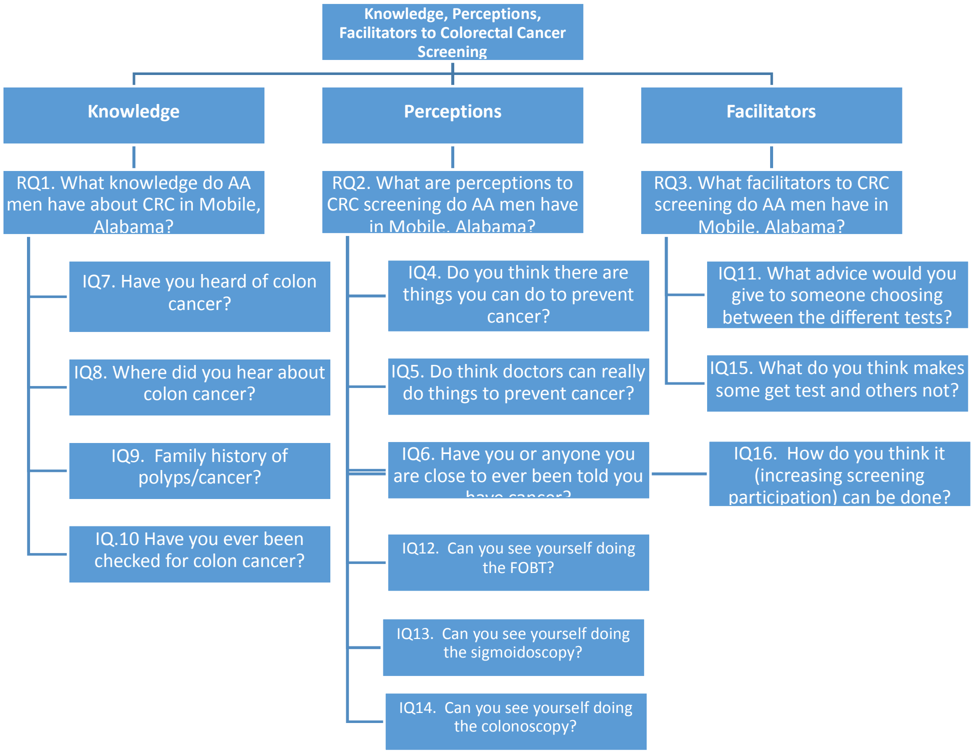

Figure 1. Coding schematic of interview data. RQ = research question; and IQ = interview question.

When asked about family history, many of the participants indicated no known family history. Most of the participants said they had never been screened for cancer. Only four of the five participants who indicated they had family history of colon cancer also participated in cancer screening themselves. I stopped reviewing here. Please go through the rest of your chapter and look for the patterns I pointed out to you. I will now look at Chapter 5.

RQ2 examined the perceptions of AA men concerning CRC in Mobile. When asked if they think there are things that they as individuals can do to prevent cancer, only one participant said no stating, “What will happen will happen.” Regarding a person's ability to do something to prevent cancer, the themes that emerged were get checkups and participate in health screenings. The most common theme was proper diet. However, when asked, Do you think doctors can really do things to help prevent cancer? five participants said no. The most common themes to emerge were doctor education and doctor recommendation. When asked if they had anyone they were close to that had ever been told they had cancer the majority of them said yes. When asked do you see yourself participating in the CRC screening fecal occult blood test, the majority said yes. When asked if they could see themselves participating in the sigmoidoscopy, the majority said yes. When asked if they could see themselves participate in colonoscopy, the majority said yes.

RQ3 examined the facilitators to CRC screening among AA men in Mobile. When asked what advice they would give to someone who was choosing between the different screening tests, all recommended participation in CRC screening. The majority recommended colonoscopy for CRC screening. When asked what they think makes some people get the screening test done and others not, the most common theme identified as a reason people get screened was knowledge. When addressing reasons people do not get screened, lack of knowledge emerged. However, fear was the most prevalent theme. Two types of fear emerged, fear of diagnosis and fear of the process. When asked how they think that getting people to participate in screening can be done three common themes emerged: community-based solutions, doctor-based solutions, and family involvement. One participant recommended hiding the cancer screening inside the process of a normal routine health screening.

Evidence of Trustworthiness

To create and maintain trustworthy, valid, and reliable research, I continuously compared data throughout the process of collecting, transcribing, and analysis (Creswell 2009). I audiotaped the interviews and cross-checked the written transcripts with the audio recording. All participants were asked the exact same questions. I also used the member checking process to ensure accuracy of their statements and verifying the intent of their responses during the interview process. In addition, I took copious notes during the entire process to chronicle the steps of the process, capture and organize information, and keep track of all data collected and emerging themes. I also used the NVivo software system to identify and triangulate themes and merge data from the different participants. I identified and noted biases and experiences prior to the data collection process to ensure that they would not cause any interference with this study. As stated by Creswell (2009), it is important that the researcher identifies biases and perceptions during research and should be mindful to remain objective and not interject their own experiences or opinions. To ensure ethical practices and participant protection, Walden University's Institutional Review Board reviewed, evaluated, and approved this study. The findings and results of this study cannot be generalized beyond Mobile, Alabama due to the sample size of this study group.

Results

This section presents the findings of the individual participant interviews. Each participant was interviewed individually to ascertain their knowledge and perceptions towards colorectal cancer screening. Each participant was asked the same 13 questions relative to their knowledge, perceptions, and beliefs about cancer and cancer screening to identify facilitators to colorectal cancer screening.

Analysis of the data suggests the knowledge of colon cancer among African-American men age 40 to 75 in Mobile Alabama is high. All 13 participants indicated they had heard of colon cancer. The data suggest the primary means of hearing about cancer screening are from the physician, from family and friends or through media outlets such as radio, television, or the Internet. Despite the high level of awareness of colorectal cancer, only four of the participants had participated in cancer screening. Each of these four reported a family history of colon cancer. Only one participant who indicated a family history of colon cancer had not been screened. This suggests a correlation between family history and participation in cancer screening.

The data suggest that most of the participants believe that the individual can do things to prevent cancer. The majority of the participants indicated checkups health screening and proper diets are beneficial and preventing cancer. This suggests a confidence in the individual’s ability to positively affect cancer outcomes. They equally reported confidence in the doctor's ability to do things to prevent patients from getting cancer. The participants identified patient education from the doctor and a recommendation to be screened from the physician would be effective in preventing cancer. When given the choice of the different cancer screening methods, over half of the participants were agreeable to any of the screening methods. This suggests a higher confidence and the screening methods and the recommendations of the physician than is indicated by the cancer screening participation.

When discussing why African-American men age 40 to 75 would or would not participate in colorectal cancer screening, the most common reason that emerged for a person to be screened was the knowledge and awareness of the screening process. Additionally, when discussing why African-American men age 40 to 75 would not participate in colorectal cancer screening the most common reason that emerged was the lack of knowledge about colorectal cancer screening and the process. Another reason why this group does not participate more in the cancer screening process is fear. The data suggests the fear takes two forms. The first is the fear of what the diagnosis may be and a fear of the process. The data suggests that this is fear of the unknown due to a lack of knowledge and understanding of the process. Consequently, it appeared that the participation in colorectal cancer screening among this study population would be greater if the knowledge of cancer and cancer screening was greater. When asked how this could be achieved, most identified physician education as the best solution for increasing the knowledge and awareness of cancer screening among the study population. The data also suggest there is high confidence in the ability of community-based programs to increase knowledge and awareness of cancer screening.

Additionally, data suggests that family pressure would be an effective means to increase participation and cancer screening. The majority of the participants identified immediate family members as an effective means to cause similar men to agree to participate in cancer screening. The following sections present the interview questions and responses from the participants in this study.

Knowledge of Colon Cancer

RQ1: What knowledge do AA men from age 40 to 75 have about CRC in Mobile, Alabama?

The purpose of this research question was to determine the degree of knowledge that African-American man have concerning colorectal cancer. The interview questions that support this research question examined if the respondents had heard of colorectal cancer, where they heard it, if they have family history, and whether they were checked for colon cancer.

IQ7: Have you heard of colon cancer? This first question was a yes or no response question to determine whether study participants have heard of colon cancer. The data shows all 13 participants indicated that they had in fact heard of colon cancer.

IQ8: Where did you hear about it? This question investigated the place of origin of the knowledge of colon cancer. The data suggests the participants did not necessarily remember where they heard of colon cancer for the first time but all indicated they heard of colon cancer in several different places. Seven of the participants indicated they were told of colon cancer at their doctor’s office, which may include staff members and six indicated they may have first heard of colon cancer from family or friends. However, eight of the participants indicated they may have first heard of colon cancer from television. In response to this question participant TW5 said, "I've probably heard about it on TV since everything on TV nowadays."

IQ9: Family history of polyps – cancer (yes/no). Four participants indicated yes they had family history of cancer, eight said no history of family history and one participant did not know. In response to this question Participant ER13 said, "I really don't know because some may have it and didn't know what they had or something they had but didn't want to tell people what was wrong with him for real. So, I really don't know. Something that we may have called stomach issue could've been cancer. You know how some older people don't really like to talk about their medical issues like that."

IQ10: Have you ever been checked for colon cancer (yes/no)? In response to this question nine of the participants indicated they had never been checked for colon cancer. The data suggest that family history heavily influences screening participation. Four of the five who have been checked for colon cancer also indicated they had a family history of cancer. Participant RC6 said, "It (cancer) runs through my family, so I have to get checked."

Perceptions of Colorectal Cancer

RQ2: What are the perceptions to colorectal cancer screening among African-American man aged 40 to 75 in Mobile, Alabama?

The purpose of this research question was to investigate key influencers to the perceptions of African American men in this study. These questions investigated the thoughts around their ability to impact colorectal cancer as well as the physician. These questions also investigated the proximity of colorectal cancer to them among friends. It also investigated which specific methods of screening they are more comfortable with and more likely to choose when they get screened.

IQ4: Do you think there are things you can do to prevent cancer, what type things? When asked this question 11 participants responded yes. The data suggest that the majority of the participants think there is something they can do to prevent cancer. The most common themes were to get checkups and health screening. The most common theme was proper diet with eight of the respondents indicating that having a good diet was effective and preventing cancer. Participant KB9 said, "There is nothing you can really do to keep yourself from getting cancer. Either you're going to get it or you not. Only God controls that.”

IQ5: Do you think doctors can really do things to help you prevent cancer, what type things? In response to this question, seven respondents indicated patient education from the doctor and the doctor's recommendation to get screening is the best thing that the doctor can do to help the patient prevent cancer. The data shows the number of participants who think the individual can prevent cancer is greater than the number of participants that think the doctor can really do something to prevent cancer. This suggests that individuals have a greater confidence in the person preventing cancer than the doctor preventing cancer. Participant ET12 said, "The doctor has to tell the people what they need to do. Otherwise most people won't take it serious." On the other hand, Participant RC6 said, “No, the doctor can’t do anything to keep you from getting cancer. It’s up to you to do it. The doctor can recommend things and even still you may get it (cancer)."

IQ6: Have you or anyone close to you ever been told you have cancer (yes/no)? Almost all participants indicated they knew someone who had cancer. In fact, 10 of the participants said they had a close friend who had cancer. DM3 said, "Lots of his friends had some kind of cancer. It must be in the water or something."

IQ12: Can you see yourself doing _____? This question ascertained the willingness of the participant to participate in the following tests: Fecal Occult Blood Test (FOBT), Sigmoidoscopy, and Colonoscopy. The data suggests that most participants are willing to be screened and prefer the FOBT colonoscopy to other methods of screening. Ten participants said “yes” to the FOBT, seven said yes to the sigmoidoscopy and ten said yes to the colonoscopy. SC01 said, "If you're scared to get it done, do the colonoscopy. They put you to sleep to do that one (laughing)."

Facilitators to Colorectal Cancer Screening

RQ3: What are facilitators to CRC screening among African-American man aged 40 to 75 in Mobile, Alabama?

This set of questions investigates perceived barriers and facilitators to colorectal cancer screening.

IQ11: What advice would you give to someone who was choosing between the different tests? The data suggests that individuals support cancer screening. The majority of the participants said individuals should get screened. Seven of the participants specifically recommended getting a colonoscopy. Participant AD2 said, "I can't tell people what to do, but they should do something. I would tell them to talk to the doctor and do what he says. Just do something."

IQ15: What do you think makes some people get these tests done and others not? The data suggests knowledge is the main facilitator to cancer screening. Participant CD8 said, "When people know better they'll do better." Conversely, the data suggest that the lack of knowledge is a main barrier to cancer screening. Participant ET12 said, "How can people be expected to do something when they don't know what to do?" The most prevalent theme to emerge as a barrier to cancer screening is fear. Two types of fear emerged as barriers; fear of the unknown and the fear of diagnosis. Participant TW5 said, "Most people scared it (screening) might hurt and then they don't want know the answer (results)."

IQ16: How do you think that can be done? This research question is a follow-up to the previous question which asked what makes some people get screened and others not. This question queried how individuals can be convinced to participate in screening. The data suggests the answer to increasing screening lies in increasing knowledge. Doctor and community based solutions emerged as the key principles in improving cancer screening. Seven participants specifically said that the doctor needs to be involved in the solution for it to work. Five participants identified community based solutions to increase participation in cancer screening. They recommended posting and disseminating fliers with information about why, how, and why people should get screened. Family involvement also emerged as a theme contributing to people's decision to participate in cancer screening. SC1 said, "The doctors need to talk to their patients. They need to get them in group settings so they can reach more people at the same time. There needs to be more community events and health fairs to get the word out. They can use social media, too. They need to use Facebook, Twitter, and any other rest of the get the word out. Shoot, they can put flies up on the billboards at the park: the barbershops on the beauty parlor all at the rec. They all need to work together to help people." The data suggest the participants in this study are looking for a multifaceted collaborative approach with the doctors, community based organizations and family to address the lack of colorectal cancer screening participation among African-American men.

Summary

This chapter presented data from interviews conducted with African-American men aged 40 to 75 in Mobile, Alabama. Each participant was interviewed using a semi-structured interview guide using open-ended questions to increase the responses from each participant. Three research questions framed the purpose for the interview questions. The three questions that fueled this study were what is the knowledge of cancer, what is the perception of cancer, and what are the facilitators to cancer screening. Regarding knowledge, the participant responses to the interview questions uncovered a strong awareness of the existence of colon cancer. Despite this awareness, the data showed low participation rated in cancer screening. However, the data suggested a strong correlation between family history and colorectal cancer screening participation. It appears having a close friend with cancer does not impact cancer screening. The participation in colorectal cancer screening among those with friends that have or had cancer remained low. The data revealed the participants had greater confidence in the individual's ability to do things to prevent cancer than in the doctor's ability to do things to prevent cancer. The data also showed a high degree of confidence and cancer screening. Of the screening tests discussed in this study there was an equal amount of high confidence in the FOBT and the colonoscopy. Knowledge emerged as both the beginning facilitator and barrier to colorectal cancer screening. Having knowledge caused individuals to be more likely to get screened and not having knowledge about cancer and screening caused an individual to not participate in screening. Fear emerged as the only barrier greater than knowledge of preventing cancer screening participation. The data showed the desire for a collaborative effort to improve cancer screening rates among African-American men.

Doctors, community organizations, and family emerged as the source key drivers to improving colorectal cancer screening participation among African-American men.

Chapter 5 contains an introduction and presents discussion of the interpretation of findings, limitations of the study, recommendations for further research, implications for positive social change followed by the conclusion.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

CRC is the second leading cause of cancer deaths in the United States (Journal of National Cancer Institute, 2013). AAs experience the highest incidence of CRC of any racial or ethnic group. AA men experience the highest incidence and death related to CRC compared to men in other ethnic groups (Napier et al., 2014; Robbins et al., 2012; Wong et al., 2013). CRC is detected in later stages of development in AA men than in European Americans, and the survival rate is 5 years less in AA men than European American men once detected (Naylor et al., 2012). The later stage of detection of CRC in AA men directly influences lower survival rates in AA men.

In the state of Alabama, this trend continues and the rate of CRC-related deaths among AA men is 12% higher than the national average (U.S. Department of Health and Human Services, 2013). CRC is both detectable and treatable with scheduled CRC screening (Purnell et al., 2009). Knowing CRC is both detectable and treatable, the purpose of this study was to investigate the perceptions, beliefs, and barriers that prevent AA men between the ages of 40 and 75 in Mobile, Alabama from participating in CRC screening.

Relating to RQ1, there was a high awareness of cancer and colon cancer among the study group. All study participants indicated that they knew about cancer and heard about CRC. However, there was little knowledge of CRC screening. The participants reported even less knowledge of how to participate in CRC screening. As it related to RQ2, the study participants perceived the importance of CRC screening in the detection and treatment of CRC. In addition, there is a general willingness to participate in CRC screening. With respect to RQ3, knowledge was the key facilitator to CRC screening. Individual ownership and physician intervention were also important facilitators to CRC screening. Lack of knowledge and fear were the key barriers to CRC screening.

Interpretation of the Findings

Several key findings emerged from this study. Relating to Research Question 1, (a) there was a general knowledge about the existence of CRC screening, (b) study participants expressed a clear lack of knowledge of when the study participants should get screened for CRC or how to go about getting screened, and (c) participants indicated lack of information concerning when and how to be screened in a clear meaningful way that would compel them to get screened. For Research Question 2, (a) the participants thought the doctor can educate their patients about cancer and the importance of CRC screening; (b) the participants thought that there are steps they can take to prevent CRC, the most commonly identified steps were diet, exercise, and screening; and (c) there was a general willingness to participate in at least one form of CRC screening. For Research Question 3, (a) participants would most likely undergo the colonoscopy, (b) the most common reason AA men do not participate in screening is lack of knowledge of how to be screened followed by fear of the unknown (e.g. diagnosis), and (c) more and better physician education and recommendation would cause higher CRC screening participation.

Concerning the knowledge of CRC screening, Wong et al. (2013) argued the lack of knowledge of the importance of CRC screening as key barriers to the participation in CRC screening by AA men. The findings in this study support that argument. Although all participants in this study were aware of colon cancer, the majority were not aware of

CRC screening. When made aware of the CRC screening process members of this group were more likely to participate in CRC screening. This is supported by Participant C8 who said, "This information needs to be shared when people are young and when they get older they'll know what to do. We're just not getting the word out about screening." Knowledge regarding CRC screening was a prevalent theme that emerged throughout this study. Participant CD8 said, "If people know better, they'd do better. Most men just don't know."

Purnell et al. (2009) identified traditional acculturation, medical mistrust, and physician ethnicity as barriers to CRC screening among AAs. Unlike Purnell et al., I did not find traditional acculturation, medical mistrust, or ethnicity as significant barriers to CRC screening in this group. I identified lack of knowledge as the most significant barrier to AA men participating in CRC screening. Knowledge was the most significant facilitator to CRC screening. There also appeared to be a correlation between the screening rates of participants who had close relatives who had some form of cancer. In fact, family history played a significant role in influencing the participants’ willingness to participate in CRC screening. During the interviews, four of four participants with family history of cancer reported they had been screened for CRC. Only one of the participants who participated in screening did not have a relative who had cancer.

Researchers also posited that AA men have a lack of trust for the medical community beginning with physicians. Ruggieri et al. (2013) argued that in some cases what was mischaracterized as reluctance due to masculinity was medical mistrust. Researchers also identified this phenomenon in the state of Alabama. Oliver (2007) stated that AA men in rural Alabama are more uncomfortable when treated by European

American physicians. Researchers have argued that medical mistrust by AA men may be due to perceived racial discrimination by society including the physician (Hammond, 2012). However, the participants interviewed in this study did not make any direct connections between the physician’s color and the quality of care provided to them. Nor did they indicate that they perceived any difference in medical treatment between AAs and non-AAs. Participant AM10 said, "you never know what those docs might see, say, or do. Humph, they may not even know what they're doing." This statement may indicate a lack of confidence in the physician’s skills leading to medical mistrust, but there was no direct connection to race.

The two main barriers to CRC screening observed in this study were the lack of knowledge and fear. The lack of knowledge was both insufficient information concerning how to participate in CRC screening and the physical requirements of the screening process. The fear emerged as fear of the unknown diagnosis and fear of the physical requirements of the screening process.

Various combinations of HBM factors facilitate AA men’s decision concerning preventive health behaviors and CRC screening (Griffith et al., 2012; Lippke et al., 2012; Oliver et al., 2012). There is a general willingness to be screened by many of the participants and to participate in CRC screening. Patient knowledge and physician involvement were the two primary facilitators to CRC screening participation uncovered by this investigation. Participant DM3 said,

> It is up to the person and the doctor to work together to help bring awareness to cancer screening of all kinds. The better they can work together, the better it will be for everyone. When the doctors shared their knowledge and the people share

> their knowledge with other people, then you can only expect that more people will start being screened (DM3, personal communication, June 16, 2016).

Family participation also emerged as a strong facilitator in CRC screening among AA men. Family influence primarily referred to wife, children, and mother. Four participants recommended using family pressure from wife and children or mom to cause more men to participate in screening. Participant KE4 said,

> you’ve got to get the wife involved. Think about it; nine times out of 10 if the wife bugs the husband enough he's going to go get screened. And if you put the children in there too, you get them to go get screened. You can put a lot of pressure on the guy with his family, in a good way that is. A man that loves his family will listen to his wife and go get screened. Because he wants to be around for the kids. You can’t underestimate the power of family (KE4, personal communication, June 25, 2016).

Participant XM11 said, "If you educate the spouse and she knows how important it is to get screened, she'll make a guy get screened." Family can and should play an increasing role in facilitating participation in CRC screening when the spouse and children are involved to apply family pressure.

The physician emerged as the most important means to provide knowledge to AA men about cancer and CRC screening. This was supported by each study participants identifying the doctor as the best source to provide more information about CRC and the CRC screening process. They also identified the doctor as the best source to provide routine medical recommendations and process expectations. Participant ET12 said, "It is the responsibility of the doctor to make sure that his patients know all about cancer." The role of the physician in increasing CRC screening in AA men is important and expected. The question remains what is the best way to provide CRC screening education to these AA men aged 40 to 75 in Mobile, Alabama? The participants in this study recommended several different ways including social media, Facebook, Twitter, Instagram, and others. The participants recommended community-based solutions like billboards in the community or flyers at community centers. They also recommended PSAs on television and radio. They also recommended conducting education during community health fairs. Participant that KE4 said,

> In order to get the word out, you need to use a task force, pass out cards, use billboards, PSAs, TV and radio ads and health fairs. Use the Internet, Facebook, Twitter and whatever other social medias out there. Any way that you can get the word out is a good way. Especially the doctors! I stopped reviewing here. Please go through the rest of your chapter and look for the patterns I pointed out to you. I will now look at your references (KE4, personal communication, June 25, 2016).

The clear willingness of the participants to participate in some form of CRC screening was not expected. What was also not expected was the high awareness of cancer and the very low knowledge of how to participate in CRC screening. Knowledge was the most influential factor to colorectal cancer screening participation. Whether it is the lack of knowledge of CRC screening that is a barrier or the presence of knowledge about colorectal cancer screening that serves as a facilitator for screening. In both cases, knowledge is the key factor in improving colorectal cancer screening among the study group. This research suggests by increasing knowledge and awareness about CRC screening will likely increase CRC screening participation.

Limitations of the Study

As noted in Chapter 1, the limitations that could have affected the trustworthiness of this study were, this study was limited to African American men age 40 to 75 in the Mobile County area and the results cannot be generalized beyond the individuals participating in the study. Despite the intent to be completely objective, in qualitative studies, interpretation of responses made by the participants may not be exactly what the participants intend to articulate (Creswell, 2007, 2010).

Limitations of this study are identified. The semi-structured interview method which utilized specific interview questions may have influenced how the participants responded. The predetermined questions may have also omitted certain topics. The questions were open-ended and provided the opportunity for each participant to respond openly and honestly. The interviews were conducted in a room that provided privacy to increase the participants' confidence in responding honestly. Additionally, each participant was afforded the opportunity to provide any additional information relative to colorectal cancer screening that was not addressed by any of the interview questions.

To retain objectivity and consistency during this study, the I used the same open-ended semi-structured interview tool for every participant. Only participants who met the inclusion criteria participated in the study. With permission from the participants, I also took notes and recorded the interviews to ensure accuracy of the participants' statements. I utilized QSR Nvivo software to bracket and merge the data to identify emerging themes. The participants were also notified of the voluntary nature of the study and their ability to discontinue at any time. All participants completed the study. All participants provided responses to each question resulting in a very high response rate, which increased the trustworthiness of the data. The participants were given the opportunity to ask clarifying questions to make sure they understood the interview questions they were asked during the interview.

Recommendations

There are many studies that investigate cancer, colorectal cancer, and colorectal cancer screening; there is a current gap in the literature pertaining to colorectal cancer screening and African-American men in Mobile, Alabama. This study was conducted to bridge the current gap in literature available on knowledge, perceptions, and facilitators to colorectal cancer screening among African-American men in Mobile, Alabama. The strength of this study is the openness and willingness of African-American men in Mobile, Alabama to provide in-depth descriptions of their knowledge and perceptions towards colorectal cancer screening.

Findings from this study suggest CRC screening participation among AA men would likely increase with increased knowledge and awareness about how to participate in CRC screening. Therefore, health professionals should develop intervention and education strategies to increase knowledge, awareness, and access to CRC screening among AA men by customizing health screening information to fit the communication style of the patient. They should also design information dissemination strategies to get the information into the hands of health decision makers and influencers to this group. This would change the “one size fits all” approach to patient education and may improve CRC screening.

A recommendation for further study would be to focus on the communication style and method to educate patients about CRC and CRC screening. What measures can health professionals undertake to improved communication between doctors and AA men to improve understanding and retention of health information? This would add to the body of knowledge by revealing effective means of communication to improve CRC screening.

Further study is also needed to determine how including spouse and family members in the patient education and appointment setting process impacts CRC screening participation.

Another recommendation for further study is to sample a larger population of this group and include African-American men in similar communities in different locations to determine if there will be a difference in their responses. Other studies should also investigate effective methods of increasing the knowledge and awareness of colorectal cancer screening among African-American men to encourage screening participation. For example, what methods of communication used to inform and educate African-American men about colorectal cancer screening and how they may participate are most effective? During my review of the literature, I discovered a gap concerning these questions.

Implications for Positive Social Change

Increasing the participation in colorectal cancer screening among African-American men through education and awareness has numerous implications for positive social change. The Health Beliefs Model suggests that if individuals are aware of the health benefits of an action, then they will participate in the beneficial health behavior. The results from this study support the HBM suggesting that AA men will have increased

CRC screening health behaviors with increased knowledge how to get screened. Increasing CRC screening among African-American men will likely cause a reduction in the incidence, the prevalence, morbidity, and mortality of colorectal cancer among African-American men while increasing cancer survivorship. This could also reduce the financial burden that colorectal cancer has on society and the health care environment.

Increasing colorectal cancer screening could also lead to an increase in other health screenings by African-American men as well. This behavior change could also reduce the health disparity in other diseases experienced by African-American men. This aligns perfectly with the Healthy People 2010 and 2020 initiatives to eliminate health disparities.

This study should serve as a cue to action for all stakeholders to provide education about health screening and colorectal cancer screening particularly. The education about colorectal cancer screening should be an organic movement that spans across age groups, education levels, income levels, and communities. This should be a community collaborative effort that includes the efforts of many different stakeholders including the individual, family members, faith leaders, community leaders, politicians, lawmakers, educators, and health care providers, particularly doctors.

Key stakeholders should employ strategies that take advantage of current technology to increase the knowledge of colorectal cancer screening including social media outlets such as Facebook, Twitter, YouTube, and others. They should also disseminate bulletins and flyers in public areas and make public service announcements on television and radio. Most importantly, the physician should talk to the patients and make the education of colorectal cancer screening a part of the health education and treatment paradigm for all patients.

Health professionals should standardize and establish guidelines for educating patients about all health screenings including colorectal cancer screening. They should also consider including preventive health screening checklist as part of patient checkout protocol. Legislators should create laws that establish a minimum expectation for the education of patients for health screenings. Improving the knowledge and understanding of colorectal cancer screening can improve the lifespan and quality of life of many members of society who would otherwise suffer and die from colorectal cancer.

Conclusion

African American men in America have a higher rate of colorectal cancer mortality and morbidity than all other races. This holds true in the state of Alabama as well. Colorectal cancer screening has been credited for the early detection and treatment that prevents many CRC deaths (Brawley, 2014). While the incidence of colorectal cancer mortality and morbidity are higher among African-American men than all other races, the colorectal cancer screening rates among African-American men are the lowest of all races. This study investigated the knowledge, perceptions, and facilitators to colorectal cancer screening among African-American men and Mobile, Alabama.

There was a very high awareness of cancer among the study group of African-American men with at least a general understanding of the impact cancer can have on their lives. There was also a low awareness and knowledge of the CRC screening process. The Health Beliefs Model suggests knowledge of health benefits of CRC screening among this population would motivate them to participate and the potentially lifesaving practice. However, CRC participation among this group is still low. Why? This investigation uncovered two main factors contributing to the low participation in colorectal cancer screening: the lack of knowledge of the screening process and fear. The lack of knowledge was both the existence of a formal colorectal cancer screening process and lack of knowledge of how all and when they should participate in colorectal cancer screening. The fear had two manifestations: the fear of what might happen during the colorectal cancer screening process and fear of the unknown diagnosis.

Both fear and knowledge are addressed by the same solution… knowledge/education. In fact, there was a general willingness among the participants to participate in a form of colorectal cancer screening once educated. The problem was they did not know how to schedule a screening. This should be identified and remedied at the first line of defense for all patients… their physician. The participants in this study demonstrated a strong desire to get more patient education information from their physicians.

There was some concern about physician competency, which contributed to medical mistrust. However, there was no direct connection to race of the physician and their level of care.

Health care providers, practitioners, and doctors should better appreciate the fact that they play an essential role in improving the condition of health for all patients. They should be intentional in establishing a collaborative approach to patient care. They should be more inclusive with their patients when developing strategies to improve patient health and wellness. Health care providers should also put more effort into barriers to healthy practices such as health screening. Once they identify barriers to healthy practices, health practitioners should lead efforts to provide solutions that will promote health screening for CRC and other therapeutic areas.

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Appendix A: Colorectal Cancer Study Invitation to Participate

Ruben E. Franklin
Walden University School of Public Policy

Inviting: African American Men age 40 – 75 to participate in a research study regarding perceptions and behaviors towards colorectal cancer screening.

*The interview should take no more than 30 - 50 minutes of your time

Participation is Fully Voluntary
All Information is Strictly Confidential

Requirements for study participation
African American man age 40-75

Location: Interviews will be conducted via phone or on location at St. Paul Church of God Pentecost

Contact Instructions:

Appendix B: Demographic Screening Data

1. What is your gender? M _______ F_______
2. What is your age? _______
3. Which of the following groups do you consider yourself?

______1) African American/Black ______4) Hispanic/Latino

______2) Caucasian/White ______5) Asian/ Pacific Islander

______3) American Indian/Native American ______6) Other ____________

Appendix C: Venue Permission Letter

December 18, 2015

To Whom It May Concern:

This letter is to grant permission for Ruben Franklin, Jr. to conduct doctoral research as a student of Walden University on the premises. He has permission and full access to meeting room facilities and church offices to conduct interviews with appropriate staff members, congregants, and visitors.

Thank you,

Mobile, Alabama 36603

Appendix D: Thank You Letter

Dear Study Participant,

Thank you for agreeing to participate in this study. Your participation will contribute to gaining better understanding of the beliefs, barriers and behaviors of African American men and colorectal cancer. The goal of this study is to provide data that will improve colorectal cancer screening participation and reduce colorectal morbidity and mortality among African American men and as well as other races in the state of Alabama. It is the desire of the researcher that the results of this study will improve the health of this community.

Summary of the results of this research will made available to you upon request after the completion and approval of the study. Please provide mailing information if a hard copy of study summary is requested.

Thank you for your participation!

Sincerely,

Ruben Franklin
Doctoral Student Walden University

Appendix E: Interview Guide

Semi-structured Interview Schedule: Patient interview

My name is _______, and I am a doctoral student researcher. I also analyzed local hospital data, and have found that a lot of patients aren't receiving certain tests to prevent cancer. I'm trying to understand why this is the case. I'm really interested in hearing what you have to say about this issue. This research does not offer any medical advice, opinions, or recommendations.

To begin with, I was wondering if you could tell me something about yourself (probes: where you were born, where you grew up, work and family, who live with, involvement in community)?

SES checklist

Sex	M F
Age	
Marital Status	Married/Common-law/partner Widowed Separated/Divorced Single/Never Married
# of children	
Occupation	
Highest level of Education	Less than high school High school or equivalent (GED) Trade/Vocational/Comm. College College Beyond college
# years of education	
Religion	
Country of birth	
City/town of residence	
Language at home	
Language at work	

1. What is your typical day like? Take today, for instance, what did you do?

If foreign-born:

2. What made you come to the United States? What was the health care system like in your country?

3. How have your experiences with the health care system been here? (probes: insurance status)

Now I'd like to talk to you a bit about cancer prevention.

4. Do you think there are things you can do to prevent cancer? What sorts of things? Do you think it helps to find cancer early? (probe re mammograms and PAPs)

If seems skeptical of health care system:

5. Do you think doctors can really do things to help you prevent cancer? In what way? Why do you think that?

6. Have you or anyone you're close to ever been told you have cancer? (yes/no)

7. Have you heard about colon cancer? (If interviewee not familiar with colon cancer, would say: This is the kind of cancer I'm interested in. A lot of people haven't heard about it-they've heard more about other cancers like breast cancer or prostate cancer. It's basically a cancer that grows in the lower part of your intestine).

8. Where did you hear about it? (probes: doctor, nurse, family, friends, TV, radio, magazines)

9. Family history of polyps/colorectal cancer? (yes/no)

10. Have you ever been checked for colon cancer? (yes/no)?

Ever FOBT	
Ever Sigmoidoscopy	
Ever Colonoscopy	
Ever Barium Enema	
Ever Digital rectal exam	

11. What advice would you give to someone who was choosing between the different tests?

If not screened:
There are a couple of tests you can do to prevent getting this cancer, or at least find it before it spreads:

Describe FOBT cards.

12. Can you see yourself ever doing that?

Describe sigmoidoscopy.

13. Can you see yourself ever doing that?

Describe colonoscopy

14. Can you see yourself ever doing that?

15. What do you think makes some people get these tests done, and others not?

How do you think individuals can be encouraged to get checked for colon cancer?

16. How do you think that can be done?

So to summarize, it sounds like you think the main reason(s) individuals have/haven't gotten checked for colon cancer is/are _________________________________. Is that correct?

17. Is there anything else that you think is important for me to know about you?

Preferred screening test:

FOBT
Sigmoidoscopy
Colonoscopy
What PCP recommends
Unsure
Would not be screened

Checklists

Checklist for CRC barriers (if no CRC screening ever):
Feeling like you're not at risk
No bowel symptoms, such as constipation
Money problems
Having no insurance
Scheduling problems (probe how remembers appointments)
Not able to take time off from work (for colonoscopy)
Worry about complications from the procedure-like a puncture of the intestine
Transportation problems
Not having time
Afraid to find out the results
fears or distrust of the medical system,
pain/discomfort,
feeling violated,
embarrassment,
inconvenience of the preparation,
Symptoms of anxiety (stress, worry, nervousness)
Symptoms of depression (sadness, feeling down)
Substance abuse

Difficulty communicating because don't speak English
No interpreters
History of trauma

Checklist for facilitators:
PCP mentioned
Family
Friends
Know someone who had colon cancer

Checklist for cultural issues:
go to see doctor/get tests when ill, not for prevention
alternative medicine
shame
being seen as sick or weak
Don't feel comfortable discussing certain body parts,
Feeling like it's all out of your control

Checklist for proposed interventions:
letter in the mail, signed by your doctor, stating you were due for colon cancer screening
mailed stool cards
community health worker calls you to let you know you were due for colon cancer screening, and to help you to schedule the test.
Community health worker to come with you the day of the test
Health Fair
Community based education (school, church, etc.)
Waiting room education
Education after getting mammogram in suite or information about colon cancer in your mammogram result letter

Final questions:

Citizenship	
Yearly income, $	None <5,000 5,000-9,999 10,000-14,999 15,000-19,999 20,000-29,999 30,000-39,999 40,000-49,999 50,000-59,999 60,000-79,999 ≥ 70,000

Which best describes your race (may check off more than 1)	White Black or African American American Indian and Alaska Native Asian Native Hawaiian and Other Pacific Islander Other Race: Lasser
Are you Hispanic or Latino?	Yes No
What is your ethnicity (if not Hispanic)?	
Insurance	Medicaid Free Care Uninsured Medicare Private Other

Appendix F: Permission to Use Interview Guide

On Jan 2, 2016 9:10 PM, "Lasser, Karen" <Karen.Lasser@bmc.org> wrote:

Permission granted; best of luck with your research. Please send me a copy of your paper when it is published.

Sent from my iPhone

> On Jan 2, 2016, at 8:23 PM, Ruben FranklinJr <ruben.franklinjr@waldenu.edu> wrote:
>
> Hello Dr. Lasser,
>
> My name is Ruben Franklin and I am a doctoral candidate at Walden University. I am preparing to conduct a qualitative study investigating colorectal cancer screening among African American men in South Alabama. I am requesting written permission to use the open ended semi-structured interview guide that you used in your research article, Barriers to colorectal cancer screening in community health centers: A qualitative study (2008).
>
> Your consent will allow me to conduct research in partial fulfillment of the requirements for my doctoral degree at Walden University. More importantly, your permission will allow me to complete this very important research that will hopefully benefit this community.
>
> Thank you in advance.
>
> Most sincerely,
>
> Ruben Franklin
> Doctoral Candidate
> Walden University
